

Feedback Literacy

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Definition

Feedback constitutes an integral part of teaching and is essential for ensuring student achievement (Wisniewski et al. 2020, 13). A key component of contemporary educational feedback is *feedback literacy*. It has become particularly prominent in instructional feedback research since Carless and Boud's (2018) seminal paper and is increasingly recognized for its significance to transdisciplinary research and practice. Indeed, as a specific form of cooperation between heterogeneous social agents of different hierarchical levels, feedback literacy is crucial to disestablish the reproduction of hegemonic power structures, systems of oppression, misunderstandings, and dysfunctions in educational contexts. Successful feedback practices rely on transdisciplinary approaches and practices to collaboratively construct knowledge amongst a plurality of knowledge resources and participants.

A variety of definitions of feedback literacy exist across the disciplines (Nieminen et al. 2022, 99–104). To define and understand feedback literacy amidst this diversity, understanding the etymology of its semantic constituents can be helpful: (1) *feedback* and (2) *literacy*.

1. *Feedback* was originally an open compound noun, consisting of two separate components (Merriam Webster 2023). *Feed* traces back to Old English *fedan* (“to nourish, give food to, sustain, foster”), which roots in the Proto-Germanic *fodjan* (“to feed”). *Back* originates from Old English *bæc* (“backwards, behind, aback”, Harper n.d.a). As a closed compound, *feedback* first appeared in the field of cybernetics, systems theory, and the regulation of machines, organisms, and organizations (Boud and Molloy 2013, 700–701). It was later appropriated into the educational realm and defined from behaviorist, cognitivist, and socio-constructivist perspectives. The conceptualization of feedback thus shifted from manipulating learners’ stimulus-response associations (behaviorist, Boud and Molloy 2013, 700) to (unidirectional) information delivery from a more knowledgeable person (cognitivist, Lipnevich and Panadero 2021,

- 2) to multidirectional, iterative processes of mutual responsibility-sharing and collaborative negotiation of meaning (socio-constructivist, Carless 2022, 145).
2. *Literacy* comes from *literate*, with roots in the Latin expression *litteratus* (“educated, learned, who knows the letters”), a derivative of *littera/litera* (Latin for “alphabetic letter”, Harper, n.d.b). Commonly defined as “the ability to read and write” (OECD 2000), the meaning of *literacy* has proliferated starkly in response to the growing diversity of communication modes (The New London Group 1996, 60–61). With the emergence of “new” literacy practices, the original “literacy” concept broadened from a singular skill to multiple literacies and an understanding of “literacy” as complex, dynamic, dialogic, and situated practices that are relevant to succeed in society (e.g. Freire 1985, 17).

Background

Feedback literacy was derived from the constructs *assessment literacy* (Stiggins 1991, 535) and *academic literacies* (skills required by students when transitioning into higher education, Lea and Street 1998). When Sutton (2012, 31–33) deduced feedback literacy from academic literacies, he emphasized the learners’ role and responsibilities. Conversely, assessment literacy originally referred to the knowledge and skills assessors need for performing assessment-related actions (Stiggins 1991, 535). The concept was later expanded to include *student assessment literacy* (Carless et al. 2011) because successful assessment processes and interactions rely equally on the assessor and the assessee.

Analogously, the feedback receiver and provider are mutually responsible for successful feedback practices (Carless 2022, 149). As a transdisciplinary construct, feedback literacy is relevant across subjects and disciplines and thus a prerequisite for all feedback participants involved. This sharing of responsibilities is reflected in a recent subdivision of feedback literacy into two dimensions: *student feedback literacy* and *teacher feedback literacy*. Student feedback literacy refers to the knowledge, dispositions (attitudes and willingness), and capacities learners require to seek, understand, and utilize feedback as well as their ability to manage affect (Carless and Boud 2018, 1316–17). This dimension thus emphasizes learners’ active role instead of reducing them to mere recipients of feedback information (Carless 2022, 145; Winstone and Carless 2020, 13). The second dimension – teacher feedback literacy – includes teachers’ ability to design learning environments that are conducive to students’ feedback literacy and the development of their self-regulation skills, to enable effective and multidirectional feedback dialogues as well as successful feedback use by all participants (Boud and Dawson 2023, 158).

Newer conceptualizations of teacher and student feedback literacy refuse to make a clear-cut distinction between the two, and instead capture both con-

structs in the plural term *feedback literacies* (Tai et al. 2023, 203). This approach is rooted in the belief that teaching and learning are inseparably intertwined. Moreover, it highlights the multiplicity and heterogeneity of contextually shaped feedback practices (Gravett 2022, 266). This reconceptualization also facilitates a paradigm shift towards empowering all feedback agents to negotiate and question hegemonic structures (Tai et al. 2023, 203). With this shift cascading into practice, intertwined *teacher-student feedback literacies* manifest themselves in the “ongoing process of attending, attuning, reading and ... working to modify the conditions which surround feedback” (Tai et al. 2023, 210). Developing and maintaining such literacies requires an openness to the entanglements of the conditions and practices of feedback, as well as a purposeful use across all feedback and learning opportunities, contexts, and disciplines (Chong 2022, 6–7). In line with the underlying principles of transdisciplinarity, a pluralistic perspective on feedback literacy emphasizes responsibility-sharing between all agents in the feedback process and considers the particularities of various disciplines, tasks, and technologies, as well as their impact on the situated and co-constructed feedback processes (Chong 2021, 96; 2022, 3–4).

Debate and criticism

Feedback is a contested, contextualized, and complex practice (Sutton 2012, 31) that has been researched largely separately across the disciplines (Lipnevich and Panadero 2021, 2). While feedback thrives from multidisciplinary influences and is transdisciplinary at its core, its inconsistent conceptualizations result in vivid discussions. One of these debates revolves around the definition of feedback itself and affects the definition of feedback literacy. For example, it is discussed whether one can speak of feedback if it is not acted upon by the recipient or whether it is then “information” only (Boud and Molloy 2013, 701). To emphasize subsequent action, the term “feedforward” was suggested to foreground the transformation of information into action (Reimann et al. 2019, 1279–80). Similarly, feedback has also been defined as an assembly of discursive practices that both reflect and construct reality (Nieminen et al. 2022, 102–4). Other authors, in turn, fear that by focusing (too much) on the subsequent actions, the content of the information would lose its power (Panadero and Lipnevich 2022, 5).

Another field of tension resides in the precise definition of feedback literacy. Three strands dominate this conversation (Nieminen and Carless 2022, 8). The first considers feedback literacy as an *internal psychological construct* and trainable skill that remains consistent across contexts and aims to fabricate feedback-literate and psychologically capable students (skills and capabilities). The second strand conceptualizes feedback as a process that involves an *acculturation of stu-*

dents and teachers to national feedback and academic cultures – cultures that are deeply embedded in the disciplines, institutional structures, and power relations. Therein, feedback literacy is an inconsistent construct that is continually redeveloped and reenacted across contexts and disciplines (socialization) and needs to be approached from a transdisciplinary perspective. The third strand considers feedback literacy as *socially constructed through power and discourse*, thus moving beyond an understanding of feedback literacy as an inherent trait of individuals. Instead, it is inherent to communities and their interactions where feedback-literate participants are critical and political agents who construct and (re)negotiate meaning in feedback processes to change their contexts (Nieminen et al. 2022, 103).

As the abundance of available definitions is rooted in incongruent ideas of learning, scientific inquiry, and feedback, it is not yet clear whether the various approaches can (or should) be reconciled into one overarching definition of feedback literacy (Nieminen et al. 2022, 13–14). On the one hand, this variety, the lack of nuanced conceptualizations, and an inconsistent use of terminology have inhibited clearer insights into the pedagogical designs that restrict or foster learners' agency in the feedback process (Nieminen et al. 2022, 103). On the other hand, as "contexts [enable] and constrain the ways in which individuals can act" (Tai et al. 2023, 203), a reductionist approach is not conducive. Instead, it is necessary to understand feedback practices and processes in a broader social and relational context, i.e. within a particular ecosystem of teaching and learning (Nieminen et al. 2022, 99). Recent conceptualizations highlight the "complex, nuanced, dynamic and situated set of feedback literacies, that are entangled by social, epistemological, material-discursive, spatial and temporal factors" (Gravett 2022, 270). Learners' (and teachers') agency is therein seen as mediated by the interplay of all these factors as well as individual variables (Chong 2021, 96; Gravett 2022, 270–71; Tai et al. 2023, 202). The latter include power, trust, relationships, and emotions. For instance, students are more likely to act on feedback when power is evenly distributed between teachers and students (Dann 2019, 362–63) and when feedback takes place in honest conversations. Overcoming hierarchical barriers and promoting responsibility-sharing as well as inclusive, transdisciplinary teaching and learning requires a changed understanding of teachers' role from information-providing authorities to learning facilitators. Abandoning the separation of teacher and student feedback literacy could contribute to such a change, as a separate treatment builds on predetermined roles of individuals and fails to consider material, discursive, or social dimensions (Tai et al. 2023, 202). The concept of *student–teacher feedback literacies* therefore needs to reach beyond a binary understanding.

While feedback as a discursive process has become prominent in instructional feedback research, it remains a fragile idea in need of more nuance and stronger embedding in transdisciplinary contexts. Indeed, there is hardly any transdisciplinary research on feedback literacy, its development, and its effect on transdis-

ciplinary teaching and learning. Investigating the boundaries between feedback literacy and related concepts (e.g. assessment literacy or digital literacy) as well as embracing a multimodal, transdisciplinary, and critical-transformative approach could promote a more accurate and future-oriented understanding. We thus encourage transdisciplinary research to pursue the development of a multidirectional and multifaceted conceptualization of feedback literacy within the sociopolitical contexts of education (Nieminen and Carless 2022, 13–15). As this form of literacy actively transgresses boundaries, it may establish a space of transdisciplinary participation and collaboration beyond fixed roles and contexts, thereby contributing to the disestablishment of hegemonic power structures within and across disciplines, while recognizing and inviting diversity and a plurality of knowledge sources (Tai et al. 2023, 204). Accordingly, future efforts in research and practice related to feedback need to move away from compartmentalized approaches to understanding feedback literacy within singular (disciplinary) contexts only.

Current forms of implementation in higher education

Feedback literacy is of vital importance to any discipline and is as such a highly contextualized and situated practice. Since conceptualizations are still in their infancy (Chong 2021, 94), pedagogical recommendations for effective feedback designs and institutional implementations are rare (Winstone and Carless 2020), especially regarding digital feedback (Schluer 2022) and transdisciplinary work. The following review establishes an overview of current research and practice in different contexts to derive tentative advice for the development and enactment of feedback literacy for transdisciplinary purposes.

Feedback literacy is increasingly recognized for its transformative power to improve student learning and to foster learners' self-regulation skills (Panadero and Lipnevich 2022, 14). Indeed, a perusal of recent publications in a leading journal in the field (*Assessment & Evaluation in Higher Education*) shows that feedback literacy is of interest to researchers and practitioners from a wide range of geographical contexts, including Europe (e.g. Rovagnati et al. 2022), Australia (Boud and Dawson 2023), Asia (Hsieh and Hill 2022), and the Middle East (Mohammed and Alharbi 2022). Furthermore, studies by multinational teams are increasing, resulting in a growing number of coauthored publications, e.g. from China and the USA (Dong et al. 2023), or Singapore, Australia, and the UK (Hoo et al. 2022). Overall, most published research comes from the UK, the USA, Australia, and Asia, but less so from Africa (e.g. Nieminen et al. 2023, 82).

Research is still ongoing to develop sound and evidence-based theoretical frameworks for teacher feedback literacy (e.g. Boud and Dawson 2023), student feedback literacy (Hoo et al. 2022) and peer feedback literacy (Dong et al. 2023).

The interplay of different feedback sources is investigated, such as peer and teacher feedback (Hsieh and Hill 2022) or self-assessment and peer assessment in academic writing (Cheong et al. 2023). While previous research largely focused on written assignments, studies on oral and multimodal tasks are becoming more prevalent, especially in digital settings (Day et al. 2022). In their linguistic analysis of publications from 2009 to 2019, Winstone, Boud, Dawson, and Heron (2022, 224) observed “a decrease in the use of ‘written’, ‘teacher’ and ‘detailed’ as nouns modifying the term feedback, and an increase in the use of ‘peer’, ‘verbal’ and ‘video’”. This illustrates a shift from teacher to learner orientation and points to a greater relevance of technology-enhanced feedback dialogues across disciplines and contexts in response to the rapid increase of digital educational practices. There is thus a need for developing and investigating pedagogical designs that are conducive to student learning in hybrid or virtual transdisciplinary spaces (Schmidberger et al. 2022, 76–77).

Indeed, technology-enhanced socio-material environments (collaborative documents, online forums, polls, etc.) could reduce power distance and enable equal participation (Schluer 2022, 92–110, 156–63; Tai et al. 2023, 204–207). However, feedback as a process of shared responsibilities has not fully translated into higher education curricula, partly due to students’ and educators’ persisting expectations of hegemonic power relations (Winstone et al. 2021, 129). For example, Winstone’s (2022, 1107) analysis of policy and strategy documents from 134 universities in the United Kingdom showed that most feedback practices center on transmitting feedback information to passive student recipients instead of promoting constructive, learner-focused feedback conversations. Similarly, the analysis of National Qualifications Frameworks from Asia, Africa, Europe, Latin America, North America, and Oceania revealed a strong focus on judgment-making as a graduate outcome, whereas other dimensions of feedback literacy were neglected (Winstone, Baloo, and Carless 2022, 62 and 74). Moreover, feedback literacy is still “widely depicted from a mono-cultural (prevalently Anglophone) perspective that accounts for one literacy rather than multiple literacies” (Rovagnati et al. 2022, 347). This calls for an acknowledgment of individual feedback literacies and “literacy histories” (Rovagnati 2022, 63 and 66) in intercultural and transdisciplinary contexts through open and purposeful dialogues about the underlying principles of feedback practices and responsibilities (Rovagnati 2022, 226).

While concrete institutional practice examples are largely absent and research is still scarce, a review of the literature from different disciplinary fields (e.g. English language teaching and intercultural communication by Schluer and Liu 2023; environmental sustainability by Blythe et al. 2017; as well as Carless and Boud 2018) provides insight into strategies that could contribute to developing feedback literacy in transdisciplinary contexts. Such strategies may include: (1) reflecting and inquiring about all *stakeholders’ understanding* of and experiences

with feedback literacy; (2) creating a *trustful atmosphere* by openly discussing attitudes, concerns, and challenges regarding transdisciplinary work; (3) *negotiating meanings* and establishing a common ground (third space) to ensure team functionality; (4) critically *inspecting existing communicative modes*, tools, and structures while showing openness to cultivating new interactional norms (especially in linguistically and culturally heterogeneous teams); (5) appreciating and encouraging *diverse perspectives*; and (6) regularly *reflecting on feedback processes and renegotiating them* as needed in dynamically changing transdisciplinary contexts.

Due to the highly situated and dynamic nature of feedback literacy and the scarcity of research and practice in relation to its implementation in transdisciplinary contexts, the application of the above recommendations needs to be reassessed continuously and collaboratively. Indeed, constructive feedback from colleagues in adjacent disciplines holds the potential to uncover new perspectives which may transcend previously rigid disciplinary frames and thinking patterns. While such conversations might cause initial reservations, pursuing feedback processes through critical social reflection and dialogue can lead to transformative reinterpretations and broaden conceptual horizons.

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