Implementing peer review of teaching: a guide for dental educators

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In brief

Describes in detail how to plan and implement peer review of teaching (PRT) within a large dental teaching institution.

Uses the authors' experiences and evidence from the educational literature to highlight factors which are key to successful implementation.

Will benefit all dental educators wishing to implement PRT, or re-energise an existing PRT scheme.

Peer review of teaching (PRT) is well established and valued within higher education. Increasingly, dental educators involved in undergraduate or postgraduate teaching are required to undertake PRT as part of their teaching development. Despite this, there is a paucity of literature relating to PRT within dental education, and none that considers the implementation of PRT within large dental teaching establishments. This article describes in detail a staged process for the planning and implementation of PRT within a UK dental school. It uses relevant educational literature to supplement the authors' experiences and recommendations. By highlighting aspects of the process which are key to successful implementation, it is a useful guide for all dental educator teams who wish to successfully introduce, restructure or refresh a PRT scheme.

Introduction

Peer review of teaching (PRT) is a process whereby teachers work with their colleagues to give and receive feedback on their teaching practices. Although the ultimate aim of PRT is to enhance student learning, it is a powerful tool for teacher development through its ability to encourage reflection, provide support, disseminate good teaching practice and foster communities of educational practice.[1–3] It can also contribute towards quality control and enhancement of educational curricula.[4] Peer review is a key contributor to the professional development of educators in Higher Education. The UK Higher Education Academy's *Professional Standards Framework for Teaching & Supporting Learning in Higher Education* includes the requirement for professional educators to engage with peer reviewed teaching.[5] In addition, the General Dental Council UK *Standards for the dental team* state that registrants are required to 'maintain, *develop* and work within' their professional knowledge and skills.[6] Thus some dental professionals will have a teaching role in order to develop and train members of the dental team. Quality assurance is part of education and PRT among dental professionals represents best practice. Despite its value and importance, there are a number of reasons why PRT may not be established practice for dental educators. These have been discussed in a previous article, and include lack of exposure to PRT, clinical/research activities taking precedence over educational activities, and concerns that the process is judgemental in nature.[7] Despite the potential challenges of introducing PRT, dental schools, postgraduate deaneries and practices will all need to engage with this key aspect of educational practice.

Although PRT within other healthcare professions has been reported,[8–10] there is a paucity of literature relating to PRT within dental education. A recent survey of all UK dental schools revealed that 14 out of 16 schools have PRT schemes, but with a range of formats, maturity, extent of operation and staff engagement.[7] The implementation of a pilot PRT scheme for a group of Community Dental Service clinical teachers has been described.[11] However, the process of implementing PRT within a more sizeable dental educational practice has not been documented.

The aim of this article is to describe the implementation of a PRT scheme within a large institute for dental education. During 2013-15, as part of its quality control for teaching, Cardiff Dental School consolidated existing practices for teaching staff by setting up a school-wide PRT scheme. A summary of the procedural stages that were used is shown in Figure 1. The following article covers these stages in detail by describing our experiences and presenting relevant findings from the educational literature.

The planning stage

Establish leadership

The success of a new PRT scheme depends upon effective support from the Head of the relevant organisation/institution. His/her role includes ensuring a climate that values PRT, visibly supporting the implementation, and ensuring sufficient resources.[12] In our case, the School Dean actively undertook this role. It is essential to appoint a specific PRT lead (or small group) with protected time to drive the process forward and act as an ambassador

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Fig. 1 A summary of the procedural stages that were used

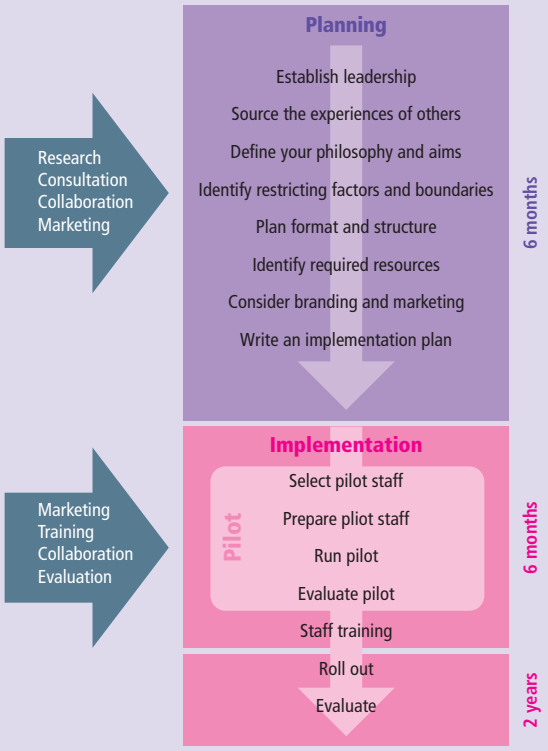
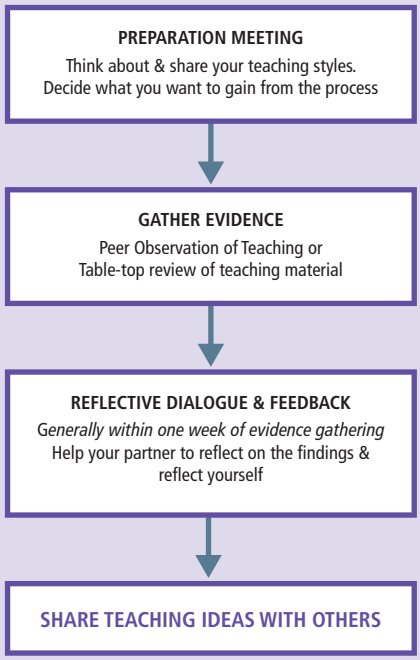


Fig. 2 PRT cycle



for change. Key attributes of those appointed should include:

- Educational knowledge and expertise
- Communication skills to liaise effectively between senior management and teaching staff
- Resilience to be able to cope with and manage some staff resistance
- An ability to understand the local context
- An ability to create a non-threatening atmosphere.

Although the selection of a PRT lead from outside the organisation has some advantages,[13] a sound understanding of local context (such as organisation structure, the student curriculum, and the nature of individual teaching staff) brings greater benefits. In our case, an internal member of staff with educational and local knowledge was appointed.

Source the experiences of others

There is a wealth of literature relating to PRT in Higher Education, with some institutions and educational bodies offering practical advice and resources via websites.[14,15] It is also useful in the early planning stage to directly source the experiences of others. We found it invaluable to speak both with Cardiff University's PRT champion and the PRT lead from a local healthcare school. Although such links can foster future PRT collaboration, it is important to remember that all contexts are different and it is not realistic to transfer the structure of an existing scheme into your situation and expect it to embed successfully.[12]

Define your philosophy and aims

This is an essential part of planning that may easily be overlooked. Questions to consider include: is the main purpose of the PRT scheme to formally evaluate teaching quality? Or is it to support and develop teaching staff? Are the outcomes of PRT for individual staff benefit, collective benefit, or both? Gosling usefully approaches philosophy and aims by defining three specific PRT models which are well established in the literature: the Evaluative, Developmental and Collaborative models.[16] Features of the Evaluative model include a direct link to staff performance review, rating teachers against quality assurance benchmarks, the use of 'accredited' reviewers and the use of checklists and formal reports.[12] In contrast, both his Developmental and Collaborative models focus on supporting and developing teachers, encouraging collegiality and developing an educational culture. The Collaborative model is particularly characterised by mutuality/equality between teachers, engagement in discussion and reflection, and non-judgemental, constructive feedback. It is also the model that has been recommended for and adopted by many higher education institutions.[2,16–18] For our scheme, three main aims were identified: to enhance the educational focus within the school through cultural shift, to provide a supportive, developmental process for teachers, and to encourage teacher collegiality. As such, the Collaborative model was selected as best representing these.

Identify restricting factors and boundaries

Although a proposed plan for PRT should respect your philosophy and aims, there is little point in having a vision that is not feasible to implement. The scope and size of the project should be defined, and any restrictions or boundaries identified. These may exist within the local teaching culture, institutional policies, or the structure of the organisation and will be discussed in turn.

PRT is more likely to succeed when introduced into a culture that openly values and embraces teaching.[19] Dental education, if it is not subject to observation or open critique, can be seen as a 'behind closed doors' activity. A move to a more open culture can lead to teachers feeling vulnerable and this needs to be recognised and taken into consideration. However, PRT itself has been shown to be a powerful driver for change by enhancing the educational culture and removing boundaries.[1]

It is important to identify whether there is an overarching institution PRT policy that may influence how PRT is locally implemented. Cardiff University's policy framework articulates the University's philosophy, clarifies minimum requirements and contains guidance for local implementation.[18] The policy requires that employees with substantive teaching roles engage with PRT annually. This is the most prevalent frequency within UK dental schools[7] and would seem to be useful and realistic. Factors that should be considered when defining frequency of engagement include: the intended aim of PRT (for example, is it to inform annual staff performance review?), the institution's PRT policy, and practicality.[12,20] Dental teaching institutions affiliated to universities are likely to have policies and resources which should be accessed early in planning.

It is essential to determine whether emerging ideas can be practically implemented within the organisation's existing structure. We explored this by arranging a meeting with five staff with key institutional roles: that is, educational development, school operation, and representatives of the main teaching groups (including part-time teachers and outreach staff). The meeting helped identify potential barriers, generate workable ideas and was an opportunity to gain early support from key staff.

Plan format and structure

A detailed plan of the structure and format can now be developed in accordance with both the identified aims and any restrictions/boundaries. The design should ensure that PRT is easy to carry out, accessible and adaptable.[13,19] A popular, simple and time-efficient 4-stage annual PRT cycle was selected for our scheme (Fig. 2).

For the 'Gathering Evidence' stage, peer observation of teaching (POT) is a popular format and involves colleagues mutually observing each other in the act of teaching.[13] However, POT limits peer review to the observable 'performance' of teaching; teachers who view teaching as simply the transfer of knowledge to students may incorrectly assume that PRT is limited to peer observation. Teaching in a wider sense requires engagement with the aims and design of a curriculum, considers methods for optimising learning, includes student assessment, and values the evaluation of all these processes.[21] There is evidence that teachers prefer to explore the breadth of their role and to utilise alternatives to POT, such as reviewing module design, assessment, or learning material.[17,20,22] We deemed it both philosophically appropriate and practical to encourage PRT in its widest sense, allowing staff to select their own format and topics for PRT.

Table 1 Staff structure options for peer review of teaching

Staff structure	Advantages	Disadvantages
A pre-determined list of staff with educational expertise act as reviewers.	Reviewers may be better able to provide beneficial feedback and/or identify poor quality teaching.	Implies an evaluative approach to PRT which may be seen as threatening.
	Often preferred by inexperienced reviewees.	Staff may question what determines an eligible reviewer.
		Most teaching staff do not benefit from undertaking the reviewer role.
		In larger institutions, may not be feasible for a small reviewer team to cover all staff.
		The reviewers' educational perspective / terminology may be inaccessible to some reviewees.
Small groups or triads.	Enables multiple perspectives for teacher reflection.	Potentially difficult for staff to get together, especially in busy departments.
Pre-allocated peer partners.	Easier for partners to arrange meetings than triads/groups.	Contradicts the Collaborative model philosophy of participant ownership.
	Less experienced teachers can be allocated with experienced teachers.	
Self-selected peer partners.	Easier for partners to arrange meetings than triads/groups.	Risk of biases based on friendship and 'mutual admiration societies'.
	Less threatening, particularly for teachers with no prior experience of PRT.	
	Increases teacher ownership of PRT.	
Peers are from the same department/ speciality.	Teachers often prefer linking with their department peers.	May adversely affect department's teaching provision if staff resources are fully stretched.
	Reduces the threat of the 'outside other'.	Within small departments, limitations born from teacher collegiality (reluctance to judge, reluctance to be honest) are magnified.
Peers are from different departments/ specialities.	Teachers can prefer the 'objectivity' of an outsider who is less likely to judge.	Feedback from an outsider who does not appreciate the context may be less valuable.
	May be easier for outsiders to be honest with feedback.	May not be appropriate in highly specialised sub-disciplines.
	Reviewers can provide fresh perspectives that encourage more transformative PRT outcomes.	
	Reviewers with less specialist knowledge may better understand the student perspective.	
	Encourages a sense of collegiality and community of practice within the institution.	

An essential part of format and structure planning is deciding on the nature of the relationship between teacher and peer.[23] Various options for structuring staff have been identified within the literature.[2,3,19,20,23-26] These are presented in Table 1, together with some recognised advantages and disadvantages.

Whichever staff structure is chosen, it must complement the scheme's underlying philosophy and be practical to implement. Self-selected peer pairing was considered to be the most appropriate and workable option for busy staff within a large institution such as Cardiff Dental School, with the proviso that appraisers should not partner with appraisees, and partners should change at least every two years. Self-selected partnering is recommended for new or developing PRT schemes; this option reduces threat, encourages mutuality and support, and enables staff to adopt both reviewee and reviewer roles.[16,23]

Identify required resources

Resources that are required include materials, time and personnel. These will be discussed in turn. We issued teachers with custom-made PRT folders to give the scheme substance, provide easy access to written guidance and proformas, and to encourage teachers to develop a PRT portfolio. When devising guidance documents, complex educational terms should be avoided; it has been shown that clarity and accessibility help to allay teachers' concerns about PRT.[19] We drafted forms for each stage of the cycle which were based on the university's suggested format but adapted to fit local context. Forms should not be prescriptive or rigid, and should be simple and efficient to complete to maximise teacher participation.[19] Since some teachers prefer a paperless approach, the folder content was uploaded to a dedicated website with links to further resources, and with the facility for easy transfer of completed paperwork to teachers' CPD portfolios.

The literature emphasises that critical to the success of any PRT scheme is that protected time is made available for teachers.[12,17] The support of the institution head is vital here. There needs to be sufficient time allocated for the process to be beneficial, but the pressures facing busy professionals should also be borne in mind. The format at Cardiff (Fig. 2) requires peers to link up three times per cycle, equating to approximately two half days per year away from scheduled activities. This was deemed to be workable and realistic.

Other resource requirements include administrative support, particularly during a scheme's early development. The role of a PRT administrator can include recording staff completion rates and facilitating peer pairings. All identified resources should be discussed with the institution head for approval.

Consider branding and marketing

How PRT is branded and marketed to dental educators as key stakeholders is important to consider, both at the planning stage and during implementation (Fig. 1). Choosing a title may seem of minor importance, but has been shown to influence staff perception and acceptance of PRT.[17] Alternative terms include 'Peer Review of Learning and Teaching', 'Peer Evaluation' and 'Peer Reflection'. Although 'review' may suggest judgement and evaluation, PRT is a well-recognised term and was the one we chose. We considered that 'Peer Reflection' might disengage teachers with limited experience of reflective practice.

PRT should be marketed to all staff in an open, transparent manner to reduce the sense of threat.[13] The Dean informed the staff body about the proposed scheme and upcoming pilot, and emphasised that their input to shape and develop the scheme was welcomed. It was emphasised that PRT aimed to support and develop teachers, was not for performance management, and that outcomes could remain confidential between self-selected peer partners. Information leaflets were disseminated to all teachers and information posters displayed at strategic sites within the building.

A PRT scheme that is linked to and marketed with other educational initiatives is preferable, rather than being seen as an isolated addition to staff workload.[12] PRT outcomes should be simple to integrate into appraisal and CPD paperwork to support evidence of teaching development. We aim to embed PRT within an annual school staff development framework that is currently being reviewed and expanded. Finally, duplication with similar schemes should be avoided. For example, staff who are undertaking educational courses that incorporate PRT can be eligible for exemption from an in-house scheme.

Write an implementation plan

The final stage of planning is the development of a written PRT implementation plan which describes the schemes philosophy, rationale and format and provides a realistic, phased time frame for roll out. The proposal should be passed through appropriate institution committees. As well as being evidence of quality assurance for external bodies, this document serves as a useful reminder of underlying purpose, and helps to map progress against a defined time frame. In our case, a three-year period from pilot to full implementation was planned.

Implementation phase

Pilot the proposed scheme

A pilot is key to successful PRT implementation. It provides an opportunity to assess the practicality of the planned structure and enables draft proformas to be trialled. Perhaps most importantly, it encourages staff to take early ownership of PRT, which has been shown to be a feature of successful schemes.[19] The pilot process is now described in detail.

Select pilot staff

Although it is tempting to recruit enthusiastic teacher volunteers for the pilot, the selection of specific pilot staff brings greater advantages. Including the institution head acts as a positive example and incentive for staff engagement,[13] and involving other senior teachers can help raise the profile of PRT. By recruiting representatives of the institution's main teacher groups, there is the potential for them to become 'PRT champions' for their local area, thereby facilitating future scheme roll-out. Many dental schools utilise part-time general dental practitioners to provide clinical teaching, and including at least one representative from this staff body can help engender a feeling of inclusivity. Similarly, hospital-employed staff involved in student teaching should be represented. There are benefits of involving less experienced teachers in a pilot – they usually learn much from engaging with PRT,[27] are often keen to be involved,[24] and those who have recently completed a teaching course can bring positive PRT experiences that 'rub off' on more established teachers.[26] The value or otherwise of including pilot staff who appear initially resistant to PRT is contentious. Although there is always the possibility that their negative stance transfers to others, if they do agree to participate they could help clarify sources of potential resistance before PRT is implemented. If the opinion of a resistant teacher is changed by the pilot, s/he can become a powerful PRT advocate. One of our pilot staff initially expressed significant reservations but became positive about the process afterwards. All chosen pilot staff should be approached personally to allow them to ask questions and discuss any concerns. Most of our staff did have queries about the process, particularly requiring confirmation that PRT would be non-evaluative, and to establish the time commitment required.

We selected a total of ten pilot staff as a manageable and representative number. The pilot was then made available to all teachers and two additional peer pairs were formed. Such inclusivity from an early stage encourages staff ownership of PRT and helps to break down barriers.[13,17]

Prepare the pilot staff

Providing staff support and training is essential for implementing PRT. Staff new to PRT often have concerns about giving feedback and facilitating peer reflection[17] and group training helps promote trust and respect among participants.[19] A two hour workshop (with verifiable CPD) was led by a non-dental educationalist who had been briefed on local context, such as the organisation's teaching culture and structure. The workshop aimed to

Table 2 Pilot questionnaire results. Thirteen out of 14 staff completed PRT, 12 questionnaires returned

Question	No. of staff responding 'Yes' (N = 12)	Sample comments
'Did you gain anything from the review of your own teaching? If yes, what was particularly valuable to you?'	9 (-75%)	'The positive feedback gave me confidence, and suggestions were helpful and constructive.'
		'I found it to be supporting.'
		'Helped me reflect on my teaching method.'
		'I asked for my reviewer to consider how I could put more relevance into my basic dental science lecture. Feedback in this was very helpful.'
		'Useful to have an external overview of a written module that is several years old.'
'Did you gain anything from the reviewer role? If yes, what was particularly valuable to you?'	8 (-67%)	'It was good to see another method of how to engage all students in group work.'
		'It was a valuable experience seeing the students in a different teaching environment.'
		'As a reviewer I was able to observe student-teacher interaction, and take notes that would help improve my own teaching methods.'
		'Opportunity to network with peer and identify areas of good practice and common issues.'
		'Useful to see that others have the same challenges/difficulties.'

explore participants' prior perceptions of PRT, introduce the concept of Collaborative PRT, generate discussion, and provide guidance on providing and receiving feedback.

An additional aspect to our staff preparation was a discussion meeting before the pilot commenced. This provided an opportunity to discuss the draft proformas, share PRT plans, and meet peer partners. A pilot in Glasgow Community Dental Service allocated peer partners randomly, with staff given the opportunity to change allocations if they wished.[11] However, in our school-wide pilot with staff from a range of departments, pairings were pre-allocated by the PRT lead based primarily on staff teaching schedules and availability. The staff were given the opportunity to change pairings, but no staff did so. Since pilot staff were from different departments, cross-department pairings were inevitable. The advantages of peers from different departments or specialities are highlighted in Table 1.

As befitting the Collaborative model, pilot staff were invited to select their own PRT topic and format. However, it was useful to discuss the teachers' plans at the pre-pilot meeting to check that a range of formats were being piloted. Clinical supervision, small group teaching, practical sessions, lecture observations and a table-top review of teaching material were all included.

Run the pilot

The pilot ran for three months and the PRT lead was available for queries throughout this time. It is sensible to run a pilot when teaching activity is at its highest across an institution to increase completion rates. Some staff expressed difficulty finding mutually convenient times for PRT, however all but one teacher completed the pilot on time.

Evaluate the pilot

The timely evaluation of a PRT pilot is likely to provide valuable information from participants to inform future scheme development.[11] Our pilot was evaluated by both written feedback questionnaires and a post-pilot discussion meeting. We intend to present detailed findings in a future article, but the main results are shown in Table 2. Of the staff completing the questionnaire, 75% felt they benefited from having their teaching reviewed, and 67% found the reviewer role beneficial. Cross-department pairing contributed to the scheme's success by enabling staff to appreciate the wider student curriculum, experience different teaching environments and discuss their teaching practices with new colleagues. Pilot feedback resulted in some minor amendments to the PRT guidelines and proformas.

Staff training

A training session of similar format to the pilot session (described above) was arranged. Support by the Dean and verifiable CPD encouraged high attendance. Individual staff PRT folders were issued at this event and the session was video recorded for the PRT website.

PRT roll out and evaluation

At the beginning of the 2014/15 academic year, roll out across the school commenced. Staff require ongoing support during the early implementation stage[13] and the PRT lead was available to address staff queries and concerns, both informally and at school staff events. By the end of the first roll out year, 47% of all teaching staff had completed a PRT cycle.

An interactive PRT forum for all school staff was held at the end of the academic year. This half day, CPD supported event (facilitated by the school and university PRT leads) gave teachers an opportunity to collectively discuss and evaluate the scheme, share their PRT experiences and suggest ways forward. Suggestions are being adopted as roll out continues and the scheme develops.

Phased roll out is proceeding as planned at Cardiff, but schools should bear in mind that, over time, PRT schemes – both new and established – can suffer from loss of momentum. Reasons for this include: new teachers entering a scheme who are unclear about its purpose and process, practical difficulties not being addressed, and staff structures becoming 'stale'.[17] Other challenges we have identified so far are shown in Table 3, with some suggestions to address these. Some recognised challenges for implementing PRT have been discussed in greater detail in a previous article.[7] It is important that institutions do not become complacent with respect to the efficacy of their PRT schemes. They should be evaluated regularly, and ways of maintaining interest and momentum should be actively sought as part of evaluation. This could include identifying and agreeing PRT topics of relevance across the institution.[17] We have identified some school-wide PRT topics, and on-going evaluation will be carried out.

Conclusion

This article shows that peer review of teaching can be successfully implemented in a large dental teaching institution. However, a number of factors need to be incorporated, such as institutional support, a dedicated PRT lead, a clear philosophy and aim, and a realistic and practical design. A collaborative rather than an evaluative model is appropriate for dental educators who may have limited experience of PRT and a greater sense of threat compared to teachers within other higher education institutions. Key decisions regarding staff structure are critical to the long-term success of a scheme; these include peer group size, whether all staff should act as reviewers and how partnerships should be arranged. The careful selection of pilot staff, such that a range of teachers across the institution are included, encourages inter-department collaboration and the 'seeding' of positive experiences. Both these factors will aid future roll out. The pilot should also be opened to all teachers since inclusivity is key to embedding a new scheme. Questionnaire findings from our pilot and outcomes from a a staff discussion forum have shown that PRT has been a catalyst for enhancing the educational culture by encouraging networking and inter-department collegiality. It is hoped that such benefits will contribute to future scheme momentum and development, and evaluation will remain ongoing. The processes we followed, our experiences to date, and the literature we have highlighted will be of benefit for dental educators who are planning to introduce, restructure or refresh PRT within their teaching practices.

Table 3 Challenges identified and suggestions to address them

Challenges	Suggestions
Time for planning and development	Allocate a dedicated PRT Lead(s) with protected time for scheme development
	Provide administrative support
Engaging staff	Gain support of institution head
	Design a scheme that supports teacher development and collaboration
	Develop a positive institution teaching culture alongside PRT
	Planning phase to be open and transparent
	Encourage staff ownership of PRT
	Recruit key pilot staff across the institution
	Ensure all staff can undertake the reviewer role
	Share tangible benefits from PRT for example, improved student learning, institutional developments
	Widen access to all teacher groups, including outreach staff
	Include in staff performance review paperwork
Ensuring staff have sufficient time for PRT	Institution leads to support and provide dedicated time for PRT
	Ensure process and supporting proformas are practical and time-efficient
	Link with existing educational development schemes where possible
Maintaining momentum	Design a scheme which is practical and sustainable
	Review annually, with staff involvement
	Recruit 'PRT Champions' in local areas
	Encourage cross-departmental peers
	Encourage peers to change periodically
	Develop institution/department-wide PRT topics
	Ensure newly employed staff are recruited into the scheme

1. Sullivan P B, Buckle A, Nicky G, Atkinson S H. Peer observation of teaching as a faculty development tool. *BMC Med Educ* 2012; **12:** 26.
2. Braskamp L A. Towards a more holistic approach to assessing faculty as teachers. *N Direct Teach Learn* 2000; **83:** 19–33.
3. Kinchin I M. Evolving diversity within a model of peer observation at a UK university. British Educational Research Association Annual Conference. 2005. Available at: http://www.leeds.ac.uk/educol/documents/153411.doc (accessed September 2016).
4. Kilfoil W R. Peer review as quality assurance. *In* Sachs J, Parsell M (eds). *Peer review of learning and teaching in higher education*. 1st ed. pp 183–181. Dordrecht: Springer, 2014.
5. Higher Education Academy. Professional Standards Framework. 2011. Available at: https://www.heacademy.ac.uk/recognition-accreditation/ukprofessionalstandardsframeworkukpsf (accessed September 2016).
6. General Dental Council. *Standards for the dental team.* 2013. Available at: http://www.gdc-uk.org/Newsandpublications/Publications/Publications/Standards%20for%20the%20Dental%20Team.pdf (accessed September 2016).
7. Cunningham I M, Lynch C D. Peer review of teaching in UK dental schools. Is it happening? How successful is it? *Br Dent J* 2016; **220:** 645–649.
8. Costello J, Pateman B, Pusey H, Longshaw K. Peer review of teaching: an interim report. *Nurse Educ Today* 2001; **21:** 444–454.
9. Murphy Tighe S, Bradshaw C. Peer-supported review of teaching: making the grade in midwifery and nursing education. *Nurse Educ Today* 2013; **33:** 1347–1351.
10. Steinert Y. Faculty development: from workshops to communities of practice. *Med Teach* 2010; **32:** 425–428.
11. Cairns A M, Bissell V, Bovill C. Evaluation of a pilot peer observation of teaching scheme for chair-side tutors at Glasow University Dental School. *Br Dent J* 2013; **214:** 573–576.
12. Chism N V N. *Peer review of teaching. A sourcebook.* 2nd ed. Bolton, Massachusetts: Anker Publishing Company, Inc., 2007.
13. Bell M, Cooper P. Implementing departmental peer observation of teaching in universities. *In* Sachs J, Parsell M (eds). *Peer review of learning and teaching in higher education. International perspectives.* 1st ed. pp 151–164. Dordrecht: Springer, 2014.
14. University of Birmingham ProDAIT. Undated. Online information available at http://www.weblearn.bham.ac.uk/prodait/resources/peer_observation_of_teaching.pdf (accessed September 2016).
15. Australian Learning and Teaching Council & Office for Learning and Teaching. Peer Review of Teaching. Available online at http://www.peerreviewofteaching.org/ (accessed September 2016).
16. Gosling D. Models of Peer Observation of Teaching. 2000. Available online at http://dera.ioe.ac.uk/13069/ (accessed September 2016).
17. Kell C & Annetts S. Peer review of teaching. Embedded practice or policy-holding complacency? *Innov Educ Teach Int* 2009; **46:** 61–70.
18. Cardiff University. Peer Review of Learning and Teaching. Policy Framework 2006. Online information available at http://learning.cf.ac.uk/peerreview/ (accessed November 2015).
19. Spencer D. Was Moses peer observed? The ten commandments of peer observation of teaching. *In* Sachs J, Parsell M (eds). *Peer review of learning and teaching in higher education. International perspectives.* 1st ed. pp 183–199. Dordrecht: Springer, 2014.
20. Cosser M. Towards the design of a system of peer review of teaching for the advancement of the individual within the university. *Higher Education* 1998; **35:** 143–162.
21. Ramsden P. *Learning to teach in higher education*. 2nd ed. Oxon: RoutledgeFalmer, 2003.
22. Hammersley-Fletcher L, Orsmond P. Evaluating our peers: Is peer observation a meaningful process? *Stud High Educ* 2004; **29:** 489–504.
23. Weller S. What does 'peer' mean in teaching observation for the professional development of higher education lecturers? *Int J Teach Learn High Educ* 2009; **21:** 25–35.
24. Blackmore J A. A critical evaluation of peer review via teaching observation within higher education. *Int J Educ Manag* 2005; **19:** 218–232.
25. Hatzipanagos S, Lygo-Baker S. Teaching observations: a meeting of minds? *Int J Teach Learn High Educ* 2006; **17:** 97–105.
26. Kemp R, Gosling D. Peer Observation of Teaching. 2012. Available at: http://www.academia.edu/2233137/Peer observation of teaching (accessed March 2017)
27. Donnelly R. Perceived impact of peer observation of teaching in higher education. *Int J Teach Learn High Educ* 2007; **19:** 117–129.