Routledge
Taylor & Francis Group

Assessment & Evaluation in Higher Education

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/caeh20

The Westerveld framework for interprofessional feedback dialogues in health professions education

Claudia Tielemans, Renske de Kleijn, Marieke van der Schaaf, Sjoukje van den Broek & Tineke Westerveld

To cite this article: Claudia Tielemans, Renske de Kleijn, Marieke van der Schaaf, Sjoukje van den Broek & Tineke Westerveld (2023) The Westerveld framework for interprofessional feedback dialogues in health professions education, Assessment & Evaluation in Higher Education, 48:2, 241-257, DOI: 10.1080/02602938.2021.1967285

To link to this article: https://doi.org/10.1080/02602938.2021.1967285

Published online: 12 Sep 2021.

ASSESSMENT & EVALUATION IN HIGHER EDUCATION
2023, VOL. 48, NO. 2, 241–257
https://doi.org/10.1080/02602938.2021.1967285

Routledge
Taylor & Francis Group

The Westerveld framework for interprofessional feedback dialogues in health professions education

Claudia Tielemans[a,d], Renske de Kleijn[b,d], Marieke van der Schaaf[b,d], Sjoukje van den Broek[a,d] and Tineke Westerveld[a,c,d,†]

[a]Education Centre, Unit of Medical Education, University Medical Centre Utrecht, Utrecht, The Netherlands; [b]Utrecht Centre for Research and Development of Health Professions Education, University Medical Centre Utrecht, Utrecht, The Netherlands; [c]Dept of Internal Medicine and Dermatology, University Medical Centre Utrecht, Utrecht, The Netherlands; [d]Faculty of Social and Behavioural Sciences, Utrecht University, Utrecht, The Netherlands

ABSTRACT

Interprofessional feedback dialogues play a crucial role in educating the adaptive team members that health care practice requires. The aim of this study is to develop principles for interprofessional feedback dialogues, to support healthcare education on feedback processes in an interprofessional context. A critical review of the literature on (interprofessional) feedback, and discussions with local experts resulted in an initial framework. This was input for a two-round expert panel with international, leading scholars in the fields of feedback ($n=5$) and interprofessional education ($n=5$). Experts showed increased agreement and consensus over the rounds resulting in a framework, called the Westerveld framework, structured around seven criteria: Open and respectful; Relevant; Timely; Dialogical; Responsive; Sense making; and Actionable. The framework contains columns with feedback dialogue principles for information givers and users, and columns with additions to be taken into account in an interprofessional healthcare context. Structuring the information giver and user columns around the same criteria, emphasises shared responsibility of participants in a feedback dialogue. The integration of interprofessional additions facilitates transfer to the healthcare context. The Westerveld framework can provide guidance to teachers and students in interprofessional education, contributing to both student and teacher feedback literacy.

KEYWORDS

Feedback dialogue; interprofessional education; feedback literacy; responsibility sharing; learner agency

Introduction

Health professions education aims to train professionals with the collaborative competence to work together safely and effectively as interprofessional team members, and with the adaptive expertise to keep doing so despite changing and complicating practice (WHO 2010; Engeström 2018; Lingard 2012). Defined as '*occasions when members or students of two or more professions learn with, from and about each other to improve collaboration and the quality of care and services*' (CAIPE, 2016, p. 1), interprofessional education aims to support healthcare professionals in

CONTACT C. J. M. Tielemans c.j.m.tielemans@umcutrecht.nl
[†]Deceased.

acquiring the competencies needed for this teamwork and expertise (WHO 2010). Within interprofessional education, feedback is indicated as one of the core competencies we ought to be teaching as it strengthens team relationships and collaborative care provision (IPEC, 2016; Curtin University 2011).

Feedback is one of the most influential 'means' for students' learning (Hattie and Timperley 2007; Wisniewski, Zierer, and Hattie 2019), and though feedback is widely researched and deployed in order to improve healthcare students' workplace training (Anderson 2012; Bing-You et al. 2017), *interprofessional* feedback as a research field, especially regarding dialogue between members from different professions, is only just emerging. Synthesis of the available publications on interprofessional feedback, or a specific focus on its desired content and structure are lacking. In order to advance this research field, this study aims to develop a framework of principles for interprofessional feedback dialogues. First, the conception of feedback we use, the interprofessional context, and the challenges this context poses for effective feedback dialogue between different professions, are discussed.

Changing conceptions of feedback

Feedback as a research focus in the *general* higher education field has a significant background, containing ample synthesis. In recent years, this research focus has evolved, complementing the more traditional focus on *giving* feedback information (Hattie and Timperley 2007), with a focus on the *receiver's* perspective (e.g. Boud and Molloy 2013; Winstone and Carless 2019), and the process in which that receiver seeks, makes sense of, and uses information to improve learning or performance (Anseel et al. 2015; Carless and Boud 2018; Molloy, Ajjawi, et al. 2020). Essential for achieving this receiver process in practice, is developing learners' *feedback literacy*, or, 'the understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies' (Carless and Boud 2018, p1316). To enable contradictory conceptions of feedback-as-information and feedback-as-a-process to co-exist, Winstone et al. (2021) recommend explicitly using the term *feedback process* when referring to the learner's seeking, sense making and using, and to refer to *feedback information* when talking about that which is used in that process.

This more socio-cultural approach positions learners as an active agents, who, as they change roles as information receivers and givers, share responsibility for the feedback process (Ajjawi and Regehr 2019; Winstone et al. 2020). Dialogue, as an ongoing exchange, clarification and alteration of ideas (through asking and responding to questions), is promoted as the vehicle for these learners to be able to co-construct meaning in their feedback processes (Ajjawi and Regehr 2019; Nicol 2010). Integrating the two roles of information giver and receiver into one framework, can advance the feedback research field, in which publications, including existing frameworks (e.g. Nicol and Macfarlane-Dick 2006; Yang and Carless 2013; Carless and Boud 2018), usually focus on either the giver or receiver side of the feedback process.

Implementing feedback dialogues in interprofessional healthcare

A socio-cultural approach to feedback suits the goals of interprofessional healthcare education to train adaptive experts, capable of collaborative learning in the workplace (Engeström 2018; Lingard 2012). Healthcare professionals however, currently often retain more cognitive and even giver-centred views of feedback. For instance, Noble et al. found that, even when specifically trained to be feedback literate, medical, nursing and allied healthcare students, 'had to work hard against orthodox feedback expectations and habits in healthcare' (Noble et al. 2020, p. 56). This is not surprising as healthcare professional are educated using transmission-based models such as the feedback sandwich or Pendleton rules (Molloy, Ajjawi, et al. 2020), and they often encounter

feedback in practice as checkbox forms and numeric scores (Vesel et al. 2016). Such practices maintain perceptions of learners as passive information receivers, instead of as agentic agents. In this case, *agency* refers to autonomy, control and voice of (interprofessional) feedback dialogue participants (Klemenčič 2015), by which they take their part in the shared responsibility for the feedback process, and influence the culture and environment in which the dialogue takes place. To emphasise the preferred agency of the receiver during these feedback dialogues, we use the term feedback information *user* instead of feedback information *receiver*.

Whilst learners, as agentic agents, can influence their context through dialogue, the context (culture, (implicit) rules and structures) of interprofessional healthcare, in return can also mediate (support or hamper) that same feedback dialogue. Recent research calls for attention to such socio-cultural context factors, and to how they impact feedback literacy and engagement (Chong 2021; Quigley 2021). Possibly, the most significant examples of these contextual mediations to the feedback process are credibility and hierarchy.

The challenges of credibility and hierarchy

The extent to which physicians perceive interprofessional feedback information givers as credible, depends strongly on the role and expertise of the information giver, and how these align with the information given (Feller and Berendonk 2020; Miles et al. 2021; Vesel et al. 2016; Yama et al. 2018). The perceived role and expertise of interprofessional colleagues, however, are often not acknowledged or (partially) misconceived (Miles et al. 2021; Tariq et al. 2020). This can lead to structural misjudgments of credibility (and a lack of openness) in dialogues with team members from another profession. For example, a physician may judge a nurse as a non-credible source of feedback information regarding their medication prescribing, because this task is reserved for physicians and not educated in nursing school. Most nurses, however, administer medication constantly, giving them ample experience with drug indications, dosing and side-effects. Due to a credibility judgement based on misperceived expertise, valuable feedback information on medication prescribing from this nurse may be discarded by this physician, impeding future collaboration and creating possibly dangerous situations.

Furthermore, (perceived) hierarchy is often present in interprofessional relations in the health care setting (Foronda, MacWilliams, and McArthur 2016; Gergerich, Boland, and Scott 2019). This can result in complex power dynamics that significantly impact the willingness to engage in feedback dialogues with interprofessional colleagues and the acceptance and use of their feedback information (Leonard, Graham, and Bonacum 2004; Miles et al. 2021; van Schaik, Plant, and O'Brien 2015). For instance, Miles et al. (2020, p524) describe how allied health professionals temper their corrective feedback information to physicians in fear of getting in trouble by offending those higher up in the healthcare hierarchy. Aside from these traditional, superimposed, role structures, power dynamics can stem from other structures, such as years of experience or educational relationships (Miles et al. 2021; van Schaik, Plant, and O'Brien 2015; Yama et al. 2018). For example, newly graduated physicians can struggle to give feedback information to experienced nurses who have worked the ward for years, and healthcare students may feel limited in their responsiveness in feedback dialogue with graduated professionals.

Aims and research question

In sum, to train the adaptive team members it needs, health professions education would benefit from interprofessional feedback dialogue principles that incorporate the challenges of its unique context, especially taking into account credibility and hierarchy. Ideally, these principles would integrate the roles of feedback information giver and the information user, and focus on their shared responsibility for the feedback process, thus communicating a socio-cultural

conceptualisation of feedback, positioning learners as active agents. This would make an important contribution to current available frameworks, as this integration of both roles in one framework is currently lacking in existing feedback frameworks. Therefore, this study provides a synthesis of contemporary insights on feedback processes, integrating the literature on giving and using feedback information, aiming to develop a framework of principles for feedback dialogues that can be used to develop feedback literacy. We then identify additional elements that support applicability of these principles in interprofessional healthcare practice. The research question is: *What are principles for interprofessional feedback dialogues in the healthcare environment?*

Materials and methods

Study design

We developed our framework in an interconnected process of critical literature review (Grant and Booth 2009), interpretive analysis by team members and local experts, and input from an international expert panel, which we consulted using two rounds of short questionnaires. See figure 1 for a graphic overview of the process.

Procedure

Critical review

Relevant feedback articles – To identify relevant articles on *feedback in higher education,* for our purpose of formulating principles for feedback dialogues, we used two steps. First, we screened the top ten most cited and most read articles, from the most impactful higher education journals, that publish on the topic of feedback (Winstone et al. 2021), and those aimed at publishing overview articles (see figure 2). This was followed by full-text screening; Figure 2 lists the exclusion criteria used in determining relevance.

Relevant interprofessional feedback articles - Likewise screening the most cited and read publications of the most impactful (interprofessional) health professions education journals, as a first step in identifying relevant articles on *interprofessional* feedback, heeded no results. Therefore, a systematic search was conducted. Figure 2 lists the databases and search terms used. To increase the efficiency and quality of review screening processes, we used ASReview machine learning software (version 0.16; van de Schoot et al. 2021). Following van de Schoot et al. (2021) recommendations, screening continued until at least 25% (i.e. 26,42%) of the abstracts were seen and at least 100 in a row were deemed irrelevant. To assure we did not overlook relevant interprofessional communicative competencies we additionally included the four most widely used competency frameworks on interprofessional collaboration (Thistlethwaite et al. 2014). Figure 2 lists the exclusion criteria used in determining relevance.

Key articles - Critical reviews seek to provide a conceptual synthesis by evaluating publications based on their contribution (Grant and Booth 2009). To identify the *key articles* for our purpose of formulating principles for feedback dialogues, we evaluated the conceptual contribution of the relevant articles in both fields, using criteria for conceptual contribution as listed in Figure 2.

Interpretive analysis of key articles – First, in an iterative process, CT and RK used the key articles on feedback to formulate criteria and principles in the following steps: a) Exploring the key publications; b) Extracting recommendations for feedback dialogues; c) Grouping recommendations to formulate overarching themes; d) Rearranging themes in search of a comprehensive framework that integrates giver and user recommendations and communicates shared responsibility; e) Rephrasing and merging recommendations and translating them to practical actions to synthesise dialogue principles. Table 1 illustrates the development of one criterion and its corresponding principles using the steps of our interpretive analysis. This resulted in

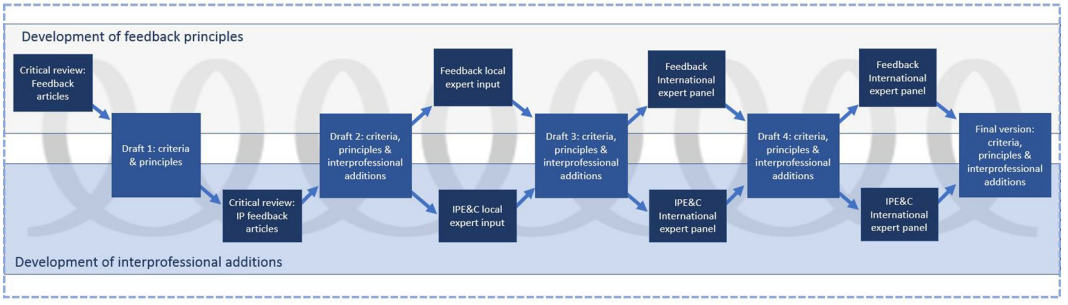
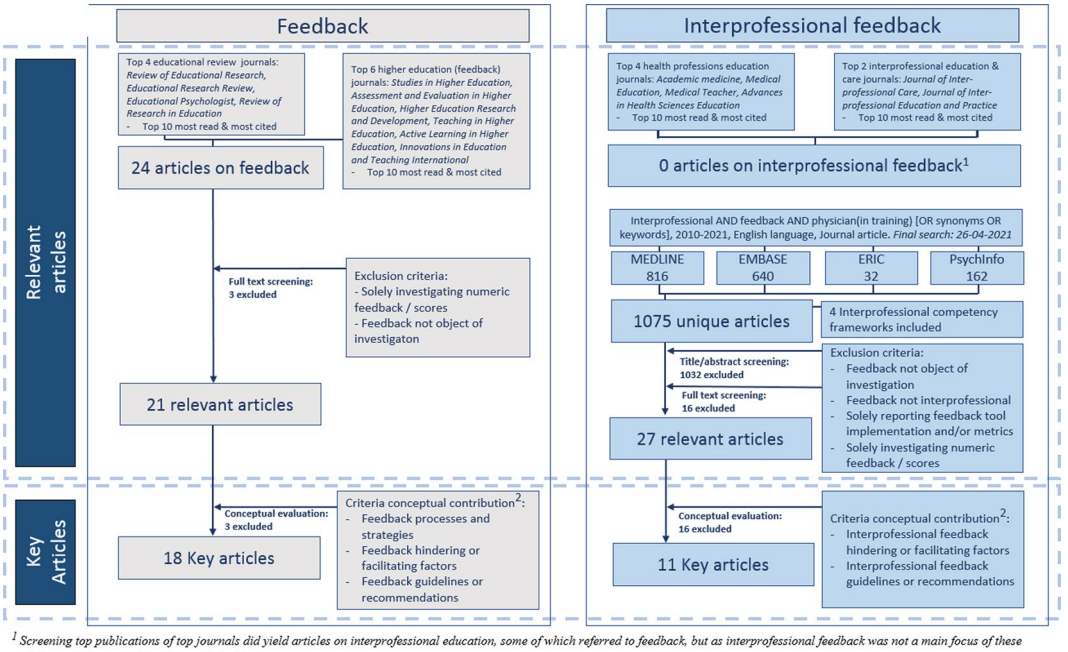


Figure 1. Graphic overview of the study design.



[1] *Screening top publications of top journals did yield articles on interprofessional education, some of which referred to feedback, but as interprofessional feedback was not a main focus of these articles we did not consider them sufficiently relevant.*

[2] *Feedback processes and strategies include goal setting, motivation, self-assessment, sense-making, and seeking. Feedback hindering or facilitating factors include characteristics of message (e.g., purpose, jargon and tone), dialogue participants (e.g., perception of credibility of giver and hierarchy) and context elements (e.g., formal structures and education).*

Figure 2. Critical review search strategy.

draft 1 (*see* figure 1*)* of the framework with central themes and symmetrically structured information giver and user feedback dialogue principles. The themes were renamed into criteria.

Next, the key interprofessional feedback articles were used to formulate additions to these general dialogue principles in the following steps: a) Exploring the key publications; b) Extracting hindering factors for interprofessional feedback dialogues; c) Formulating hindering processes as overarching themes; d) Formulating, for each hindering process, *professional background characteristics* that play a role in the hindrance of feedback dialogue through these processes. e) Rearranging themes and *professional background characteristics* to the (template of) general feedback criteria and principles and translating them to practical actions. This resulted in draft two of our framework.

Local expert input

Following this, group discussions with all authors and four additional local experts, i.e. two feedback scholars, a physician, and a nurse, contributed to reaching consensus on the framework's structure and content and resulted in the 3rd draft of the framework.

Table 1. Example to illustrate the development of the criterion "Timely" and its giver principles.

Selected key articles (step a)	Extractions of recommendations for feedback dialogues (step b) *(examples are not exhaustive)*	Formulated overarching theme (step c)	Translation of recommendations to giver dialogue principles (step e)
Carless et al. 2011 Evans 2013 Hattie 2007 Nicol 2006 Nicol, Thomson, and Breslin 2014 Poulos and Mahony 2008 Price et al. 2010 Winstone et al. 2017 Yang and Carless 2013	– Hattie 2007: p103 "To be able to devote time and thoughts to feedback is aided when teachers automate many other tasks in the classroom (…) and thus have the time and resources to be responsive to feedback."	Timely	Verifies readiness of giver and user [moment of the day, (safety of) setting, states of mind] when either is not ready, considers postponing.
	– Hattie 2007: p81 "Feedback thus is a "consequence" of performance"		Gives user the opportunity to first learn independently
	– Nicol 2006: p210 "providing timely feedback—this means before it is too late forstudents to change their work (i.e. before submission)"Price et al. 2010: p285 "There was near consensus about when feedback is useful, that is when it can be and is applied"		Times giving feedback information so that user has the opportunity to adapt performance on a future occasion

International expert panel

Design. Seeking evidence for content validity of the feedback dialogue principles as well as improvement suggestions, we consulted an expert panel with two online questionnaires (November 2019 and February 2020). Round one was used to develop the 4th draft of the framework. Round two was used to seek agreement and consensus with the changes made based on round one, as well as additional improvement suggestions, and led to the development of the 5th draft of the framework. Inspired by the methodology of Delphi studies, the second questionnaire addressed the adjustments made, based on the results of the first questionnaire. The approach, using anonymous questionnaires to independent experts, was chosen over focus groups to minimise bias. It helped prevent group processes (e.g. polarisation, group pressure) and ensured the same weight was given to each experts' opinion.

*Participants***.** We aimed to select two international expert groups, with a minimum of four experts each, with a research focus in the fields of feedback and interprofessional education/collaboration. Experts were selected through purposeful, maximal variance sampling (Patton 2002), based on place of residence/work and sub-expertise or specific perspective in the feedback or interprofessional field. We invited ten feedback and nine interprofessional experts. With a response rate of 53%, this led to the inclusion of five experts in both groups. The feedback experts had an h-index ranging from 20-40. For the interprofessional experts, the h-index ranged from 7-46. The five feedback experts came from Europe and Oceania. The five interprofessional experts came from the United States, Europe, and Oceania and had backgrounds as physicians and/or as educators. Due to time constraints, one feedback expert only participated in the first round whilst another feedback expert only participated in the second round.

Instruments. The questionnaires contained closed questions focusing on the experts' degree of agreement with whether the framework *from their perspective* exhaustively encompassed feedback literature and interprofessional literature (to discern if important themes were missing), and with the structure, and usability of the framework. It contained open questions seeking suggested alterations of the framework's criteria and principles (*see Appendix 1*).

Data analysis. After both rounds, descriptive analysis of the closed questions took place. Next, CT and RK analysed the answers to the open-ended questions by listing individual themes,

categorising and comparing them on similarities and differences. All suggestions were first judged on rationale by CT and RK. Next, these judgments were discussed with TW and MS until consensus was reached. Next, the suggestions were used to improve the framework and listed, with their rationale, as input for the next round.

Between rounds, degree of agreement and consensus were calculated and compared, regarding: coverage of literature, framework structure and usability. Degree of agreement was operationalised as the number of experts that agreed with the principles. Degree of consensus was determined by the scope of suggestions for improvement, and the standard deviation in experts' estimation of whether they would use the instrument in their own education or research.

Reflexivity

Despite all procedures, throughout data analysis, our own professional perspectives might have impacted our interpretation of the findings. CT and TW are physicians and interprofessional educators. SB is a physician and professionalism remediation coach, and RK and MS are feedback scholars and educational researchers. The different backgrounds of team members contributed to a design and research process from several perspectives. The authors frequently met for dialogues and discussions that challenged underlying assumptions.

Ethical approval

The research proposal was approved by the ethical review board of the Dutch Association for Medical Education (NVMO), file number 2019.7.9. Participation was voluntary and informed consent of participating experts was obtained.

Results

Critical review

The critical review on *feedback* included 18 key articles. The selected key articles are indicated in the reference list with an asterisk. The critical review resulted in the 1st draft of our framework of dialogue principles, structured around seven criteria. Table 2 presents these seven central criteria and their descriptions. These remain the centre of our framework in its final version. The criterion *dialogical*, not to be confused with the overarching term *dialogue,* addresses the two-way communicative exchange structure that characterises a dialogue.

The critical review on *interprofessional feedback* included 11 key articles. The selected key articles are indicated in the reference list with a double asterisk. Analyses of the articles on themes led to the identification of four hindering processes to feedback dialogues, and eight

Table 2. Criteria for feedback dialogue and their descriptions.

Criteria	Descriptions
Open and Respectful	Participants are open to each other's input and communicate on this respectfully.
Relevant	Participants address agreed upon goals and observed performance.
Timely	Participants engage in dialogue when user is ready and has started but not finished learning.
Dialogical	Participants use a repertoire of behaviour needed to achieve two-way communicative exchange.
Responsive	Participants contribute to adaptivity of the feedback dialogue to the specific context of the user.
Sense making	Participants contribute to the user's interpretation and prioritisation of information.
Actionable	Participants contribute to the usability of the feedback information.

Table 3. Hindering processes in interprofessional dialogues and corresponding professional background characteristics.

Hindering processes	Professional background characteristics
Power dynamics Complex hierarchies and the power dynamics stemming from them can hinder interprofessional feedback processes (including goal setting, motivation, self-assessment, sense-making, and seeking)	*Superimposed role* Determined by a professional's place in formal (hierarchical) structures in health care *Years of experience* Determined by the experience gained by a professional working in practice *Educational role* Determined by a professional's role as a learner, teacher or peer
Credibility Credibility judgements are made by assessing feedback information provider's professional role and expertise and its alignment with the interprofessional feedback information they provide.(Mis)judgements can hinder interprofessional feedback processes	*Expertise* Determined by a professional's competencies gained through education and experience *Professional role* Determined by a professional's work tasks and responsibilities
Identity Professional identity formation, and group processes stemming from that, can hinder interprofessional feedback processes	*Professional identity* Determined by a professional's socialisation within professional groups or interprofessional teams
Structural work processes Workloads and structural differences in work habits form practical barriers and thereby hinder the interprofessional feedback process	*Work habits* Determined by, e.g. work shift hours, handover & education times, communication styles *Workload* Determined by, e.g., patient load, administrative tasks, educational responsibilities

corresponding *professional background characteristics* that play a role in the hindrance of feedback dialogue through these processes. *(see* Table 3*)*

International expert panel

In the first round, the experts gave various suggestions to improve the framework. These concerned: adding (parts of) sentences for completeness or to improve usability, moving elements of principles to a more logical place in the framework and rephrasing principles for clarity, nuance or completeness.

In round two we received some minor additional suggestions for improvement. Additionally, the number of experts answering the question *Does this instrument encompass the current feedback literature exhaustively?* with yes, increased from two out of five in round one to four out of five in round 2. Next they were questioned: *Does this instrument encompass the current interprofessional literature exhaustively?* Four out of five interprofessional experts already agreed in round one. One expert indicated not feeling comfortable assessing the full body of interprofessional literature and answered 'do not know' in both rounds. The third question was: *Is the structure of this tool (feedback principles and interprofessional additions divided into criteria) logical to you?* In round one, three out of nine experts disagreed, whereas all participants agreed in round two. Lastly, they were asked: *How likely is it that you would use this instrument in your own education or research?* The mean for self-reported likeliness to use the framework, increased from 5.2 to 5.8 on a 7-point scale, whilst the standard deviation decreased from 1.5 to 0.8.

Framework of criteria, feedback principles and interprofessional additions

The final framework with the original seven criteria, the dialogue principles, and the interprofessional additions is presented in table 4.

Table 4. The Westerveld framework for giving and using feedback information in interprofessional dialogues.

Information giver			Information user	
Interprofessional additions	Feedback principles	Criteria	Feedback principles	Interprofessional additions
• Gives feedback to professionals from another professions • Crosses professional group boundaries and contributes to an interprofessional team identity • When applicable, addresses and overcomes power differentials from superimposed hierarchy, years of experience or educational role (teacher, learner or peer)	• Is open to responses to feedback information including critique • Uses substantive, not authoritative arguments • When appropriate, addresses and corrects defensive reactions to feedback information	**Open & respectful**	• Is open to learn from- and proactively seeks positive and negative feedback information • Responds respectfully, avoiding defensiveness	• Seeks and accepts feedback information from all team members from other professions • Crosses professional group boundaries and contributes to an interprofessional team identity • When applicable, addresses and overcomes power differentials from superimposed hierarchy, years of experience or educational role (teacher, learner or peer)
• Clarifies how the feedback information provided ontributes to patient care • Clarifies feedback dialogue goal: improving users' personal growth or work-efficiencyAddresses alignment between feedback information and role or expertise: why perspective of specific provider is valuable for user	• Discusses goals until mutual understanding is achieved • Gives feedback information related to mutually understood goals • Gives feedback information based on observed task performance	**Relevant**	• Discusses goals until mutual understanding is achieved • Seeks feedback information related to mutually understood goals • Seeks feedback information on performed task from observer	• Clarifies how the sought feedback information contributes to patient care • Clarifies feedback dialogue goal: improving users' personal growth or work-efficiency • Addresses alignment between feedback information and role or expertise: why perspective of specific provider is valuable for user
• Considers and verifies possible differences in (timing of) work process between professions whilst assessing readiness	• Verifies readiness of giver and user [moment of the day, (safety of) setting, states of mind] when either is not ready, considers postponing.Gives user the opportunity to first learn independentlyTimes giving feedback information so that user has the opportunity to adapt performance on a future occasion	**Timely**	• Verifies readiness of giver and user [moment of the day, (safety of) setting, states of mind] when either is not ready, considers postponing. • Seeks feedback information after attempting to learn independently • Seeks feedback information when there is still opportunity to adapt performance on a future occasion	• Considers and verifies possible differences in (timing of) work process between professions whilst assessing readiness

(*Continued*)

Table 4. Continued.

Information giver		Criteria	Information user	
Interprofessional additions	Feedback principles		Feedback principles	Interprofessional additions
• Addresses when differences in professional background characteristics[1] influences exchange of feedback information • Avoids the use of professional jargon and asks clarification when jargon is used	• Offers feedback information in a dialogical manner: asks questions, listens actively, answers questions, offers room to respond, verifies understanding • Uses clear and unambiguous language	**Dialogical**	• Participates actively in dialogue: listens actively, asks clarifying questions when necessary, answers questions, verifies understanding • Uses clear and unambiguous language	• Addresses when differences in professional background characteristics[1] influences exchange of feedback information • Avoids the use of professional jargon and asks clarification when jargon is used
• Explores and clarifies differences in professional background characteristics[1] and addresses how these differences affect feedback processes including: seeking, acceptance, understanding and use.	• Asks about: user needs, user competence, user motivation, contextual factors (recent experiences of user, personality of user, personal circumstances of user), expressed emotions (verbal or non-verbal) • Addresses how previous feedback information has been used	**Responsive**	• When appropriate and relevant, shares: user needs, user competence, user motivation, contextual factors (recent experiences of user, personality of user, personal circumstances of user), user emotions • Feeds back on previous and current feedback information in terms of content, use, and emotional response	• Explores and clarifies differences in professional background characteristics[1] and addresses how these differences affect feedback processes including: seeking, acceptance, understanding and use.

• Addresses how differences in professional background characteristics[1] influence interpretation and prioritisation of feedback information	• Prioritises to most important, mutually understood information
	• Summarises message
	• Invites user to come back for further clarification if needed
		Sense making	• Interprets and prioritises received feedback information by comparing to:
			• Curricular and personal learning goals
			  • Previously received feedback information from provider and or others
			  • Personal view on performance
			  • Perception of own strengths and weaknesses
			• Based on interpretation, judges whether feedback information is adequate and useful
			• Seeks additional clarification when sense making stagnates
				• Explores how differences in professional background characteristics[1] influence interpretation and prioritisation of feedback information.

• Discusses possible facilitators and barriers stemming from differences in professional background charactheristics[1] when directing towards actions for improvement	• Gives forward looking feedback information: suggests improvement strategies • Encourages user to make an action plan • Directs user towards useful resources to support relevant actions	**Actionable**	• Revisits learning goals based on sense making of feedback information (and suggested improvement strategies) • Discards feedback information when judged inadequate or not useful • Creates action plan to achieve refined learning goals • Implements action plan on the next occasion	• Discusses possible facilitators and barriers stemming from differences in professional background charactheristics[1] when creating and implementing actions for improvement

Professional background characteristics are Superimposed role; Years of experience; Educational role; Professional role; Expertise; Professional identity; Work habits; Workload

Discussion

Interprofessional feedback dialogues play a crucial role in educating the adaptive team members that health care practice requires (Engeström 2018; Lingard 2012). In this study we developed principles for interprofessional feedback dialogues to support health professions education in this aim. Through a critical review and an international expert panel we synthesised the Westerveld framework. This symmetrical framework centres around seven criteria: Open and respectful; Relevant; Timely; Dialogical; Responsive; Sense making; and Actionable. For each criterion, the framework describes feedback dialogue principles for the information giver and user, as well as additional elements that should be taken into account in an interprofessional healthcare context.

The Westerveld framework provides two major theoretical contributions. First, integrates literature on giving feedback information with that on seeking and using feedback information into one framework. To our knowledge, it is the first study to do so. Therewith, we operationalise a socio-cultural conceptualisation of feedback, positioning learners as active agents that co-construct meaning in a dialogue, in line with recent directions in feedback literature (Ajjawi and Regehr 2019; Winstone et al. 2020; Nicol 2010). The framework helps articulate and explicate shared responsibility in feedback processes, by incorporating both the information giver and user roles in feedback dialogues.

Second, the Westerveld framework offers a synthesis of the interprofessional feedback literature and integrates its findings with the solid base of feedback literature in general. The prescriptive framework progresses the relatively novel, and so far highly descriptive, interprofessional feedback literature. It offers an initial evidence base for what to address in interprofessional feedback education, taking into account that power dynamics, credibility, identity, and structural work processes influence interprofessional feedback processes. It offers a concrete repertoire of behaviors for the feedback information giver and user to address these themes in dialogues.

Implications for practice

The combination of principles on giving and using feedback information in one framework can help students realise their agency and responsibility both as active information givers, and users, in feedback dialogue, instead of considering themselves to be passive recipients of information. As such, the framework helps students *acknowledge feedback as a reciprocal process*, and *appreciate feedback as an active process*, both essential competencies in student feedback literacy (Molloy, Ajjawi, et al. 2020, p529). Furthermore, the principles can help equip students with the repertoire of behaviours needed to bring this responsibility into practice, actively contributing to their feedback process, and therein further developing their feedback literacy. For instance, students at the beginning of an internship can use the principles (as information users) to self-asses their feedback understandings, capacities and dispositions, determine in what elements they wish to improve, and relatedly determine specific feedback-on-feedback questions to ask supervisors or peers. Furthermore, using the framework (as information givers), they can provide peers with feedback information on feedback seeking, dialogue and use. The synthesis and integration of *interprofessional* feedback literature in the framework can help healthcare students to apply their general feedback dialogue competencies to health care practice, by creating awareness for the interprofessional context-specific challenges and offering practice-ready repertoire to help navigate these challenges. The specific challenges of credibility and hierarchy are addressed in the framework. It emphasises the value of proactively seeking out feedback dialogue with members of other professions and accepting them as legitimate givers of feedback information and recommends addressing power differentials and role

alignment when applicable. This contribution helps answer a recent call for consideration of the contextual dimension of feedback literacy (Chong 2021).

As the proactivity needed by students to initiate and responsively take part in interprofessional dialogues in practice are thwarted by current culture, including supervisors that retain giver-focused views of feedback (Noble et al. 2020), solely targeting students in educational practice will probably not suffice in achieving the intended feedback dialogues. Supervisors in healthcare practice must become feedback literate themselves. Furthermore, aside from their role as dialogue participants, healthcare supervisors, as (clinical) teachers of these students, have an additional part to play in creating learning environments to support students' literacy. Carless and Winstone (2020), addressed this interplay of teachers competencies with students feedback literacy, when they introduced teacher feedback literacy. Boud and Dawson (2021) further explain this concept with a practice based, empirical study. They point out how the role of teachers is similar to that of students, on what they call the micro level of teacher feedback literacy (*relating to individual student assignment*). On this micro level, but also on the meso and macro level, the Westerveld framework can be used to develop teacher feedback literacy.

The combination of principles on giving and using feedback information in one framework can help teachers design educational environments that support effective feedback dialogues and the development of student feedback literacy. For instance, in pre-clinical courses, teachers can have students discuss dialogue examples or simulate dialogues themselves, focussing on the viewpoints of both dialogue participants, using the symmetrical principles to guide discussions. Or, for workplace based education, dialogue assignments can be developed that offer students the opportunity to have a shared dialogue, and to be (formatively) assessed accordingly, using criteria based on the two-sided framework. The synthesis and integration of interprofessional feedback literature in the framework can help healthcare teachers design educational environments that integrate the contextual dimension in students (literacy) education. For instance, by using the interprofessional additions to make students discuss or consider interprofessional challenges in pre-clinical education, and by creating opportunities for safe interprofessional dialogues in practice, educational efforts may be better matched to the practice it aims to prepare for. Using the framework like this could support teacher feedback literacy competency development, at the meso- and macro level as described by Boud and Dawson (2021). A final note on the implication of the framework is that, though it offers practice-ready behaviours, it should not be regarded as a strict rulebook or script for feedback dialogues. Users should always take into account the specific situation the feedback process takes place in, and strive be flexible in supporting that process optimally.

Limitations and suggestions for further research

We performed a critical review, selecting key literature based on their conceptual contribution to the formulation of our principles (Grant and Booth 2009). Though expert responses confirmed that we encompassed current literature with the contents of our framework, a limitation of this interpretive process is that we cannot exclude the possibility that a different research team might have identified other publications (making the same points) as key literature.

Our expert panel design had several important limitations. First, we limited inclusion to feedback and interprofessional education experts with a research focus. Though some experts had experience as educators, future research needs to include (more) teachers and students with varying professional backgrounds, as essential stakeholders to further test usefulness for, and possible impact on, students' and teachers' feedback literacy. Second, participating experts were offered anonymity, which limits transparency in our reporting on their selection and inclusion. Third, changes were made to the framework based on insights gained from the peer review process. These were not presented to the experts, somewhat reducing the power of the results of our expert panel. Similarly reducing that power is the fourth limitation. Due to time

constraints, only three consistent feedback experts participated in the panel. The extensive and insightful suggestions for alteration, given by the experts only contributing to the first or second round, however, did motivate us to include their perspectives.

Lastly, the interprofessional feedback literature was strongly focused on the influence of professional differences on acceptance and (perceived) use. If, and how, *sense making* is influenced by interprofessional differences appeared to be a lacune. This is reflected in the framework, which merely recommends the exploration of professional differences on this process by information users. The introduction of the internal feedback model by Nicol (2021), building on his earlier work (Nicol, Thomson, and Breslin 2014), may offer possibilities to advance understanding regarding this lacune. This model suggests the interplay of beliefs and dispositions with information passing from the external environment into the internal process of comparison (Nicol 2021). Future research may explore how interpretation, prioritisation and comparison of feedback information is influenced in interprofessional settings.

Conclusion

Aiming to contribute to both student and teacher feedback literacy in interprofessional healthcare education, this article presented The Westerveld framework. This framework, with principles for giving and using feedback information in interprofessional dialogues, centres around seven criteria: Open and respectful; Relevant; Timely; Dialogical; Responsive; Sense making; and Actionable. The Westerveld framework offers a starting point for promoting feedback dialogues with shared responsibility among interprofessional team members in healthcare education, with the ultimate goal to contribute to safe, effective and adaptive healthcare.

Acknowledgements

We thank Charlotte Eijkelboom, Larissa den Boer, Adriana Israël, and Tineke Aantjes, for sharing their thoughts and expertise in our local expert group discussions. Furthermore, we wish to acknowledge the contribution of the ten experts who participated in our study, as well as the reviewers, who will remain anonymous. Additionally, we want to thank Naomi Winstone and Edd Pitt for putting together this special issue.

Tineke Westerveld was the visionary behind this framework, which is named in her honour. We want to acknowledge her for being the backbone of our team, and for her wider contribution to interprofessional healthcare education. We are immeasurably grateful for her vision, guidance, and passion, and we will continue our research in the field of interprofessional healthcare education in her memory.

Disclosure statement

The authors declare no conflicts of interest.

Notes on contributors

***Claudia Tielemans, MD*,** works as a Teacher and PhD student and her dissertation is focused on interprofessional education and feedback in medical education.

***Renske de Kleijn, PhD*,** works as an Assistant Professor and her research focuses on feedback, supervision, assessment, and motivation in higher education.

Sjoukje van den Broek, MD, PhD,works as a Teacher in communication skills and as professionalism coach for medical students.

***Marieke van der Schaaf ,PhD*,** works as a Full Professor and is Director of the Utrecht Center for Research and Development of Health Professions Education.

Tineke Westerveld, MD, PhD, worked as a Full Professor in Medical Education, specialized in interprofessional education.

Funding

This study was conducted with the support of a Comenius Senior Fellow grant (2019) from the Netherlands Initiative for Education Research (NRO).

ORCID

Claudia Tielemans http://orcid.org/0000-0002-8474-9734
Renske de Kleijn http://orcid.org/0000-0001-9206-4199
Marieke van der Schaaf http://orcid.org/0000-0001-6555-5320

References

Ajjawi, R., G. Regehr. 2019. "When I Say … Feedback." *Medical Education* 53 (7): 652–654. doi:10.1111/medu.13746.

Anderson, P. A. M. 2012. "Giving Feedback on Clinical Skills: Are We Starving Our Young?" *Journal of Graduate Medical Education* 4 (2): 154–158. doi:10.4300/JGME-D-11-000295.1.

Anseel, F., A. S. Beatty, W. Shen, F. Lievens, and P. R. Sackett. 2015. "How Are We Doing after 30 Years? A Meta-Analytic Review of the Antecedents and Outcomes of Feedback-Seeking Behavior." *Journal of Management* 41 (1): 318–348. doi:10.1177/0149206313484521.

Bing-You, R., V. Hayes, K. Varaklis, R. Trowbridge, H. Kemp, and D. McKelvy. 2017. "Feedback for Learners in Medical Education: What is Known? A Scoping Review." *Academic Medicine: Journal of the Association of American Medical Colleges* 92 (9): 1346–1354. doi:10.1097/ACM.0000000000001578.

Boud, D., and P. Dawson. 2021. "What Feedback Literate Teachers Do: An Empirically-Derived Competency Framework." *Assessment And Evaluation in Higher Education*, ahead-of-print 1–14. doi:10.1080/02602938.2021.1910928.

*Boud, D., and E. Molloy. 2013. "Rethinking Models of Feedback for Learning: The Challenge of Design." *Assessment & Evaluation in Higher Education* 38 (6): 698–712. doi:10.1080/02602938.2012.691462.

CAIPE. 2016. CAIPE statement of purpose.

**Canadian Interprofessional Health Collaborative. 2010. "A National Interprofessional Competency Framework."

*Carless, D. 2006. "Differing Perceptions in the Feedback Process." *Studies in Higher Education* 31 (2): 219–233. doi:10.1080/03075070600572132.

*Carless, D., and D. Boud. 2018. "The Development of Student Feedback Literacy: Enabling Uptake of Feedback." *Assessment & Evaluation in Higher Education* 43 (8): 1315–1325. doi:10.1080/02602938.2018.1463354.

*Carless, D., D. Salter, M. Yang, and J. Lam. 2011. "Developing Sustainable Feedback Practices." *Studies in Higher Education* 36 (4): 395–407. doi:10.1080/03075071003642449.

Carless, D., and N. Winstone. 2020. "Teacher Feedback Literacy and Its Interplay with Student Feedback Literacy." *Teaching in Higher Education*, Ahead-of-Print, 1–14. doi:10.1080/13562517.2020.1782372.

**Castonguay, V., P. Lavoie, P. Karazivan, J. Morris, and R. Gagnon. 2019. "Perceptions of Emergency Medicine Residents of Multisource Feedback: Different, Relevant, and Useful Information." *Annals of Emergency Medicine* 74 (5): 660–669. doi:10.1016/j.annemergmed.2019.05.019.

Chong, S. W. 2021. "Reconsidering Student Feedback Literacy from an Ecological Perspective." *Assessment & Evaluation in Higher Education* 46 (1): 92–104. doi:10.1080/02602938.2020.1730765.

**Curtin University. 2011. Interprofessional capability framework.

*Dawson, P., M. Henderson, P. Mahoney, M. Phillips, T. Ryan, D. Boud, and E. Molloy. 2019. "What Makes for Effective Feedback: Staff and Student Perspectives." *Assessment & Evaluation in Higher Education* 44 (1): 25–36. doi:10.1080/02602938.2018.1467877.

Engeström, Y. 2018. "Chapter 12. Expertise in Transition." In *Expertise in transition: Expansive Learning in Medical Work*. 1st ed., 248–257. Cambridge: Cambridge University Press.

*Evans, C. 2013. "Making Sense of Assessment Feedback in Higher Education." *Review of Educational Research* 83 (1): 70–120. doi:10.3102/0034654312474350.

**Feller, K., and C. Berendonk. 2020. "Identity Matters - Perceptions of Inter-Professional Feedback in the Context of Workplace-Based Assessment in Diabetology Training: A Qualitative Study." *BMC Medical Education* 20 (1): 33. 10.1186/s12909-020-1932-0.

Foronda, C., B. MacWilliams, and E. McArthur. 2016. "Interprofessional Communication in Healthcare: An Integrative Review." *Nurse Education in Practice* 19: 36–40. doi:10.1016/j.nepr.2016.04.005.

Gergerich, E., D. Boland, and M. A. Scott. 2019. "Hierarchies in Interprofessional Training." *Journal of Interprofessional Care* 33 (5): 528–535. doi:10.1080/13561820.2018.1538110.

Grant, M. J., and A. Booth. 2009. "A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodologies." *Health Information and Libraries Journal* 26 (2): 91–108. doi:10.1111/j.1471-1842.2009.00848.x.

*Hattie, J., and H. Timperley. 2007. "The Power of Feedback." *Review of Educational Research* 77 (1): 81–112. doi:10.3102/003465430298487.

*Higgins, R., P. Hartley, and A. Skelton. 2001. "Getting the Message across: The Problem of Communicating Assessment Feedback." *Teaching in Higher Education* 6 (2): 269–274. doi:10.1080/13562510120045230.

**Interprofessional education collaborative. 2016. Core Competencies for Interprofessional Collaborative Practice: 2016 Update.

Klemenčič, M. 2015. "What is Student Agency? An Ontological Exploration in the Context of Research on Student Engagement." In *Student Engagement in Europe: society, Higher Education and Student Governance*, no. 20, edited by M. Klemenčič, S. Bergan, & R. Primožič, 11–29. Strasbourg: Council of Europe Publishing.

Leonard, M., S. Graham, and D. Bonacum. 2004. "The Human Factor: The Critical Importance of Effective Teamwork and Communication in Providing Safe Care." *Quality and Safety in Health Care* 13 (suppl_1): i85–i90. doi:10.1136/qshc.2004.010033.

Lingard, L. A. 2012. "Rethinking Competence in the Context of Teamwork." In *The Question of Competence*, edited by B. D. Hodges & L. A. Lingard, 42–69. Ithaca, NY: Cornell University press.

**Miles, A., S. Ginsburg, M. Sibbald, W. Tavares, C. Watling, and L. Stroud. 2021. "Feedback from Health Professionals in Postgraduate Medical Education: Influence of Interprofessional Relationship, Identity and Power." *Medical Education* 55 (4): 518–529. doi:10.1111/medu.14426.

Molloy, E., R. Ajjawi, M. Bearman, C. Noble, J. Rudland, and A. Ryan. 2020. "Challenging Feedback Myths: Values, Learner Involvement and Promoting Effects beyond the Immediate Task." *Medical Education* 54 (1): 33–39. doi:10.1111/medu.13802.

Molloy, E., D. Boud, and M. Henderson. 2020. "Developing a Learning-Centred Framework for Feedback Literacy." *Assessment & Evaluation in Higher Education* 45 (4): 527–540. doi:10.1080/02602938.2019.1667955.

*Nicol, D. 2010. "From Monologue to Dialogue: Improving Written Feedback Processes in Mass Higher Education." *Assessment & Evaluation in Higher Education* 35 (5): 501–517. doi:10.1080/02602931003786559.

Nicol, D. 2021. "The Power of Internal Feedback: Exploiting Natural Comparison Processes." *Assessment & Evaluation in Higher Education* 46 (5): 756–778. doi:10.1080/02602938.2020.1823314.

*Nicol, D. J., and D. Macfarlane-Dick. 2006. "Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice." *Studies in Higher Education* 31 (2): 199–218. doi:10.1080/03075070600572090.

*Nicol, D., A. Thomson, and C. Breslin. 2014. "Rethinking Feedback Practices in Higher Education: A Peer Review Perspective." *Assessment & Evaluation in Higher Education* 39 (1): 102–122. doi:10.1080/02602938.2013.795518.

Noble, C., S. Billett, L. Armit, L. Collier, J. Hilder, C. Sly, and E. Molloy. 2020. "'It's yours to take': generating learner feedback literacy in the workplace." *Advances in Health Sciences Education: Theory and Practice* 25 (1): 55–74. doi:10.1007/s10459-019-09905-5.

Patton, M. Q. 2002. "Two Decades of Developments in Qualitative Inquiry." *Qualitative Social Work* 1 (3): 261–283. doi:10.1177/1473325002001003636.

*Poulos, A., and M. J. Mahony. 2008. "Effectiveness of Feedback: The Students' Perspective." *Assessment & Evaluation in Higher Education* 33 (2): 143–154. doi:10.1080/02602930601127869.

*Price, M., K. Handley, J. Millar, and B. O'Donovan. 2010. "Feedback : All That Effort, but What is the Effect?" *Assessment & Evaluation in Higher Education* 35 (3): 277–289. doi:10.1080/02602930903541007.

Quigley, D. 2021. "When I Say … Feedback Literacy." *Medical Education* 1–2. doi:10.1111/MEDU.14541.

*Quinton, S., and T. Smallbone. 2010. "Feeding Forward: Using Feedback to Promote Student Reflection and Learning – a Teaching Model." *Innovations in Education and Teaching International* 47 (1): 125–135. doi:10.1080/14703290903525911.

*Sadler, D. R. 2010. "Beyond Feedback: Developing Student Capability in Complex Appraisal." *Assessment & Evaluation in Higher Education* 35 (5): 535–550. doi:10.1080/02602930903541015.

*Sutton, P. 2012. "Conceptualizing Feedback Literacy: Knowing, Being, and Acting." *Innovations in Education and Teaching International* 49 (1): 31–40. doi:10.1080/14703297.2012.647781.

Tariq, M., M. Govaerts, A. Afzal, S. A. Ali, and T. Zehra. 2020. "Ratings of Performance in Multisource Feedback: Comparing Performance Theories of Residents and Nurses." *BMC Medical Education* 20 (1): 355–311. doi:10.1186/s12909-020-02276-1.

Thistlethwaite, J. E., D. Forman, L. R. Matthews, G. D. Rogers, C. Steketee, and T. Yassine. 2014. "Competencies and Frameworks in Interprofessional Education: A Comparative Analysis." *Academic Medicine: Journal of the Association of American Medical Colleges* 89 (6): 869–875. doi:10.1097/ACM.0000000000000249.

van de Schoot, R., J. de Bruin, R. Schram, P. Zahedi, J. de Boer, F. Weijdema, B. Kramer, et al. 2021. "An Open Source Machine Learning Framework for Efficient and Transparent Systematic Reviews." *Nature Machine Intelligence* 3 (2): 125–133. doi:10.1038/s42256-020-00287-7.

**van Schaik, S. M., P. S. O'Sullivan, K. W. Eva, D. M. Irby, and G. Regehr. 2016. "Does Source Matter? Nurses' and Physicians' Perceptions of Interprofessional Feedback." *Medical Education* 50 (2): 181–188. doi:10.1111/medu.12850.

**van Schaik, S., J. Plant, and B. O'Brien. 2015. "Challenges of Interprofessional Team Training: A Qualitative Analysis of residents' perceptions." *Education for Health (Abingdon, England)* 28 (1): 52–57. doi:10.4103/1357-6283.161883.

**Vesel, T. P., B. C. O'Brien, D. M. Henry, and S. M. van Schaik. 2016. "Useful but Different: Resident Physician Perceptions of Interprofessional Feedback." *Teaching and Learning in Medicine* 28 (2): 125–134. doi:10.1080/10401334.2016.1146609.

**Walsh, C. L., M. F. Gordon, M. Marshall, F. Wilson, and T. Hunt. 2005. "Interprofessional Capability: A Developing Framework for Interprofessional Education." *Nurse Education in Practice* 5 (4): 230–237. doi:10.1016/j.nepr.2004.12.004.

WHO. 2010. Framework for Action on Interprofessional Education & Collaborative Practice.

Winstone, N., D. Boud, P. Dawson, and M. Heron. 2021. From feedback-as-information to feedback-as-process: a linguistic analysis of the feedback literature. *Assessment & Evaluation in Higher Education*. doi:10.1080/02602938.2021.1902467.

Winstone, N. E., and D. Carless. 2019. "Chapter 1 -the Feedback Challenge." In *Designing Effective Feedback Processes in Higher Education. A Learning-Focused Approach*. 1st ed., 5–22. Oxon, New York: Routledge.

*Winstone, N. E., R. A. Nash, M. Parker, and J. Rowntree. 2017. "Supporting Learners' Agentic Engagement with Feedback: A Systematic Review and a Taxonomy of Recipience Processes." *Educational Psychologist* 52 (1): 17–37. doi:10.1080/00461520.2016.1207538.

Winstone, N., E. Pitt, and R. Nash. 2020. "Educators' Perceptions of Responsibility-Sharing in Feedback Processes." *Assessment & Evaluation in Higher Education* 46 (1): 118–114. doi:10.1080/02602938.2020.1748569.

Wisniewski, B., K. Zierer, and J. Hattie. 2019. "The Power of Feedback Revisited: A Meta-Analysis of Educational Feedback Research." *Frontiers in Psychology* 10 (January): 3087–3014. doi:10.3389/fpsyg.2019.03087.

**Yama, B. A., M. Hodgins, K. Boydell, and S. B. Schwartz. 2018. "A Qualitative Exploration: Questioning Multisource Feedback in Residency Education." *BMC Medical Education* 18 (1): 170–176. doi:10.1186/s12909-018-1270-7.

*Yang, M., and D. Carless. 2013. "The Feedback Triangle and the Enhancement of Dialogic Feedback Processes." *Teaching in Higher Education* 18 (3): 285–297. doi:10.1080/13562517.2012.719154.

Appendix 1

Overview of questionnaire items. Questionnaire items used in round one and two of the Expert panel.

Overview of questionnaire items			
	Round 1[1]	Round 2	Answering scale/type
Feedback experts/ interprofessional experts	Does this instrument encompass the current [feedback/ interprofessional] literature exhaustively?	Does this instrument encompass the current [feedback/ interprofessional] literature exhaustively?	Yes No Don't know
	If not, what elements are missing?	Do you have any additional comments or suggestions?	Open-ended
	(Per criterion) When looking at [this specific criterion and both *performance descriptions*/ the interprofessional additions in the outside columns], do you consider them to be usable in education and *observable in practice?*	(Per criterion) In light of the intended use (as a conceptual overview to be used as a starting point for the development of practical tools), do you find the [feedback principles/ interprofessional additions] comprehensively and correctly cover their content?	Yes No Don't know
	(Per criterion) What alterations would you suggest to make it more usable and/or *observable*?	Do you have any additional comments or suggestions regarding the feedback principles either per criterion or in general?	Open-ended
All experts	Is the structure of the *criteria and performance descriptions* in this instrument logical to you and are the interprofessional additions integrated logically?	Is the structure of this instrument (feedback principles and interprofessional elements divided into criteria) logical to you?	Yes No Don't know
	If not, what changes would you suggest?	Do you have any additional comments or suggestions?	Open-ended
	How likely is it that you would use this instrument in your own education or research?	How likely is it that you would use this instrument in your own education or research?	1 (very unlikely) – 7 (very likely)

[1] Questions in round one contained terminology (indicated in italics) that was adapted for round 2.