The development of a reporting form for peer observation of online learning courses: An e-Delphi consensus study of educators working in Health Professions Education.

Abstract

Introduction: Peer observation of online teaching has been suggested to maintain and monitor online learning standards. However, this practice and the designed peer observation forms have been almost exclusively restricted to face-to-face or stand-alone synchronous/asynchronous sessions. This study, therefore, aimed to identify criteria for the successful design and delivery of online courses and develop a rigorous form specifically designed for peer observation of teaching in online learning environments applicable to the Health Professions Education context.

Methods: A three-round e-Delphi technique was used to gather consensus on categories/items and process/structure of the peer observation form. A total of 21 international, experienced online educators working in Health Professions Education were recruited. A 75% consensus was considered as the minimum agreement level.

Results: Response rates were 100% (n=21), 81% (n=17) and 90% (n=19) respectively. The intensity of consensus was 38-93%, while the agreement/disagreement consensus was 57-100%. In Round 1, the 13 topics proposed as major categories for design and delivery reached agreement consensus. One option reached agreement on how to approach and structure the peer-observation process. All items within major categories reached agreement in Rounds 2 and 3. The resulting form presents 13 major categories with 81 items.

Discussion: The identified criteria and developed form address relevant educational principles such as constructive alignment, online instructional design, retrieval practice and spaced learning, cognitive load, and constructive feedback and authentic assessment, all of which have been suggested as critical aspects to ensure a high-quality learning experience. This adds to the literature and to educational practice as clear, evidence-based guidance for the design and delivery of online courses, which differ distinctly from traditional face-to-face teaching.

Conclusion: The developed form expands the options for peer observation, from face-to-face and stand-alone synchronous/asynchronous sessions to fully online courses.

Keywords: educator development; online learning; online teaching; peer observation; reflective practice.

Introduction

Online learning now forms an essential part of educational provision in Higher Education Institutions (HEIs), where Health Professions Education (HPE) is no exception. Maintaining and monitoring online learning standards has become particularly relevant considering the abrupt transition (and permanent adaptation in some cases) due to the Covid-19 pandemic.[1] Peer observation of online teaching for educator development and quality improvement has been suggested to address these concerns.[2,3]

Peer observation of teaching is a formative process designed to develop and enhance the practice of observer/observed educators through giving and/or receiving feedback within a trusting professional relationship.[4] It is a powerful tool to enhance student learning and educator development through its ability to encourage reflection, provide support, disseminate good teaching practices and foster communities of learning.[5–7] Many institutions require educators to participate in peer observation schemes, allowing further professional development needs to be identified and addressed in follow-up activities to help maintain educational standards.[8] Such schemes also offer opportunities to share good practice, offer meaningful professional development compared to standard 'training', and provide a structured and collaborative way of developing reflective practice across an institution.[9] Therefore, peer observation of teaching has become an established practice in many HEIs and a pivotal contributor to the professional development of educators. It is also a requirement for authenticating practice within professional recognition schemes for educators in HEIs.[10]

Despite its relevance and value, peer observation of teaching has been a practice almost exclusively restricted to face-to-face activities. It has not yet fully embraced the breadth of the 'educational role' and its impact on the learning environment.[11] Initial studies have shown that peer observation of online teaching is possible, in practical terms, but also needed as many aspects of face-to-face peer observation do not simply 'translate' directly to online activities.[12,13] For instance, there are challenges regarding what is to be observed online, how the observation process is managed and structured, and how to help educators and learners maximise new opportunities available as they adapt to a context often lacking the perspective of online learners.[11] Some advantages of peer observation of online teaching are that it allows part-time, on-demand and remote teaching staff to develop and feel a

greater sense of institutional belonging. It provides a means of sharing good practices and ensures that online innovation is cascaded in the same way as classroom-based practices.[14]

Both the implementation and exploration of online peer observation are still in an early stage, and a wide range of aspects remain to be investigated. One fundamental and understudied aspect is the observation and reporting forms used, as the great majority are designed for observations of face-to-face teaching, with fewer designed for online teaching. The latter usually aimed at stand-alone asynchronous[11,12] or synchronous sessions[2,3] that do not apply to the complexities of fully online courses, such as having mixed synchronous/asynchronous activities and therefore needing to evaluate using different tools. Moreover, the latter are unstructured or informal, resulting in an onerous and impractical process for busy health professional educators, thus reflecting a need to develop more structured approaches.[2]

Therefore, this study aimed to identify criteria for the successful design and delivery of online courses beyond stand-alone sessions and to develop a rigorous observation and reporting form designed explicitly for peer observation of teaching in online learning environments applicable to the context of HPE.

Methods

Study design and consensus rules

We conducted the study from November 2020 to December 2021, using a constructivist approach through a consensus group method.[15] The aim was to collect the opinion of experienced educators in the field of online learning in HPE to answer the following questions:

- What are the criteria for the successful design and delivery of online courses?
- What is the recommended process and structure for conducting peer observation of online courses?

As this is a topic with much uncertainty and insufficient evidence, we opted for a Delphi consensus group method to synthesise opinions and enhance decision-making.[15] The Delphi method is an iterative, anonymous, multi-stage survey conducted amongst expert participants.[16] Since the 1960s, it has become an established survey method to reach consensus within HPE and other fields.[17–19] This method involves

a panel responding to iterative rounds of questionnaires supplying opinions and/or rating responses while receiving feedback on where their opinions fall within the collective. We opted for an e-Delphi format[20] to allow the involvement of international experienced educators and to avoid 'domination' of individuals with greater expertise or stronger personality traits.[21] We communicated with the panel via email, using Microsoft Forms® for all questionnaire rounds.

An a priori set of three rounds was determined to prevent fatigue and attrition of participants.[22] These aimed to reach consensus on the major categories and items for the design and delivery of online courses and the approach (i.e., the method to conduct the observation) and structure (i.e., the organisation of the observation form) for peer observation. Each round comprised anonymous open and closed-ended questions. Answers from open-ended questions were used to generate new categories or items to be included in the following rounds as closed-ended questions. All closed-ended questions were presented in the form of 4-point Likert scales from strongly agree to strongly disagree. We utilised aggregates of judgements to determine consensus, and per cent agreement as the criteria for defining consensus as this has been shown to be a unified approach.[17,23]

As the literature does not provide an absolute value, the consensus level required for inclusion or exclusion was set at 75%, a widely accepted and commonly reported level.[17,24] Therefore, if 75% or more experts agreed or disagreed on an item, it was termed as consensus achieved. If an item, however, failed to reach 75% agreement or disagreement, it was termed as consensus not achieved. Items which resulted in disagreement or did not achieve consensus were discarded. Between rounds, the research team collated the open-ended answers, rankings, and consensus agreement, and anonymous results were sent to participants for review in the next round. Participants were given four weeks to respond each e-Delphi round. Two reminders were sent via email after the first and third week. Figure 1 shows the e-Delphi design and implementation process.

Panel identification and selection

We used a combination of an experienced and snowball sampling technique to identify educators in the field of online learning in HPE.[25] Derived from a literature review and personal knowledge of the research team, we identified international academics meeting the following criteria: (1) involved in

scholarly activities related to online learning; (2) practical experience in designing and delivering online courses; and (3) contributing to the HPE field.

Identified educators were formally invited to participate through email/direct messaging through social media (e.g., Twitter, LinkedIn, Facebook). At the same time, and with the intention of snowball sampling, they were asked to provide names of potential experienced educators to be included in the study. The email/message invitation included a participant information sheet, the informed consent form, and the Microsoft Forms® questionnaire link to the first round of the e-Delphi. All communications and surveys were conducted in English, where participants could withdraw without giving any reasons. Educators who agreed to participate in the study were requested to return the completed consent form. All e-Delphi rounds consisted of anonymous surveys, each with its questionnaire link, and answers were received directly by the research team lead. The panel group was the same for each round, and the identity of participants was confidential.

Group size in Delphi studies can vary enormously, ranging from 3 to 3000.[17] However, previous studies have recommended a minimum sample size of 10-15 if the panel comprises a homogeneous sample, in our case, sharing similar roles regarding online teaching in HPE.[26] Therefore, we planned to invite 25 participants, considering potential attrition, to recruit a minimum of 15 educators.

Questionnaire design and e-Delphi rounds

The research team pre-defined the major categories and items for the design and delivery of online courses, as well as pre-defining the peer observation process and structure options. These were based on a literature review and discussions amongst the research team. The team lead collected and synthesised all data to generate a pre-defined list for the e-Delphi survey. The research team included a physician, a biologist, and two dentists, each having more than ten years of experience in Higher Education, online teaching, and peer observation.

e-Delphi Round 1

This round aimed at reaching consensus on major categories for the design and delivery of online courses and the process and structure for peer observation. Twenty-eight closed-ended and three open-ended questions were developed (questionnaire link: https://forms.office.com/r/9hzhRvcrDU). Participants were first asked for demographic information (age, gender, disciplinary area of expertise, experience with online learning, and use of forms to peer observe online teaching). To prevent bias, there were two open-ended questions asking for aspects they considered crucial for the successful design and delivery of online courses. This was followed by a set of Likert-scale items where participants were asked to rate their agreement with pre-defined categories for the design and delivery of online courses. There was a final set of Likert-scale items regarding the process and structure of peer observation, where participants ranked their agreement with different ways of approaching the process, followed by an open-ended question for further suggestions.

e-Delphi Round 2

The aim of this round was twofold; first, to communicate the results of Round 1 and second, to reach initial consensus on items within major categories. Participants were first informed of the major categories that reached consensus in Round 1 and the process for peer review that reached agreement. The Round 2 questionnaire included 77 closed-ended and 13 open-ended questions based on the initial literature review and the open-ended questions from Round 1 (questionnaire link: https://forms.office.com/r/pqzmHsF7k6). Participants ranked their agreement with the possibility of adding new items in the open-ended questions.

e-Delphi Round 3

This round aimed to communicate the results of Round 2 and reach final consensus on items within major categories. Participants ranked their agreement on four Likert-scale items that were developed based on the results from Round 2 (questionnaire link: https://forms.office.com/r/XbTNtuGtAB).

Data analysis and final summary of results

We analysed the data using Excel® and SPSS® statistical package. For all closed-ended questions, we computed the percentage of intensity of the highest mode of consensus, the general agreement/disagreement consensus (considering 75% cut-off criteria), and the mean Likert-scale item score.[17] Data from open-ended questions were synthesised and organised into existing or new categories for use in the subsequent round.[27] We developed the peer observation form as a Word® document based on the final consensus results, both of which were sent to participants.

Ethical approval

The Research Ethics Committee of the Faculty of Medicine and Health Sciences of the University of East Anglia approved this study (Protocol 2019/20-132). We obtained written informed consent from all participants.

Results

Of the 25 invited educators, 21 agreed to participate (84%). All 21 responded in Round 1 (100%), while 17 (81%) and 19 (90%) responded in Rounds 2 and 3, respectively. Panellists reported their disciplinary area of teaching and expertise in Medical Education (n= 12, 57%) (e.g., Medical Informatics, Communication Skills, Public Health and Epidemiology, Pathology, Physiology, and Emergency Medicine), Online and Digital Education in HPE (n= 5, 23%), Dental Education (n= 2, 10%), Nursing Education (n= 1, 5%), and Biological Sciences (n=1, 5%). Panellists' years of experience delivering online learning ranged from 5 or less (n=7, 33%), 6-10 (n= 6, 29%), 11-20 (n= 5, 24%), and more than 20 (n= 3, 14%). Regarding the use of forms to peer observe online teaching, 10 (47%) reported never having used them before, 6 (29%) had used them as observers, while 5 (24%) had used them as both observer and observee. Panellists were based in Europe (n=14, 66%), South America (n= 4, 19%), North

America, (n= 2, 10%), and the Middle East (n= 1, 5%). The majority were female (n= 14, 67%), and the mean age was 48 years (SD = 8.69).

Table 1 presents the results from all three rounds. The consensus intensity ranged from 38% to 93%, while the general agreement/disagreement consensus ranged from 57% to 100%. In Round 1, the 13 topics proposed as major categories for design and delivery reached agreement consensus. One option reaching agreement consensus was to approach the peer-observation form as a pre-observation online meeting/phone call, followed by online observation, a post-observation online meeting/phone call, and final observee's written reflections. The one structure option that reached agreement consensus was to include a section on pre-observation information on the context of the course and feedback should be completed by the observee followed by an observation rubric to be marked by the observer; a post-observation feedback section as unlimited text entry by the observer; and finally, a section for written reflections as word-limited text entry by the observee. However, based on the answers to the open-ended questions, the observation rubric was designed to include an optional text entry box for the observer to add notes. No other topics were identified from the open-ended questions. In Round 2, all items within the previously identified major categories reached agreement consensus. Four new items were identified from the open-ended questions under the major categories of Instructional Design, Technology Use for Learning, Assessment Design and Expectations, and Asynchronous Communication Strategies. In Round 3, these four identified items reached agreement.

Following the eDelphi results, the research team developed the Norwich Medical School Peer Observation of Online Learning form (NMS-POOL) (see Supplementary Material I) based on the 13 major categories with their 81 items, considering the consensus for its approach and structure.

Discussion

The present study was designed to develop a feasible and rigorous peer observation form for online courses based on the consensus of experienced educators on the criteria for the successful design and delivery of online teaching in HE. Our e-Delphi approach was an efficient and flexible method to gather the judgements of a geographically diverse panellist group, generating unbiased opinions without external influences. The high panellist retention rate throughout the e-Delphi may reflect the priority

given to the study by participants, enabling them to reflect on best practices for online teaching.

Throughout the three e-Delphi Rounds, panellists agreed on nine categories for the design and four categories for the delivery of online courses, including 81 items. These address relevant educational principles such as constructive alignment, online instructional design, retrieval practice and spaced learning, cognitive load, and constructive feedback and authentic assessment. They also address engagement, transparency, interactions with peers and tutors, evaluation and quality improvement, and inclusion and equality, all of which have been suggested as relevant aspects to ensure a high-quality learning experience.[3] The NMS Pool includes the categories and 81 consensus items agreed through the e-Delphi rounds and so the full instrument is lengthy; however, it was designed to be flexible and for sections or items to be deleted as required. In addition, the form includes a text entry box for additional notes under each category so that observers may add comments on aspects that might not be included in the form, such as specific innovative practices or arts-based teaching.

Unlike face-to-face teaching, where educators have a background of knowledge and skills based on personal learning experiences, online teaching may represent a new challenge for educators who might feel that they are being asked to *'run before they can walk'*.[28] Consequently, the agreed criteria contribute to the literature and to educational practice as clear, evidence-based guidance for the design and delivery of online courses, which differ distinctly from traditional face-to-face teaching. The panellists' own experience of availability of fit-for-purpose tools to observe online teaching confirms our rationale for this study, where 47% reported to have never used peer observation forms specifically designed for online learning.

Moreover, developing the NMS-POOL derived from the agreed criteria expands the options for peer observation, from face-to-face and stand-alone synchronous and asynchronous sessions to peer observation of fully online courses, contributing to quality enhancement and faculty development for educational practice improvement. As stated by McMahon et al,[29] one of the aims of peer observation is for educators, observer and observee, to engage in mutual reflection so both may learn in order to inform future practice. The NMS-POOL is, therefore, in alignment with the collaborative model for peer observation suggested by Gosling,[30] which aims to engage peers in reciprocal observation and encourage self- and mutual-reflection, dialogue, and innovation, resulting in formative feedback. However, the NMS-POOL could also be used for mentoring purposes, in alignment with the

developmental model[30] that aims to improve teaching competencies by senior colleagues observing less-experienced educators as a one-way process. In this sense, the form has been designed as a formative tool, where the observee has control over the process, rather than an 'evaluative' or pass/fail assessment.[29]

Panellists agreed on the approach and structure to conduct the online peer observation process, which aims to suit the needs of busy clinical educators. This is in alignment with the traditional three-stage process,[6] including a preparation phase to set the scene and discuss the objectives and needs of the observee, followed by the observation and a discussion and reflection phase for feedback and agreed action points.

The form was developed as a rigorous and comprehensive peer observation instrument, covering a wide range of factors that influence the design and delivery of online courses. It allows adaptation to the observee's/course needs by deleting irrelevant sections. This contributes to its feasibility and makes the form transferable to different HE contexts. In addition, approaching the observation based on a rubric with optional text entry is expected to enhance its acceptability. The form and peer observation process, feasibility, acceptability, impact on educator development, and transference to different HE contexts are important issues for future research.

The relevant criteria identified for the design and delivery of online courses and subsequently developed form were limited to the panel's judgement. However, participants included a diverse and experienced group in combination with the research team's moderation and a review of the existing literature. Despite the e-Delphi benefits of anonymity, efficiency, and flexibility, it is a time-consuming method for consensus agreement. Nevertheless, this may be overcome with proper planning and anticipation of potential delays.

Conclusion

The study gathered consensus on the criteria for successful design and delivery of online courses through 3 e-Delphi rounds, resulting in the NMS-POOL. This form expands the options of peer observation to fully online courses, supporting reflection and sharing of good practices as a formative process. This is expected to contribute to the ongoing transition to online teaching by providing a fit-

for-purpose peer observation form beyond the existing tools for face-to-face and stand-alone synchronous and asynchronous sessions.

Conflict of interest

No authors have any conflict of interest.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Fig 1. e-Delphi design and implementation process.

Planning →
- Literature review and pre-generation of categories and items by authors.
- Planning and Preparation of questionnaire for eDelphi rounds.
- Establish consensus rules and criteria for participant selection.

Selection and recruitment →
- Sample: International educators identified from literature review and authors' experience, and snowballing with selected participants- minimum of 15 participants expected.
- Participants contacted by different means, invited through email or social media messages.
- Participants sent information, invitation and consent form.

eDelphi round 1 →
- Objective: To reach initial consensus on major categories for the design and delivery of online courses, reach consensus on process and structure for peer observation, and to characterise the sample.
- 28 closed-ended and 5 open-ended questions.
- Time allocation: 4 weeks with email reminder sent at the end of week 1 and 3.
- Descriptive statistical and content analysis, and preparation of questionnaire for eDelphi round 2.

eDelphi round 2 →
- Objective: To inform results of round 1, reach final consensus on major categories for the design and deliver of online courses and process and structure for peer observation, and to reach initial consensus on items within major categories for the design and delivery of online course.
- 77 closed-ended and 13 open-ended questions.
- Time allocation: 4 weeks with email reminder sent at the end of week 1 and 3.
- Descriptive statistical and content analysis, and preparation of questionnaire for eDelphi round 3.

eDelphi round 3 →
- Objective: To inform results of round 2 and reach final consensus on items within major categories for the design and delivery of online course.
- 4 closed-ended questions.
- Time allocation: 4 weeks with email reminder sent at the end of week 1 and 3.
- Descriptive statistical and content analysis for termination of eDelphi survey.
- Final results collated and development of peer observation form.
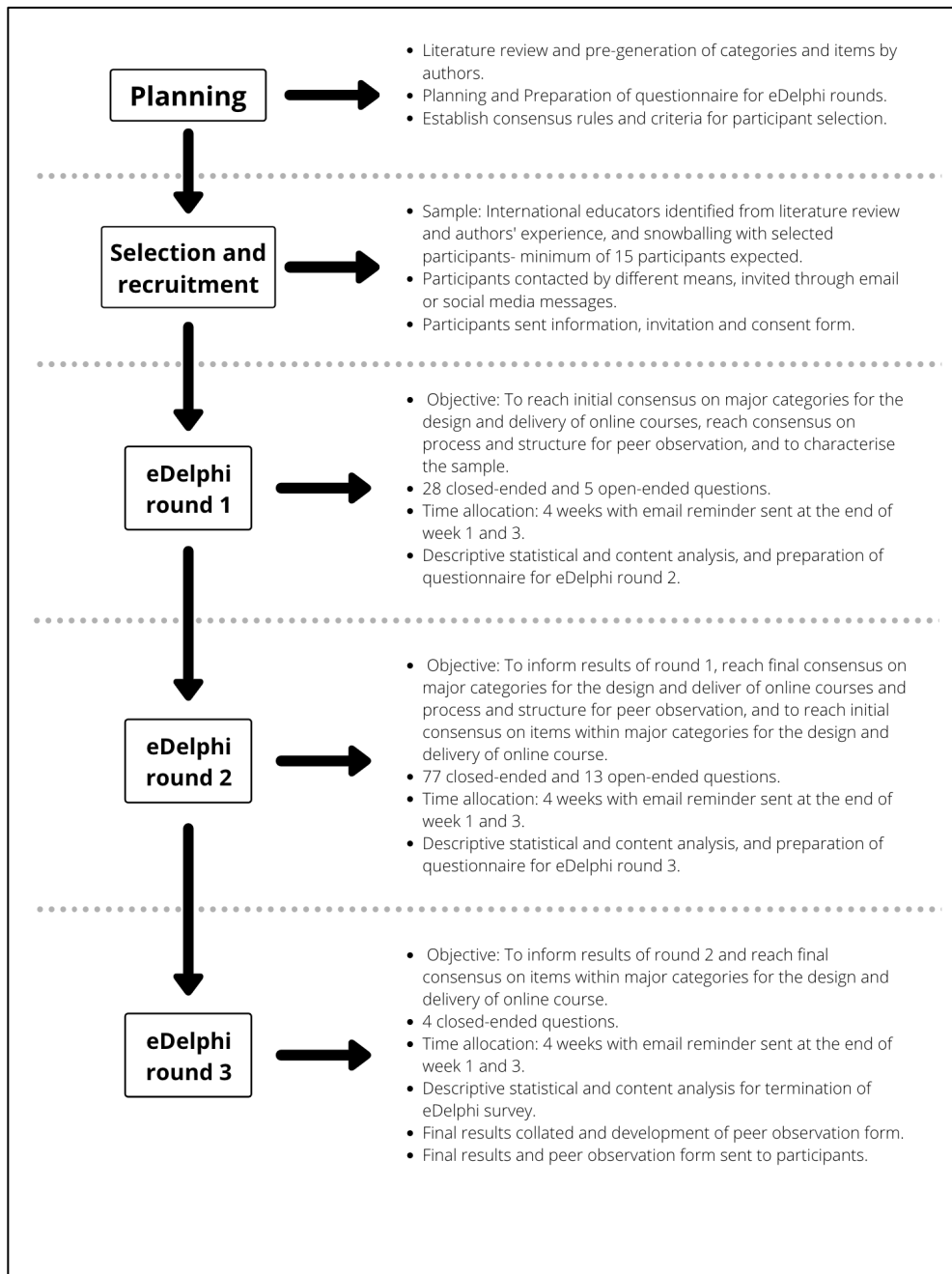- Final results and peer observation form sent to participants.

Table 1 e-Delphi results.

Item	Highest mode of consensus -intensity	General agreement/disagreement (75% cut-off criteria)	Mean Likert Score
The successful <u>design</u> of online learning should consider….			
1. Learning Outcomes, Goals and Requirements*	Strongly agree-91%	100%	3.9
1.1-Learning outcomes are clearly written (specific, well-defined, and measurable)†	Strongly agree-79%	100%	3.8
1.2-Alignment between learning outcomes, learning activities and assessments†	Strongly agree-86%	100%	3.9
1.3-Learning outcomes easily located and linked to learning activities†	Strongly agree-64%	100%	3.6
1.4-Presentation of timetable of activities, assessments, and student requirements†	Strongly agree-71%	100%	3.7
2. Instructional design*	Strongly agree-86%	100%	3.9
2.1-Learning activities respond to students' needs and are transferable/applicable to practice†	Strongly agree-57%	100%	3.6
2.2-Clear rationale and justification on how instructional strategies enable learners to reach course learning outcomes†	Strongly agree-79%	100%	3.8
2.3-Multiple learning modalities and teaching aids (audio, visual, text-based, etc)†	Agree/Strongly agree-50%	100%	3.5
2.4-Time management and realistic time expectations†	Strongly agree-79%	100%	3.8
2.5-Use of active asynchronous and synchronous learning activities†	Strongly agree-57%	100%	3.6
2.6-Content available in manageable segments or 'chunks' (Units, blocks, etc)†	Strongly agree-79%	100%	3.8
2.7-Inclusion of individual and collaborative learning activities†	Strongly agree-71%	93%	3.6
2.8-Learning activities promote higher order thinking and provide opportunities for reflection on learning and practice†	Strongly agree-71%	100%	3.7
2.9-Learning activities consider learners' attention span†	Strongly agree-50%	93%	3.5
2.10-Learning activities are designed to reflect diversity and inclusion regarding culture, discipline, and ethnicity†	Agree/Strongly agree-50%	100%	3.5
2.11-Learning activities and examples based on real-life problems/scenarios of the taught material†	Strongly agree-64%	100%	3.6
2.12-Retrieval practice is favoured, considering spaced, interleaved, and varied learning§	Strongly agree-56%	88%	3.4
3. Course overview and presentation*	Strongly agree-52%	95%	3.5
3.1-Landing page with key course/module information and effective signposting†	Strongly agree-86%	100%	3.9
3.2-Section on orientation to course/module and virtual learning environment†	Strongly agree-86%	100%	3.9
3.3-Intuitive/consistent navigation and logical progression flow†	Strongly agree-86%	100%	3.9
3.4-Clear course structure and instructions†	Strongly agree-86%	100%	3.9
3.5-Course/module description including purpose, format, prerequisite knowledge/skills and competencies†	Strongly agree-71%	100%	3.7
3.6-Content readability and audibility enhanced with visual and auditory elements†	Strongly agree-64%	100%	3.6
3.7-Learning activities show clear time parameters†	Strongly agree-71%	100%	3.7
3.8-Minimum steps/clicks to reach primary content†	Strongly agree-57%	100%	3.6
4. Learner engagement*	Strongly agree-91%	100%	3.9
4.1-Monitoring of engagement and participation†	Strongly agree-57%	93%	3.5
4.2-Timely communication and guidance for disengaged learners†	Strongly agree-79%	100%	3.8
4.3-Learners asked to share their own learning goals/needs†	Strongly agree-57%	86%	3.4
4.4-Optional learning resources clearly posted†	Agree/Strongly agree-50%	100%	3.5
4.5-Creative/innovative learning activities/technologies promoting engagement and participation†	Strongly agree-54%	100%	3.6
5. Technology use for Learning*	Strongly agree-71%	100%	3.7
5.1-Learning activities compatible with multiple devices (laptop, tablet, smartphones) and browsers†	Strongly agree-71%	93%	3.6
5.2-Use of technology tools available within the virtual learning environment†	Strongly agree-71%	93%	3.6
5.3-Downloadable learning resources†	Strongly agree-57%	100%	3.6

5.4-Recording of synchronous session for later review†	Strongly agree-71%	93%	3.6
5.5-Streamed/embedded videos†	Agree-64%	100%	3.4
5.6-Reading list with links/availability of resources detailing core or optional material†	Strongly agree-71%	100%	3.7
5.7-Use of standard formats and optimised graphics†	Strongly agree-71%	100%	3.7
5.8-Wide variety of delivery media incorporated that supports learning outcomes†	Agree-57%	100%	3.4
5.9-Optimised number of technologies to achieve learning outcomes§	Strongly agree-69%	94%	3.6
6. Assessment design and expectations*	Strongly agree-71%	100%	3.7
6.1-Clear assessment criteria (standards and marking)†	Strongly agree-93%	100%	3.9
6.2-Assessment exemplars provided†	Agree/Strongly agree-50%	100%	3.5
6.3-Opportunities for assessment 'of and for' learning†	Strongly agree-71%	100%	3.7
6.4-Formative assessment mirrors summative assessment†	Strongly agree-57%	93%	3.5
6.5-Clear and specific instructions for assessment activities†	Strongly agree-86%	100%	3.9
6.6-Multiple methods and frequency of assessments†	Strongly agree-50%	93%	3.4
6.7-Opportunities for self- and peer-assessment†	Strongly agree-71%	93%	3.6
6.8-Assessment includes online participation and contributions†	Strongly agree-57%	93%	3.5
6.9.-Constructive and timely feedback†	Strongly agree-93%	100%	3.9
6.10-Accommodations provided for learners requiring extra time or additional explanations†	Strongly agree-79%	100%	3.8
6.11-Individual and group/cohort feedback provided§	Strongly agree-69%	100%	3.7
7. Learner Support, accessibility, and resources*	Strongly agree-81%	100%	3.8
7.1-Orientation on the use of required software†	Strongly agree-64%	100%	3.6
7.2-Accessibility to required external software†	Strongly agree-79%	100%	3.8
7.3-Access to technical and academic support (e.g., institutional policies, IT, netiquette, library, writing centre, plagiarism guidelines)†	Strongly agree-79%	100%	3.8
7.4-Support mechanisms for learners with special needs†	Strongly agree-79%	100%	3.8
8. Tutors' roles and contact information*	Strongly agree-71%	100%	3.7
8.1-Brief biographical information and a picture†	Agree-57%	93%	3.3
8.2-Role within the course/module†	Strongly agree-64%	100%	3.6
8.3-Contact information and expected response time†	Strongly agree-64%	100%	3.6
9. Course/module evaluation*	Agree-52%	100%	3.5
9.1-Feedback requested from learners during and after the course/module†	Strongly agree-64%	100%	3.6
9.2-Anonymous feedback†	Agree-50%	93%	3.3
9.3-Use of virtual learning environment's analytics†	Agree/Strongly agree-43%	86%	3.3
9.4-Comprehensive evaluation plan (e.g., learners' satisfaction, course design/ contents/ delivery, learning and transferability to practice)†	Strongly agree-57%	100%	3.6
9.5-Use of course/module evaluation for quality improvement†	Strongly agree-64%	100%	3.6
The successful <u>delivery</u> of online learning should consider…			
10. Asynchronous Communication Strategies*	Strongly agree-91%	100%	3.9
10.1-Opportunities for tutor-learner and learner-learner asynchronous interaction†	Strongly agree-64%	100%	3.6
10.2-Verbal and written asynchronous communication†	Agree-50%	86%	3.1
10.3-Opportunities to ask and clarify understandings†	Strongly agree-64%	100%	3.6
10.4-Guidance provided on required quantity and quality of participation and interactions†	Strongly agree-71%	100%	3.7
10.5-Discussions are facilitated, kept on track, and focused on relevant issues†	Strongly agree-57%	100%	3.6
10.6-Use of discussion boards for specific and discrete purposes (e.g., general questions, content-specific)§	Strongly agree-63%	100%	3.6

11. Synchronous Communication Strategies*	Strongly agree-71%	100%	3.6
11.1-Opportunities for tutor-learner and learner-learner synchronous interaction†	Strongly agree-64%	93%	3.6
11.2-Verbal and written synchronous communication†	Strongly agree-57%	79%	3.4
11.3-Opportunities to ask and clarify understandings†	Strongly agree-64%	100%	3.6
11.4-Clear guidelines on punctuality/attendance, content, activities, and expectations from learners in synchronous sessions†	Strongly agree-57%	93%	3.4
12. Tutor presence*	Strongly agree-71%	100%	3.6
12.1-Tutors periodically use communication tools to provide course updates, reminders, special announcements, etc†	Strongly agree-71%	100%	3.7
12.2-Tutors actively participate in learning activities, providing feedback, triggering discussion, and sharing experiences/views†	Strongly agree-79%	100%	3.8
12.3-Learners are encouraged to initiate communication with tutors†	Strongly agree-64%	86%	3.5
13. Rapport and responsiveness to learners*	Strongly agree-81%	100%	3.8
13.1-Tutors are available and responsive†	Strongly agree-64%	100%	3.6
13.2-Tutors address students by name, as possible†	Strongly agree-71%	100%	3.7
13.3-Tutors provide learners opportunities to raise problems/concerns, either in verbal or written format†	Strongly agree-79%	100%	3.8
13.4-Tutors convey openness and warmth and encourage learners to interact with others the same way†	Strongly agree-71%	100%	3.7
13.5-Tutors develop an inclusive virtual learning environment that respects different disciplines/backgrounds, diverse ethnocultural communities, and student abilities/needs†	Strongly agree-71%	93%	3.6
13.6-Opportunities provided for learners' self-introductions to support community building†	Strongly agree-64%	93%	3.6
13.7-Tutors encourage learner-learner interactions to support the development of a community of learning†	Strongly agree-71%	93%	3.6
A successful way of <u>approaching</u> online peer observation is…			
1.Pre-observation face-to-face meeting; online observation; post-observation face-to-face meeting; observee reflections*	Agree-43%	67%	2.9
2.Pre-observation online meeting/phone call; online observation; post-observation online meeting/phone call; observee written reflections*	**Agree-48%**	**91%**	**3.3**
3.Pre-observation meeting face-to-face; online observation; post-observation online meeting/phone call; observee written reflections*	Agree-43%	67%	2.9
4.Pre-observation email/document exchange; online observation; post-observation email/document exchange, observee written reflections*	Disagree-52%	61%	2.4
5.Pre-observation email/document exchange; online observation; post-observation online meeting/phone call; observee written reflections*	Disagree-38%	57%	2.8
A successful way of <u>structuring</u> the online peer observation form is…			
1.Pre-observation information on context of course and feedback needs by observee; observation notes as unlimited text by observer; post-observation feedback as unlimited text by observer; written reflections as unlimited text by observee*	Agree-38%	71%	3.1
2.Pre-observation information on context of course and feedback needs by observee; observation notes as word-limited text by observer; post-observation feedback as word-limited text by observer; written reflections as word-limited text by observee*	Agree-43%	57%	2.7
3.Pre-observation information on context of course and feedback needs by observee; observation rubric to be marked by observer; post-observation feedback as unlimited text by observer; written reflections as word-limited text by observee*	**Agree-57%**	**90%**	**3.2**
4.Pre-observation information on context of course and feedback needs by observee; observation checklist to be marked by observer; post-observation feedback as unlimited text by observer; written reflections as word-limited text by observee*	Agree-57%	71%	2.9
5.Pre-observation information on context of course and feedback needs by observee; observation Likert scale to be marked by observer per category; post-observation feedback as unlimited text entries by observer; written reflections as word-limited text entry by observee*	Agree-52%	61%	2.7

Symbols represent the eDelphi Round where items were added to the survey: first (*), second (†), third (§)