

Project Description: This innovation project, the Stanford Video-based Coaching and Mentoring Program (VCAMP), will pilot a web-based platform for the coaching and mentoring of educators, both in the classroom and in clinical settings. Because it is virtual, VCAMP will increase access to coaching for educators who may have few opportunities to engage with the greater medical education community. Faculty with an interest in improving their teaching skills will utilize a web-based platform, Torsh, to receive feedback on their teaching during this pilot phase. These faculty will video-record themselves during 2 teaching sessions using their smartphone's camera and upload those videos to the web-based platform called Torsh (www.torsh.co) for review. Each faculty will identify a preferred coach, or the project director can assign a coach based on that faculty's preferences. The coach will review their assigned faculty's video and offer focused, time-stamped feedback based on the faculty's learning goals.

Rationale: For medical educators who have completed their formal education and training, ongoing improvement in teaching relies too often on self-motivation and general faculty development. We need to intentionally develop our junior and senior faculty to maximize their teaching skills and efficacy. A 2011 review by Smith et al cited time and lack of development opportunities as some of the main barriers to effective teaching. A 2015 review on this topic in the secondary school setting highlights eight core features of effective professional development efforts: (1) a focus on teachers' needs and interests, (2) acknowledgment that learning is a social process, (3) inclusion of collaborative opportunities among educators, (4) ongoing and sustained efforts, (5) treatment of teachers as active learners, (6) enhancement of teachers' pedagogical skills and content knowledge, (7) careful facilitation, and (8) a focus on improving learning outcomes for students (Patton et al, 2015). These features provide a conceptual framework for sound faculty development across learner types and levels.

Video-based pedagogy has demonstrated promise in enhancing teaching practice. Video-recording of the teachers' own instruction is now used as a starting point for reflection and coaching (Sherin & Dyer, 2013). In medicine, the use of video for self-reflection and coaching has been reported for the improvement of surgical skills. Atul Gawande famously wrote about utilizing a coach to improve his surgical practice, which involved, in part, reviewing video of his surgeries (Gawande, 2011). A 2014 randomized controlled study of laparoscopic novices compared those who received video-based coaching after each procedure to those who viewed online surgical lectures instead. The intervention group performed better in a porcine laparoscopic cholecystectomy (Singh et al, 2014).

To our knowledge, video-based coaching has not yet been described to improve teaching skills in medicine. This methodology focuses on the needs identified by teachers themselves in an active manner, with the opportunity to engage with other educators collaboratively. Video-based coaching allows for individualized coaching as well as the potential for a virtual learning community because the web-based technology allows for multiple faculty to view each other's work and discuss online.

Specific Educational Aims

1. Establish the feasibility of a video-based coaching modality for medical educator faculty development.
2. Report faculty and coach perceptions of the video-based coaching experience.

Pilot Data: There are no current pilot data, as this project would produce the first pilot cohort.

How the project supports/promotes diversity: Video-based coaching broadens access to mentorship and coaching across different teaching venues. The reach of the medical school now extends across the Bay Area to community providers and clinical groups, including Valley Care. Our medical school has been a leader in online learning; this video-based coaching program would be a tool for educators and venues with limited resources beyond even the Bay Area to potentially receive coaching. This extended reach will diversify the learning community of our medical school.

Methods of design: This proof-of-concept project will explore the potential of virtual coaching to help medical educators interested in improving their instructional skills. We propose to use a mixed-methods design, including rubric-based ratings, and coaching logs to investigate implementation with at least 10 faculty across the medical school.

Timeline and implementation plan

| # | Implementation Task | Date Due | | | | | | |
|---|--|----------|---------|---------|---------|---------|---------|---------|
| | | 4/15/16 | 4/22/16 | 4/29/16 | 5/15/16 | 6/15/16 | 7/15/16 | 8/15/16 |
| 1 | Determination of Human Subjects Research letter submitted | X | | | | | | |
| 2 | Introductory email to potential faculty who have expressed interest in receiving coaching | X | | | | | | |
| 3 | Meeting with Torsh contact James Jackson to establish accounts | X | | | | | | |
| 4 | Orientation plan completed | | X | | | | | |
| 5 | Research assistant undergoes Torsh training | | X | | | | | |
| 6 | Orientation sessions scheduled for groups of faculty and coaches (3-4 at a time) including demos | | X | X | | | | |
| 7 | Baseline survey conducted of faculty and coaches | | | | X | | | |
| 8 | Post-video survey conducted of faculty and coaches | | | | | X | X | |
| 9 | Data analysis | | | | | | | X |

Anticipated work product

1. Tip sheet for faculty seeking feedback and an accompanying demonstration video of how to take video of oneself teaching, edit the video and upload to the website, and send it to one’s coach.
2. Tip sheet and a demonstration video for coaches on how to access the video and enter feedback.
3. Literature review on the use of video in faculty development in medicine
4. Compilation of basic skill sets for key modes of teaching, including didactic presentations (lecture format), small group facilitation, and one-on-one debrief or feedback sessions.

Evaluation plan: We will use the following tools to assess and evaluate this innovation project.

1. Baseline survey of faculty and coaches to establish their current approach/practice for improving teaching skills, and to assess for barriers and facilitators to video-based coaching.
2. Post-coaching survey of faculty and coaches to describe the experience and utility of the platform.
3. Content analysis of de-identified transcriptions and accompanying feedback for themes in teaching.

Dissemination of results: We plan on 4 submissions and presentations.

1. Med Ed Seminar series presentation at Stanford: Seminar to present work in progress mid-grant.
2. Western Group on Educational Affairs (WGEA for AAMC): Workshop submission in 2017.
3. Alliance of Academic Internal Medicine (AAIM): Workshop submission spring 2016 for the national skills conference in October 2016.
4. Feasibility study manuscript (likely to Academic Medicine): I’m currently collaborating with educators at the University of Pittsburgh and Mt. Sinai to study video-based coaching specifically for clinician educators. While my current application for the TMA innovation grant is for a broader group of educators, I anticipate that this grant would contribute to that study.

Anticipated impact of the project on education and/or mentoring: This project will establish a new tool for mentoring and will increase opportunities for faculty receive feedback. It will also expand the pool of coaches available for mentoring and coaching; there are a number of emeritus faculty or off-site faculty who could potentially contribute based on their interest. This project will help inform the use of video-based coaching to enhance teaching skills in our medical community and serve as a key tool for faculty development in the Teaching and Mentoring Academy.

References:

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