WEB PAPER

Peer group reflection helps clinical teachers to critically reflect on their teaching

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Abstract

Background: Student evaluations can help clinical teachers to reflect on their teaching skills and find ways to improve their teaching. Studies have shown that the mere presentation of student evaluations is not a sufficient incentive for teachers to critically reflect on their teaching.

Aim: We evaluated and compared the effectiveness of two feedback facilitation strategies that were identical except for a peer reflection meeting.

Method: In this study, 54 clinical teachers were randomly assigned to two feedback strategies. In one strategy, a peer reflection was added as an additional step. All teachers completed a questionnaire evaluating the strategy that they had experienced. We analysed the reflection reports and the evaluation questionnaire.

Results: Both strategies stimulated teachers to reflect on feedback and formulate alternative actions for their teaching practice. The teachers who had participated in the peer reflection meeting showed deeper critical reflection and more concrete plans to change their teaching. All feedback strategies were considered effective by the majority of the teachers.

Conclusions: Strategies with student feedback and self-assessment stimulated reflection on teaching and helped clinical teachers to formulate plans for improvement. A peer reflection meeting seemed to enhance reflection quality. Further research should establish whether it can have lasting effects on teaching quality.

Introduction

Student evaluations are one of the methods commonly used to assess clinical teaching skills (Litzeelman et al. 1998; Ramsey et al. 1988; Copeland & Hewson 2000; Hamdy et al. 2001; Dolmans et al. 2004; McGrath et al. 2005; Moore & Kuol 2005). They can be used for performance appraisal and promotion up the academic ladder (Cashin 1999; Berk 2005; Ramani 2006), but also to improve teaching practice (Snell et al. 2000). In a review study, Marsh and Roche found evidence of the usefulness of students’ evaluations in improving teaching effectiveness, provided the utilised instruments were thoroughly validated (Marsh & Roche 1997).

Besides publications on the validity and reliability of individual (student) rating instruments (Beckman et al. 2004; Fluit et al. 2010), recent literature also increasingly focuses on the broader aspects of evaluating faculty performance. For example, implementing evaluation programmes which combine student ratings with evaluations from other sources (e.g. self-ratings, peer ratings, expert ratings, alumni ratings) using the 360° multisource feedback (MSF) model (Berk 2006; Seldin 2006). Also, other important topics related to faculty evaluations, like stimulating teaching scholarship, linking faculty evaluation systems to faculty development programs, increasing evaluation transparency and building a positive climate for faculty evaluation, gain more emphasis in literature (Berk 2006; Seldin 2006; Arreola 2007).

Practice points

- Providing student rating feedback through a feedback facilitation strategy aids clinical teachers to reflect and formulate concrete plans for change.
- Adding a peer reflection meeting to the feedback strategy enhances deeper, more critical reflection and assists in translating the student feedback into more concrete alternatives and plans for the teachers’ teaching practice.

Most authors of these recent publications agree that performance evaluations can not only help teachers to identify areas for improvement (Snell et al. 2000; Morrison 2003), but also stimulate them to reflect on their teaching practice and plan concrete actions for improvement as part of a faculty development programme (Seldin 2006; Arreola 2007). Many of them have endorsed the importance of reflection for enhancing professional growth (Hatton & Smith 1995; Ward & McCotter 2004; Korthagen & Vasalos 2005; Tigelaar et al. 2006; Watts & Lawson 2009). Especially, Schön’s concept that professionals who reflect on their actions learn in a more profound way has been influential in the literature (Schön 1991). There is still some debate over the definition of reflection (Ward & McCotter 2004). In this article, we use a straightforward and useful one given by Hatton and Smith.

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‘Reflection is deliberate thinking about action with a view to its improvement’ (Hatton & Smith 1995).

A widely used model for reflection is Korthagen’s ALACT model (Korthagen & Vasalos 2005), which proposes a three-step process to promote reflection after experiencing a certain event: (1) looking back on the action; (2) awareness of essential aspects; (3) creating alternative methods of action. This last step is an important aspect of reflection (Korthagen & Vasalos 2005). When teachers are able to critically reflect upon their practice, they are more likely to take action to improve it (Watts & Lawson 2009). In studies on reflection, however, the link between reflection and practice improvement often remains underexposed (Ward & McCotter 2004).

Various authors have pointed out that merely reading an analysis of ratings by students or being aware of weaknesses does not automatically incite teachers to reflect on and look for ways to improve their teaching practice (Atwater et al. 2002; Seifert et al. 2003; Smith et al. 2005). Moreover, there is evidence that unfacilitated feedback can cause negative emotional reactions, like denial and defensiveness, which can even raise barriers to reflection (DeNisi & Kluger 2000; Sargeant et al. 2008; Overeem et al. 2009) and behavioural change (Sargeant et al. 2008). This problem can be overcome by facilitating feedback (Sargeant et al. 2008) so as to stimulate feedback recipients to engage in constructive reflection on their practice (DeNisi & Kluger 2000; Smith et al. 2005). Self-assessment and peer meetings are ways to facilitate feedback (Ross & Bruce 2007; Tigelaar et al. 2008) and several authors have highlighted their importance in facilitating teachers’ professional growth (Ross & Bruce 2007; Tigelaar et al. 2008; Mcleod & Steinert 2009; Schaub-de Jong et al. 2009; Stalmeijer et al. 2009). There are, however, no published studies comparing the impact of different feedback strategies on the quality of self-reflection. Since peer reflection meetings are generally more time consuming and costly than self-assessment, it can be a challenge to gain acceptance and funding for this type of faculty development (Mcleod & Steinert 2009). It is therefore important to provide evidence of its impact.

The present study
Hatton & Smith (1995) defined four levels of reflective writing, ranging from descriptive writing to critical reflection. Critical reflection is considered especially beneficial, because it takes account of aspects of the working environment, such as curriculum design, student characteristics and institutional culture (Hatton & Smith 1995). These aspects are considered highly relevant for teachers’ functioning (Tigelaar et al. 2006).

We conducted a mixed method study to compare the effects of two feedback facilitation strategies (FFS) on the quality of reflection by teachers. Both strategies consisted of a self-evaluation questionnaire, combined feedback from student evaluations and the self-assessment, and writing a self-reflection report on teaching practice. The strategies differed in the addition of a peer reflection meeting to one of the strategies. We used the modified Maastricht Clinical Teaching Questionnaire (MCTQ) to elicit student feedback and the self-evaluation. The MCTQ is a validated instrument, based on the Cognitive Apprenticeship model and consisting of 15 items in five domains: (1) General Learning Climate, (2) Modelling, (3) Coaching, (4) Articulation and (5) Exploration (Stalmeijer et al. 2008; Boerboom et al. 2011).

We sought answers to the following research questions:

(1) What types of reflection do clinical teachers demonstrate in a pre-structured, written reflection report after a feedback facilitating strategy comprising self-assessment and student feedback and does reflection change when a peer reflection meeting is added to the feedback facilitation strategy?

(2) How do clinical teachers evaluate the two different feedback facilitation strategies?

Methods
Context
The study was conducted at the Faculty of Veterinary Medicine, Utrecht University, the Netherlands (FVMU) between November 2009 and February 2010. FVMU offers a 6-year undergraduate curriculum with 4 years of preclinical training followed by 2 years of clinical clerkships. Clinical rotations in a veterinary curriculum are comparable to rotations in the medical setting, but they are often shorter, varying between 1 day and 6 weeks, because discipline specific rotations (gynaecology for example) are repeated for different animal species. As in most medical clerkships, the veterinary students develop a fundamental core of clinical skills, such as history taking, physical examination and clinical reasoning, and integrate knowledge with other complex competencies while having a role in patient care. In the daily routine of clinical work, decision-making and discussions take place in real time. Working side by side with veterinarians in an authentic learning environment, students learn how to deal with professional ethics and conflicting information, communicate effectively, work in a team, ensure patient safety, take account of public health aspects and work within economic constraints (Lane & Strand 2008).

Participant selection
Previous research has shown that 6–8 MCTQ questionnaires suffice for a reliable overall judgement of a teacher (Boerboom et al. 2011). We therefore emailed an invitation to participate in the study to all the clinical teachers for whom we had received six or more MCTQ student ratings between March and November 2009 (76 teachers). In order to investigate the added value of a peer reflection meeting, we allocated the teachers who consented to participate (54 teachers) to two FFS (FFS1 and FFS2). The strategies were identical except for the addition of a peer reflection meeting to FFS2. In order to ensure optimal comparability of the groups, despite the small number of participants, we used matched random sampling in which participants are first purposefully allocated to subgroups on specific characteristics, before being individually and randomly assigned to one of two FFS groups (Brown et al. 1999). The participants were matched in sub-groups on age, department, gender, participation in a faculty development
programme and mean score on the MCTQ. Since this might result in an uneven number of teachers in a sub-group, it was possible that the final FFS groups differed in size.

Feedback facilitation strategies

The steps of the FFS are shown in Figure 1. The participants in both groups completed an online self-assessment questionnaire based on the MCTQ (Stalmeijer et al. 2008; Boerboom et al. 2011), after which they received an email with an individual feedback report, containing the student ratings (mean and standard deviation, SD) collected between March and November 2009 as well as their own self-assessment ratings. Next, the FFS2 group, but not the FFS1 group, participated in a peer group reflection meeting, conducted in accordance with a modified version of the critical incident method (Hendriksen 1997, Appendix 1). After receiving instructions for this meeting by email, all FFS2 group members were assigned to one of five sessions (five teachers per meeting) held in January 2010. In composing these groups, we took care to ensure diversity of departments. The peer reflection meetings lasted between 1.5 and 2 h and were moderated by a psychologist who was an experienced facilitator.

All participants (FFS1 and FFS2) completed an online editable version of a reflection report with pre-structured questions based on Korthagen’s ALACT model (Korthagen & Valsalo 2005). The questions are presented in Appendix 2. After submitting their report, the participants were automatically directed to an online questionnaire about the feedback facilitation strategy in which they had participated. They were asked to rate, on a 5-point Likert scale (1 = fully disagree; 5 = fully agree), for each step of the strategy, their agreement with four statements: (1) This step stimulated me to reflect on my teaching practice; (2) This step stimulated me to formulate alternative methods of action for my teaching practice; (3) This step stimulated me to actually alter my methods of action concerning my teaching practice; (4) This is an effective step of the feedback facilitation strategy. Using SPSS 16.0, we calculated mean and median scores and SDs for each step and performed an independent samples t-test to determine any significant differences between the two groups.

Additionally, an open question asked them to describe their experiences. The first author analysed the descriptions for recurring themes and coded them as positive or negative. He discussed the emerging themes with the second author (Debbie Jaarsma). Similar remarks were summarised and counted.

![Figure 1. Workflow of the two FFS.](image-url)
Analysis of the reflection reports

The first author analysed the reflection reports. The level of reflection was determined using a framework developed by Hatton & Smith (1995). Based on a summary of this framework (Pee et al. 2002), we formulated criteria to distinguish four levels of reflection:

1. **Descriptive writing**: The clinical teacher is not reflective, he or she is merely reporting events with no attempt to provide reasons.

2. **Descriptive reflection**: The clinical teacher provides reasons (often based on personal judgement) for events or actions, but only in a reportive way.

3. **Dialogic reflection**: The clinical teacher demonstrates a form of discourse with him/herself, mulling over reasons for events or actions. The clinical teacher also explores alternative methods of action.

4. **Critical reflection**: The clinical teacher takes account of the (socio-political) context in which the events took place and decisions were made.

The alternative methods of action (step 3 in Korthagen’s ALACT model) (Korthagen & Vasalos 2005) were qualified as follows: (1) no alternative methods: the clinical teacher does not provide alternatives for his/her methods of action; (2) aspects in need of improvement: the clinical teacher does not provide alternatives, but indicates for which aspects improvement is needed; (3) alternative methods: the clinical teacher provides alternatives, but no concrete plan of action; (4) alternative methods and plan: the clinical teacher provides achievable alternatives and a plan of action for achieving them.

After the analysis by the first author, who selected quotes to illustrate the results, five reports were randomly selected from the reports of each group (23%) and independently analysed by the second author (Debbie Jaarsma) to control for experimenter bias. The reflection reports were anonymised during this part of the study; so, the researchers did not know to which FFS group the individual reports belonged. The two authors met once to discuss their interpretations and judgements.

Inter-judge agreement (IJA) was calculated as follows (Miles & Huberman 1984): IJA = (number of agreements/number of agreements + number of disagreements) × 100.

With respect to reflection, the researchers agreed on nine reports and disagreed on one (IJA 90%). The analysis of the alternatives showed agreement on eight reports and disagreement on two (IJA 80%). Using a completed reflection report as the unit of analysis, the highest levels of reflection and proposals for alternatives were recorded and used to make a comparison between the groups.

**Ethical considerations**

A digitally signed informed consent form was obtained from all participants. Participation was voluntary and participants could opt out of the study at any moment. Any information that could be traced to individual students was removed from the feedback reports. The names and scores of the participants were only known to the first author, but the moderator also knew the names of the participants in the peer reflection meetings. The participants had no information about the feedback reports of the other participants. Confidentiality was assured and the reflection reports were coded in such a way that it was impossible for the second researcher to link them to an individual teacher. This information was provided to all participants by email.

**Results**

Of the 76 clinical teachers we invited, 54 agreed to participate. Of the participants, 29 and 25 were assigned to FFS1 and FFS2, respectively. All participants completed steps 1 and 2 (Figure 1). Four participants of the FFS2 group did not attend the peer reflection meeting (step 3) due to time constraints, which left four sessions with four participants and one session with five participants. It was observed that 23 completed reflection reports (79.3%) (step 4) were submitted by the FFS1 group and 19 by the FFS2 group (90.5%), so that a total of 42 clinical teachers FFS1 (23 teachers) and FFS2 (19 teachers) completed all steps of the interventions. Data for those who did not complete every step of the intervention were not included in the analysis.

Qualitative analyses of the reflection reports: level of reflection

Not all teachers showed evidence of reflection in their reflection reports. The following excerpt from the reflection report of Teacher 12 of the FFS1 group is illustrative of level 1, ‘descriptive writing’:

...My clinical competence is judged as good by the students, although they lack the experience to rate this thoroughly [descriptive writing]. Most students also think that my communication skills are fine, just like my explanation skills [descriptive writing]. On the other hand, there are also students who think that I perform poorly in these domains [descriptive writing]. Some students say that I should give them more responsibilities and that I should pay more attention to teaching [descriptive writing]...

This reflection report was qualified as ‘descriptive writing’ because the teacher merely reported the key points from the feedback report in his/her own words without attempting to provide reasons for his/her teaching practice.

Most participants exceeded the level of mere description. A teacher from the FFS1 group, for example, described experiencing difficulties in giving concrete feedback to individual students after a training session in the clinic.

...I want to improve the quality of my feedback [descriptive writing]. [...] Providing students with concrete feedback after one day’s work is hard [descriptive writing]. [...] Most of the time I am so busy explaining how things work that I do not have time to observe the other students. Therefore I don’t remember what individual students did right or wrong [descriptive reflection]. [...] I am just too focused on teaching and explaining instead of observing [descriptive reflection]. Moreover, I see...
the students for such a short period that I can hardly remember their names [descriptive reflection]…

This report was interpreted as ‘descriptive reflection’ (level 2). The teacher reports the key point from the feedback report, but also tries to explain his/her teaching practice.

The following excerpt from a reflection report in which a teacher from the FFS2 group responds to a low feedback rating in relation to asking students about their learning goals is an example of level 4 (critical reflection). Not only is this teacher mulling over reasons for not asking about learning goals, he or she also takes account of the teaching context.

…I think the problem is that I do not ask individual students about their specific learning goals [descriptive reflection]. I do try to make clear which aspects need improvement by asking them questions. Subsequently I concentrate on these aspects during clinical work. Presumably I was under the impression that all students have the same learning goals during a specific part of their rotations [dialogic reflection]. However, the essential factor is that students have different needs with respect to what they want to learn or practise during my rotation [critical reflection]. The fact that I do not ask for individual learning goals is probably first of all my fault [dialogic reflection]. On the other hand, asking for learning goals is not customary in my department, so that is probably the reason why I am not used to doing that [critical reflection]…

Qualitative analyses of the reflection reports: Alternative methods of action

Most teachers from both groups formulated alternatives for their teaching practice, and only a few did not go beyond the level of merely mentioning aspects where improvement was needed. Two participants indicated being unable to give alternatives for their teaching practice. The following excerpt from a reflection report in which a participant of the FFS1 group responds to low ratings on communication skills illustrates this level of ‘No alternative methods of action’.

…I received low ratings on my communication skills in my feedback report. I really do not know how to improve this aspect. I just have too little experience with teaching in the clinical setting…

Level 3: ‘The clinical teacher provides alternatives, but no concrete plan of action’ was mainly demonstrated by participants who thought that negative feedback was due to clinic organisation. It is noticeable that these teachers did not propose concrete changes concerning their own behaviour.

…I want to supervise a whole week instead of one morning [alternative]. The problem is that this is not for me to decide…

…We have to detach education from clinic work [alternative]. The organisation should think about this idea…

Quantitative analyses of the reflection reports: Differences between the two feedback facilitation groups

Table 1 shows the quantitative results for the levels of reflection and alternative action plans of both groups. With respect to reflection, most participants scored above the lowest level of mere description and the highest level was attained by eight participants in the FFS1 group and 15 participants in the FFS2 group. As for alternative methods of action, 13 and 17 participants in the FFS1 and FFS2 group, respectively, formulated alternative methods of action to improve their teaching practice, while a concrete plan of action was described by eight participants in FFS1 and 13 participants in group FFS2.

Perceived effectiveness of the two FFS

All the participants who submitted a reflection report also submitted the completed effectiveness questionnaire. The means, medians and SDs are given in Table 2. Because an independent sample t-test did not indicate any significant difference between the two groups, we present aggregated scores, except for the question about the peer reflection meeting, which was put to group FFS2 only.

Table 1. Numbers and percentages of participants in both groups according to the highest level of reflection and alternative methods of action they attained.

<table>
<thead>
<tr>
<th></th>
<th>FFS1 (N=23)</th>
<th>FFS2 (N=19)</th>
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<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Hatton and Smith’s levels of reflection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. No alternative methods of action</td>
<td>1 4.3</td>
<td>1 5.3</td>
</tr>
<tr>
<td>2. Aspects in need of improvement</td>
<td>9 39.1</td>
<td>1 5.3</td>
</tr>
<tr>
<td>3. Alternative methods</td>
<td>5 21.7</td>
<td>4 21.0</td>
</tr>
<tr>
<td>4. Alternative methods and plan</td>
<td>8 34.8</td>
<td>13 68.4</td>
</tr>
</tbody>
</table>

Note: FFS, feedback facilitation strategy.

Level 4: ‘alternative methods and plan’ is exemplified by a teacher from the FFS2 group, who wishes to act less like a schoolteacher and describes a concrete alternative method of action.

…I want to improve this aspect by making students take the consequences of doing no preparation (for clinical work) [alternative]. If as a consequence a topic cannot be discussed I should not blame myself [alternative]. Because I tend to react like a schoolteacher I am going to ask both students and colleagues to give me feedback on this. I will explain this to the students I supervise. This way I will become more aware of my teaching habits [plan]…
Experiences with the two FFS

The clinical teachers reported 119 positive experiences and 43 negative experiences. A summary is given in Table 3. Most teachers indicated that the steps helped them to gain insight into the strengths and weaknesses of their teaching. The majority of the teachers from the FFS2 group stated that the peer reflection meeting helped them to translate the student feedback into concrete alternatives for their teaching practice.

Discussion

We explored the levels of reflection demonstrated by clinical teachers after receiving feedback in a facilitated manner and examined if participation in peer group reflection made a difference. We also examined the participants’ evaluation of the two FFS.

Most of the clinical teachers reflected on the dialogic or even the critical level. The reflection reports showed that teachers analysed the student feedback from different perspectives and took account of the context of the teaching. According to Hatton and Smith (1995), this is beneficial for professional growth. The findings from the reflection reports are in line with earlier studies by Pee et al. (2002) and Tigelaar et al. (2006), who also reported on activities to stimulate reflection.

An innovative aspect of our study is that we also examined whether teachers formulated concrete alternatives and plans for teaching practice. This was done by the majority of the teachers but more markedly by the teachers who participated in the peer reflection meeting. Formulating alternatives for practice is an essential aspect of reflection, because concrete plans of action have been shown to be related to actual improvement of teaching, which should be the ultimate goal of providing teachers with student feedback (Ward & Mann 2006; Tigelaar et al. 2008; Mceod & Steinert 2009; Schaub-de Jong et al. 2009) which showed that a limited effect of individual self-reflection can be enhanced by peer meetings. However, no previous studies have compared strategies that are in line with other studies (DeNisi & Kluger 2000; Steinert & Mann 2006; Tigelaar et al. 2008; Mceod & Steinert 2009; Schaub-de Jong et al. 2009) which showed that a limited effect of individual self-reflection can be enhanced by peer meetings. However, no previous studies have compared strategies that differed only in the inclusion of a peer meeting. What our study adds to the literature is some evidence that peer group reflection can offer added value. It is therefore recommended to combine the provision of feedback on teaching performance to clinical teachers with a peer reflection meeting. The universal method used in the peer reflection meetings, described in Appendix 1, will probably not only apply to teaching evaluations in the medical context. Future research should investigate if the method can be generalized to evaluations of other competencies in different settings.

This study has some limitations. Any comparison between groups carries the potential risk of sampling bias, and we cannot rule out the possibility that the teachers attending the peer reflection meeting were more competent with respect to reflection than the comparison group. This seems rather unlikely, however, since we used matched random sampling (Brown et al. 1999), which ensured that the teachers assigned to each strategy were comparable with respect to age, department, gender, participation in a faculty development programme and mean score on the MCTQ.

Another limitation is the absence of a control group which wrote a reflection report after receiving student feedback without feedback facilitation. It is possible that clinical teachers are quite capable of deeply reflecting on a feedback report without participating in a facilitation strategy. It would be interesting to investigate the results of such a group with engaging in dialogic and critical reflections and also led to more alternatives and concrete action plans. This suggests that peer discussion can further enhance the reflection process. We hypothesize that learning about their peers’ alternative teaching methods can help teachers to think of practical applications of this knowledge in their own teaching practice. This hypothesis is supported by the findings of Meirink et al. (2007) in a study of teachers’ individual learning in a collaborative setting.

In conclusion, a feedback facilitation strategy comprising self-assessment, a feedback report and a pre-structured reflection report promoted dialogic and critical reflections. Adding peer group reflection resulted in deeper critical reflection and more concrete plans for change. These findings are in line with other studies (DeNisi & Kluger 2000; Steinert & Mann 2006; Tigelaar et al. 2008; Mceod & Steinert 2009; Schaub-de Jong et al. 2009) which showed that a limited effect of individual self-reflection can be enhanced by peer meetings. However, no previous studies have compared strategies that differed only in the inclusion of a peer meeting. What our study adds to the literature is some evidence that peer group reflection can offer added value. It is therefore recommended to combine the provision of feedback on teaching performance to clinical teachers with a peer reflection meeting. The universal method used in the peer reflection meetings, described in Appendix 1, will probably not only apply to teaching evaluations in the medical context. Future research should investigate if the method can be generalized to evaluations of other competencies in different settings.

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Table 3. Positive and negative experiences concerning the steps of the FFS reported by participants in both FFS.

<table>
<thead>
<tr>
<th>Step 1: Self-assessment</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>
| FFS1 (N = 23) | • Helped me to understand what is important for good workplace learning (four comments)  
• Stimulated me to think about my teaching practice (two comments)  
• Helped me to define the problems I encounter concerning teaching (two comments)  |
| FFS2 (N = 19) | • Stimulated me to think about my teaching practice (six comments)  
• Helped me to understand what is important for good workplace learning (four comments)  
• Did not stimulate reflection. For that, you need feedback from students (three comments)  
• This was the least effective step (one comment) |

<table>
<thead>
<tr>
<th>Step 2: Feedback report</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>
| FFS1 (N = 23) | • Offered a great opportunity to learn about positive and negative aspects of my clinical teaching (15 comments), especially because the student feedback was combined with self-assessment (six comments)  
• Students usually do not give concrete verbal feedback. The information in the feedback report is far more valuable (two comments)  |
| FFS2 (N = 19) | • Offered a great opportunity to learn about positive and negative aspects of my clinical teaching (12 comments), especially because the student feedback was combined with self-assessment (three comments)  
• Helped me to think about ways to alter my teaching practice (eight comments)  
• Students usually do not give concrete verbal feedback. The information in the feedback report is more informative (three comments)  
• It stimulated me to take some time to think about my teaching task (two comments)  
• Just reading the feedback report does not suffice. It was the peer reflection meeting that stimulated me to reflect (two comments)  
• I question the reliability of this report (one comment)  
• Interpreting the feedback report was sometimes difficult. I would like more oral feedback (one comment) |

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<thead>
<tr>
<th>Step 3: Peer reflection meeting</th>
<th>Positive</th>
<th>Negative</th>
</tr>
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</table>
| FFS1 (N = 23) | • It would be better if feedback reports were provided more often and from more students (three comments), I question the reliability of this report (four comments)  
• Just a report does not stimulate me to reflect. For that you need coaching (three comments)  
• It would be nice to see the (overall) results of the other teachers from one’s department (one comment)  |
| FFS2 (N = 19) | • It really helped to translate the student feedback into concrete alternatives for teaching practice (14 comments)  
• This meeting helped me to look at my teaching practice from a different perspective (ten comments)  
• Listening to and helping other participants really helped me to reflect (five comments)  
• It was the step with the biggest impact (two comments)  
• Peer meetings are quite time consuming (two comments)  
• My peers were facing the same problems, this did not help me to reflect (two comments)  
• Only time can tell if the peer reflection meeting really helped me to improve my teaching practice (one comment) |

<table>
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<tr>
<th>Step 4: Reflection report</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>
| FFS1 (N = 23) | • Helped me to make the feedback more concrete and stimulated me to think about alternatives for my teaching practice (six comments)  
• It was useful that the reflection report was pre-structured (two comments)  |
| FFS2 (N = 19) | • Writing a reflection report helped me to make my reflection more concrete (eight comments)  
• It really helped me to alter my teaching practice (three comments)  
• This step is more about recording your reflection. The actual reflection takes place during the peer reflection meeting (two comments)  
• Coaching would be useful when writing a reflection report (one comment)  
• Some of the pre-structured questions were difficult to understand (one comment) |

Note: FFS, feedback facilitation strategy.
regard to critical reflection and formulation of plans for improvement.

Although we know from literature that reflection is crucial for enhancing teaching practice (Hatton & Smith 1995; Ward & McCotter 2004; Korthagen & Vasalos 2005; Tigelaar et al. 2006; Watts & Lawson 2009), the results of our study provide no evidence to ascertain whether the teachers did actually change their teaching practices. This remains to be examined in further studies, preferably with an added control group which did not participate in a facilitation strategy. Are proposed changes actually implemented? On what level do these changes occur? What is the durability of these changes in teaching behaviour and do student ratings/evaluations improve as a result? Nevertheless, the results provide evidence that a feedback facilitation strategy can be effective, especially if it includes a peer reflection meeting.

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Appendix 1. The modified critical incident method used in the peer reflection meetings

In the peer reflection meeting, each participant raises a ‘personal learning question’. All participants are asked to formulate this personal learning question, based on their feedback report, before entering the meeting. The learning question is based on an actual incident or incidents. It expresses the personal learning goal for the reflection meeting. An example of a personal learning question is:

...My feedback report showed that I should give the students more feedback. I find it difficult to provide students with constructive feedback, when I see them for only a couple of hours. How can I improve my teaching effectiveness concerning feedback in this context?

(1) The moderator interviews one participant on his personal learning question while the other participants (N=4–5) listen. The goal of this phase is to explore all aspects of the learning question. Example questions are: Why did the interviewee select this question? Why is it a problem for the interviewee? What is the context of this problem? What has the interviewee already done to solve this problem?

(2) The other participants then reflect on the interviewee’s personal learning question. Emphasis in this phase is on participants engaging in brainstorming to generate solutions for the interviewee’s problem, using their own experiences. The interviewee is encouraged to listen carefully and not to intervene in the discussion.

(3) The moderator then interviews the interviewee to elucidate which reflection/solution, mentioned during phase 2, appeals the most. The interviewee is also asked to reflect on how he or she is going to implement this solution in his/her teaching practice.

(4) During the meeting, each participant gets the opportunity to raise one personal learning question. Approximately 30 min are allocated per participant to pass through the three above-mentioned phases.

Appendix 2: The questions, based on Korthagen’s ALACT-model, used in the pre-structured reflection reports

Looking back on action:

(1) Which aspects of your clinical teaching practice are evaluated positively in your feedback report?
(2) Which aspects of your clinical teaching practice are evaluated negatively in your feedback report?
(3) On which aspects of your clinical teaching practice do you want to reflect in this report? Why did you choose these aspects?

Awareness of essential aspects:

(4) What do these aspects (see question 3) mean for you as a clinical teacher?
(5) Which essential factors have an influence on these aspects?
(6) How do these factors influence these aspects?

Creating alternative methods of action:

(7) What are alternative methods of action regarding these aspects?
(8) How are you going to implement these alternative methods of action?