

Bridging Worlds: Enhancing Faculty Understanding of Research Design in Educational vs. Clinical Contexts through a Panel Dialogue

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Abstract: This was an action research project which was carried out in the format of interactive and focussed panel discussion with the research scholars from varied health professions pursuing first year of MHPE (batch 2024) from Institute of Health Professions Education, Sri Balaji Vidyapeeth (Deemed to be University) Pondicherry, India. Problem identified was that faculty in Health Professions Education (HPE) often lack clarity on how to align research design, statistics, and publishing practices with disciplinary norms. There is confusion about standards of rigor, blinding, registration, and meta-analysis across the clinical vs. educational divide. With this background, a discussion was conducted on the said topic with the research question; Can interactive faculty-led dialogue enhance conceptual clarity and research literacy around design rigor and dissemination standards in educational vs. clinical research domains? This faculty development programme was conducted in an online mode for two and a half hours which featured three educator researchers and two moderators. The interactive elements included active participation of the scholars from the audience in the form of question and answers, comparative visual tables and handouts. The audience response for session evaluation and feedback were recorded post session through a questionnaire (quantitative Likert + open-text responses). Faculty reflections for perceived engagement, relevance, and knowledge shifts were assessed. Participants reported improved understanding of methodological contrasts, particularly around blinding, sampling, and standards for rigor. The session was rated highly for clarity, relevance, and engagement. Qualitative feedback indicated that participants appreciated this format of discussion, practical examples, and peer dialogue. **Next step:** The insights recorded will be used to develop a follow-up workshop (e.g., hands-on protocol writing or research design critique) in near future.

Key Words: Health Professions Education, Faculty Development, Research Literacy, Research Design and Methodology, Educational vs. Clinical Research, Methodological Rigor, Interactive Learning

Background:

In health professions education (HPE), faculty are increasingly expected to contribute to scholarly activity, including the design, implementation, and evaluation of research projects. However, many educators trained in clinical research traditions face difficulties when transitioning into educational research. Disparities in epistemological assumptions, methodological norms, and publishing standards often lead to confusion and hesitation.

For instance, clinical research typically emphasizes randomized controlled trials, blinding, and registration, while educational research often allows for more flexible, context-sensitive designs such as qualitative inquiry, action research, or mixed methods. The notion of "rigor" varies across these domains, leading to challenges in protocol design, peer review navigation, and interdisciplinary collaboration.¹⁻³

Faculty development programs rarely address these differences explicitly, leaving educators to navigate the clinical-educational divide independently.⁴ In response to this need, we designed an interactive panel discussion to create a safe, collegial space for faculty to explore these contrasts and gain greater clarity on methodological decision-making.

This report describes the design, implementation, and outcomes of that session, using an action research framework to guide iterative reflection and improvement. We aimed to evaluate whether structured dialogue among peers could enhance understanding of research design rigor and foster confidence in conducting and critiquing educational scholarship.

Methods:

This project followed an action research model using the **Plan-Act-Observe-Reflect** cycle. The intervention occurred during a professional development course on Research Methodology as a part of Masters in Health Professions Education (MHPE) programme, SBV university, Pondicherry, with 30 faculty members pursuing the course in MHPE, First year research scholars from diverse health professions. The session was conducted through the ZOOM platform of the institute.

Plan:

- Identify the developmental gap regarding clarity in research methodology in Education.
- Curate a panel of MHPE research scholars-educators(from the peer group only) with backgrounds in both clinical and educational research under the guidance of experienced faculty of MHPE acting as moderator.
- Structure the panel discussion around key concepts such as study design, blinding, sampling, ethics, registration, and statistical expectations. Artificial Intelligence "Chat gpt" and Co Pilot were also used while working on these concepts.

- Design engagement strategies including active participation from the peer MHPE scholars in the form of brief explanation of a concept which was then built upon by the panelists for eg while discussing the study design in educational and clinical research; a fellow scholar to be requested to briefly comment upon the hierarchy of studies for Educational and clinical research and then the frequently favoured study designs like the RCT's or the quasi-experimental, mixed methods, action research were to be discussed in detail by the panelist scholars .
- Quiz, comparative visuals, and summary handouts were considered to enhance the active participation of the scholars.

Act:

The session was conducted as a two and half hour interactive online panel discussion on the institutional Zoom platform, moderated by two experienced faculty developers.

Session design: Blended structured peer contribution with guided expert facilitation to ensure meaningful engagement and knowledge exchange.

In preparation for the session, each panelist (drawn from among the MHPE scholar group) was assigned a specific question aligned with key themes such as study design, blinding, sampling techniques, ethical considerations, or statistical expectations. These questions were shared with the panelists in advance, allowing them to reflect and prepare concise responses rooted in their understanding and experience.

During the session, each panelist was invited to briefly respond to their assigned question, thereby initiating the conversation around that topic. This ensured that the discussion began from a peer-informed perspective and represented real concerns and interpretations from within the scholarly community.

- Following each panelist's input, the moderators built upon the initial response by elaborating on critical nuances, providing theoretical context, and linking the topic to practical implications in both clinical and educational research domains. This method allowed the session to flow in a scaffolded manner—moving from learner voice to expert clarification—while preserving the interactive tone of a collegial dialogue.
- To further reinforce engagement, visual aids such as comparative tables were shared live, and a short quiz was used to stimulate reflection and participation.
- Pre-reading material was also circulated two days before the session to ensure that all participants could engage with foundational concepts prior to the live discussion.
- Throughout the session, participants were encouraged to ask questions, contribute reflections, and relate the discussion to their own research contexts. The session concluded with an open-floor reflection round where attendees shared their takeaways and expressed interest in specific areas for deeper exploration in future sessions.

Observe:

- Data was collected using a session evaluation form (7 Likert-scale items + open-text feedback).

Quantitative

Findings:

Out of 30 attendees, 24 completed the session evaluation form. Overall feedback was positive, with the following average ratings (scale 1–5):

Item	Mean ± SD
Session objectives were clear	4.17 ± 0.87
Panellists demonstrated sound knowledge	3.96 ± 0.86
Clarified research methodology differences	4.29 ± 0.86
Visuals and examples enhanced understanding	3.96 ± 0.86
Format encouraged reflection	4.22 ± 0.85
Relevance to HPE roles	4.39 ± 0.87
Impact on future research approach	3.96 ± 0.9

- The interactivity amongst the participants was also observed. The session achieved an interactivity index of approximately 53%, with 16 of the 30 participants taking part in the discussion. Contributions were brief and evenly distributed, resulting in a balanced and inclusive exchange rather than one dominated by a select few. This reflects a healthy level of engagement, suggesting that participants felt comfortable contributing, while also highlighting opportunities to further enhance participation and move toward a higher level of interactivity.
- The **qualitative open-text feedback** was thematically analysed, revealing appreciation for the interactive nature of the session, clarity brought by visual aids, and relevance of comparative examples. Participants particularly valued the collegial tone and peer-led discussion.

Reflect:

Reflection on the session involved both analysis of participant responses and introspection by the organizing team, including the moderator and faculty panelists.

The **quantitative data** from the Likert-scale responses was analyzed using descriptive statistics. Participants rated the session positively on clarity of objectives, relevance to HPE roles, and influence on their research approach. The high mean scores across most items reinforced the utility of the panel format in clarifying complex methodological differences.

From the **organizers' and mentors' perspective**, the planning phase was well-aligned with the session objectives, and the implementation achieved its core aim of

fostering dialogue on educational vs. clinical research paradigms. However, several reflections emerged:

- **Panel discussion proved to be an effective method** for surfacing real-world dilemmas and diverse perspectives. The conversational format encouraged open sharing and helped demystify theoretical concepts. That said, the depth of dialogue was somewhat constrained by time.
- In hindsight, **more structured interactivity could have been built in**—such as small breakout group discussions, live polling, or case-based group analysis. These would allow participants to apply concepts in real time and engage in collaborative learning, which is especially important in an online format to counter passive listening.
- **Content load was slightly ambitious.** While a broad overview was useful, we recognize that trimming a few topics would allow deeper exploration of core themes. We would consider reducing breadth and allowing more space for participant reflections and synthesis.
- The session would benefit from **modular planning** in future—where one or two key concepts (e.g., blinding, sampling, or design hierarchy) are addressed in depth per session, possibly through a series of short, focused dialogues.
- Finally, incorporating **pre-post knowledge checks** or concept maps could help assess conceptual shifts more robustly, beyond self-reported change.

Qualitative Insights

Analysis of open-ended responses revealed rich qualitative data that added nuance to the numeric feedback. Participants cited the **panel discussion format** as the most impactful component (mentioned by 11 respondents). This was closely followed by the **input from mentors (7 mentions)**, which was perceived as grounded, practical, and experience-driven. Additionally, the use of **visual aids**, **comparative handouts**, and the **interactive format** (e.g., peer-led explanations, real-time Q&A, and quizzes) were highlighted as facilitating deeper engagement and understanding.

Participants appreciated that the session successfully created a collegial space where ideas were exchanged freely, and the differences between educational and clinical research were demystified. One participant mentioned that the session was “an interesting format that helped sustain attention in an online setting,” while another commented that “panel discussion type of teaching promotes practical learning.”

Facilitators of Learning

Several key strategies were identified as facilitators of learning:

- **Interactive and inclusive teaching methods**, particularly real-time quizzes and peer participation

- **Comparative visuals**, which made abstract methodological differences tangible
- **Pre-session reading material**, which prepared participants for deeper engagement during the session
- **Expert moderation**, which ensured balanced contributions from panelists and audience

Challenges and Suggestions for Improvement

When asked about hindrances to learning, majority explicitly stated "none." However, two participants raised concerns:

- One reported a **network connectivity issue**, affecting real-time participation
- Another noted that while the session was rich in content, **time management was a concern**, stating that "too much content was squeezed into a limited time," and suggesting that "some subtopics could have been trimmed or redistributed to ensure better depth."

Three participants offered constructive suggestions for future improvement:

- **Stricter adherence to time allocations**, particularly during panelist contributions
- **More time for audience interaction and Q&A**
- **Focusing on fewer but deeper aspects of the topic**, possibly through follow-up micro-sessions or workshops

Discussion:

The panel dialogue effectively addressed a common faculty development gap in research methodology literacy. Faculty appreciated the opportunity to compare educational and clinical research practices in a collaborative format. The discussion helped them to clarify key differences between the clinical and educational research methodology and the session was very meaningful. The high levels of reported engagement and learning indicate that even brief interventions can catalyze reflection and conceptual clarity.

This approach supports a broader institutional goal of fostering scholarly identity among HPE faculty by reducing barriers related to methodological confusion. The combination of expert insight, visual aids, and participatory dialogue proved to be a strength.

The topic was very vast and stitching its bits together to fit the time frame was a big challenge. There was limited time for deeper exploration of certain topics. A relatively small audience was another limitation. Future iterations could incorporate pre-post assessments or follow-up interviews for richer impact evaluation.

Conclusion:

This panel discussion successfully addressed a key developmental gap in research literacy among faculty by creating space for dialogue around disciplinary norms in research design. Participants reported greater confidence in distinguishing between methodological expectations of educational and clinical research. This format—interactive, peer-led, and visually supported—offers a replicable model for faculty development initiatives in HPE settings. Moving forward, we plan to build on this momentum with skill-based workshops and wider institutional dissemination.

Consent: Participants were informed that feedback may be used anonymously for scholarship purposes.

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(Which were shared as prereading material also)

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