



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

## Peer Observation of Student-Led Teaching

**Citation for published version:**

Whittaker, E, Pathak, A, Piya, S, Cary, L & Harden, J 2023, 'Peer Observation of Student-Led Teaching', *Medical Teacher*. <https://doi.org/10.1080/0142159X.2023.2229506>

**Digital Object Identifier (DOI):**

[10.1080/0142159X.2023.2229506](https://doi.org/10.1080/0142159X.2023.2229506)

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Peer reviewed version

**Published In:**

Medical Teacher

**General rights**

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy**

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact [openaccess@ed.ac.uk](mailto:openaccess@ed.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.



## Peer Observation of Student-Led Teaching

Authors:

Ed Whittaker<sup>1,4</sup>

Anushka Pathak<sup>2,4</sup>

Simran Piya<sup>1,4</sup>

Louisa Cary<sup>3,4</sup>

Jeni Harden<sup>5</sup>

<sup>1</sup>*NHS Greater Glasgow & Clyde, United Kingdom*

<sup>2</sup>*NHS Lothian, United Kingdom*

<sup>3</sup>*NHS Northumbria, United Kingdom*

<sup>4</sup>*Edinburgh Medical School, University of Edinburgh, United Kingdom*

<sup>5</sup>*Usher Institute, University of Edinburgh, United Kingdom*

Corresponding author:

Ed Whittaker

Edinburgh Medical School, 49 Little France Cres, Edinburgh, EH16 4SB, United Kingdom

+44 7772 830790

ed.whittaker@doctors.org.uk

@EdWhittaker2

## Abstract

### Introduction

The use of near-peer teaching in medical schools is increasing internationally. Peer Observation of Teaching (POT) is a useful and effective method for enhancing teaching experiences and quality, but its use among student peer teachers is not well documented. The aim of the study was to explore medical student perceptions on the value and limitations of POT.

### Methods

Ten medical students were trained as observers. Using a previously developed model, they observed 27 teaching sessions led by other students (observees), with a pre- and post-observation meeting. Observers and observees completed a survey and group interview to explore their experiences. Descriptive analysis of survey data, and thematic analysis of qualitative data was conducted.

### Results

Observees found feedback valuable; learning about, reflecting on, and increasing confidence in teaching practice. They felt comfortable receiving feedback and reported positively about the observers in terms of: expertise, relatability, non-intimidating presence, and awareness of the target audience. Observers reported learning more about good teaching practice. While most observers found it enjoyable, several found some aspects of giving feedback uncomfortable. Most found it difficult to establish a satisfactory dynamic, citing lack of credibility and difficulty in eliminating hierarchies. Pre-existing friendships were reported by observers as both helping and hindering the dynamic.

## Discussion

Both observers and observees gained from the experience of POT. However, observers lacked confidence in their credibility. Further work should address how best to implement POT into the curriculum to improve teaching practice in medical students. Further training or coaching could be considered to overcome observers' concerns.

## **Introduction**

There is growing recognition of the benefits of medical students' active participation in their education beyond the 'student as learner' role [Meeuwissen, 2020], such as being a peer tutor. While research has explored peer teaching [Burgess, 2014; Bowyer, 2021] and the training offered to students to support their teaching [Burgess, 2020], less attention has been given to Peer Observation of Teaching (POT) as a process to enhance students' teaching. POT, involving a peer observing a teaching session and offering feedback, can enhance standards of teaching, encourage self-reflection, and increase confidence in giving and receiving feedback among medical educators [Sullivan, 2012; Caygill, 2017; Mookherjee, 2014]. The benefits of its use amongst undergraduate peer medical educators is less clear [Caygill, 2017; Rees, 2015]. Extant research has indicated the feasibility of a student POT programme [Rees, 2015], but the benefits of POT for both observers and observees remains unclear.

This paper reports findings from a POT programme piloted among medical students at the University of Edinburgh in 2020-21. We explore medical students' experiences observing and being observed and the programme's impact on their teaching practice. The findings provide novel insights that can inform further development of POT programmes for undergraduate medical students.

## **Methods**

### ***Setting up the programme***

Using social media and email, we recruited 27 students to be observed (observees) and five senior students with teaching experience (observers). As 5th year students the authors (EW, AP, SP, LC) recruited students to be observed and to be observers (alongside the authors). Observers received workshop training from a medical education lecturer on: conducting observations, feedback models, common feedback mistakes and using a standardised proforma (Supplementary File). This was based on previously-published literature [Rees, 2015; Bell, 2002], which emphasised the use of a collaborative approach [Gosling, 2013].

Observers and observees met to agree the goals of the observation, and afterwards for feedback. All observed teaching sessions and meetings were online via Zoom.

### ***Evaluating the programme***

After their sessions, observers (excluding authors) and observees were asked to complete a short survey on: training, the experience of giving/receiving feedback, self/perceived expertise, and benefits and challenges of POT (Appendices A and B). Preliminary responses from the surveys informed the planning of discussion topics for five group interviews (one with observers and four with observees. Guides in Appendices C and D). A thematic analysis of the survey text responses and interview data was conducted; an iterative, reflexive process, moving from coding to the development of final themes [Braun, 2006]. While the authors were not participants in the survey or interviews, a

reflexive approach was adopted to ensure awareness of any impact on analysis of their dual position as peer observer and researcher.

## **Results**

All observees (n=27) and observers (n=5) were students in years 4-6 and all completed the survey and group interview. Observees reported a range of teaching experience; observers self-identified as experienced teachers. Core themes are outlined below; illustrative quotes are in the Supplementary Table.

### ***Observees***

#### *1. Experience of being observed*

##### *1.1 Not daunting*

Observees reported enjoying the process. Several reported it was made more comfortable by the relatability of the observer.

##### *1.2 Anxiety*

Some observees acknowledged anxiousness when they were: aware of being observed, in the 'spotlight', or out of their 'comfort zone'.

##### *1.3 Familiarity*

Some observees found having a familiar face helped them relax; others reported concerns including: observers giving kinder feedback to maintain positive relationships, and previous conflicts creating tension.

#### *2. Faculty vs peer*

### *2.1 Credibility*

Several more junior observees felt the observers' experience and knowledge surpassed their own. Others felt that the observer had a similar level of expertise, but were able to provide an alternative perspective and present new ideas.

### *2.2 Benefit of peer knowledge*

Participants noted different benefits from peer feedback compared to experienced teaching staff; they felt peers were able to give a unique perspective, such as teaching methods that resonate with students, due to their proximity to the target audience.

## *3. Feedback Value*

### *3.1 Timing*

The immediacy of the post-session debrief reduced anxiety. Its timing also meant the session was fresh in the minds of the observees, helping to facilitate collaborative reflection.

### *3.2 Format*

Observees found the focus on teaching skills to be a valued area in which they rarely receive feedback. The structured, detailed written feedback was identified as beneficial.

### *3.3 Quality and impact of the programme*

Observees identified the personalised nature of the feedback, and its focus on teaching style, as a primary advantage of the POT programme.

## ***Observers***

### *1. Experience observing*



### *1.1 Beneficial*

Observers also found the process to be enjoyable and worthwhile. Refinement of their own teaching skills and practice in feedback provision were identified as most valuable.

### *1.2 Uncomfortable*

Some found the experience of providing feedback to peers uneasy, and reflected on feelings of self-doubt and concerns about being condescending.

### *1.3 Familiarity*

Some individuals felt familiarity between the observer and the observee made the process more comfortable, whilst others believed that familiarity meant feedback was less critical.

## *2. Faculty vs peer*

### *2.1 Credibility*

Observers were concerned their feedback was not as valuable as teaching staff's and that the observees weighted their opinion too highly.

### *2.2 Hierarchy*

Observers felt uneasy that peer observation created a sense of hierarchy, and it was difficult to avoid adopting a more instructional tone in the feedback.

## **Discussion**

A POT programme with medical students was trialled. Observees found the feedback helpful: many commented that they had never received such bespoke teaching feedback. Observers found providing feedback useful for self-reflection of their practice, and reported a synergistic learning environment allowing mutual exchange of ideas, aided by the collaborative feedback approach [Gosling, 2013].

Nevertheless, observers reported lacking confidence in observing compared to perceived 'expert' staff; a form of 'imposter syndrome' [Feenstra, 2020]. This concern was not echoed by observees, who found the peer feedback relatable and at the right level. This is reinforced by literature on cognitive and social congruence in peer assisted learning [Lockspeiser, 2008]. This dichotomy has been reported with teaching staff, where observees found the feedback more reliable and valid than the observers [Kohut, 2007]. Ackerman *et al.* discuss the "expert" role as a flexible one: staff can be experts when assessing content, whilst students can be experts in assessing delivery [Ackerman, 2009]. In contrast, another study comparing staff versus peer feedback reported that most students preferred feedback from a staff member but felt peer feedback provided a distinct addition [Burgess, 2015]. This may indicate a benefit to receiving feedback from various people with different perspectives. Indeed, feedback from multiple novices has been reported to be more valuable than from one expert [Cho, 2010]. The use of multiple student and staff observers may therefore allow for enhanced feedback.

### ***Strengths and Limitations***

This study is among the first in implementing and evaluating a POT programme in undergraduate medical students, with studies elsewhere mainly focusing on staff

[Sullivan, 2012; Kohut, 2007]. Building on a similar programme developed by Rees et al. [Rees, 2015; Eastwood, 2021], this study provides a deeper understanding of the experiences of peer observers/observees, emphasising the potential benefits of and issues with POT.

Unlike previously reported POT programmes, this pilot took place online due to the pandemic. While the differences between online and face-to-face teaching were not explicitly discussed with participants beforehand, multiple participants mentioned their preference of an online platform as the presence of an observer was less noticeable. Increased authenticity during online POT due to reduced learner awareness of observers has been discussed by Bennet and Barp [Bennett, 2008]. Other noted benefits of online POT include increased flexibility and accessibility that transcends geographical boundaries and allows for increased diversity in observers [Bennett, 2009].

Unfortunately, as this was a pilot, it was not possible to evaluate the sustainability and impact of the programme over time.

### ***Further Work***

Informed by the insights gained from this pilot, next steps in further developing the programme include:

- 1) Co-developing with students a coaching programme integrated into a POT scheme to address observers' concerns about perceived lack of credibility.
- 2) Developing and evaluating the sustainability of a larger programme, with changes such as experienced observers training those more junior in POT to facilitate this.

- 3) Considering faculty involvement to ensure quality of feedback and offer more experienced perspectives.

To support the sustainability of the scheme, we ran a POT training workshop for current students (the authors having now graduated) and made the resources accessible to student peer teaching societies. We are also advising a group of students who are developing a research project to build on this pilot scheme.

### **Contributions**

All authors contributed to the conception and design of the work, the acquisition, analysis and interpretation of data, and the drafting and revising of the work.

### **Acknowledgements**

We thank our observers: Alex Clark, Liam Lee, Jay Park, Aleksandra Poziemska, James Sheppard. We thank Dr Eliot Rees for his support including delivering observer training.

### **Ethics**

Ethical approval was gained from the University of Edinburgh MVM Medical Education Research Ethics Committee on 10/11/2020 (reference 2020/35). All participants consented to having anonymised data used for research (Appendix E).

### **Practice Points**

- Consider coaching observers to address concerns of credibility
- Consider collaborating with experienced staff to ensure evaluation is robust

- To support sustainability, consider facilitation of experienced observers training those more junior in POT
- Following initial training, observers could be given the chance to shadow an observer, do an observation and debrief with a trainer.

## References

- Ackerman D, Gross BL, Vigneron F (2009). Peer Observation Reports and Student Evaluations of Teaching: Who Are the Experts? *Alta J Educ Res.* 55:18–39.
- Bell M (2002). *Peer observation of teaching in Australia.* York: Learning and Teaching Support Network Generic Centre.
- Bennett S, Barp D (2008). Peer observation – a case for doing it online. *Teach High Educ.* 13:559–70.
- Bennett S, Santy J (2009). A window on our teaching practice: Enhancing individual online teaching quality through online peer observation and support. A UK case study. *Nurse Education in Practice.* Nov;9(6):403–6.
- Bowyer ER, Shaw SC (2021). Informal near-peer teaching in medical education: A scoping review. *Educ Health* 34:29-33.
- Braun V, Clarke V (2006). Using thematic analysis in psychology. *Qual Res Psychol.* 3:77–101.
- Burgess A, McGregor D, Mellis C (2014). Medical students as peer tutors: a systematic review. *BMC Med Educ.* 14:115.
- Burgess A, Mellis C (2015). Receiving feedback from peers: medical students' perceptions. *Clin Teach.* 12:203–7.
- Burgess A, van Diggele C, Roberts C, Mellis C (2020). Introduction to the Peer Teacher Training in health professional education supplement series. *BMC Med Educ.* 20(Suppl 2):454.
- Caygill R, Peardon M, Waite C, McIntyre I, Bradley D, Wright J (2017). Attitudes towards peer review of teaching in medical education. *Focus Health Prof Educ Multi-Prof J.* 18:47.
- Cho K, MacArthur C (2010). Student revision with peer and expert reviewing. *Learn Instr.* 20:328–38.

Eastwood MJ, Davies BGJ, Rees EL (2021). Students' Experiences of Peer Observed Teaching: A Qualitative Interview Study. *Teaching and Learning in Medicine*. Ahead of Print: 1-9.

Feenstra S, Begeny CT, Ryan MK, Rink FA, Stoker JI, Jordan J (2020). Contextualizing the Impostor "Syndrome." *Front Psychol*. 11:575024.

Gosling D (2013). *Collaborative Peer-Supported Review of Teaching*. Dordrecht: Springer. p. 13–31.

Kohut GF, Burnap C, Yon MG (2007). Peer Observation of Teaching: Perceptions of the Observer and the Observed. *Coll Teach*. 55:19–25.

Lockspeiser TM, O'Sullivan P, Teherani A, Muller J (2008). Understanding the experience of being taught by peers: the value of social and cognitive congruence. *Advances in Health Sciences Education*. 13(3):361–72.

Meeuwissen SNE, Whittingham JRD (2020). Student participation in undergraduate medical education: a continuous collective endeavour. *Perspect Med Educ*. 9(1):3-4.

Mookherjee S, Monash B, Wentworth KL, Sharpe BA (2014). Faculty development for hospitalists: Structured peer observation of teaching: Structured Peer Observation of Teaching. *J Hosp Med*. 9:244–50.

Rees EL, Davies B, Eastwood M (2015). Developing students' teaching through peer observation and feedback. *Perspect Med Educ*. 4:268–71.

Sullivan PB, Buckle A, Nicky G, Atkinson SH (2012). Peer observation of teaching as a faculty development tool. *BMC Med Educ*. 12:26.

## **Appendix A: Observer Survey**

1. Did you have any experience in acting as a peer observer before going through the Peer Observation of Teaching (POT) process? (Yes / No)
2. How well do you think your training prepared you to act as a peer observer? (1-5: not at all prepared - very prepared)
3. How comfortable did you feel giving feedback to your near-peers? (1-5: not at all comfortable - very comfortable)
4. To what extent do you believe you had the expertise and experience to provide your observee with feedback? (1-5: not at all - a large amount)
5. To what extent do you feel the process has helped you learn about good teaching practice? (1-5: not at all - a large amount)
6. What did you gain from the experience of acting as a peer observer? (Free text)
7. What were the most challenging aspects of acting as a peer observer? (Free text)
8. How likely are you to take part in near-peer observations in the future? (Free text)
9. Any other observations, comments, questions and/or suggestions (Free text)

Online-Only Supplementary Table: Illustrative Core Theme Quotes

Observees	
<b>1. Experience being observed</b>	<b>1.1 Not daunting:</b> 'Knowing that I'm already being observed by 30 students who are just there to get some teaching, it wasn't really daunting to have another person.'
	<b>1.2 Anxiety:</b> 'I was very anxious about it. But I was, like, "step out of your comfort zone, it will be really good for your personal development".'
	<b>1.3 Familiarity:</b> 'I've known [them] since 1 <sup>st</sup> year so it was easy to have them.'
<b>2. Faculty vs peer</b>	<b>2.1 Credibility:</b> 'They have a bit more knowledge than I do, and they have looked into this and done literature reading.'
	<b>2.2 Benefit of peer knowledge:</b> 'Everyone in year five has had to pass exams to certain competencies, they know the learning outcomes and the sorts of qualities and skills we are supposed to have.'
<b>3. Feedback value</b>	<b>3.1 Timing:</b> 'The debrief immediately afterwards was very important. It's more memorable for me to remember the advice and I internalised it better.'
	<b>3.2 Feedback:</b> 'Written feedback was really helpful because right after the session, like, there's a lot going on and stuff, and you're like "Ohh thank God it's done" so you don't necessarily remember it...so it was good to get that emailed out.'
	<b>3.3 Quality and impact of the programme:</b> 'The observer feedback was saying things about the learning outcomes and actual layout of the slides and what works and what doesn't, and the students were like "It was interesting"... so the observer definitely gave a bit more, which I found really useful.'
Observers	
<b>1. Experience observing</b>	<b>1.1 Beneficial:</b> 'I think while we're giving feedback, we also think about how we act and deliver a tutorial as well. So, I think there's a synergy.'
	<b>1.2 Uncomfortable:</b> 'I felt like I was acting really superior to my peers in a way that wasn't deserved. I found it very uncomfortable!'
	<b>1.3 Familiarity:</b> 'The first person was someone who I didn't know and second person I did know, and I felt, because I knew her, it was more natural.'
<b>2. Faculty vs peer</b>	<b>2.1 Credibility:</b> 'I don't know more what I'm talking about than them... I think my session may have turned into more like me acting. So, I don't know if that's just imposter syndrome'
	<b>2.2 Hierarchy:</b> 'I tried to focus in the pre-session meeting to try to reiterate that this was peer-to-peer, I wasn't an expert, it wasn't about the content of the presentation but more the delivery. I feel like despite actually trying hard to put that across I still didn't manage to get an equal level of interaction. So that when I was giving feedback it felt like it was a bit authoritative.'



**Online-Only Supplementary File: standardised proforma for peer observation of teaching**

Observee's name:

Observer's name:

Teaching topic:

Please fill in the boxes below with your feedback. Examples given in red.

**Introduction**

*e.g. Introduction of self, Gained attention of group, Stated the learning outcomes*

**Development**

*e.g. Key points emphasised, Clear & concise delivery, Knowledge of subject, Logical sequence, Well-paced, Good use of voice/tone, Resources supported topic, Quality of resources, Effective group participation, Effective use of questioning, Appropriate teaching methods used, Management of teaching activities, Appropriate assessment/feedback techniques, Content current/relevant/accurate, Use of examples, Use of learning environment*

**Conclusion**

*e.g. Summarised key points, Objectives were met, Kept to time limit*

**General Comments/Action points**

*e.g. Planning & organisation, Level matched to students, Student engagement, Promoting professionalism, Overall quality of the session, Recommendations*