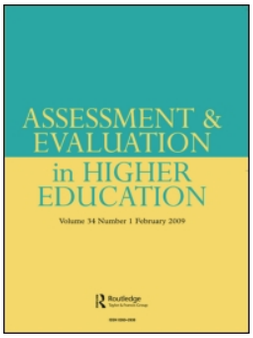

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Fostering oral presentation performance: does the quality of feedback differ when provided by the teacher, peers or peers guided by tutor?

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ABSTRACT
Previous research revealed significant differences in the effectiveness of various feedback sources for encouraging students' oral presentation performance. While former studies emphasised the superiority of teacher feedback, it remains unclear whether the quality of feedback actually differs between commonly used sources in higher education. Therefore, this study examines feedback processes conducted directly after 95 undergraduate students' presentations in the following conditions: teacher feedback, peer feedback and peer feedback guided by tutor. All processes were videotaped and analysed using a coding scheme that included seven feedback quality criteria deduced from the literature. Results demonstrate that teacher feedback corresponds to the highest extent with the majority of the seven identified feedback quality criteria. For four criteria, peer feedback guided by tutor scores higher than peer feedback. Skills courses should incorporate strategies focused on discussing perceptions of feedback and practising providing feedback to increase the effectiveness of peer feedback.

KEYWORDS
Feedback source; higher education; oral presentation competence; feedback quality

Introduction

One of the core competencies for higher educated professionals concerns the ability to present (De Grez 2009; Kerby and Romine 2009). This competence domain is regarded as crucial for graduates to function in various working environments and acquire career success (e.g. Hinton and Kramer 1998; Fallows and Steven 2000; Dunbar, Brooks, and Kubicka-Miller 2006; Chan 2011; Smith and Sodano 2011). Although presenting is acknowledged around the world as an essential ability of highly educated graduates (Joint Quality Initiative 2004), young professionals often still lack the competence to speak in public (Chan 2011). Furthermore, presenting is considered as the most prevalent fear that individuals experience in social situations (Smith and Sodano 2011). In this field of research, oral presentation competence is regularly defined as 'a combination of knowledge, skills and attitudes needed to speak in public in order to inform, self-express, relate, or to persuade' (De Grez 2009, 5). To acquire this competence, the cognitive, behavioural and affective components related to presenting should be taken into consideration (Mulder 2014), since these aspects are highly interrelated (Bower et al. 2011). Therefore, higher education curricula are challenged to address all these components (Van Ginkel et al. 2015a).

A systematic review identified seven crucial design principles for developing oral presentation competence, of which three were related to strategies for formative assessment (Van Ginkel et al. 2015a). Although effectiveness of the provision of feedback, peer-assessment and self-assessment were

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explicated, a recently conducted experimental study revealed that various feedback sources differentially influence students' presentation performance (Van Ginkel et al. 2015b). Teacher feedback proved to outperform feedback from peers, peers guided by tutors and self-assessment. While this study linked feedback source to students' performance, it did not reveal insight into the quality of provided feedback in terms of content or form. It remains unclear to what extent feedback quality differs between commonly used feedback sources such as teachers and peers (Price et al. 2010; Boud and Molloy 2013; Van Ginkel et al. 2015b). How do teachers and peers provide their feedback, what aspects do they focus on and to what extent are these feedback processes related to theoretical and empirical insights regarding feedback quality criteria? Research should focus more on critically analysing feedback *processes*, since these are considered essential in student learning (Falchikov 2005; Hattie and Timperley 2007; Asghar 2010), and, therefore, may impact students' performance. In-depth analyses of feedback processes of teachers could reveal essential elements for designing effective peer-assessment training.

Both from a scientific and a practical perspective, the research focus on in-depth analyses of feedback processes is essential, since feedback processes are evident in curricula all over the world in various domains. In higher education, pressure in terms of decreasing opportunities for teacher feedback is frequently recognised when class sizes increase, teaching staff become overloaded and possibilities for teacher–student interaction diminish (De Grez, Valcke, and Roozen 2009a; Boud and Molloy 2013). Thus, investigating the underlying processes of various feedback sources, and of teachers in particular, could support the optimisation of peer feedback in future academic skills courses. This study analyses feedback provided by the teacher, peers and peers guided by tutor as a follow-up to the study of Van Ginkel et al. (2015b). The next section identifies crucial feedback quality criteria by reviewing recent literature on feedback quality. What is known about how different feedback sources (i.e. teacher or peers) adopt these criteria in their delivery of feedback is examined. These insights are used to construct an instrument for analysing feedback processes.

Quality criteria for feedback

A recently published review study on assessment and evaluation in higher education (Pereira, Flores, and Niklasson 2015) revealed that many recent articles have addressed formative assessment, modes of assessment (i.e. peer- and self-assessment) and their (assumed) effectiveness. While empirical evidence on the effectiveness of formative assessment in terms of improving student learning and learning outcomes remains scarce (Kingston and Nash 2011), feedback is always argued to be a critical factor in these assessment practices. Many studies identified the criteria that influence the effectiveness of feedback for encouraging further learning (Nelson and Schunn 2009; Nicol 2009; Govaerts, Van de Wiel, and Van der Vleuten 2013). To deduce feedback quality criteria that can be used for this study, recent review articles are analysed (e.g. Kluger and DeNisi 1996; Hattie and Timperley 2007). Other publications are used that provide insights about how criteria for feedback are used in feedback processes, and to what extent they influence student learning (e.g. Black and Wiliam 1998; Nicol and Macfarlane-Dick 2006). Finally, publications are added that provide findings about how these criteria are adopted for delivering verbal feedback on students' oral presentation performance (e.g. King, Young, and Behnke 2000; Smith and King 2004).

Content-related characteristics of feedback

Several studies revealed that feedback should be specifically related to pre-defined assessment criteria (Kluger and DeNisi 1996; Hattie and Timperley 2007; Clarke et al. 2013). This specificity of content is frequently defined as the level of information presented in feedback messages (Goodman, Wood, and Hendrickx 2004; Shute 2008; Govaerts, Van de Wiel, and Van der Vleuten 2013). It is argued that a lack of specificity encourages students to perceive the received feedback as useless, which can impede learning and frustrate learners (Moreno 2004). Further, specific feedback has proved to outperform general advice related to performance tasks (Phye and Sanders 1994). In line with this, Nicol and Macfarlane-Dick (2006) and Shute (2008) concluded that students should be provided with enough detailed information (but

not more than that) related to all assessment criteria. In the context of developing presentation skills, the delivered feedback should explicitly focus on sub-criteria, derived from the following four main presentation criteria, as described by Van Ginkel et al. (2015b, 13):

> The content of the presentation (internalising the subject of the presentation and connecting the subject to the prior knowledge of the audience), the structure of the presentation (connecting the introduction to the closing part of the presentation), the interaction with the audience (keeping the attention of the audience) and the presentation delivery (ensuring eye contact with the audience, an open posture and illustrative gestures and a functional use of voice).

Besides the specificity of feedback, previous reviews on formative assessment claimed that the message of the feedback provider should be content-rich and supported by content-related arguments that directly relate to the assessment criteria (Topping 1998; Shute 2008). Examples and elaborations of the provided feedback clarify the information intended for the receivers of feedback, and offer concrete directions for improvement (Mason and Bruning 2001). In the context of developing presentation behaviour, it is stated that this aspect of feedback encourages reflective learning to take place, which is conditional for improving presentation performance (Van Ginkel et al. 2015a). Furthermore, elaborated feedback prevents dysfunctional generalisations by students, resulting in deficient presentation skills (Haber and Lingard 2001). An example of a content-related argument regarding the structure of a presentation is: 'The introduction of the presentation is yet partially achieved. This opening is correct regarding attracting the attention of the audience and providing a clear presentation structure. However, crucial components, such as objective and relevance, are lacking so far'.

Another characteristic of content-related feedback is that the feedback message should provide information about the actual performance of the student relative to the pre-defined assessment criteria for the particular task (Kluger and DeNisi 1996; Black and Wiliam 1998; Ng 2014). Hattie and Timperley (2007) termed this the feedback dimension. This aspect is perceived as one of the three essential questions to guarantee that the provided feedback is effective: how am I going? (feedback); where am I going? (feed-up); where to next? (feed-forward). Feedback focusing directly on the actual performance reduces uncertainty about how the student is performing on a certain task (Shute 2008). Moreover, concrete information on students' performance is stated to encourage students' motivation to adopt effective strategies for learning and achievement of next performance goals (Kluger and DeNisi 1996; Hattie and Timperley 2007). Considering the actual presentation behaviour of the student, feedback could be provided on the use of hand gestures as one of the crucial sub-criteria of presentation delivery (Van Ginkel et al. 2015b): 'The majority of the hand gestures are illustrative for the presentation, but at times when there is no obvious gesture to make, the hands disappear behind the back of the presenter'.

An essential aspect of the feedback message is the information provided to students about the attainment of learning goals (or an ideal level of performance) related to the task (Hattie and Timperley 2007). Previous studies claim that this type of feedback (feed-up) can be a powerful motivator when delivered in response to goal-driven efforts (Shute 2008). In line with this, such messages can promote goal-directed action (Hattie and Timperley 2007), encourage persistence in task performance (Shute 2008) and improve students' behaviour towards self-regulation (Nicol and Macfarlane-Dick 2006; Black and Wiliam 2009). In the context of developing oral presentation skills, feedback could be directed to the achievement of goals or improving behaviour towards an ideal standard of presentation performance, as follows (De Grez, Valcke, and Roozen 2009a; Van Ginkel et al. 2015a): 'Ideally, the presenter uses supportive hand gestures during the presentation. At moments that these gestures are not necessary, the hands should either be naturally down at the presenters' side, up near the waist, closed loosely in front of the waist level or one hand at the waist level and one more loosely at one side'.

Another crucial aspect of feedback (feed-forward) is intended to regulate and close the gap between actual performance and desired level of performance or goal (Nicol and Macfarlane-Dick 2006). Resolving this discrepancy encourages higher levels of students' efforts to fulfil their learning goals (Shute 2008). Feedback only focusing on current performance encourages students to concentrate on the immediate goal instead of the strategies to attain the goal (Hattie and Timperley 2007). Therefore, the provided feedback message should contain concrete advice about strategies to reduce the gap between where

students are and where they are aiming to be (Sadler 1989). In higher education settings, feed-forward relating to hand gestures during presentations (De Grez, Valcke, and Roozen 2009a; Van Ginkel et al. 2015b) could be formulated as: 'During the preparation phase of the next presentation performance, the presenter could practice with using illustrative hand gestures at moments that require support. And, the presenter should practice having the hands closed loosely in front of the waist at moments that require less or no support'.

Form-related characteristics of feedback

A frequently mentioned form-related characteristic of feedback is *stepwise presentation* of the provided message (Shute 2008; Ferguson 2011). Structuring the content offers the possibility to control for mistakes and gives learners sufficient information to correct errors on their own (Shute 2008). Presenting too much, non-structured and complex information may invoke cognitive overload for the feedback receiver (Mayer and Moreno 2002; Nicol and Macfarlane-Dick 2006). Therefore, feedback should be provided in *manageable units* (Shute 2008), ensuring that it is not overwhelming and discarded (Bransford, Brown, and Cocking 1999). Within educational settings in which formative feedback is provided to students' development of oral presentation performance, practitioners are advised to address several aspects of the main presentation criteria in a pre-defined sequence; an example of feedback is: 'At the start of the feedback session, attention will be provided towards personal learning goals. Then, feedback will be directed to the presentation delivery, such as keeping eye contact, ensuring an open posture, using illustrative gestures and having a functional use of voice. Finally, feedback on the content and the structure of the presentation will be deeply elaborated, since these aspects were frequently noticed by the audience during this presentation performance'.

Another form-related characteristic of feedback is emphasised in previous studies as the importance of the way in which the feedback is formulated (Kluger and DeNisi 1996; Nicol and Macfarlane-Dick 2006; Govaerts, Van de Wiel, and Van der Vleuten 2013). It is suggested that this so-called *intensity of feedback* impacts students' interpretation of feedback, which is a crucial intermediate variable for enhancing academic or professional competencies (Smith and King 2004). Positively and constructively formulated messages by the feedback provider have proven to increase the likelihood that students will return to or persist in an activity (Kluger and DeNisi 1996; Smith and King 2004). Therefore, researchers in this field (Kluger and DeNisi 1996; Hattie and Timperley 2007) concluded that feedback should be formulated in a constructive manner by starting with positive aspects of the message, and by distinguishing between behaviour that is observed, interpreted by the feedback provider and the effects of that presentation behaviour on the audience. In this example, the following feedback message focuses on students' eye contact after a presentation performance:

> The majority of the time, the presenter successfully kept eye contact with the audience. However, in several phases, the presenter used his or her notes (or cheat sheets) frequently. Therefore, the feedback provider has the impression that the presenter required considerable time to think about the content or structure of the presentation. Based on this, it is questionable to what extent the presenter thoroughly prepared the presentation performance.

In summary, feedback literature revealed content and form-related characteristics of feedback that influence student learning or performance. Considering the *content*-related characteristics, feedback should:

(1) specifically be related to pre-defined assessment criteria,
(2) include content-related arguments that directly relate to the assessment criteria,
(3) provide information about students' actual performance,
(4) the ideal or desired level of performance and
(5) opportunities to bridge the gap between actual and desired level of performance.

Regarding *form*-related characteristics, feedback should also be:

(6) delivered in manageable units and
(7) formulated in a positive and constructive manner.

These seven quality criteria for feedback can be used for constructing an instrument to analyse the feedback provided in educational settings. The aim of this study is to analyse the quality of feedback in the feedback process, because this is considered as essential for student learning and could support the optimisation of peer feedback in future skills courses. The related research question can be formulated as 'To what extent does the quality of feedback differ between the feedback sources: teacher, peers and peers guided by tutors?' Reviewing the literature revealed no comparative studies about whether various sources of feedback adopt these quality criteria for feedback in different ways. Since empirical evidence is lacking hitherto, no hypotheses on differences in feedback quality between the various sources could be formulated for this study in advance. In line with this, possible differences in the adoption of feedback quality criteria by teachers, peers and peers guided by tutors will be researched.

Method

Units of analysis

In the academic year 2013–2014, 95 feedback processes of 95 undergraduate students were videotaped within five identical oral presentation courses of a Dutch university in the domain of the life sciences. Thirty-eight students followed these courses in the context of their Bachelor programme *Forest and Nature Conservation* (male = 21; female = 17); the other 57 students participated within the Bachelor programme *Nutrition and Health* (male = 19; female = 38). Each video consisted of five minutes of feedback that was verbally provided directly after a undergraduate student's first oral presentation performance. In 34 of these videos, feedback was given by one of the five teachers involved in the presentation courses. These teachers were qualified 'academic skills trainers' with at least five years' experience in providing oral presentation skills courses at the university level. Twenty-seven videos showed feedback provided by a group of seven peers guided by a tutor. This tutor was a second- or third-year student acting in the role of 'student-assistant'. Another 34 videos contained feedback given by a group of seven peers without any intervention of a teacher or tutor during the feedback process. In total, 5 teachers (male = 1; female = 4), 9 tutors (male = 2; female = 7) and 95 undergraduate students, both as presenters and feedback providers, participated in this study.

Context of the study

The oral presentation courses consisted of three meetings. In the first plenary meeting, the rubric 'oral presentation skills', consisting of 11 sub-criteria for effective presentations derived from the 4 main presentation criteria (Van Ginkel et al. 2015b), was introduced by the teacher to a class with a maximum of 30 students. One week after the first session, the students were divided into smaller groups, of approximately eight students, in which each student conducted a five-minute presentation on a self-selected topic, strictly monitored by the facilitator of the particular group. This facilitator could be a teacher or a tutor, depending on the particular feedback condition. In this second meeting, the feedback processes within these smaller groups relating to the specific feedback sources (teacher, peers guided by the tutor or peers without any intervention of the tutor) were videotaped. These videos were later analysed by the first author and an academic skills trainer not participating in the presentation skills courses of this study. In the third meeting, the students finished the course with a second individual presentation performance (this part of the course fell outside the scope of this study).

Instructional conditions

All five presentation courses that were part of this study, were divided into the following three conditions for the second meeting: (1) teacher feedback; (2) peer feedback guided by tutor; (3) peer feedback. The participating students were randomly assigned to these conditions and performed individually an oral presentation. Further, all students in conditions 2 and 3 also participated as 'peers' in providing feedback

after each presentation performance. Prior to these sessions, all teachers and tutors were individually instructed by the first author and the coordinator of the presentation skills courses. During these meetings, the teachers and tutors received similar guidelines for the *facilitation* of the feedback processes for each condition, regarding: (1) the restriction of each feedback process to a maximum of five minutes to guarantee a comparable amount of provided feedback in terms of time, (2) the videotaping of all feedback processes for data analysis purposes, (3) the arrangement of tables within the classroom in U-forms to encourage interaction among peers and (4) the availability of one rubric 'oral presentation skills' for each participant (teacher, tutor or peer) to support the provision of feedback towards students' presentation performance. Previous studies demonstrated that using a qualitative rubric fosters good feedback processes that can aid student learning (Jonsson and Svingby 2007; Panadero and Jonsson 2013; Prins, De Kleijn, and Van Tartwijk 2015).

For constructing the instrument for this study, the presentation criteria were deduced from the previously conducted systematic review (Van Ginkel et al. 2015a) and four validation sessions with academic skills experts (Van Ginkel et al. 2015b). Based on seven articles (Young and Murphy 2003; Carroll 2006; De Grez, Valcke, and Roozen 2009a, 2009b; Kerby and Romine 2009; Reitmeier and Vrchota 2009; Bower et al. 2011), the following strategies were formulated for constructing the instrument for this study: (1) implementing four main criteria for oral presentations, (2) integrating levels of the rubric that are formulated in a positive, constructive, active and qualitative manner and (3) applying a five-point scoring scale.

Besides similar instructions about the *facilitation* of the feedback processes, the teachers and tutors received different information (depending on the particular condition) about the extent to which the facilitator was allowed to deliver feedback or to intervene in the *provision of feedback*. In the first condition, the teacher both facilitated the session and solely provided five minutes of feedback. Each teacher could decide the extent to which the rubric was used while providing feedback and what presentation criteria to pay attention to. During the provision of feedback by the teacher in this condition, peers were not allowed to provide any feedback.

In the second condition, seven peers together provided five minutes of feedback after the students' presentation performance. The tutor in this condition facilitated the session and was also allowed to intervene in the peer feedback process and to deliver feedback. The rubric could be used by the peers or the tutor based on their insights. In the third condition, seven peers together provided five minutes of feedback after the students' presentation performance. Although the tutor facilitated the session practically, they were not allowed to intervene in the peer feedback process or to deliver feedback. In this condition, peers decide for themselves if and how they were using the rubric while providing feedback.

Dependent variables and instruments

The dependent variables consist of the extent to which each of the seven quality criteria for feedback, derived from the literature, was reflected in the feedback processes. A coding scheme was specifically constructed for the observation of the quality criteria for feedback, consisting of: (1) seven quality criteria for feedback and (2) a five-point scoring scale for each criterion, comparable to other assessment instruments recently used for measuring the quality of feedback in higher education contexts (Ferguson 2011; Govaerts, Van de Wiel, and Van der Vleuten 2013). An example of a quality criterion for feedback in the coding scheme is presented in Figure 1. The score for each quality criterion for feedback was determined for each condition (teacher, peers guided by tutor or peers) by taking the mean score of all feedback processes within that particular condition for that particular quality criterion.

Data analysis

All 95 feedback processes over the three feedback conditions were videotaped to analyse these processes after the presentation meetings. The rubric 'oral presentation skills' (Van Ginkel et al. 2015b) was

Quality criteria for feedback	**1 (--)**	**2 (-)**	**3 (+/-)**	**4 (+)**	**5 (++)**
Feedback containing arguments related to the four main presentation performance criteria and/or personal learning goals	Arguments related to one main criterion OR learning goals (OR "less/none") are addressed	Arguments related to two main criteria OR one main criteria and learning goals are addressed	Arguments related to three main criteria OR two main criteria and learning goals are addressed	Arguments related to all four main criteria OR three criteria and learning goals are addressed	Arguments related to all four main criteria and learning goals are addressed

Figure 1. An example of a quality criterion for feedback within the coding scheme.

used as an instrument by the researcher to make notes while watching each video for the first time, guided by the following questions:

(1) Which specific main presentation criteria (i.e. the content of the presentation, the structure of the presentation, the interaction with the audience and the presentation delivery) and which of the 11 presentation sub-criteria, are addressed during the five-minute feedback?;
(2) Which specific presentation criteria are supported by content-related arguments as delivered by the feedback provider(s)?;
(3) In which order are these presentation criteria addressed during the feedback process?

The goal of this preliminary analysis for the researcher was to get a picture of the *content* and *form* of the delivered feedback. Subsequently, directly after this activity, the same video was watched again, followed by the scoring of all seven quality criteria for feedback based on the coding scheme. Before assessing the delivered feedback of all conditions, two raters discussed the coding scheme to reach consensus regarding the interpretation of the seven quality criteria for feedback, their corresponding levels and scoring scale. These raters consisted of: (1) the first author and (2) an academic skills trainer who was not involved as teacher or coordinator in this research project. In addition, the raters independently assessed 15 videos that were randomly assigned from the total number of feedback processes within this study. In order to determine degree of consistency among the raters, the interrater reliability coefficient was calculated and revealed an acceptable score (Cronbach alpha: .73). Subsequently, all 95 feedback processes were scored by the first author. Finally, statistical methods were used to analyse the data. Univariate analyses of variance were adopted to verify to what extent the scores on the various quality criteria for feedback differed between the feedback conditions. Thereafter, Games–Howell-*post hoc* analyses were conducted to determine between which feedback groups significant differences existed.

Results

Table 1 shows the descriptive statistics for all criteria in the three conditions.

Main findings

Firstly, analyses showed that significant differences between the various feedback sources exist for all of the seven quality criteria for feedback ($p < .01$; see Table 1). Secondly, findings demonstrated that the teacher feedback condition scored significantly higher than the peer feedback condition on all seven quality criteria ($p < .01$). In addition, the teacher feedback condition scored significantly higher than the peer feedback guided by tutor condition on six of the seven quality criteria of feedback ($p < .01$), the exception being the criterion specificity of feedback. Finally, analyses revealed that the peer feedback guided by tutor condition scored significantly higher than the peer feedback condition on the following four criteria: specificity of feedback ($p < .05$), content-related arguments ($p < .01$), ideal or desired performance ($p < .01$) and progress from actual to desired performance ($p < .01$).

Discussion and conclusions

This study aimed to examine to what extent various feedback sources, providing verbal feedback on students' oral presentation performance in a higher education setting, differentially score on content- and form-related criteria of feedback. Ninety-five feedback processes were videotaped and analysed in the following conditions: teacher feedback, peer feedback and peer feedback guided by tutor. Results demonstrated that differences in the quality of the provided feedback exist for all of the seven identified criteria. The teacher feedback condition scored on these quality criteria significantly higher than peer feedback with tutor guidance (on six out of seven criteria) and without guidance (on all criteria).

Table 1. Descriptives of feedback criteria related to each of the feedback conditions.

Feedback criteria	Teacher feedback (TF)	Peer feedback guided by tutor (PFT)	Peer feedback (PF)	Overall differences between feedback conditions	Differences between particular feedback conditions
(1) *Specificity of feedback*					
Mean	3.85	3.44	2.82	$F = 10.77$ (**)	TF > PF; $t = 1.03$ (**)
Std. deviation	0.78	0.97	1.00		PFT > PF; $t = 0.62$ (*)
N	34	27	34		
(2) *Content-related arguments*					
Mean	4.53	3.07	2.44	$F = 56.78$ (**)	TF > PFT; $t = 1.46$ (**)
Std. deviation	0.62	0.68	1.08		TF > PF; $t = 2.09$ (**)
N	34	27	34		PFT > PF; $t = 0.63$ (**)
(3) *Actual performance*					
Mean	4.62	4.15	3.88	$F = 14.91$ (**)	TF > PFT; $t = 0.47$ (**)
Std. deviation	0.55	0.46	0.64		TF > PF; $t = 0.74$ (**)
N	34	27	34		
(4) *Ideal or desired performance*					
Mean	4.03	3.63	2.97	$F = 22.16$ (**)	TF > PFT; $t = 0.40$ (**)
Std. deviation	0.46	0.63	0.83		TF > PF; $t = 1.06$ (**)
N	34	27	34		PFT > PF; $t = 0.66$ (**)
(5) *Progress from actual to desired performance*					
Mean	4.50	3.89	2.97	$F = 30.77$ (**)	TF > PFT; $t = 0.61$ (**)
Std. deviation	0.56	0.85	0.97		TF > PF; $t = 1.53$ (**)
N	34	27	34		PFT > PF; $t = 0.92$ (**)
(6) *Structure of feedback*					
Mean	3.91	3.22	2.71	$F = 13.87$ (**)	TF > PFT; $t = 0.69$ (**)
Std. deviation	0.90	0.75	1.12		TF > PF; $t = 1.21$ (**)
N	34	27	34		
(7) *Intensity of feedback*					
Mean	4.88	4.44	4.06	$F = 16.55$ (**)	TF > PFT; $t = 0.44$ (**)
Std. deviation	0.33	0.80	0.60		TF > PF; $t = 0.82$ (**)
N	34	27	34		

Note: *$p < .05$; **$p < .01$.

Further, on four of the seven criteria, the peer feedback guided by tutor condition scored higher than the peer feedback condition.

A previously conducted quasi-experimental study (Van Ginkel et al. 2015b) revealed that the development of students' presentation skills depended on the particular feedback source, where students who received teacher feedback outperformed students receiving feedback from other sources. This follow-up study dug deeper into the quality of the provided teacher and peer feedback, showing that the quality of feedback from teachers corresponds to a higher extent to the identified quality criteria for feedback. Taking the results of these two studies together, the feedback quality could be considered as the essential explanation for the impact of the feedback source on developing students' presentation skills. Previous studies underlined the importance of feedback quality for developing students' academic performances (e.g. Mason and Bruning 2001; Nicol and Macfarlane-Dick 2006; Shute 2008; Noroozi, Biemans, and Mulder 2016). In addition, the crucial role of the teacher in feedback processes is frequently emphasised within the 'expert literature' (Reis and Renzulli 2010). Besides the significant value of teachers in delivering feedback for developing students' skills (Clarke et al. 2013), these experts

are also highlighted as role models in student learning (Ng 2014). Furthermore, their influence as facilitators of peer feedback processes should also be recognised, as earlier described by Van den Berg, Admiraal, and Pilot (2006).

Besides the crucial role of the teacher in feedback processes, differences in feedback quality might exist between different feedback sources in different areas of knowledge and different degrees. In order to investigate such a direction for future research, a large-scale (quasi-)experimental study should be designed and implemented, in which the quality of the provided feedback by teachers, peers and peers guided by tutors are assessed in presentation courses provided within varying domains (e.g. natural sciences, social sciences and medical sciences) in both bachelor and master programmes.

Several other factors might explain the identified results of the superiority of teacher feedback, like students' perceived utility of feedback, their actual use of feedback, differences between students in self-regulation skills to provide or receive feedback, and differences in students' feedback preferences. The extent to which students appreciate feedback and actively use it also depends on factors like the authority of the feedback provider and trust between peer students who provide and receive feedback (Shute 2008). In this respect, it could be argued that students appreciated the feedback delivered by teachers more, because of their authority as a result of their expertise and experience. This aspect of trust, which might be lacking between peer students in feedback processes, could have had an impact on the appreciation and use of feedback, and therefore differently influence students' presentation skill development.

Regarding students' use of feedback, Jonsson (2012) provided an extensive overview of factors, like (the lack of) strategies for productively using feedback and students' understanding of the adopted academic terminology. In the field of presentation research, King, Young, and Behnke (2000) and Smith and King (2004) revealed that students' use of feedback and its effect on their performances can differ depending on certain characteristics of the delivered feedback (i.e. high of low feedback intensity), and characteristics of the individual student (i.e. high or low sensitivity to feedback). Smith and King (2004) discovered that students' reactions to high or low intensity feedback differed depending on their feedback sensitivity; for example, high feedback-sensitive students developed more desired public speaking behaviours (like eye contact and introduction length of the presentation) in a condition where they received tactful and non-confrontational feedback (i.e. low intensity) compared to direct and frank feedback.

In this context, the superiority of teacher feedback in this study might also result from teachers being better able to adapt their feedback to individual student preferences and characteristics, as well as the context in which the feedback is given. This might also be the explanation for the non-significant difference between teacher and peer feedback on the quality criterion of specificity of the feedback. It could be argued that teachers, because of their expertise and experience, are more capable of identifying individual differences between students and responding to this, and thus sometimes provide more specific feedback for one student, but much less specific feedback to another student. These kinds of student evaluations and experiences of the provided feedback were not collected in the present study, while they might have provided additional insights to the empirical findings.

Differences between students' self-regulation skills could influence the extent to which they are able to provide and receive feedback. Such insights about students' self-regulating aspects of their thinking, motivation and behaviour during learning (Pintrich and Zusho 2002) could be a relevant direction for future research. Finally, future studies should focus on students' needs that could differ between: (1) students who want to easily reach the requirements set by the teacher (and prefer directive feedback) and (2) students who prefer to learn and develop themselves. Future research should concentrate more on the role of students' preferences, perceived utility of feedback, self-regulation skills and actual use of feedback provided to them by either teachers or peer feedback providers.

The researchers questioned whether the higher feedback quality provided by teachers could be related to a better use of the assessment rubric in the feedback processes. Therefore, notes that were taken by the researchers during the observations of the feedback processes were analysed as an additional step in the data analysis. It was found that teachers adopted the rubric in a more systematic

way for delivering feedback related to the assessment criteria than peer feedback providers in other conditions. The applicability of the rubric showed more variation in the peers guided by tutor condition, since tutors additionally intervened and questioned the peers with the goal of providing explanations for their feedback. Students in the peer feedback condition adopted the rubric less systematically and, therefore, they did not, in contrast to the other conditions, always reach the maximum of five minutes of feedback. For these peers, it seems difficult to adequately use the rubric without guidance and, thereby, increase the likelihood of higher feedback quality.

Since these findings are based on additional notes provided by the researchers of this study instead of data gathered based on the initial research question, this issue can be considered as a limitation of the study. Future studies should focus specifically on the relation between feedback quality and the adopted instruments in feedback processes. These findings suggest that using a qualitative and detailed rubric can help in fostering high-quality feedback, which might also give ample opportunities for better training in peer feedback and self-reflection.

In this study, peer feedback was provided by students themselves or in combination with the guidance of tutors (i.e. student-assistants). Previous researchers claimed that the quality of peer assessment could increase after students receive assessment training prior to feedback processes (Dochy, Segers, and Sluijsmans 1999). Insights from the more effective teacher feedback condition, including the more systematic use of the assessment rubric, could offer input for peer-feedback training, and thereby decrease the discrepancies between the quality of teacher and peer feedback, and its effect on student performance.

Next to the superiority of the teacher feedback condition, this study illuminates significant differences in feedback quality between peer feedback, on the one hand, and peer feedback guided by tutor, on the other hand. An analysis on the level of the individual quality criteria for feedback showed significant differences on the content-related feedback criteria, whereas the form-related criteria did not significantly vary. For example, the feedback criterion content-related arguments scored significantly higher in the peer feedback guided by tutor condition. However, the form-related quality criteria in both peer feedback conditions scored significantly lower than the teacher feedback condition. The differential score regarding content-related criteria, in favour of the peer feedback guided by tutor condition, can be caused by the added value of the tutor in questioning, intervening and guiding peers in the feedback processes. However, the previous study did not reveal a differential influence of both peer feedback conditions on students' oral presentation skills (Van Ginkel et al. 2015b).

This finding might suggest that, even though the quality of content-related feedback is higher in the peer feedback guided by tutor condition than the peer feedback condition, its effect in terms of impact on students' presentation skills depends to a large extent on how the feedback is actually provided (the form of feedback). If feedback is not delivered in a stepwise manner (Shute 2008; Tomas 2014), and/or formulated in a positive and constructive manner (Mayer and Moreno 2002; Ferguson 2011), then the effect on the behaviour of the feedback receiver could still be limited.

Recent studies revealed insights focusing on how to prepare peers before entering formative assessment processes in higher education (Nelson and Schunn 2009; Pereira, Flores, and Niklasson 2015). In the context of developing presentation skills, Murphy and Barry (2016) distinguished between instructing students about both (1) the quality of feedback and (2) group work dynamics when providing feedback on peer presentations. This study contributes to these findings by stressing the importance of paying attention to seven quality criteria for feedback derived from the literature. In order to guarantee the quality of feedback provided by peers, academic skills trainers should pay considerable attention to both content-related and form-related characteristics.

While the insights of this study could be useful for educational practitioners and peer assessment training, its findings also have value for feedback theory as well. Empirical results confirms that the majority of feedback literature stresses the essence of quality criteria for feedback in order to encourage students' performance (e.g. Nicol and Macfarlane-Dick 2006; Shute 2008). In addition, this study suggests that form-related criteria might be conditional for delivering effective content-rich feedback messages. Follow-up studies should focus on this question. The present findings further refine the

previously identified crucial design principle of 'provision of feedback' for developing presentation skills (Van Ginkel et al. 2015a). This study shows that both content-related and form-related aspects are crucial in the delivery of feedback. If peer feedback is considered as a powerful addition to or replacement for teacher feedback, then trainer programmes, prior to processes of feedback in classrooms, should critically incorporate these feedback criteria. Future studies should focus on the implementation of these criteria and the assumed effectivity of such programmes prior to feedback processes in higher educational practice.

Disclosure statement

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