Teaching critical appraisal of research within applied arts in health in a mixed-group of students and in an online format

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Introduction: UP and my future teaching within higher education

As a natural consequence of the unorthodox nature of my educational background within classical singing, singing pedagogy, and user-centered design and communication, followed by a PhD within singing as training modality for people with lung diseases, a premise for my teaching within higher education is that I need to develop courses myself. This means that a ready-made course or programme doesn't exist, and that I must translate my competencies to meet different settings, purposes, and target groups. Specifically, I am involved in several research activities, spanning from clinical research, cohort studies, and critical literature appraisal, besides communicative and administrative tasks, e.g., dissemination to non-academics, funding applications, etcetera.

I considered several options in terms of finding an appropriate topic for my development project during UP, which reflected both my research, my competencies, and my interests to form a relevant ground for my future teaching in higher education. I have tried out several topics and teaching formats during UP, out of which some have been explorative by nature, involving creative tools and workshop activities, whereas other formats have been more specific, involving fixed tools and a classic lecture format. Although different topics and formats require different approaches, it has become clear to me that common central points relate to more generic building blocks in teaching, such as analysing context and target group, creating a safe and engaging learning environment, and

ensuring appropriate congruence between intended learning objectives (ILOs), teaching learning activities (TLAs), and assessment/evaluation. Therefore, in this final assignment, I will present an example of how I have worked with the planning, conduct, and evaluation of a specific topic and format, namely "teaching critical appraisal of research within applied arts in health in a mixed-group of students and in an online format", as this is a topic and format which I will likely be teaching in the future. This example, then, will serve as a basis and generic "recipe" regarding my future approach when planning, conducting, and evaluating any teaching activities.

Background: Need for critical literacy in the field of arts and health

The field of "arts in health" is a novel and rapidly growing field within research and practice and is characterized by high heterogeneity, both regarding modalities and approaches and regarding the current body-of-research and practices. Moreover, the field is overall driven by non-medical - but highly engaged - researchers, practitioners, and policymakers, leading to a high risk of bias towards initial "positive" findings and towards over-interpretations, misinformation, and myth-creation due to a lack of basic critical literacy. Therefore, there is a need to support these competencies within critical literature reading to induce a cautious mindset, to evaluate current findings, and to lead the way for future high-quality research to solidly inform research, practice, and policy.

I have been involved in several projects within systematic critical reviewing of arts in health-literature and am co-founder and member of the International Network for the Critical Appraisal of Arts and Health Research (INCAAHR), based at Mozarteum University Salzburg & Paris Lodron University Salzburg, Austria. Therefore, I have solid experience with using specific tools to critically evaluate literature within the field. Moreover, I have solid experience with communicating the significance of critical literature reading to various international audiences, both in written, face-to-face, and online formats. This experience also includes often communicating with mixed audiences with limited prerequisites

within critical literature reading and often communicating with highly engaged and opinionate people with fixed agendas, and – in some contexts – even resistance towards a voice-of-caution within the field.

During the UP course, I was offered the possibility to facilitate a 90 minutes' session which was part of the course "Music, Dance and Health" (4 ECTS), managed by a Dr. Habil at Mozarteum University Salzburg, Paris Lodron University Salzburg, Austria, and which was targeted a mixed group of 20 BA- and MA-students within psychology, musicology, and dance studies. The overall aim of the session was for the students to become familiar with critical literature reading using a validated tool (Barker, 2023) to assess risk of bias in randomized controlled trials (RCTs), taking a specific paper within arts and health, based on a large-scale RCT from my PhD (Kaasgaard, 2022), as an example. Specifically, the students should achieve insight into 1) the specific disease and rationale behind the intervention, 2) the connection between research questions and appropriate choice of research methodology, and 3) the assessment of internal and external validity of a study and the evaluation of evidence within a field. These aspects are relevant for the students' future literature reviews and for design, conduct, and reporting of potential studies. Due to practical matters, the course manager and I agreed that the session would be held online, which is a teaching format that is a central condition for my future teaching activities, given the growing interest and international outreach of the field. Therefore, it would be a relevant teaching format for me to explore.

Design and planning of the session – what I had prepared to do

Preparation: 1) Initially, the course manager and I discussed the basic characteristics, form, and context of the overall course and the content and purpose of my specific session to inform the ILOs and TLAs in accordance with the interactive system of the students (Entwistle, 2007). Moreover, we discussed the students' previous experiences and perceptions within arts-in-health research and interventions, as well as their previous experiences with reading health-scientific papers and with critical literature appraisal to understand the context of the students

(Rienecker, 2013). The course manager and I agreed on the following title of my session: "Critical appraisal of research within applied arts in health - using an RCT paper on singing as training modality for people with chronic obstructive pulmonary disease as example", and we chose the trial report from the main clinical study of my PhD, representing a high-quality study within the field. 2) Next, I designed the specific ILOs and TLAs for achieving alignment in a course, and then discussed this with both the course manager, my internal pedagogical supervisor, and my university pedagogical supervisor to ensure alignment and to optimise students' learning (Rienecker, 2013) and my own focus and learning as a teacher. Moreover, we discussed inclusion of assessment and evaluation after the session to consider students' actual benefits and understanding and to achieve constructive feedback on the session and me as a teacher. Additionally, I defined specific awareness points for myself and for the supervisors to observe and discuss after the session, mainly regarding keeping focus and track of time and optimising student engagement within the online format. 3) As preparation for the session, the students were instructed to read the RCT paper (and its supplementary materials S2 and S3) and to read paper, checklist, and question guidance for "The revised Joanna Briggs Institute (JBI) critical appraisal tool for assessment of risk of bias for randomised controlled trials" (Barker, 2023) and then try their best to fill out this checklist for the RCT paper.

     Teaching formats: Overall, the session was prepared according to recommendations for online delivery (Rienecker, 2013), and the session was divided into two blocks: BLOCK A: "Background and materials" and BLOCK B: "Analysis and workshop". I aimed for a mixture between lecture, exercises, and discussions in small groups and in plenum. Moreover, I prepared Mentimeter-quizzes/questionnaires after each topic. The format and structure varied between closed and open activities and between closed and open dialogue during which the students would be highly activated. This would create a safe learning environment, establish (and confirm) the ILOs and set a clear purpose and direction of the activities and exercises, and bridge theory and practice. Thus, the structre varied between a horisontal and a vertical approach. The format of BLOCK B was mainly a lab-oriented activity, and, therefore, I aimed for a quite structured plan with strong to very strong

teacher control (Jónsdóttir, 2022) and varying between closed and open activities. Overall, I aimed for a significant and apparent role as a lecturer (i.e., high teacher control) and at other times to act as "socratic midwife" (Yeyue Li, 2022) to facilitate inter- and intrapersonal dialogues and cognitive processes which were both curious and productive. This would underline the ILOs and the TLAs, aiming to maintain a safe environment and to provide the students with sufficient knowledge and confidence to engage and discuss.

Feedback: I aimed for building an online classroom culture where feedback was "constructive, specific, and clear" (Rienecker, 2013) and with "more positive than negative feedback" (Voerman, 2012). During the session, the feedback form would vary between being formative and summative (Dolin, 2018) and between feed-back and feed-forward (Hounsell, 2008). Moreover, the feedback would included both teacher feedback and peer-feedback (Ellegaard, 2018). Most of the time, feedback was delivered in an informal manner in case of open/reflective questions, whereas feedback on the fixed activities was delivered in a more formal manner.

Table 1. ILOs and TLAs: The five ILOs and appertaining TLAs of BLOCK A and BLOCK B.

Title of session: "Teaching critical appraisal of research within applied arts in health in a mixed-group of students and in an online format"	
ILOs related to course aims	**TLAs related to ILOs**
Introduction to establish the ILOs, TLAs, and overall content and purpose of the session.	Short introduction to me, my background, and research field; Short presentation of the ILOs and TLAs of the session; Mutual expectation and expected outcomes.

		Mentimeter (open text field): "Why do you think critical appraisal of literature is important?"

SESSION BLOCK A: Background and materials

1	Analyse and evaluate building blocks of clinical studies: rationale, design, quality. Analyse and evaluate the importance of "good" studies, e.g., within arts and health research, practice, and policy.	Presentation: The field: What is a "good" study? Why is it important with "good" studies, e.g., within arts and health research, practice, and policy? Appropriate study designs for specific research questions. What is internal and external validity? What is generalisability? *Mentimenter*-quiz.
2	Analyse and evaluate tools for reporting, quality appraisal, and evidence evaluation (purpose: can be used, e.g., for the students' future literature reviews + for design, conduct, reporting of own studies).	Presentation: Tools for: - Basic literature presentation/study reporting (IMRAD). - Quality appraisal (focus on JBI tool for RCTs). - Evidence evaluation (Cochrane Risk of Bias Tool (RoB-2)). *Mentimenter*-quiz.

3	Describe the study of interest (the RCT paper (Kaasgaard, 2022)).	Presentation: The study and its context (overall state of singing for respiratory diseases (very brief): What is known and what is still not known - and why was it important to do?).
	Identify and analyse the underlying research question (and its rationale) in the RCT	
		What was the background/rationale for the study?
		What was the underlying research question (and its rationale)?
		Why was an RCT the appropriate study design?
		Mentimenter-quiz.

SESSION BLOCK B: Analyis and workshop

4	Analyse and evaluate the RCT paper:	Discussion: Anything easy/hard in their home preparation?
	1) Asessment of internal validity: Risk of bias assessment, using the JBI tool.	Plenum: Analysis of the RCT using the JBI appraisal tool (divided into five different domains related to biases.
	2) Evaluation of external validity, using standard components in conduct and reporting of RCTs.	Plenum: Analysis of e.g., CONSORT flow diagram, rationale for outcomes, clinical relevance (MIDs/MCIDs), rationale for intervention, findings, strenghts, limitations.

| 5 | Identify, analyse and evaluate aspects/ perspectives related to specific questions (prepared in advance), both for the RCT paper and in general. | Break-out rooms (4 groups (7 minutes) with subsequent presentation/discussion in plenum). |

Discussion/reflections related to:

a) Blinding: participants, facililtators, assessors, researchers.
b) Intervention/control: purpose, content, delivery, reporting.
c) Outcomes/measures: choice, reporting, interpretation.
d) Strenghts, limitations, persepctives for future research.

Plenum: Sum-up, take-home, and Q&A.

Assessment and evaluation: The session included no formal assessment or exam. To enhance constructive alignment (Biggs, 1996, Entwistle, 2007, Hounsell, 2008) and to provide feed-forward to myself, however, I included a self-developed *Mentimenter*-quiz to assess the students' knowledge after the session, related to the ILOs. Additionally, I prepared a *Mentimenter*-questionnaire for evaluation of students' perceptions of their benefits of the session and of me as a teacher.

Conduct and reflections – what actually happened

Overall conduct and reflections: Overall, the session went well, and I was able to complete the programme as planned, though with some necessary adjustments along the way. I felt comfortable in the role as teacher and with the students, and was content with most of the needed adjustments, whereas other adjustments were more challenging to

manage and occasionally stopped the flow and contact with the students and with the materials. Besides, some components even had to be skipped, which caused a bit of internal confusion in me as I had to make quick and unprepared decisions ahead while speaking about another topic at the same time.

Context and materials: The students' backgrounds related to both pure/soft and applied/soft positions in the matrix of discliplinary contexts (Neumann, 2002) and they were highly heterogeneous regarding competencies and experiences. Although the topic of the RCT in some aspects relate to the soft corner, both the overall design and interpretation and the JBI tool relate to the hard corner, thus, differentiating from the student's usual disciplines. I had already acounted for this, e.g., in the preparation matierials, in my emphasis on having a warm and inviting attitude (with a room for humour and a little bit of smalltalk before the session), and in my preparation of script, slides, and exercises (with a layperson-approach to e.g., medical terms). Some aspects, however, which I wasn't prepared for, were the cultural differences (e.g., causing an intuitive insecurity regarding humour and appropriate tone) and the language barrier (a large proprtion of students had a rather low level in English skills). Due to this, I had to adjust the tempo in my speaking, causing an overall delay in the programme.

Alignment between ILOs and TLAs: Overall, the ILOs mostly covered taxonomy step 1-4 (Bloom, 1956). I felt that the alignment between ILOs and TLAs were good, but to evaluate the actual alignment and efficiency of the programme, it would require more experience with this session, and/or a student assessment/evaluation to ensure constructive alignment (Biggs, 1996; Entwistle, 2007; Hounsell, 2008). Obviously, it would have been easier to adjust and evaluate the alignment in a face-to-face setting.

Time and focus management: I managed to keep the overall time frame, but along the way, there was a delay due to the language barrier, the hestitant student engagement, and because some components took longer time than planned. One of the things causing delay on my end was the fact that we analysed my RCT paper, and at some points, I became over-occupied with details in the study instead of keeping the initially planned focus on the use of the JBI checklist. I realised that it would

simply have been easier to pick another author's paper, which, however, came as a surprise to me. Regarding time and content priority, BLOCK A was probably a bit too long and was characterised by information overload, and due to time issues, I had to skip the planned *Mentimenter*-quizzes. This, however, meant that I was not able to evaluate whether the students had understood BLOCK A sufficiently and whether they had obtained the necessary skills and were actually ready to move on to BLOCK B. Towards the end of BLOCK B, I had to skip the breakout-rooms due to time issues, and discussions of points a-d (ILO 5) were held in plenum. This point became quite stressed and it would have been better to only choose one of the points, also to ensure more student engagement and time for discussion and reflection.

Student engagement and feedback in the online format: Overall, it was quite challenging to establish a fluent and vivid engagement with the students and to get a sense of whether they e.g., had prepared for the session and whether they actually understood the content. During the display of the slides, I was not able to see more than five students at a time, meaning that I could not see, interpret, and actively engage with the rest of the group, e.g., by a "whip around"- approach (Tanner, 2013). As a consequence, only around eight of the students showed active engagement. Also, my intentional attitude with humour and warmth may not have been appropriate with this group of students, but I was not able to interpret their reactions, as I could not see them. Regarding feedback, the positive and constructive approach did foster some discussion, especially after I emphasised that the JBI checklist can be tricky to fill out and after encouraging the students to just try their best, as some of the domains reflect subjective considerations and should be moderated by a third reviewer. Although this made us all be a bit more "on the same page", it would have been much easier in a face-to-face setting. The planned inclusion of *Mentimenter*-quizzes during the whole session might have stimulated more discussion on a higher level. However, due to the time delay, I had to skip this, as I felt more eager to complete my overall programme in the heat of the moment. Moreover, I had to skip the break-out rooms, which would have created room for more student engagement and discussions on a higher level.

Assessment and evaluation: Some discussions and some components took longer time than I had expected, so due to time issues, I needed to skip both assessments and evaluation during the session and instead, I sent out forms via the course manager after the session. This would give the students more time to reflect on the session and on me as a teacher, while, on the other hand, there was a high risk of lacking responses and a bias towards receiving responses from resourceful and/or opinionate students. In total, seven (35%) of the 20 students sent their replies, and the course manager and I agreed to not chase further replies after three weeks and several reminders, as there were clear patterns in the students' replies. Overall, the assessment showed a high degree of "right" answers. Overall, the evaluation showed that the students had found the topic and content relevant, but challenging, and they appreciated the level of engagement and a welcoming attitude from me. Moreover, some students commented on the time management issues and provided constructive and useful ideas for overall improvements (see Appendix: Questions and replies).

Discussion with colleague: Post-hoc writing this final assignment, I discussed the preparation, conduct, and reflections related to the session with a colleague, who is a Professor in respiratory medicine. He emphasised the many challenging aspects of the session, both regarding the external aspect (new concept, new group with cultural and language barriers, the online format, the lack of formal exam) and regarding the internal aspects (my strong engagement and ambitions within the field and the choice of my own study). Despite these aspects, he found that I had done well in covering all four stages in Kolb's cycle of learning and reflection (Vince, 1998) and that I had formed a solid basis for the further development of the session.

Perspectives for my future teaching

Overall, I feel that the theoretical part of the UP course has provided me with a solid foundation for my future teaching in higher education. Moreover, the practical part of UP with teaching and supervision has formed an invaluable ground for reflection and learning. One of my advantages as a teacher is that I am originally trained as a professional

singer and singing pedagogue and have received positive feedback regarding having a natural authority and "inbuilt" approach to being a performer (Rienecker, 2013), which are aspect that can be hard to achieve "from scratch".

For my future teaching – both regarding further development of the session described in this assignment and in general – I aim to focus on the following aspects:

1) Spend more time analysing and considering the context/arena around a session/course to inform the interactive system of the students (Entwistle, 2007). This arena should then be reflected in both the aims of the session and in the specific ILOs and TLAs. And both aims, ILOs, and TLAs should be clearly communicated to the students to reduce resistance and to optimise self-management, engagement, and learning (Entwistle, 2007; Rienecker, 2013).

2) Include fewer elements and keeping things very simple regarding overall content, aims, ILOs, and TLAs, instead of being too ambitious and having to rush through things. This would benefit both the students (supporting the "inner logic" of the participants individually and as a group (Entwistle, 2007)) and myself significantly.

3) Include assessment and evaluation, both during and after the session. Within a session, assessment and evaluation can help determine whether the students are ready to move on to the next block, and within a course, determine whether the students are ready for the next session or whether some aspects need to be repeated. Within my own practice as a teacher, assessment and evaluation will be invaluable to be able to further develop, plan, and adjust sessions and courses.

4) Practice the session and/or specific parts of the session with a group of people before the actual session (e.g., in case it is the first session).

5) Keep thoroughly track of time and prepare a strategy for which things can easily be skipped in case of need.

6) Specifically, regarding the online format: Look further into the literature regarding the online teaching format to identify awareness points and to get ideas for the final (detailed) planning, effective conduct, and optimal learning outcomes (Rienecker, 2013).

7) Practice in advance and make sure that all technical aspects work (e.g., microphones, PowerPoint, break-out rooms, Mentimeter-quizzes/questionnaires).

8) Use two screens to be able to better see both the students and the presentation.

9) Ongoingly and actively seek mentoring, supervision, and peer-supervision of my teaching, and attend further development courses on teaching and learning.

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Appendix

QUESTIONS AND REPLIES

Session (22 May 2025): "Critical appraisal of research within applied arts in health - using example: RCT paper on singing as training modality for people with chronic obstructive pulmonary disease"

ASSESSMENT (selected replies)

Question	Student's replies	My take-home message
1) What is a "good" study?	*One with appropriate methods of measuring, one where the group you are doing research on is clearly defined and outlined, a study that assures the minimization of bias, a study that is able to inform people outside about what happened.* *A good study answers a clear research question with a transparent methodology and replicable as well as valid results.* *Relevant topic, specific research question, well-defined hypothesis. Appropriate and well-defined study design concerning methodology. Internal & external validity.* *A study that can be replicated → it is like a recipe. Also, evidence, reliability and validity are important.* *A good study has a clear research question or hypothesis and involves the collection of qualitative data through relevant and specific research (preferably through a randomized controlled trial). The study design and overall methodology should be carefully planned and organized. Internal and external validity are important additional factors for a good study.* *It should provide clear instructions so that others can follow and reproduce the results. In this context, evidence, reliability, and validity are key factors.*	I think the students have caught the most important parts of a "good" study. It is interesting, however, that they seem to have noticed different aspects and details. Would have been great to include an oral discussion as well to elaborate things and ensure understanding. Of course, it is not possible to know whether those students who did not reply, understood this point.

2) Why is important with "good" studies, e.g., within arts and health research?	*Is it important to initiate and foster the dialogue between arts and health.* *Because decisions in health care and arts-based interventions should be based on trustworthy evidence to ensure effectiveness.* *Generate solid, reliable, and generalizable knowledge.* *So that more research can be done and the study can be replicated with other focuses. It is also important to generate knowledge and to do high quality studies which work as a basis for further research.* *Good studies in this field are important because they can provide clear evidence and prove the efficiancy of arts interventions to the global healthcare system. Only then can the arts be properly implemented in the health sector.* *This allows for further research to be conducted and for the study to be repeated with different focal points. Additionally, it is crucial to produce high-quality studies that contribute to the body of knowledge and serve as a foundation for future investigations.*	I think the students have caught the most important parts of this point. Again, it is interesting, however, that they seem to have noticed different aspects and details.
3) What was the clinical problem/background of the study of interest (Kaasgaard et al 2022)?	*Providing and doing research on singing as an intervention with COPD patients and comparing its effects to physical exercise.* *The study was based on people with COPD and how singing could help improve their breathing and quality of life.* *Pulmonary Rehabilitation (PR) through physical exercise opposed to singing training → advantages? Equal results?* *Goal was to build a more personalized model for COPD patients. Better management of the disease. Prevent hospitalizations.* *Physical exercise training is used for pulmonary rehabilitation, which includes endurance and strength training. The problem with this rehabilitation method is that many patients only adhere to their training plan for a short period of time or not at all, due to a lack of motivation or ability to train. Lack of referral, availability or transportation issues also pose problems with this type of rehabilitation.* *The aim was to develop a more tailored model for individuals with COPD and reducing the risk of*	I think the students have caught the most important parts of this point. Again, it is interesting, however, that they seem to have noticed different aspects and details. All replies are correct, however, the last reply mentions hospital admissions, which we the study did not examine.

	hospital admissions and enhancing disease management.	
4) Why did the researchers choose a randomised controlled trial as their study design?	*To generate results on a new way (singing) of stabilizing patients with COPD.* *It helps reduce bias and gives stronger results.* *RCTs as most robust source of evidence on effects of interventions on health outcomes randomisation to avoid bias.* *Because they could compare the two groups and a smaller chance of bias. The 2 groups were selected with closed envelopes.* *A randomized controlled trial was selected as the study design because it offers high internal validity, has a clear and replicable structure and minimizes bias through randomisation.* *This approach allowed for a comparison between the two groups and helped minimize potential bias.*	I think the students have caught the most important parts of this point. Again, it is interesting, however, that they seem to have noticed different aspects and details. All replies are correct, but some replies are more relevant than others.
5) What is the purpose of for quality appraisal of literature?	*Clear and critical appraisal of literature has the potential to influence politics and the arts and their funding.* *To check if a study is done well and if we can trust the results.* *Synthesis of the evidence. Pooling of results. Certainty of the evidence. Definition of evidence-gaps. Basis for clinical guidelines.* *To systematically assess the trustworthiness, relevance, and methodological rigor.* *Quality/Critical appraisal is important to ensure that a study is trustworthy, relevant and valuable. It helps to determine the strength of evidence. The risk of bias, for example, can be assessed with the Cochrane risk-of-bias tool for randomized trials.* *The purpose of quality appraisal in literature is to systematically evaluate how reliable, relevant, and methodologically sound a study is.*	I think the students have caught the most important parts of this point. Again, it is interesting, however, that they seem to have noticed different aspects and details. All replies are correct.
6) What is internal validity?	*Connections/links between factors in one's study.* *Internal validity means the results of the study are really caused by what the researchers were testing, and not by other factors.*	I think the students have caught the most important parts of this point. Again, it is interesting, however, that they seem

	Claimed causal relationship is trustworthy and not influenced by other factors and variables.	to have noticed different aspects and details.
	Is the claimed causal relationship trustworthy and not influenced by other factors or variables?	All replies are correct.
	Internal validity indicates how certain a study is that the observed effects are due tot he variable under investigation and not to other, uncontrolled factors.	Some replies are more independently written, whereas others seem to be just copy-paste from the slides.
	Internal validity refers to how credible the claimed cause-and-effect relationship is, ensuring it hasn't been affected by other variables or external influences.	
7) What is external validity?	*Using results of one's research to apply them in different contexts outside of the study conducted.*	I think the students have caught the most important parts of this point.
	It means if the results can be used in real life or with other people, not just in the study group.	Again, it is interesting, however, that they seem to have noticed different aspects and details.
	Results can be generalised to other situations, groups, events.	
	Can the results from a study be generalised to other situations, groups or events?	All replies are correct.
	External validity refers to the ability to generalize the results of a study to other people, situations, times and places. It indicates how well results apply in other contexts.	Some replies are more independently written, whereas others seem to be just copy-paste from the slides.
	External validity refers to the extent to which the results of a study can be generalized to other settings, populations, or situations beyond the specific conditions of the original research.	
8) What are the implicatons if a study has "low" validity?	*The generated results may be less significant than intended. This might be due to the potential of misinterpretation.*	I think the students have caught the most important parts of this point.
	It means the results might not be correct or useful.	Again, it is interesting, however, that they seem to have noticed different aspects and details.
	Results may not accurately reflect what was intended to measure. Conclusions could be incorrect/misleading, not applicable.	
	Background of the scientists, Pre-registration and approval of the study can be a problem.	All replies are correct, but some replies appear more "full" than others.
	If a study has low validity, the findings are untrustworthy or misleading. Consequences are that the study will not get approved by other experts because the results draw false conclusions, and the resources used to carry out the research are wasted.	

	It means the results may not accurately reflect what they claim to measure. This can lead to incorrect conclusions, reduce the usefulness of the findings, and limit their application in practice or future research.

EVALUATION (selected replies)

Please write your reflections about the session and about me as a teacher

Question	Student's replies	My commen
1) What was the three main things that you learned from the session?	*Funding for further investigation is not often provided, critical appraisal of research is helping arts/health/politics on the long-run, frequent drop-outs during a study are normal.* *How to check if a study is done well. Why RCTs are important in health research. How singing can be used in therapy for COPD.* *RCTs are great, critical view is important (even on ones own study/research), how to work with the checklist.* *External validity, internal validity, and that a study design is like a good recipe.* *Through this session I learned a lot about study design and how to assess studies with a critical appraisal tool. I also learned more about COPD.* *How important it is to have a good validity for a study. COPD in general.*	It is interesting students have notic aspects and details. Would have bee include an oral di elaborate things. Moreover, it interesting to perspectives of t that did not reply.
2) Did you think that the session was relevant to your study programme?	*Yes, it was very relevant because it was a specific example of how research addressing arts and health may be conducted. We were provided practical insights.* *I consider the session to be very relevant to my study programme because I will probably have to design my own study in the future and will need to know about these things.* *Yes, it was relevant because we critically reflected on the study, which helped deepen my understanding and strengthened the connection to my study programme.*	The students all fou and content relevan It would be interes the perspectives of that did not reply.
3) Overall, how did you find the content of the session?	*The content was very informative and interesting. I learned a lot, since my interests regarding musicology and dance studies usually do not branch out into medical research.* *The content was interesting, useful, and suitable for the students. It made me think more critically about studies.* *Since we´ve already been familiar with the study, because our professor sent us the pdf version, it was quite understandable.* *I found the content very informative and well-structured. A good amount of time was spent on each topic/part of the presentation.*	The students all fou and content releva session seems to ha new insight and pe Interestingly, on students refer preparation materia It would be interes the perspectives of that did not reply.

	It was understandable - we have already read the document.	
4) Overall, how did you find the pedagogical aspects of the session?	*The instructions were clear and towards the end of the session, we were redirected, since time was running out. To sum up, quick decision-making was applied while keeping the session running smoothly.* *The teaching was clear and easy to follow.* *Intention was good, however, online always difficult to conduct.* *I felt very welcomed and safe, the professor was very patient and understanding.* *We received a proper introduction and overview. The presenter was very friendly and respectful. The topics we discussed were explained in a way I could follow well. Overall, I was very satisfied with the pedagogical aspects of the session.* *I really liked that the Professor asked us questions, so we would get more involved in the session.*	The students found that the session was clear, structured, and easy to follow. They felt safe, and they describe me as patient, understanding, and friendly. They are content with the engagement and discussions.
5) What do you think worked well in the session?	*Replying to questions and also the possibility of asking them during the provided presentation made it easy to follow the content.* *Using a real research paper to explain the theory.* *Presentation, mentimeter activity.* *When she asked us about certain facts or numbers in the study.* *The time management of the presentation and working on the JBI checklist together worked well. The PowerPoint presentation was arranged in a very clear way.* *When she asks us about the numbers in the study.*	The students are content with the activities which created engagement and discussions. They liked the hands-on-work and discussion.
6) What do you think could be improved in the session?	*Time management may be improved. Yet, navigating time or the lack thereof went really well, as mentioned beforehand. Knowing what exercises/activities to plan and how they are best implemented in teaching is also a skill that is developed or improved over time.* *Little less information on the slides (for presenting it's a little overwhelming, although afterwards re-reading the information is great.* *Maybe do a welcome round in the beginning so people get more used to talk in front of the screen.* *More time to discuss more details would be nice.*	The students emphasise the need for me to improve time management, although they think I handled the cut-down in content well. Perhaps too much information. Perhaps too busy slides. They would have liked more time for discussion and more time and awareness on

	Perhaps the session could be improved by creating a more relaxed atmosphere to encourage everyone to participate and share their thoughts.	involving more pe discussions.
7) Have you got any good advice for me on how I can improve the content?	*The content was overwhelming at times but that is because of the fact that most people in our group are not familiar with medical research. Additionally, this session was designed to give us an overview of how you conducted the study and therefore had a lot of topics to sift through. In different settings in the future, it may be beneficial to break up the content and explain terms used in medical research and move on to examining an actual study, later on - just to ensure that everyone involved can follow the discussion.* *No, I think it was very well explained* *Maybe more details on how the study was carried out, would be great.* *Do a welcome round where everyone just speaks briefly about themselves, maybe it helps to get more comfortable to speak during the sessions.*	Perhaps too much i "Know your target Make sure that follows from step t to block. Perhaps more deta depth content than present "everythi session". Include a welcom improve comfort, and engagement.
8) Have you got any good advice for me on how I can improve as a teacher?	*No. I would just love to tell you the following: You were very mindful of people and when it came to us asking questions or giving us more time to understand. Thank you for that!* *No, very sympathetic!* *Keep going with that sensitive side, because I felt very insecure with explaining the study since it was my first time, and you made me feel welcome and heard.* *I do not have anything to criticise in this aspect.* *I think it was really good!*	The students felt patient, friendly, s and sensitive, whic space for lear engagement. It would, of interesting to perspectives of t that did not reply.