Inter-Institutional Collaboration for the Development of a Local Peer Observation Process to Enhance Teaching

Diana M. Hassel ∎ Maria Fahie ∎ Christiane V. Löhr ∎ Rachel L. Halsey ∎ William Vernau ∎ Elena Gorman

ABSTRACT

Local peer observation of teaching is considered an important mechanism for instructors to improve the quality and effectiveness of their teaching, but there is an absence of uniformity to establish a best practice for this process in veterinary curricula. The Regional Teaching Academy (RTA) of the Consortium of Western Colleges of Veterinary Medicine is comprised of educational advocates from five western veterinary colleges with a common goal of enhancing the quality and effectiveness of education in veterinary medical curricula. Members of the RTA recognized this deficit in best practices for local peer observation (LPO) and formed a working group called "Local Peer Observation of Teaching." The goal was to meet a critical need for the enhancement of individual teaching skills by using a scholarly approach to develop robust methods for peer observation of teaching. Two rubric-based instruments were developed: one for large-group/didactic settings, and the second for small-group/clinical settings. Each is accompanied by pre- and post-observation worksheets which are considered instrumental to success. Results of a qualitative survey of instrument users' experiences are shared. Both observers and observees view the experiential learning from faculty peer colleagues very positively and the meaningful feedback is appreciated and incorporated by observees. Suggestions for implementation of the peer observation process are discussed, considering strengths and challenges. The purpose of this article is to describe in depth, the development process and output of the efforts of the Local Peer Observation of Teaching working group as a potential best practice guideline for peer observation.

Key words: assessment, educational methods, peer observation, peer review

INTRODUCTION

The Regional Teaching Academy (RTA) of the Consortium of West Region Colleges of Veterinary Medicine is comprised of educational advocates from Colorado State University (CSU), Oregon State University (OSU), University of California, Davis (UCD), Washington State University (WSU), Western University of Health Sciences (WUHS), and Midwestern University (MU). This inter-institutional collaboration of educators provides a platform for a diverse collection of faculty members with a wide variety of specialties to come together toward a common goal: to enhance the quality and effectiveness of education in veterinary medical curricula. Peer Observation of Teaching is a tool that can provide rich qualitative evidence for teachers, quite different from closed-ended or open-ended student evaluations of teaching. When Peer Observation of Teaching is incorporated into university practice and culture and is conducted in a mutually respectful and supportive way, it has the potential to facilitate reflective change and growth for teachers.[1] The RTA recognized a clear lack of uniformity among institutions with respect to tools used for local peer observation (LPO). The inter-institutional approach toward a common goal can make use of multiple experienced and qualified individuals to develop best practices in LPO.

Three models of peer observation of teaching have been described in the literature: evaluation, developmental, and collaborative.[2,3] Evaluation models serve a more managerial or administrative purpose and are judgmental, typically performed by a more senior individual than the observee. Developmental models aim to encourage self-reflection and best practices, with educational experts observing. The collaborative model has similar aims to the developmental model but is intended to also foster collegiality among faculty, without hierarchy. The desired process is intended for use as a developmental or collaborative reflection model of peer observation using elements of best practices. A critical component of this model, as described in the human medical education literature, is the use of a

three-phase process consisting of a Pre-Observation Meeting for goal setting, a direct observation of teaching, and a Post-Observation Meeting with feedback.[4–6] Considering the lack of consistency present in veterinary medical peer observation processes, there is clearly a need for the development of more valid, comprehensive instruments that integrate the developmental and collaborative models and cover relevant aspects of teaching comprehensively.[7]

A recent meta-synthesis of educational literature on peer review of teaching (PRT) yielded 26 studies that met the inclusion criteria—that is, of being peer-reviewed journal articles in a higher-education setting that address peer review issues while excluding students' views about teaching, students' peer assessments, and teachers' self-assessments. In this qualitative thematic analysis, four main issues were identified, including academic culture/feasibility of PRT, consensus on the type of assessment for PRT, time-related issues for involvement in PRT, and content of the PRT process.[8]

Teaching is most certainly a different skill from content expertise. Ascertaining teaching quality solely on student feedback has been shown to have many limitations.[9,10] Various methods of peer-supported teaching review are described in the educational literature, some of which use instruments such as the Peer Assistance and Review Form, the Sheffield Peer Review Assessment Tool, the mini Peer Assessment Tool, the Teaching Dimensions Observation Protocol (TDOP),[11] behavior or observation checklists, Likert-scale questionnaires, video recordings, or personal narratives. Some of these tools rely on summative assessments that include a scoring system to evaluate teaching performance collected from classroom or videotaped lecture observation and designed primarily for performance appraisal.[12] This approach neglects the belief that quality of education depends on giving faculty more control of their practice, with a focus on quality learning versus information transmission.[13] Faculty undergoing such summative assessment may question the accuracy and objectivity of assessments and feel that their academic freedom is compromised.[14] More modern methods of assessment change the focus toward a more collegial design, focusing on further development and recognizing and suggesting the use of common characteristics of good or effective teaching.[12] Quality teaching is a highly complex concept, constantly changing with society and students' demands. A formative assessment approach to peer observation of teaching provides the opportunity for peers to interact, learn, and adopt new relevant teaching practices as well as promote professional responsibility.[12]

Faculty "buy-in" to the peer observation process can be a significant challenge. Trepidation toward being observed is natural, fueled by fears of judgment and bias, resistance to change, feelings of intrusion, the high-stakes nature of promotion and tenure, productivity demands, lack of pedagogical experience, lack of teaching evaluation criteria, and the desire to control professional autonomy.[5,8,9,15–17]

Observation of small-group teaching is more intimate, whether in a problem-based learning group of pre-clinical students, or during rounds in a clinical setting, and thus carries with it even more potential for intimidation of both the observee and observer than does peer observation of large-group teaching. Despite that presumption, clinical surgery faculty in human medicine responded 75% positively to being observed in one study, provided they were assured the observer would be an expert in medical education, or a peer familiar with clinical duties, even if cross-disciplinary.[18] Two studies have documented successful adoption of peer observation in clinical teaching at a human medical school by hospitalists, junior faculty and graduate residents. Study authors concluded that peer observation was easily implemented and resulted in positive change in teaching behaviors such as team leadership, oral presentation, providing real time feedback, using technology and modeling professional behavior.[19,20]

Within the RTA, a working group called Local Peer Observation (LPO) of Teaching, was formed in 2015 with the purpose of meeting a critical need for the enhancement of teaching skills by using a scholarly approach to develop robust methods for peer observation of teaching. Further goals of the working group included fostering self-reflection on instruction, fostering faculty mentoring, and facilitating faculty assessment in the promotion and tenure process. The inter-institutional composition of this experienced and qualified team provided a unique opportunity to develop and institute LPO documents into veterinary curricula and seek out preliminary feedback on their usefulness. This article details the output of these efforts along with a description of the strengths, limitations and challenges associated with the use of the instruments.

METHODS

Development of the Instruments

The LPO working group included faculty from all regional veterinary colleges that formed the consortium, with the exception of Midwestern University, which joined in 2019. The working group started with a face-to-face (FTF) meeting during which group members met and learned about each other's instructional context and motivation to join the project, and basic ground rules for communication, mode and timing of future interactions were determined. Overarching goals were established. At the end of the first FTF meeting, the working group had generated an outline of the project and identified initial tasks. The instruments created were initially designed for large-group, didactic settings that remain commonplace among most veterinary colleges, and then extended to include small-group, laboratory, problem-based learning or clinical settings. Preliminary development of drafts was facilitated by the review of existing peer observation documents at three of the five participating universities (WSU, CSU, Western) as well as the medical education literature.[1,4,5,18,21,22] Subsequent FTF meetings that occurred annually focused on fleshing out details, discussing the specific format of the instruments, and honing the wording of documents. In between FTF meetings, the Executive Coordinator's role was crucial to ensuring working group meetings via videoconferencing (VC) occurred approximately quarterly to maintain momentum, provide continuity and facilitate task completion. All of the work related to this project occurred outside of regularly scheduled full-time equivalent (FTE) assignments for faculty, so having meetings on

the calendar ensured the tasks remained prioritized. The working group leaders managed generation of meeting agendas, facilitated discussion, and monitored progress and timely conclusion of meetings. Use of a VC platform[a] facilitated communication of verbal and non-verbal cues of group leaders' enthusiasm for this work and aided in holding members accountable both for attending and attention during meetings. All of these factors proved beneficial to the overall group productivity and morale. The group started out with 15 members. Over time, participation fluctuated with 10 group members remaining actively involved throughout the generation process of the Large Group Teaching Observation instrument. Following multiple iterations, a final version was created, further discussed and agreed upon in both FTF and VC meetings. A subgroup of seven members committed to continue and develop a Small Group Teaching Observation instrument. Following preparation and VC meetings over the course of approximately 1 year, the final FTF meeting of a core group of five working group members yielded a close-to-final version of the Small Group Teaching Observation instrument, followed by minor fine-tuning using email and an online file repository system.[b]

An additional output goal was to develop a set of guiding principles, or best practices, to facilitate implementation of LPO with an emphasis on "observation/reflection" rather than "evaluation" of teaching.

Format of the Instruments

In the context of the instrument use and application, large-group/didactic teaching is defined as primarily lecture or laboratory-based instruction of groups with or without the addition of other pedagogical approaches, whereas small-group/clinical teaching is defined as primarily discussion-based instructions such as patient rounds, case rounds, journal clubs, and team-based and problem-based learning of groups. The selection of the instrument is determined by the mechanics of the interaction rather than the number of students, as mechanics of the interaction proved to be more central to the development of the instruments. In the proposed peer observation process, the instructor (observee) delivers the pedagogical unit in the presence of observers who do not actively participate in instructional activities.

The peer observation process is designed as a three-step process, which is considered critical to its success (Figure 1).[23–25] The in-class observation is preceded and followed by self-reflection of the instructor on specific goals for the session and outcomes, respectively, and by a dialogue with the observers. The pre- and post-observation meeting instruments are identical for both large-group/didactic and small-group/clinical teaching. They are designed to include a prominent coaching component involving pre- and post-observation reflection and dialogue between the observer team and the instructor, with the goal of enhancing teaching effectiveness.

Survey

A brief survey was generated and distributed to the RTA membership in the spring of 2019, immediately following the RTA Biennial Meeting, in order to gather information and impressions regarding the use of the "LPO of Teaching" instruments and the three-step process of peer observation of teaching. The finalized instruments had become available to all institutions via the RTA website for a period of approximately 2 years prior to administering the survey, giving many institutions an opportunity to implement the instruments. The survey questionnaire was designed using a cloud-based platform for creating and distributing web-based surveys,[c] hosted at WSU, and was distributed to a total of 74 faculty members from 5 institutions using a sequential mixed-mode implantation design by which the respondents were sent three separate emails informing them of the survey over the course of a 2 weeks.[26] Data was uploaded into a spreadsheet[d] for descriptive statistical analysis.

Survey questions included the following:

- Have you performed a local peer observation of teaching for a faculty member? (Yes/No) with the follow-up questions: How many observations have you performed? How many of those observation(s) were didactic lectures? How many of those observation(s) were small-group/clinical teaching? From the observations that you performed, were all of them within your home institution? (Yes/No)
- Have you invited another faculty member to observe your teaching as part of an LPO program? (Yes/No) with the follow-up questions: How many observation(s) have you invited a faulty member or team to observe? Was the observation done as a series or a single observation? How many of those observation(s) were didactic lectures? How many of those observation(s) were small-group/clinical teaching? If you indicated that you have participated in an LPO program; did you find the program beneficial? (Yes/No)
- Have you used feedback provided by the instruments for local peer observation of teaching for promotion and tenure? (Yes/No) with the follow-up questions: In your opinion have these documents influenced your promotion process? If you have not used the feedback provided by the instruments for local peer observations for promotion and tenure, please explain how have you used the feedback you have received from the documents?
- The RTA LPO Working Group developed instruments for peer observation programs in both didactic and small-group/clinical teaching. Do you recall if these documents were used as part of your peer observation or if you used them as you observed a faculty member? (Yes/No) Did you find them beneficial? Please explain.

Testimonials

At the 2019 RTA Biennial Meeting, a panel discussion focusing on the LPO instruments was presented. Members of the panel included RTA members who were recipients of observation in both large- and small-group settings, experienced observers, and members of a separate working group within the RTA called External Peer Review of Teaching. The latter was included to glean information on the value of the LPO documents in professional dossiers for promotion and tenure.
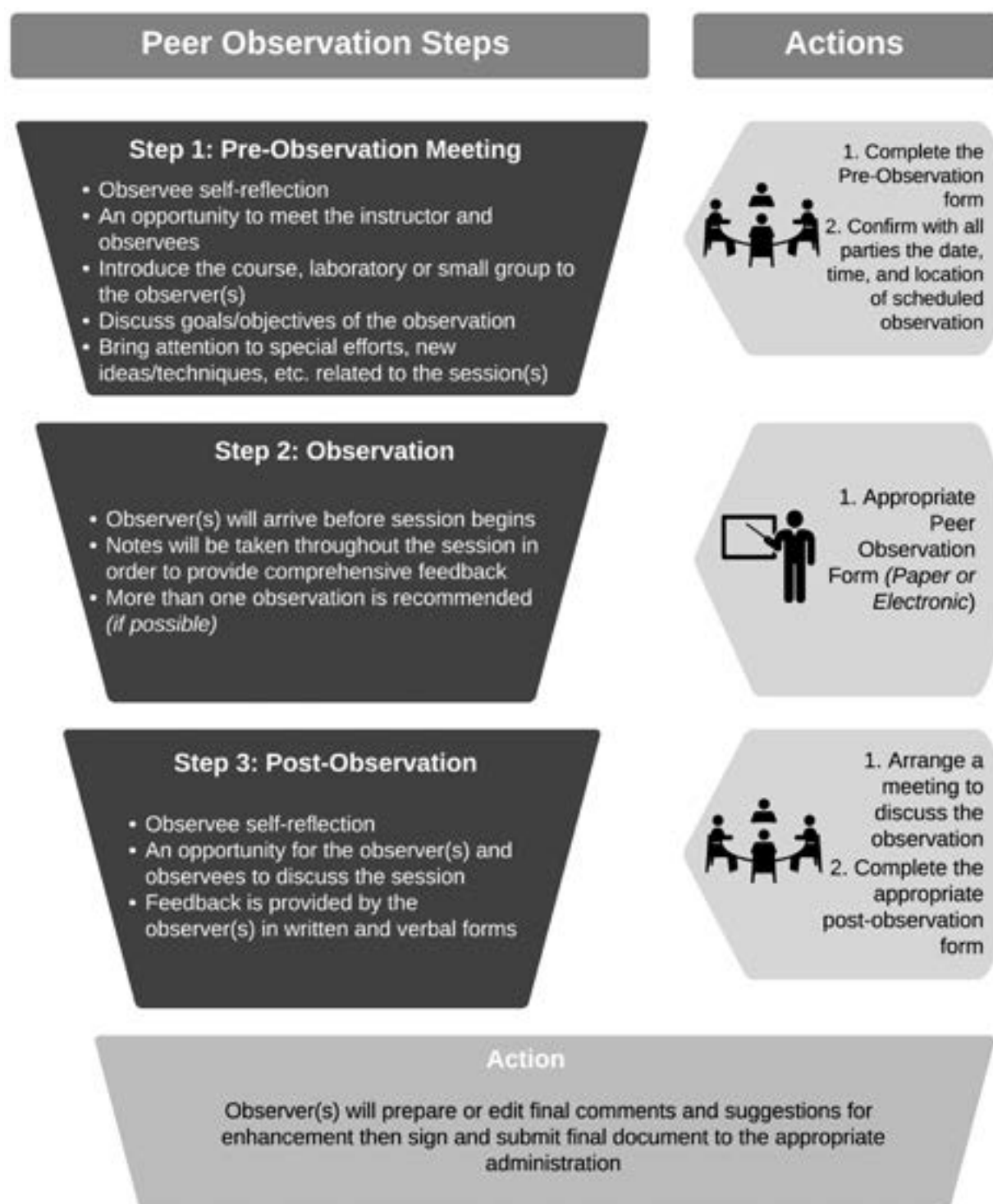
Figure 1: The peer observation process is designed as a three-step process consisting of a Pre-Observation Meeting, observation of teaching, and a Post-Observation Meeting

RESULTS

Pre-Observation Meeting Instrument

The Pre-Observation Meeting instrument (Appendix 1) is framed by a one-page series of guiding questions that may be introduced in an FTF meeting or by email communication.

Answers to the questions are subsequently shared with observers, ideally in an FTF setting. These questions pertain to course objectives, teaching style, class format, implemented changes, along with open-ended questions on what the instructor hopes to gain from the observation. Key is a conversation between instructor and observers

before delivery of the unit to guide observers toward the primary observation goals of the instructor. Additionally, submission of all relevant teaching material associated with the proposed teaching observation is requested. Access to all the RTA-developed peer observation instruments and guidelines is available at https://teachingacademy. westregioncvm.org/initiative-localpeerobservation/.

Post-Observation Meeting Instrument

The Post-Observation Meeting instrument includes a primary formative component designed largely to help enhance teaching effectiveness through self-reflection and direct dialogue between the instructor and observer team (Appendix 2). A limited summative component is also included to provide a focused synopsis of the instructor's current teaching acumen, and consists of the categorization of the overall perception of teaching as "emerging," "evident," or "exemplary." Questions posed in the Post-Observation Meeting instrument pertain to perceptions of the instructor on their own performance followed by an opportunity for collegial discussion and coaching.

Peer Observation of Large Group Teaching Instrument

The Peer Observation of Large Group Teaching instrument is a one-page document that consists of principal course logistics (e.g., DVM year of study, class format, subject knowledge level of observer, etc.) followed by a series of questions encompassing educational key points to guide the observers in their observation (Appendix 3). This step-by-step approach is designed to facilitate the process by providing guidance for those observers with more limited experience. It also provides a framework allowing for more consistent and objective monitoring of the development of instructional activities and instructors over time. The Peer Observation of Large Group Teaching instrument covers educational highlights including initiation, organization, knowledge, relevance of objectives, communication style, attitude toward students, techniques to facilitate active learning, techniques for concluding the session, and general presentation style considerations.

Peer Observation of Small Group/Clinical Teaching Instrument

The Peer Observation of Small-Group/Clinical Teaching instrument is a one-page document that consists of principal course logistics (e.g., DVM year of study, class format, subject knowledge level of observer, etc.) followed by a series of prompts encompassing instructional key points (Appendix 4). There is also a two-page guide (Appendix 5) to assist the observers in their observation. This instrument was developed in a table format to facilitate the process of observation. The complex interactions and dynamics inherent to discussion-based instruction are broken down into concise, well-defined, observable components to aid observers, especially those with less experience. As mentioned earlier, this approach also provides a consistent framework allowing for comparison of instructional activities across time. The Small Group/Clinical Teaching instrument focuses on educational highlights that include initiating the session, presence, ensuring interaction and

active learning, use of other clinical teaching skills, content, clarity, and closing the session.

Best Practices

General guidelines were created for best practices in implementing the LPO instruments. These guidelines provide recommendations for who should be observed, who should perform the observations, how faculty are recognized for peer observation efforts, and the frequency of observations. Within these guidelines, it is recommended that two observers be present for each observation, including a non-content expert. In the larger context of faculty development, the working group's recommendation is for faculty to have at least two local peer observations of teaching before their first major evaluation for promotion and, when applicable, tenure—ideally, one before the mid-term review. This document on general guidelines for best practices can be accessed at the RTA website: (https://s3.wp.wsu.edu/uploads/sites/1358/2017/02/Peer_Observation_Implementation.pdf).

Survey Results and Testimonials

Of 33 respondents to the peer observation survey, a total of 102 peer observations were reported to have been performed, 76 of which were large-group/didactic observations, and 26 small-group/clinical observations. There were 25 respondents who identified 4 of the 5 participating institutions, and 8 anonymous responses, respectively. There were no identified responses from one institution. This may, in part, be reflected in the anonymous responses or due to the smaller faculty size and fewer RTA fellows at that institution ($n = 6$). Twenty-one respondents (64%) used the RTA instruments as an observer, observee, or both, with the remaining 36% using alternative peer observation documents from their respective institutions. Two of the 33 respondents performed peer observations outside their own university, and 1 at other colleges within their university. Twenty-one of 33 (64%) invited another faculty member to observe their teaching as part of an LPO program, and of these, 8 (37%) were team observations performed by 2 observers. Fourteen of 20 respondents (70%) incorporated the feedback from observation using the RTA instruments into documents (dossiers) submitted as part of the promotion and tenure process. Of those incorporating peer observation of teaching into their promotion and tenure dossier, half reported the perception that the inclusion had a positive impact on their promotion packet, primarily by demonstrating a strong interest in teaching and a desire to continue to develop their teaching. For those who used the RTA instruments and process for peer observation but did not include the output into their promotion and tenure dossiers, the major goals for peer observation were to enhance effectiveness as an instructor and to gain new perspectives and innovative ideas. Members of promotion and tenure committees and those involved in the RTA PRT working group from four of the five institutions have confirmed that the use of LPO documents are a welcome inclusion in promotion and tenure packets, as they provide a more objective and credible assessment of teaching compared to student evaluations alone. The majority of observees (20 of 21) who reported participating in an LPO session

found the process to be beneficial regardless of the instruments used. Reported benefits pertaining specifically to the RTA instruments included the emphasis on pre- and post-observation discussion, the formative character of the instrument, and guidance/coaching received by observers. The step-by-step format was described by observers as an excellent guide, clear, easy to follow, well thought out, and a useful checklist and reminder of what is important to teaching effectiveness. The documents appeared to facilitate provision of constructive feedback while limiting judgment.

DISCUSSION

A collaborative effort of faculty from the participating consortium institutions was the first step toward building the collegial, constructive atmosphere necessary for successful peer observation. At the onset of this initiative, there was a deficit in best practices-based peer observation for faculty development at all but one of the participating institutions, with only three of five having teaching evaluation forms available, and only one of five (WSU) incorporating any form of pre- and post-observation discussion, deemed to be a critical component for best practice peer observation. This demonstrated a clear need for development of these instruments and their accompanying guidelines for implementation. Although small-group/clinical teaching represents a major and growing component of veterinary education, this remains an area that needs development. The ability to discuss best practices in teaching with colleagues from multiple institutions with varying curricula also provided opportunity for faculty development. The tools developed can be used as flexible guides, adaptable to any institution.

Results of the survey of RTA Fellows who participated in peer observation using the RTA instruments indicated that the majority felt the experience was beneficial, both from an observer and observee standpoint. Predominant themes in response to benefits of the document revolved around structure, guidance, and self-reflection. Although larger scale surveys with further analyses, including thematic analysis and student performance outcome data, are necessary to define and validate the RTA instruments as representative of a best practice for LPO, the ease of use, formative character for feedback, and goal-based collegial discussion are attributes that can provide a strong argument toward that end.

The inter-institutional nature of the work described here depended heavily on videoconferencing (VC) collaboration. VC for collaborative work is increasingly researched in many industries, including its use in health care to replace FTF consultation.[27,28] Achieving VC meeting goals can be challenged by technical difficulties, or by an inexperienced group member's distraction by the software—both of which can impair discussion participation. For most tasks, audio quality and responsiveness are the most important software characteristics for participant satisfaction compared to video quality, although both are continuously advancing technologically. Research shows discussion in VC format is more task-oriented than FTF.[27] In both VC and FTF, workflow productivity can be affected by variables such as group structure, personal characteristics, and task characteristics. Generally, studies reveal that computer-mediated VC

groups have increased brainstorming and greater quality of participation, and can exhibit lower inhibition, but they can also have difficulty reaching consensus.[28] In addition to VC meetings, the annual FTF meetings were vital to the process, as major progress was made during FTF, in part because of their longer duration (2–5 hours).

Peer observation of teaching is anchored in individualized faculty development support. A primary complaint reported in some peer review of teaching programs is the lack of meaningful feedback provided and the lack of sufficient time for pre- and post-observation reflection and discussion.[9,29] The process and tools our working group have created provide language, definition, and a framework to facilitate more meaningful and detailed verbal and written feedback, as well as guiding the process and alleviating awkwardness and discomfort for both the observee and the observers.

Time must be invested if we are to make teaching matter. The amount of time and effort a faculty member will devote to conducting peer observation with pre- and post-debriefing is negatively influenced by the existing culture of most academic reward systems, which traditionally prioritize research productivity over teaching. We believe a culture shift would be beneficial for the enhancement of teaching at many institutions, and the generation of the instruments described here was, in part, an effort to pave the way for this necessary culture shift.[9,10,24]

Peer Observation Process Strengths

Faculty both observing and being observed agree that the pre- and post-observation meetings are crucial to alleviating fear of the process and prompting self-reflection with an intentional focus on teaching. This was clearly described as a strength of the instruments by both the survey results and testimonials and, based on the literature, is compliant with best practice guidelines. Discussions foster mentoring relationships, teamwork, and communication skills in providing and receiving meaningful qualitative feedback. Perhaps the greatest strength mentioned by observers is their experiential learning from the observation process itself, including ideas they observe and incorporate into their own teaching.[29–31] A recent study focusing on observer behavior found that observers tend to be primarily attentive to the ability of the observee to relate well with the learners and engage them in learning during the session, rather than quality and quantity of content.[30]

Peer Observation Process Challenges

As working group members experienced, even during the creation of these tools, the time investment required for dedication to enhancing teaching is the greatest limitation. One potential solution (incorporated at UCD) is to create an administration-endorsed committee devoted to the peer observation process—one that receives the recognition of service effort FTE equivalent to other high-effort committees, such as Admissions. With each observation taking 4–8 hours in total, up to 24 hours of total faculty time could be involved when multiplying by 3 faculty (1 observee and 2 observers). Following this working group's recommendation of at least two local peer observations of teaching prior to promotion (and/or tenure), the total investment

rises to 48 hours per observed faculty member, a time commitment that can be daunting. From an administrative perspective, an additional advantage of forming a committee of dedicated observers is the potential elimination of collegial bias in teaching observations within a faculty candidate's dossier, and greater consistency and quality of coaching and reporting from a group of trained observers.

A second and significant challenge is faculty engagement in the process. Trepidation toward being observed is natural, fueled by fears of judgment and bias. The LPO process, as outlined here, builds a positive culture with a peer-collaboration mindset at heart, rather than an evaluative mindset.[31] Language is a very important part of building a positive culture. As such, the terms *observation*, rather than evaluation, and *enhancement of teaching*, rather than improvement of teaching, are very intentionally used. The process needs to be championed locally and discussed with and accepted by administration, department chairs, faculty executive committees, and faculty. Clear goals communicated and fully supported by the administration facilitate that acceptance. Of the 70% of respondents in our survey that included LPO documents in their dossier for promotion and tenure, only 50% felt it was useful. This may reflect the feeling that research, rather than teaching, is the driving force for promotion and tenure. A culture shift among the administration is essential to optimize the effectiveness of these tools.

There needs to be a transparent and readily accessible peer observation mechanism for those requiring or desiring peer observation. Who constitutes the most effective "peer" colleague in a collaborative model? Mutual respect and trust are key factors.[29] Providing training for observers can assist in developing faculty's trust of the process, and this was done at one of the member institutions (UCD) in workshop form. The 4-hour workshop was performed on two occasions to train faculty specifically on the use of the RTA LPO instruments. An initial review of the instruments (with examples) was performed, followed by a videotaped observation of an instructor teaching in a large-group/didactic setting and another in a small-group/clinical teaching setting. Workshop attendees were asked to use the instruments to perform an observation and provide shared, constructive feedback for the instructors in the workshop setting.

Observers must provide constructive feedback, delivered professionally and collegially and limiting subjectivity and bias.[16] For faculty with less teaching experience, it is ideal to involve an education specialist, rather than solely relying on peers.[29] Reportedly, selection of observers by observees might not be as productive or successful for meaningful feedback,[5] although our survey indicated 64% personally invited another faculty member to observe. Perhaps this comes from the limited availability of trained observers at most universities and the desire to be "evaluated" by a colleague they know and trust.

Inconsistent or inadequate observer training and inter-rater reliability may be an argument posed by faculty resistant to peer observation. In our guidelines for implementation, we suggest multiple observers, perhaps one a content expert and one not, in order to reduce any concerns for bias.[32] Lack of content expertise places the observer in

a unique position by which they can experience the session from the learner's perspective; as well, it allows the observer to really focus on observing teaching skills and behaviors rather than overly concentrating on content. In small groups, an observer who is a content expert can be further impaired if the learners attempt to interact with them during the session.

Methods of taking notes or recording observations during sessions are left to observer preference. With our Small Group Teaching instrument, some observers prefer to use the two-page explanation guide as a checklist to reduce the amount of note taking required during observation, while others prefer to complete the observation form directly during the session. Some observers take notes freely during the session and then complete the observation form later while preparing for the Post-Observation Meeting. These tools are adaptable to any observation style and user preference. That said, it is paramount that the observer be fully familiar with the process prior to any observation.

There may be barriers to receiving feedback, such as observee perception that the feedback is incorrect, unfair or unhelpful, or delivered in a threatening manner. Sometimes, these barriers can be alleviated or eliminated with inclusive communication techniques such as the "ask–tell–ask" model. Rather than starting a comment with "You don't …", the observer would inquire "Did you notice …", then communicate what they observed and follow with "How can *we* address …".[33]

One method of enhancing faculty buy-in is to provide "peer observation of teaching" training workshops with groups of faculty members observing video of a teacher using the tools described here, and with specialist analysis at key discussion points. Ideally, leaders or observer faculty can be filmed modeling the desired behaviors of self-reflection, acceptance, and receipt of feedback during discussions in that group setting. Video observation is used in some institutions, including the peer assessment of lecturing (PAL) program at McGill,[10,34,35] to alleviate some time constraints and scheduling issues of the observers. However, it is difficult to observe an entire classroom with all of its consequent student interactions potentially compromising the review.

Limitations specific to the LPO instruments described here include a short trial period of only a few years and the inability to capture moment-by-moment objective measures of formative feedback as with other assessment tools, such as the TDOP.[11] However, tools such as the TDOP require extensive training and, ideally, a background in educational pedagogy, which is unavailable at many institutions. Other major limitations to this study are the small sample size of those surveyed, the self-reporting nature of the survey, data missing from one of the participating institutions, and the potential biases associated with a survey limited to RTA Fellows. Future surveys assessing the instruments should be expanded to all faculty exposed to any form of peer observation as either an observer or observee. As a consequence of both the small sample size and short trial period, there is limited data pertaining to use of the instruments in promotion and tenure dossiers. Follow-up surveys in the future should help remedy many of these limitations. Finally, there is no guarantee of consistency of

reporting between institutions and groups of observers, as observer training is not ubiquitous. Opportunities for training in use of the instruments, as well as fine-tuning via feedback mechanisms from users of the instruments, should lessen the impact of these limitations.

Implementation and Future Directions

The long-range goal of the working group is to drive the cultural change necessary to make enhancement of teaching a primary goal in our colleges. Implementation of, and investment in, the process of peer observation is a necessary first step. The output from the instruments may also assist the promotion and tenure process within institutions and support and provide consistency for external PRT between participating institutions. Faculty voluntarily practicing pedagogy, rather than being driven by an external force, are more likely to experience meaningful learning and develop reflective practices.[9] Leaders in educational change need to balance the pressures on faculty with appropriate support, encouraging open doors and acting as role models of trustworthiness and integrity.[3]

Future directions should include collecting outcomes data on both student and faculty performance in both didactic and small-group settings in response to regular implementation of peer observation, with further refinement of the process and the instruments as needed. Continued offerings of online or in-person workshops to train faculty in the use of the instruments may also prove beneficial for implementation and faculty buy-in to the peer observation process.

ACKNOWLEDGMENTS

CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

NOTES

a   Zoom Video Communications Inc., San Jose, CA, USA, https://zoom.us/
b   Dropbox Inc., Craft, San Francisco CA, USA, https://www.dropbox.com/
c   Qualtrics International Inc., Provo, UT, USA, https://www.qualtrics.com/
d   Excel, Microsoft Corp, Redmond WA, USA

REFERENCES

1   Siddiqui ZS, Jonas-Dwyer D, Carr SE. Twelve tips for peer observation of teaching. Med Teach. 2007;29(4): 297–300. https://doi.org/10.1080/01421590701291451. Medline:17786740

2   Fletcher JA. Peer observation of teaching: a practical tool in higher education. J Fac Dev. 2018;32(1):51–64.

3   Wingrove D, Hammersley-Fletcher L, Clarke A, Chester A. Leading developmental peer observation of teaching in higher education: perspectives from Australia and England. Brit J Educ Stud. 2018;66(3):365–81. https://doi.org/10.1080/00071005.2017.1336201.

4   Bell AE, Meyer HS, Maggio LA. Getting better together: a website review of peer coaching initiatives for medical educators. Teach Learn Med. 2020;32(1):53–60. Epub 2019 Jun 6. https://doi.org/10.1080/10401334.2019.1614448. Medline:31169037

5   Blauvelt MJ, Erickson CL, Davenport NC, Spath ML. Say yes to peer review: a collaborative approach to faculty development. Nurse Educ. 2012;37(3):126–30. https://doi.org/10.1097/NNE.0b013e318250419f. Medline:22513773

6   Mager DR, Kazer MW, Conelius J, et al. Development, implementation and evaluation of a peer review of teaching (PRoT) initiative in nursing education. Int J Nurs Educ Scholarsh. 2014;11:pii: /j/ijnes.ahead-of-print/ijnes-2013-0019/ijnes-2013-0019.xml. Medline:24893326

7   Fluit CR, Bolhuis S, Grol R, Laan R, Wensing M. Assessing the quality of clinical teachers: a systematic review of content and quality of questionnaires for assessing clinical teachers. J Gen Intern Med. 2010;25(12):1337–45. https://doi.org/10.1007/s11606-010-1458-y. Medline:20703952

8   Teoh SL, Ming LC, Khan TM. Faculty perceived barriers and attitudes toward peer review of classroom teaching in higher education settings: a meta-synthesis. SAGE Open [Internet]. 2016;6(3). https://doi.org/10.1177/2158244016658085.

9   Iqbal IA. Don't tell it like it is: preserving collegiality in the summative peer review of teaching. Can J Higher Educ. 2014;44(1):108–24.

10   McLeod P, Steinert Y, Capek R, et al. Peer review: an effective approach to cultivating lecturing virtuosity. Med Teach. 2013;35(4):e1046–51. https://doi.org/10.3109/0142159X.2012.733460. Medline:23102101

11   Hora MT. Toward a descriptive science of teaching: how the TDOP illuminates the multidimensional nature of active learning in postsecondary classrooms. Sci Educ. 2015;99(5):783–818. https://doi.org/10.1002/sce.21175.

12   Thomas S, Chie QT, Abraham M, Raj SJ, Beh L. A qualitative review of literature on peer review of teaching in higher education: an application of the SWOT framework. Rev Educ Res. 2013;84(1):112–59. https://doi.org/10.3102/0034654313499617.

13   Murray CE, Grant G. Teacher peer review: possibility or pipedream? Contemp Educ. 1998;69(4):202–4.

14   Keig L. Formative peer review of teaching: attitudes of faculty at liberal arts colleges toward colleague assessment. J Pers Eval Educ. 2000;14(1):67–87. https://doi.org/10.1023/A:1008194230542.

15   Carroll C, O'Loughlin D. Peer observation of teaching: enhancing academic engagement for new participants. Innov Educ Teach Int. 2014;51(4):446–56. https://doi.org/10.1080/14703297.2013.778067.

16   Salih AR. Peer evaluation of teaching or "fear" evaluation: in search of compatibility. Higher Educ Stud. 2013;3(2):102–14. https://doi.org/10.5539/hes.v3n2p102.

17   Subbaye R, Vithal R. Teaching criteria that matter in university academic promotions. Assess Eval High Edu.

2016;42(1):37–60. https://doi.org/10.1080/02602938.2015.1082533.

18 Peyre SE, Frankl SE, Thorndike M, Breen EM. Observation of clinical teaching: interest in a faculty development program for surgeons. J Surg Educ. 2011;68(5):372–6. https://doi.org/10.1016/j.jsurg.2011.04.001. Medline:21821215

19 Pierce JR, Rendón P, Rao D. Peer observation of rounds leads to collegial discussion of teaching. Teach Learn Med. 2018;30(2):233–8. https://doi.org/10.1080/10401334.2017.1360185. Medline:29324048

20 Mookherjee S, Monash B, Wentworth KL, Sharpe BA. Faculty development for hospitalists: structured peer observation of teaching. J Hosp Med. 2014;9(4):244–50. https://doi.org/10.1002/jhm.2151. Medline:24446215

21 Berk RA, Naumann PL, Appling SE. Beyond student ratings: peer observation of classroom and clinical teaching. Int J Nurs Educ Scholarsh. 2004;1(1):Article10. https://doi.org/10.2202/1548-923X.1024. Medline:16646875

22 Steinert Y, Mann K, Centeno A, et al. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME guide no. 8. Med Teach. 2006;28(6):497–526. https://doi.org/10.1080/01421590600902976. Medline:17074699

23 Grimm ED, Kaufman T, Doty D. Rethinking classroom observation. Educ Leadersh. 2014;71(8):24–9.

24 O'Keefe M, Lecouteur A, Miller J, McGowan U. The Colleague Development Program: a multidisciplinary program of peer observation partnerships. Med Teach. 2009;31(12):1060–5. https://doi.org/10.3109/01421590903154424. Medline:19995168

25 Sullivan PB, Buckle A, Nicky G, Atkinson SH. Peer observation of teaching as a faculty development tool. BMC Med Educ. 2012;12:Article number 26. https://doi.org/10.1186/1472-6920-12-26. Medline:22559217

26 Dillman DA. Internet, phone, mail, and mixed-mode surveys: the tailored design method. 4th ed. Hoboken, NJ: John Wiley & Sons, Inc.; 2014.

27 Wainfan L, Davis PK. Virtual collaboration: face-to-face versus videoconference, audioconference, and computer-mediated communications. In: Trevisani DA, Sisti AF, editors. Proceedings Volume 5423, Defense and Security Enabling Technologies for Simulation Science VIII; 2004 Apr 12–16; Orlando, FL. https://doi.org/10.1117/12.547427.

28 Cameron MP, Ray R, Sabesan S. Physicians' perceptions of clinical supervision and educational support via videoconference: a systematic review. J Telemed Telecare. 2014;20(5):272–81. https://doi.org/10.1177/1357633X14537776. Medline:24906649

29 Buchanan JA, Parry D. Engagement with peer observation of teaching by a dental school faculty in the United Kingdom. Eur J Dent Educ. 2019;23(1):42–53. https://doi.org/10.1111/eje.12391. Medline:30171662

30 Torres AC, Lopes A, Valente JMS, Mouraz A. What catches the eye in class observation? Observers' perspectives in a multidisciplinary peer observation of teaching program. Teach High Educ. 2017;22(7):822–38. https://doi.org/10.1080/13562517.2017.1301907.

31 Finn K, Chiappa V, Puig A, Hunt DP. How to become a better clinical teacher: a collaborative peer observation process. Med Teach. 2011;33(2):151–5. https://doi.org/10.3109/0142159X.2010.541534. Medline:21275544

32 Yiend J, Weller S, Kinchin I. Peer observation of teaching: the interaction between peer review and developmental models of practice. J Furth Higher Educ. 2014;38(4):465–84. https://doi.org/10.1080/0309877X.2012.726967.

33 Shi CR, Nguyen MO, Rana J, Burgin S. Teaching and learning tips 12: peer observation of teaching. Int J Dermatol. 2018;57(10):1233–6. https://doi.org/10.1111/ijd.13913. Medline:30187923

34 Danielowich RM. Shifting the reflective focus: encouraging student teacher learning in video-framed and peer-sharing contexts. Teach Teach. 2014;20(3):264–88. https://doi.org/10.1080/13540602.2013.848522.

35 Garcia I, James RW, Bischof P, Baroffio A. Self-observation and peer feedback as a faculty development approach for problem-based learning tutors: a program evaluation. Teach Learn Med. 2017;29(3):313–25. https://doi.org/10.1080/10401334.2017.1279056. Medline:28632009

AUTHOR INFORMATION

Diana M. Hassel, DVM, PhD, DACVS, DACVECC, is Associate Professor, Department of Clinical Sciences, Colorado State University, 300 West Drake Rd, Fort Collins, CO 80523-1678 USA. Email: dhassel@colostate.edu.

Maria Fahie, DVM, MS, DACVS, is Professor, Small Animal Surgery, Western University of Health Sciences College of Veterinary Medicine, 309 E. Second Street, Pomona, CA 91766-1854 USA. Email: mfahie@westernu.edu.

Christiane V. Loehr, MedVet, Dr. med. vet., PhD, DACVP, is Professor, Department of Biomedical Sciences, Oregon State University, Corvallis, OR 97331 USA. Email: Christiane.loehr@oregonstate.edu.

Rachel L. Halsey, DVM, is Vet Med Program Coordinator, Dean's Office & Administration, Washington State University College of Veterinary Medicine, Pullman, WA 99164-7040 USA. Email: r.halsey@wsu.edu.

William Vernau, BSc, BVMS, DVSc, PhD, is Professor, Department of Pathology, Microbiology and Immunology, University of California Davis, Davis, CA 95616 USA. Email: wvernau@ucdavis.edu.

Elena Gorman, DVM, MS, is Associate Professor, Department of Biomedical Sciences, Oregon State University College of Veterinary Medicine, Corvallis, OR 97331 USA. Email: elena.gorman@oregonstate.edu.

APPENDIX 1: PEER OBSERVATION—CLINICAL/SMALL GROUP TEACHING

Pre-Observation Meeting instrument

Peer Observation of Teaching

Course Information

Instructor: _____   Date: _____

Observer: _____   Setting: _____

Pre-Observation Meeting

The following are intended as guiding questions that may be addressed in the Pre-Observation Meeting. The term "session" (below) is intended to be inclusive and may encompass didactic lectures, laboratory and/or discussion sessions, clinical rounds, teaching during clinics, problem-based learning sessions, etc. Please provide the observer with any relevant teaching materials (may include handouts, learning objectives, PowerPoint slides, syllabus, etc.).

What do you wish the students to learn by the end of this session? Do you feel that your objectives are clearly communicated to the students?

How does this session fit into the overall course or curriculum?

Are there specific aspects of the session or your teaching style for which you would like to receive feedback?

What is the proposed format of the session to be observed and will it be typical of your teaching?

What revisions, special efforts, new ideas/techniques, or trials have you made to this type of session? What motivated you to make these changes (if any)?

Are any pre-/post session assignments or ancillary teaching materials required/provided?

What areas or techniques are you working on to enhance your teaching?

Is there anything else you would like to share? What do you hope to gain through this observation?

APPENDIX 2: PEER OBSERVATION—CLINICAL/SMALL GROUP TEACHING

Post-Observation Meeting instrument

Peer Observation of Teaching

Teaching Academy
Consortium of West Region CVM

Post-Observation Meeting

Instructor: _____   Date: _____

Observer: _____   Setting: _____

Did you accomplish what you intended for this session? If not, why not?

Were you able to determine whether your students learned what you intended? How?

What do you feel worked well (major strengths) in this session? Consider the following: initiation, presence, ensuring interaction, active learning, content, clarity, and closing of the session.

What challenges did you encounter?

What might you change for next time?

What else would you like to discuss?

OBSERVER'S FINAL COMMENTS AND SUGGESTIONS:

Overall perception of teaching: ☐ Emerging   ☐ Evident   ☐ Exemplary

APPENDIX 3: PEER OBSERVATION—LARGE GROUP TEACHING

Peer Observation of Large Group Teaching Instrument

Peer Observation of Large Group Teaching

Instructor: _____   Date(s): _____   Course: _____

Student year of study_____   Session title/topic: _____

Class format: _____   Number of hours observed: _____

Peer observer: _____   Knowledge level of content (circle one): low, med, high

Add written comments or "not applicable" as deemed appropriate.

1. Initiation – connecting with learners, providing context/background, integrating pre-session preparation.

2. Logical organization of information, emphasizes core concepts and communication of learning objectives (class or case flow).

3. Apparent knowledge of subject. Uses or refers to evidence-based/best practices.

4. Presented material is current and relevant to course objectives.

5. Communication style: pace, clarity, effective transitions, links to prior classes, appropriate examples, gives periodic summaries. Does the instructor maintain student interest?

6. Attitude toward students (e.g., classroom rapport, dealing with questions and discussions, ability to deal with disruptions).

7. Use of techniques to facilitate active learning and encourage comprehension. Describe any techniques used as an alternative to didactic lecture (e.g. case-based learning, clickers, small group exercises, etc.)

8. Closing – summarizes, integrates, highlights key points; last questions; set up for transition to next class.

9. Presentation style considerations:

    Began on time?   ☐ Yes   ☐ No
    Ended on time?   ☐ Yes   ☐ No
    Voice clear and audible? (microphone acceptable)   ☐ Yes   ☐ No
    Any distracting mannerisms?   ☐ Yes   ☐ No

APPENDIX 4: PEER OBSERVATION—CLINICAL/SMALL GROUP TEACHING:

Peer Observation of Clinical/Small Group Teaching Instrument

Please refer to Peer Observation Guide for Clinical Teaching

Instructor: Observer: Setting: Date:

Initiating the session

1. Connects with the participants
2. Provides context/background
3. Integrates learner pre-session preparation

Presence

4. Nonverbal skills (pace, eye contact, etc.)
5. Dynamism/engagement
6. Demonstrates respect for learners
7. Targets language to learner experience

Ensuring interaction and active learning

8. Provides session structure
9. Elicits and refers to learners' perspectives
10. Fosters critical thinking & interaction
11. Engages ALL learners
12. Uses multiple questioning techniques (open, closed, Socratic)
13. Listens actively and allows time for responses
14. Uses chunking and checking

Other factors contributing to effective clinical teaching and learning

15. Uses/manages humor and emotions effectively
16. Manages wrong answers/mistakes effectively
17. Manages conflicting points of view
18. Demonstrates professionalism & safety
19. Responds to inattention/unprofessional conduct

Content and clarity

20. Uses evidence-based medicine/best practices
21. Helps learners structure clinical information
22. Balances depth and breadth of information
23. Uses patient data, images, handouts, models, demonstration, visuals
24. Models clinical skills (reasoning, procedural skills, communication, problem solving)

Closing the session

25. Summarizes, integrates, highlights key points
26. Provides opportunities for last questions
27. Sets up/transitions into next session/case (assignments, expectations, etc.)

Additional comments:

APPENDIX 5: PEER OBSERVATION—CLINICAL/SMALL GROUP TEACHING

Peer Observation Guide for Clinical Teaching

This guide outlines a way to structure the notes you make while observing teaching and learning in a clinical or problem-based setting and participating in the post-observational feedback session. The guidelines pertain to small group or laboratory facilitation, coaching, clinical teaching, rounds, etc. There is no expectation that all numbered items will be applicable or discussed for every observation. Rather, these items are representative of what might be addressed under each main and sub heading.

Initiating the session

1. Connects with the participants – greets, acknowledges the learners

2. Provides context/background – establishes rationale for this session, clarifies how this session/learning fits with previous learning, other sessions, other parts of the curriculum

3. Integrates learner pre-session preparation – for example, use of pre-session quizzes, reviewing patient charts, case introduction, literature review

Presence

4. Nonverbal skills:

   a. Eye contact and facial expressions

   b. Pace

   c. Other vocal cues – volume, intonation and pitch

   d. Posture, position, gestures, and other movements

5. Dynamism/engagement – responsiveness, flexibility, presence

6. Demonstrates respect for learners

7. Targets language to learner experience – Language appropriate for experience and knowledge level of learners

Ensuring interaction and active learning

8. Provides session structure - Provides explicit structure and makes that structure visible

   a. Signposting – highlighting or categorizing information for emphasis or to aid recall (e.g. 'There are two important facts you need to remember: 1st …, 2nd …')

   b. Use of transition statements (verbal structuring)

   c. Use of periodic summary throughout the session

   d. Logical sequence – organization

   e. Attending to time

   f. Keeping on task or diverting appropriately

9. Elicits and refers to learners' perspectives – Asks for learners' perspectives and incorporates those perspectives while giving and explaining information

10. Fosters critical thinking and interaction

    a. Models and discusses the process of clinical reasoning and critical thinking, e.g., thinks out loud to assist with this process

    b. Creates opportunities for learners to engage in critical thinking and problem solving

    c. Encourages interaction with the instructor and each other

11. Engages ALL learners

12. Uses multiple questioning techniques (open, closed, Socratic)

    a. Closed – Questions for which a specific and often 1- or 2-word answer is expected, such as *yes* or *no*

    b. Open – Questions that invite elaboration. They may direct learners to a particular area, but they allow more latitude in their response; e.g. what are the differential diagnoses? Problem list?

    c. Socratic – Questions that guide learners when they are struggling; e.g., if the learner is headed down the wrong track, ask questions that help them rethink the process and guide them to get back on track

13. Listens actively & allows time for responses – use of silence, 'wait time', facilitative responses (verbal and non-verbal)

14. Uses chunking and checking – assists learners with understanding and recall by giving a chunk of information or breaking content into manageable pieces and checking for understanding before going on

Other factors contributing to effective clinical teaching and learning

15. Uses/manages humor and emotions effectively – recognizes grief, anxiety and frustration, practices compassion, appropriate use of humor

16. Manages wrong answers/mistakes effectively

17. Manages conflicting points of view and other conflicted situations

18. Demonstrates professionalism and safety – recognizes ethical dilemmas and promotes professional conduct, inclusiveness, ensures a safe physical and emotional environment

19. Responds to inattention, disengagement, disrespect, or other unprofessional conduct

Content and Clarity

20. Uses evidence-based medicine/best practices

21. Helps learners structure clinical information – e.g., uses conceptual frameworks (the system of concepts, assumptions, expectations, beliefs, and theories that support and inform critical thinking)

22. Balances depth and breadth of information – accounts for various levels of knowledge and experience, e.g., 1st year versus 4th year students.

23. Uses patient data, images, handouts, models, demonstration, visuals, etc., to augment learning

24. Models clinical skills:

    a. Making content concrete by applying it to clinical reasoning, procedural skills, communication, taking client perspective into account, problem solving, etc.

    b. Demonstrating and discussing/analyzing what you are doing explicitly

Closing the session

25. Summarizes, integrates, highlights key points

26. Provides opportunity for learners to ask last questions

27. Sets up/transitions into next session/case (assignments, expectations, etc.)