Measuring Impact: A Faculty Development Action Plan for Clinical Educators

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Due to increasing workforce demands and clinical complexity, the expectations for fellowship programs to produce highly competent, practice ready graduates, there is an increasing need to improve educational environments. Educating an educator is now a critical priority in Graduate Medical Education. Faculty development has become a critical priority as institutions recognize that clinical expertise alone does not guarantee effective teaching (Steinert et al., 2006). Faculty development, educational technology, implementation and measurement strategies are needed within critical learning environments. Structured faculty development initiatives have been shown to improve educators' teaching knowledge, confidence, and instructional behaviors while fostering a stronger culture of teaching within academic medicine (Burgess 2019).There is much to learn and share within our action research plan, aimed at improving faculty teaching effectiveness, while enhancing fellow education and patient care outcomes in our Hematology/Oncology fellowship program. We need to build a positive framework for measurable innovation, while supporting high quality patient care.

The struggles of physicians trying to balance productive teaching, staying positive, continuing the ever-evolving medical professionalism as well as many other duties are very real, all the while, keeping the mindset that failure is NOT an option.

Fundamental Research Question

How does implementing a structured physician education and time-optimization initiative impact teaching effectiveness and what change or difference can we expect to make in our physician/patient care connection? Realizing the need for an action plan that works needs a

carefully arranged, detailed strategy! Faculty frequently report limited time and institutional resources as barriers to participating in professional development, yet meaningful improvements in teaching require deliberate investment in faculty growth (McLean et al., 2008). There seems to never be enough time or resources for faculty development, but we must start making these changes now. Structured faculty development programs have been shown to improve teaching effectiveness, assessment accuracy, and learner outcomes, particularly when aligned with competency-based educational frameworks (Steinert et al., 2006; Frank et al., 2010). Effective faculty development and thoughtful integration of educational technologies can streamline teaching expectations, support real time feedback and generate meaningful data that can guide learner progression. Ultimately, developing effective educators requires more than conversation and good intentions; sustained faculty development efforts are essential for fellowship programs seeking to cultivate productive, confident educators and improve clinical learning environments (O'Sullivan & Irby, 2011).

Summary of the Literature Review

Productive teaching is a commitment to deep-rooted learning, stemming from the quest of self-betterment. The role of the clinical educator is well known, but without conventional means to pinpoint when a faculty member has learned what it takes to be a successful educator, competency-based education frameworks become invaluable. Any development efforts that are practical, measurable, and aligned with clinic work- flow can strengthen the quality of education without adding to the faculty workload. The learning climate must be created for the best learning experience possible. Furthermore, fostering a supportive and positive learning climate is critical for optimizing the educational experience, as the clinical learning environment plays a

significant role in shaping learner engagement, professional identity formation, and educational outcomes (Skeff, Stratos, & Mount, 2007).

Study Information

The development of our physician faculty and the effectiveness in their teaching abilities remain an ongoing priority for institutions committed to excellence in graduate medical education. Organizations such as The University of Texas MD Anderson Cancer Center emphasize a mission centered on advancing cancer care through clinical excellence, research, and education is an ongoing priority for my employer, MD Anderson. Curing cancer and saving lives is our mission and through learning, sharing, and teaching, the possibilities are endless. Within this context, the role of physician educators becomes critically important, as effective teaching directly influences the preparation of future specialists and ultimately impacts patient care outcomes. Faculty development programs have been widely recognized as essential components of academic medicine, helping physicians strengthen their instructional skills while maintaining clinical and research responsibilities (O'Sullivan & Irby, 2011). It's more than staying one step ahead in the field of medicine because real people and their lives depend on us. That's why it is so important for our study, Educating the Educator, to be honest, positive and most of all, beneficial to all those involved. Making changes, adding or improving learning environments, and choosing the most effective faculty development is what we are trying to accomplish.

Research Design

I chose the Mixed Methods action research design to obtain different, as well as multiple perspectives. The mixed method integrates or combines quantitative and qualitative research

methods to draw on the strengths of each. Quantitative and qualitative research methods each address different types of questions, collect different types of data and therefore deliver different kinds of answers. Each set of methods has strengths and weaknesses, with the goal of providing a deeper understanding of the same research question. I understand researchers can achieve a comprehensive understanding of the more complex problems when using the mixed method of research, instead of using one or the other alone. This approach allows the integration of both quantitative and qualitative research methods, combining inductive and deductive reasoning while enabling triangulation of data for greater validity (Creswell & Plano Clark, 2018).

Data Collection and Analysis

Data collection will occur throughout the implementation of the faculty development initiative.

Quantitative data sources will include:

- Monthly New Innovations evaluations for both continuity clinic and rotational faculty (See Appendix A)
- Qualtrics survey responses, including structured and open-ended questions (See Appendix B)
- Physician self-assessment surveys (See Appendix C)
- Time-use and workflow tracking (See Appendix D)

Qualitative data will be collected through semi-structured interviews (See Appendix E) and focus groups with faculty and trainees, providing context for quantitative findings and insight into perceived barriers and benefits of the teaching strategies.

Analysis Plan:

- Quantitative data will be analyzed using descriptive statistics to identify changes in teaching effectiveness and workflow efficiency over time.
- Qualitative data will be coded for recurring themes to understand faculty and learner perceptions, as well as challenges and successes in implementing strategies.
- Triangulation of quantitative and qualitative data will allow for the integration of multiple perspectives, guiding the development of targeted faculty development interventions and identifying opportunities for ongoing program improvement (Plano Clark & Ivankova, 2016).

This mixed-methods approach ensures a comprehensive understanding of the impact of faculty development initiatives, combining measurable outcomes with insights into the experiences of faculty and learners.

Timeline:

Phase	Activities	Timeline
Planning	Literature review, survey design, development of interview guides	Months 1–2
Implementation	Delivery of faculty development sessions	Month 3
Data Collection	Pre- and post-surveys, interviews, focus groups, time tracking	Months 3–4
Analysis	Quantitative and qualitative data analysis	Month 5
Action Plan Development	Identify improvements and create faculty development recommendations	Month 5
Reporting	Share findings with stakeholders	Month 6

Sharing and Communicating Results

After all research has been collected, analyzed and the action plan has been developed, I will present all findings to the program leadership, faculty, and educational committees, along with all written reports. With every phase of this research, from planning, implementation, data collection, analysis, action plan development and finally, reporting and sharing results, I've been working closely with key stakeholders to incorporate feedback and ensure alignment with institutional priorities. In complex healthcare environments, decision-making is often distributed across committees and leadership groups rather than resting with a single individual, requiring careful collaboration, deliberation, and consensus-building (O'Brien et al., 2014) Working in a hospital, where there is no "one" person that makes final decisions, instead, groups or committees make those final decisions after much consideration and great contemplation. All data, from application of strategies to identifying areas for improvement, along with the actionable plan will be readily shared and up for questions as well as suggestions because these

changes will affect departments within the hospital. All collected data, including the outcomes of implemented strategies, identified areas for improvement, and the proposed action plan, will be transparently shared. Presentations will include opportunities for discussion, questions, and recommendations from stakeholders. This participatory approach ensures that changes are meaningful, feasible, and aligned with the needs of multiple departments, ultimately supporting improved faculty development, enhanced teaching effectiveness, and better educational experiences for fellows.

Final Reflection

It is our plan to support the positive changes needed to improve fellowship training environments in our facility. The advantages of educating the educator are many, with better patient outcomes and new strategies that help with problem solving are just a few. The skills needed for practicing medicine and teaching medicine are very different. We face barriers at every turn now and there will always be a need for improvement, with improving teacher effectiveness and quality time enhancement being the top two on our list. Fostering metacognitive skills and reflective practice promotes lifelong learning and improved patient care outcomes. In my studies here, I see there is a need for practical, measurable faculty development strategies that strengthen teaching effectiveness while enhancing fellowship training environments. In the medical field there is a strong need for supervision balance and a shortage of medical educators for role modeling. I see firsthand the struggles my fellows have, and my research has shown me the need to make improvements in our own teaching methods.

Change is coming, but evolving into a new phase is not so easy. Time optimization is another change for us and our commitment is to make positive changes, keeping all lines of

communication open. We will go forward being receptive to innovations and continue our mission of always doing the right thing. No matter what, our goal of saving lives and curing cancer is always one step ahead of the norm. By prioritizing faculty development, promoting reflective practice, and implementing strategies for time optimization, this initiative seeks to advance the mission of providing exceptional patient care, cultivating competent educators, and sustaining a culture of continuous improvement in medical education.

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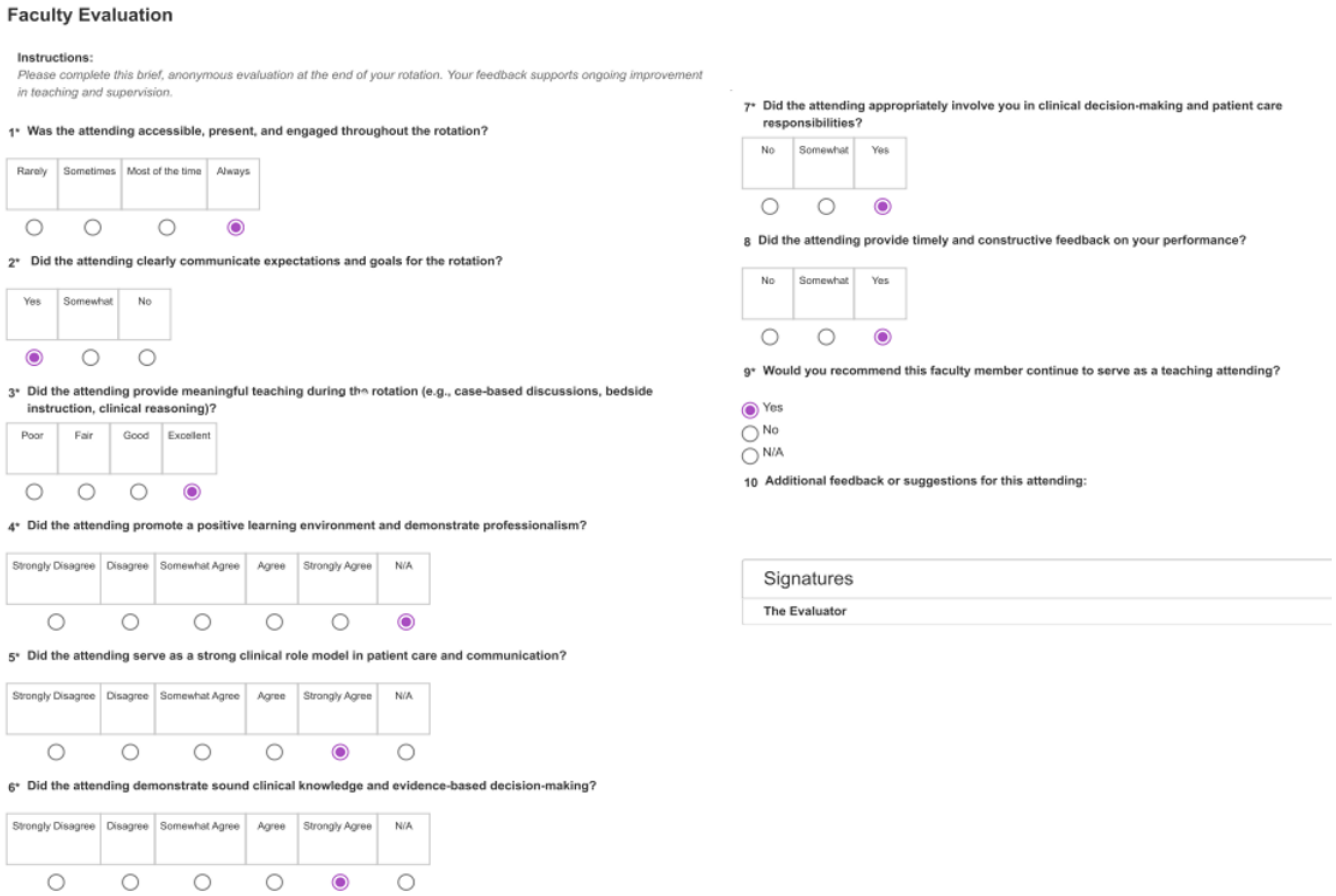
Appendix A

Monthly New Innovations Evaluations



Faculty Evaluation

Instructions:
Please complete this brief, anonymous evaluation at the end of your rotation. Your feedback supports ongoing improvement in teaching and supervision.

1* **Was the attending accessible, present, and engaged throughout the rotation?**

Rarely | Sometimes | Most of the time | Always

2* **Did the attending clearly communicate expectations and goals for the rotation?**

Yes | Somewhat | No

3* **Did the attending provide meaningful teaching during the rotation (e.g., case-based discussions, bedside instruction, clinical reasoning)?**

Poor | Fair | Good | Excellent

4* **Did the attending promote a positive learning environment and demonstrate professionalism?**

Strongly Disagree | Disagree | Somewhat Agree | Agree | Strongly Agree | N/A

5* **Did the attending serve as a strong clinical role model in patient care and communication?**

Strongly Disagree | Disagree | Somewhat Agree | Agree | Strongly Agree | N/A

6* **Did the attending demonstrate sound clinical knowledge and evidence-based decision-making?**

Strongly Disagree | Disagree | Somewhat Agree | Agree | Strongly Agree | N/A

7* **Did the attending appropriately involve you in clinical decision-making and patient care responsibilities?**

No | Somewhat | Yes

8 **Did the attending provide timely and constructive feedback on your performance?**

No | Somewhat | Yes

9* **Would you recommend this faculty member continue to serve as a teaching attending?**

Yes
No
N/A

10 **Additional feedback or suggestions for this attending:**

Signatures

The Evaluator

Metrics:

- Overall teaching effectiveness score (1–5 Likert scale)
- Clarity of instruction (1–5)
- Engagement of learners (1–5)
- Feedback quality (1–5)

Analysis:

- Compare pre- and post-intervention scores for continuity clinic vs. rotational faculty.
- Calculate average scores for each metric and identify trends over time.
- Highlight improvements or areas where teaching performance did not change.

Appendix B

Qualtrics Surveys (Structured and Open-Ended)

Structured Example Questions (Likert scale 1–5):

Question	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
I feel confident providing teaching during patient encounters.	☐	☐	☐	☐	☐
I am able to integrate teaching into my workflow without delaying patient care.	☐	☐	☐	☐	☐
Faculty development sessions improved my teaching strategies.	☐	☐	☐	☐	☐
I feel my trainees benefit from the teaching strategies I apply.	☐	☐	☐	☐	☐

Open-Ended Example Questions:

- Describe a teaching moment in the past month where you felt your intervention was effective.
- What barriers did you encounter in trying to implement new teaching strategies?
- What additional resources would help you teach more effectively in a time-limited environment?

Analysis:

- Quantitative responses: calculate mean and standard deviation for each question.
- Qualitative responses: code for themes such as “time constraints,” “learner engagement,” “confidence,” and “workflow efficiency.”

Appendix C

Physician Self-Assessment Surveys Example Items (Likert scale 1–5)

Question	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
I can balance patient care and teaching effectively.	☐	☐	☐	☐	☐
I am confident using new teaching strategies introduced in faculty development.	☐	☐	☐	☐	☐
I identify opportunities for teaching during clinical workflow efficiently.	☐	☐	☐	☐	☐

Analysis:

- Compare self-assessment scores before and after faculty development.
- Correlate self-assessment scores with trainee evaluation scores to see if perceived improvement aligns with external feedback.

Appendix D

Time-Use and Workflow Tracking Example Tracking Tool

Date	Faculty	Patient Encounters	Minutes Spent Teaching	Teaching Strategy Used	Interruptions or Workflow Disruptions	Notes
3/15	Dr. Lee	8	10	One-Minute Preceptor	None	Effective, smooth workflow
3/15	Dr. Smith	7	15	Micro skills feedback	EMR alert interrupted	Adjusted timing next encounter

Log sheet for faculty to record

- Patient encounters per hour
- Minutes spent teaching per encounter
- Interruptions or workflow disruptions
- Notes on whether teaching strategies were applied

Analysis:

- Calculate average teaching time per encounter before and after faculty development.
- Identify trends in workflow efficiency.
- Compare time spent teaching vs. patient care outcomes if available.

Appendix E

Semi-Structured Interviews / Focus Groups

Instructions:

- Interviews should be 20–30 minutes per participant.
- Take notes and/or record with consent.
- Code responses for recurring themes such as confidence, time management, learner engagement, and workflow efficiency.

Introduction Script:

Thank you for participating. This session is intended to gather your experiences with teaching during patient care and the faculty development strategies implemented. Your responses are confidential.

Example Interview Questions:

1. How do you currently balance teaching and patient care during clinical encounters?
2. What teaching strategies introduced in the faculty development sessions have you found most effective?
3. What challenges remain in applying new teaching strategies?
4. How do you think these changes impact trainee learning and patient care?

Analysis:

- Transcribe interviews and code for recurring themes.
- Example themes: “Increased confidence,” “Time constraints,” “Learner engagement,” “Practical application of teaching strategies.”
- Summarize findings in a narrative or table to highlight common experiences and challenges.