



# The Impact of Feedback in Higher Education

Improving Assessment Outcomes  
for Learners

*Edited by* Michael Henderson · Rola Ajjawi  
David Boud · Elizabeth Molloy

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# Part I

**Feedback That Makes a Difference**



# 1

## Why Focus on Feedback Impact?

Michael Henderson , Rola Ajjawi , David Boud   
and Elizabeth Molloy 

### Introduction

Feedback is a topic of hot debate in universities. Everyone agrees that it is important. However, students report a lot of dissatisfaction: they don't get what they want from the comments they receive on their work and they don't find it timely. Teaching staff find it burdensome, are concerned

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that students do not engage with it and wonder whether the effort they put in is worthwhile.

Prompted by concerns from institutions that they are being criticised about their feedback practices, this has led to an explosion of literature about feedback in recent years. While some of these publications are of the “how to do it better” kind, there has been a heartening increase in scholars looking more closely at feedback, undertaking studies about it and generally questioning what it is for and how can it be done more effectively.

The more telling work has focused on critiquing the idea of feedback as we presently know it. Is the way we have been thinking about feedback useful? Is it compatible with the ways feedback is thought of in other disciplines? This has led to a revolution of feedback thinking which has shifted the focus from the quality and timing of the comments educators provide to students about their work, to how students become feedback aware and utilise more effectively the information they receive or help generate.

Feedback is seen as a process that makes a difference to what students do. It does not stop when students’ work is returned to them. Without student action, we cannot meaningfully use the term feedback.

This shift of thinking from a teaching-centred process to a learning-centred one, means we have to look to new ways of thinking about the quality of feedback. No longer should we be solely concerned with the quality of comments made by teachers, but whether these comments, and indeed comments or information from other sources, lead to a positive influence on student learning. Instead of only focusing on the quality of the teacher’s input, we need to consider the quality of the whole process, including the active role of students. The focus must be on: Does it make a difference, and how does it make a difference?

These concerns about identifying the impact of feedback, and how it may be fostered to make a difference to student learning have led to this book.

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This book offers the field a new understanding of how we might conceptualise, design for and evaluate the impact of feedback in higher education. While there has been a growing interest in feedback research, there has not been a coherent focus on the impact of feedback on improving outcomes or learning strategies. Clearly, teachers cannot simply provide information and “hope for the best” but, instead, need to carefully design it to have impact on future performance. Importantly, they also need to find ways to understand and measure that impact in order to best support student learning as well as instructional designs. Without this critical bit of information, all feedback no matter how well-intentioned or carefully designed needs to be treated with caution.

## The Development of This Book

In this book, leading international researchers across diverse disciplines explore the notion of feedback impact and offer promising directions for both research and practice.

The 28 contributors are drawn from eight nations. They include many of the most influential researchers in the field as well as newly emerging leaders. The contributors in this book have been invited because of their reputation and proven scholarship in the field, and importantly, because their combined contributions promise a coherent but broad scope of methodological and disciplinary contexts that address the distinctive focus of this book.

The editors selectively invited contributors for what they might add to the book. During the writing process, the editors and contributors engaged in several cycles of feedback. Initially, the contributors developed abstracts in response to a description of the purpose of the manuscript and the key conceptual, methodological and practice challenges. The editors then provided comments and recommendations to each writing team with the aim of maintaining a strong focus on the book’s central goal as well as to better ensure key issues are covered.

As a second stage, the contributors worked their ideas into brief papers of around 3000 words. These were then organised into a compendium shared with all authors. At least one author from each writing team then attended

a three-day “Feedback that makes a difference” symposium in Prato, Italy. Every participant had read every brief paper prior to the symposium which was then characterised as intellectually robust conversation about the key issues, challenges and opportunities for research and teaching.

Each writing team had the rare experience to engage in a rich dialogue with about their work with a diverse range of scholars in the field. In addition, the participants, including the editors, were able to spend an extended period of time enhancing the coherence and conceptual strength of the book, from vigorously debating definitions through to compiling diverse challenges and opportunities in research and practice. These conversations helped develop a coherent vision throughout the book, but also greatly informed the concluding chapters on research and practice.

Subsequent to the symposium, the contributors reworked their brief papers into full chapters. These were then sent to two other writing teams for peer review. The authors then received two sets of peer-reviewed comments and edits, as well as overarching guidance from one of the editors. The authors then worked with one of the editors in developing their final manuscript.

## **Structure of This Book**

The book has fourteen chapters (not including this one) organised into five parts.

### **Part I—Feedback That Makes a Difference**

This part identifies the critical issues which this book addresses. It brings together the most current thinking and offers new insight into the significant challenges in the field, in terms of research and practice, including policy.

## **Chapter 2—Identifying Feedback That Has Impact**

By Michael Henderson, Rola Ajjawi, David Boud and Elizabeth Molloy

This chapter offers new insight regarding the theoretical, methodological and practical concerns relating to feedback in higher education. It begins with the construction of a new definition of feedback. We explain how feedback is a learner-centred process in which impact is a core feature. The chapter then explores the reasons why identifying, let alone measuring, impact is problematic. We briefly revisit the contingent nature of educational research into cause and effect, and question the implications for feedback processes that are likely to be experienced by individuals in different ways with different effects over different timescales. It is here we then discuss some ways we conceive the various forms of feedback effect including the intentional and unintentional, immediate and delayed, cognitive, affective, motivational, relational and social.

## **Part II—Expanding Notions of Feedback Impact**

The Part II includes chapters that extend current thinking about what we mean by “making a difference” or impact. The dominant conception of feedback is that it should improve student grade outcomes and that it is largely a cognitive process. However, through the chapters in this part we establish that in addition to learning outcomes, we need to also consider the way in which learning strategy, engagement and affect should also be considered as factors that influence outcome as well as being outcomes in themselves.

## **Chapter 3—Beware the Simple Impact Measure: Learning from the Parallels with Student Engagement**

By Joanna Tai, Phillip Dawson, Margaret Bearman and Rola Ajjawi

This chapter argues that researchers must look beyond narrow and simple notions of feedback impact in educational practice. It draws comparisons with what has occurred within student engagement research. This illus-

trates the challenges of researching a phenomenon that lacks conceptual clarity and hence gives rise to a range of contradictory measures, which promote misaligned research designs, and a focus on what is easy to measure. When feedback is acknowledged as a complex, social process, then the notion of impact itself changes.

### **Chapter 4—Learners’ Feedback Literacy and the Longer Term: Developing Capacity for Impact**

By David Carless

The main focus of this chapter is to analyse implications for short-term and long-term impacts of feedback by drawing on a qualitative longitudinal inquiry into four learners’ experiences of feedback during a five-year undergraduate programme. The student experience of feedback is conceptualised by a 3P Model comprising presage, process and product factors. Learner feedback literacy is a key element spanning these three interactive cycles of the learner experience. Key findings from the study are learners’ wishes for stronger partnerships between teachers and learners in feedback processes and evidence of challenges and possibilities for learner uptake of feedback. The main implications discuss ways of developing practical forms of feedback dialogue and future longitudinal research possibilities.

### **Chapter 5—Re-conceptualizing Feedback Through a Sociocultural Lens**

By Rachelle Esterhazy

This chapter outlines a re-conceptualisation of feedback from a sociocultural perspective. Feedback is conceptualised as a social practice that is enacted together by teachers and students, and that is deeply embedded in the sociocultural context of the given course unit. Whether feedback has an impact depends from this perspective on whether students, teachers and their sociocultural environment interact in productive ways. A three-layer model of feedback practices is presented to describe the relations between the knowledge domain, the course design and the concrete



feedback encounters. Based on this model, the chapter outlines practical challenges that might inhibit feedback practices from being productive and how we may plan for productive feedback practices in our course units.

## **Chapter 6—Attending to Emotion in Feedback**

By Elizabeth Molloy, Christy Noble and Rola Ajjawi

The feedback literature has a habit of treating emotion as a form of interference. Therefore, many guidelines for improving practice are geared towards reducing learners' emotions so that messages can "get through" and take root. In this chapter, we present a case for a re-orientation of how we conceive the role of emotion in feedback. We use a social cognitive theory of emotional regulation, to help illuminate the affective dimensions of feedback processes. The theory focuses on students' perceptions of control over themselves and their circumstances, and the values that underpin their appraisal of their situation. Drawing on a case study, we illustrate how we may help learners to acknowledge the primacy of relationships in feedback and to recognise and work with emotions.

## **Chapter 7—Embracing Errors for Learning: Intrapersonal and Interpersonal Factors in Feedback Provision and Processing in Dyadic Interactions**

By Jochem E. J. Aben, Filitsa Dingyloudi, Anneke C. Timmermans and Jan-Willem Strijbos

Previous feedback models in education (1) overlook that intrapersonal factors (i.e. factors describing one's personality) as well as interpersonal factors (i.e. factors describing the relationship between people) simultaneously affect feedback provision and feedback processing, and (2) only implicitly assume that the feedback sender and feedback recipient deal with error identification and error making during feedback processes. This chapter provides a model that conceptualises the concurrent interplay between intrapersonal and interpersonal factors and feedback provision and feed-

back processing in dyadic interactions, while taking as a starting point the assumption that errors, if identified and acted upon, offer a potential to revise one's own performance. As such, the model embraces the theoretical complexity of interpersonal communication, as well as the importance of errors for learning.

### **Part III—Pedagogies of Feedback Impact**

The Part III is that of pedagogies of impact. In this part, we have sought out chapters that build on the previous and offer empirically supported arguments of key strategies and principles that have been shown to improve the impact of feedback. These chapters do not represent all possible strategies. However, they do reinforce key messages such as the agency of the learner and demonstrate the variety of ways that impact can be achieved across disciplines and other contexts.

#### **Chapter 8—Operationalising Dialogic Feedback to Develop Students' Evaluative Judgement and Enactment of Feedback**

By Edd Pitt

This chapter explores how UK-based film, comedy, drama and music performance lecturers demonstrate the possibilities of differing educational practices that pursue, through dialogic interactions, the development of students' evaluative judgement. It discusses the classroom culture that lecturers create and the learning potential of feedback dialogue which affords students the opportunity to learn from their mistakes in formative situations. The dialogic interactions surrounding professional exemplars and live exemplars of students' work in progress are discussed. In particular, the pedagogical initiatives of comedy buddies, scriptwriters' forum and speed dating feedback are introduced as ways of practically embedding dialogic peer feedback to potentially develop students' evaluative judgement and feedback enactment. Conclusively, it considers how we might measure the potential impact of such educational approaches over time.

## **Chapter 9—Turning Self-Assessment into Self-Feedback**

By Ernesto Panadero, Anastasiya Lipnevich and Jaclyn Broadbent

This chapter proposes moving our conceptualisation of self-assessment to that of self-feedback, in which the final goal is for students to produce and search for feedback to close the gap between their current and desired performance. We propose six main venues to achieve self-feedback: (a) making the implicit aspects of self-assessment explicit to correct for self-bias, (b) shifting from scoring accuracy to content accuracy, (c) using a developmental approach: the power of practice/expertise, (d) connecting self-feedback and self-regulated learning, (e) exploring the role of individual characteristics and interpersonal variables, and (f) anchoring self-feedback to evaluative judgement: changing the view from task-specific to long-term learning. Additionally, the impact of self-feedback on learning is analysed.

## **Chapter 10—How Debriefing Can Inform Feedback: Practices That Make a Difference**

By Margaret Bearman, Walter Eppich and Debra Nestel

“Debriefings” are the developmental conversations that take place after real or simulated work. A specialised form of feedback, debriefing has a substantial evidence base, particularly in healthcare simulation. This chapter explores how the healthcare simulation debriefing can inform feedback in higher education. The impact of debriefing may stem from: (1) its embedded nature with the entire learning activity and (2) the development of a culture which encourages learner-centred values, productive tensions and lifelong development. Valuable debriefing approaches that improve learning are identified and analysed, alongside their implication for feedback practices.

## **Chapter 11—Impact of Personalized Feedback: The Case of Coaching and Learning Change Plans**

By Jocelyn M. Lockyer, Heather A. Armson, Karen D. Könings, Marygrace Zetkusic and Joan Sargeant

This chapter describes an empirically derived model for impactful feedback discussions. The R2C2 model has four phases: educators build the relationship (R) between educator and learner, gain learner reactions (R) to the feedback which can be used to determine the potential for change and development, and explore and ensure a mutual understanding of the content (C) in order to coach for change (C) to co-create achievable learning change plans that can be monitored to ensure learner progress. Two mechanisms, in particular, coaching and learning change plans, support learner acceptance and use of the feedback. The chapter concludes with suggestions for future application and research in health professions education and higher education.

### **Part IV—Visibility of Impact**

The Part IV in the book addresses a significant challenge that of making the impact within a feedback process to be more visible. While all of the previous chapters offer insight into how we can design for impact, these chapters propose ways in which digital technologies may be used to track the impact or changes over time, by the individual learner or at a broader systems level.

## **Chapter 12—Identifying the Impact of Feedback Over Time and at Scale: Opportunities for Learning Analytics**

By Tracii Ryan, Dragan Gašević and Michael Henderson

In contemporary higher education, learner behaviour is increasingly traced by digital systems. As such, there is a strong potential for data mining over time to track and represent learner actions in the context of their assessment performance. This chapter explores how learning analytics can

assist educators to design impactful feedback processes and help learners identify the impact of feedback information, both across time and at scale. In doing so, it offers current examples of how learning analytics could guide educational designs and be employed to support learners to direct their own learning and study habits. This chapter also highlights how learning analytics can help understand and optimise learning and the environments in which the learning occurs.

### **Chapter 13—Facilitating Students’ Use of Feedback: Capturing and Tracking Impact Using Digital Tools**

By Naomi Winstone

This chapter explores the potential for digital tools to capture and track the impact of feedback. Advocating a shift from transmission-focused to learning-focused feedback processes, the chapter surfaces challenges inherent to visualising the impact of feedback processes and then reviews uses of learning analytics to illuminate students’ responses to feedback. The potential to capture the digital footprint of students’ interactions with feedback is discussed with reference to an e-portfolio system with a learning analytics dashboard. In this example, students were able to synthesise multiple feedback exchanges, visualise their key strengths and areas for development and record and monitor actions on the basis of feedback information. Winstone argues that it is important for feedback impact to be visible to students as well as educators.

### **Part V—Implications for Research and Practice**

The Part V concludes the book. It brings together key issues raised in previous chapters and draws on the broader interdisciplinary literature of assessment and feedback to offer challenges, implications and “next steps” for research and practice relating to effective feedback.

## **Chapter 14—Improving Feedback Research in Naturalistic Settings**

By Rola Ajjawi, David Boud, Michael Henderson and Elizabeth Molloy

This chapter discusses researching feedback inputs and processes to examine effects. Specifically, we promote a research agenda that contributes an understanding of how feedback works, for particular learners, in particular circumstances through research designs that take account of theory, occur in naturalistic settings and focus on students' sense-making and actions. We draw attention to categories of research on effects of feedback: (a) task-related performance/work; (b) meta-learning processes such as self-regulation; and (c) identity effects such as orienting students to the professionals they wish to become. We also discuss the difficulties in eliciting effects, attributing effects to particular feedback practices and the importance of exploring how effects are achieved and at what points in time, rather than simply looking for outcomes.

## **Chapter 15—Designing Feedback for Impact**

By Michael Henderson, Elizabeth Molloy, Rola Ajjawi and David Boud

This chapter focuses on influences, affordances and challenges for teachers in designing for (and identifying) feedback impact. We propose four key questions that need to be asked: Do learners know the purpose of feedback and their role(s) in it? Can learners make sense of the information? Can learners take action? What effects should we be looking for? We then explore strategies that have been shown to be valuable in designing feedback that makes a difference. These are organised according to three important considerations: creating opportunities for effective feedback; developing learner and teacher capacities; and looking for effects. We finish the chapter by taking a step back and considering the implications at the programme and institutional levels in cultivating feedback that make a difference.