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1. Medical school 2.0: How we developed a student-generated question bank using small group learning
   Adrian CC Gooi and Connor Summerfield
   **Medical Teacher** October 2015 vol. 37, issue 10 pp. 892-896

# Abstract

**Background**: The multiple-choice question (MCQ) is one of the most common methods for formative and summative assessment in medical school. Common challenges with this format include (1) creating vetted questions and (2) involving students in higher-order learning activities. Involving medical students in the creation of MCQs may ameliorate both of these challenges.

**What we did**: We used a small group learning structure to develop a student-generated question bank. Students created their own MCQ based on self-study materials, and then reviewed each other's questions within small groups. Selected questions were reviewed with the class as a

whole. All questions were later vetted by the instructor and incorporated into a question bank that students could access for formative learning. Post-session survey indicated that 91% of the students felt that the class-created MCQ question bank was a valuable resource, and 86% of students would be interested in collaborating with the class for creating practice questions in future sessions.

**Conclusions**: Developing a student-generated question bank can improve the depth and interactivity of student learning, increase session enjoyment and provide a potential resource for student assessment.

**To read the full article:**

2. **Assessing 3rd year medical students' interprofessional collaborative practice behaviors during a standardized patient encounter: A multi-institutional, cross-sectional study.**
Sandra Oza, Christy Boascardin, Maria Walmsley, et al

# Abstract

**Background**: To understand how third-year medical student interprofessional collaborative practice (IPCP) is affected by self-efficacy and interprofessional experiences (extracurricular experiences and formal curricula).
**Methods**: The authors measured learner IPCP using an objective structured clinical examination (OSCE) with a standardized nurse (SN) and standardized patient (SP) during a statewide clinical performance examination. At four California medical schools from April to August 2012, SPs and SNs rated learner IPCP (10 items, range 0–100) and patient-centered communication (10 items, range 0–100). Post-OSCE, students reported their interprofessional self-efficacy (16 items, 2 factors, range 1–10) and prior extracurricular interprofessional experiences (3 items). School representatives shared their interprofessional curricula during guided interviews.

**Results**: Four hundred sixty-four of 530 eligible medical students (88%) participated. Mean IPCP performance was $79.6 \pm 14.1$ and mean self-efficacy scores were 7.9 (interprofessional teamwork) and 7.1 (interprofessional feedback and evaluation). Seventy percent of students reported prior extracurricular interprofessional experiences; all schools offered formal interprofessional curricula. IPCP was associated with self-efficacy for interprofessional teamwork ($\beta = 1.6$, 95% CI [0.1, 3.1], $p = 0.04$) and patient-centered communication ($\beta = 12.5$, 95% CI [2.7, 22.3], $p = 0.01$).

**Conclusions**: Medical student IPCP performance was associated with self-efficacy for interprofessional teamwork and patient-centered communication. Increasing interprofessional opportunities that influence medical students' self-efficacy may increase engagement in IPCP.

**To read the full article:**

**3. 'It was serendipity': a qualitative study of academic careers in medical education**
Wendy Hu, Jill Thistlethwaite, Jennifer Weller et al

**Abstract:**

*Context*

Despite a demand for educational expertise in medical universities, little is known of the roles of medical educators and the sustainability of academic careers in medical education. We examined the experiences and career paths of medical educators from diverse professional backgrounds seeking to establish, maintain and strengthen their careers in medical schools.

*Methods*

Semi-structured interviews were conducted with 44 lead and early-career medical educators from all 21 Australian and New Zealand medical schools. Questions explored career beginnings, rewards and challenges. Transcripts underwent systematic coding and independent thematic analysis. Final themes were confirmed by iterative review and member checking. Analysis was informed by Bourdieu's concepts of *field* (a social space for hierarchical interactions), *habitus* (individual dispositions which influence social interactions) and *capital* (economic, symbolic, social and cultural forms of power).

*Results*

Participants provided diverse accounts of what constitutes the *practice* of medical education. Serendipitous career entry and little commonality of professional backgrounds and responsibilities suggest an ambiguous *habitus* with ill-defined career pathways. Within the *field* of medicine as enacted in medical schools, educators have invisible yet essential roles, experiencing tension between service expectations, a lesser form of *capital*, and demands for more highly valued forms of scholarship. Participants reported increasing expectations to produce research and obtain postgraduate qualifications to enter and maintain their careers. Unable to draw upon cultural capital accrued from clinical work, non-clinician educators faced additional challenges. To strengthen their position, educators consciously built social capital through essential service relationships, capitalising on times when education takes precedence, such as curriculum renewal and accreditation.

## Conclusions

Bourdieu's theory provides insight into medical educator career paths and the positioning of medical education within medical schools. Medical educators have an indistinct practice, and limited cultural capital in the form of research outputs. In order to maintain and strengthen their careers, educators must create alternative sources of capital, through fostering collaborative alliances.

**To read full article:**

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12822/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12822/full

4. **The highly influential teacher: recognizing our unsung heroes**
   Lars Osterberg, Rachel Swigris, Amy Weil and William T. Branch Jr.
   **Medical Education** November 2015 volume 49 (11), 1117-1123

**Abstract:**

### Objectives

This study was designed to investigate the roles, characteristics and contributions to the educational process of highly influential teachers described retrospectively by faculty members who were former medical students and trainees.

### Methods

The authors collected 20 appreciative inquiry narratives from a convenience sample of 22 faculty members (91% collection rate) at three medical schools that had volunteered to participate in a year-long programme of faculty development in humanism in medicine. The faculty members wrote narratives in response to the prompt: 'Write about your most influential teacher.' The four authors performed qualitative analysis of the 20 narratives using the constant comparison method to identify the characteristics of influential teachers.

### Results

Particular relational features with their learners explain the profound influences of these teachers on the professional development of their learners. All influential teachers shared qualities of excellence in teaching and nearly all were described as caring, generous and selfless in their relationships with learners.

## *Conclusions*

Highly influential teachers have no official roles, yet appear to profoundly influence the professional development of many learners at various stages of the educational process.

**To read full article:**

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12808/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12808/full

**And the commentary (no abstract):**

**Are influential teachers born or can they be taught?**
Shelley Ross
**Medical Education** November 2015 volume 49 (11), 1058-1060

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12830/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12830/full

5. **Challenges to Engaging Medical Students in a Flipped Classroom Model**
   Melanie McCollum**,** Elizabeth Bradley, Paula Roy**,** et al
**Medical Science Educator** September 2015, Volume 25, Issue 3, pp 219-222

**Abstract**

The flipped classroom educational model proposes that students will achieve higher order and deeper levels of learning if they work collaboratively during class to apply what they know. However, medical students decline to participate in flipped classroom activities if they perceive that studying alone will be equally efficient in terms of learning. Unfortunately, institutional policies and practices can challenge the ability of medical educators to hold students accountable for attending and engaging in class. As a result, flipped classroom activities must be designed with care, and both e classroom activities and subsequent assessments must challenge students' higher-order thinking skills.

**To read full article:**

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s40670-015-0125-7/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s40670-015-0125-7/fulltext.html

**6. Effects of a brief mindfulness-based intervention program for stress management among medical students: the Mindful-Gym randomized controlled study**

Cheng Kar Phang, Firdaus Mukhtar, Normala Ibrahim et al

**Abstract:**

Pursuing undergraduate medical training can be very stressful and academically challenging experience. A 5-week mindfulness-based stress management (MBSM/Mindful-Gym) program was developed to help medical students cope with stress. The aim of this study was to evaluate the effectiveness of the intervention in reducing stress among students in a medical school in Malaysia. Seventy-five medical students participated in the program. They were stratified according to years of studies and randomly allocated to intervention ($N = 37$) and control groups ($N = 38$). The following outcome variables were measured at pre- and post-intervention: mindfulness (with Mindful Awareness Attention Scale); perceived stress (with Perceived Stress Scale); mental distress (with General Health Questionnaire), and self-efficacy (with General Self-efficacy Scale). Hierarchical multiple regressions were used to analyse the effect of group (intervention vs. control) on changes in the outcome variables. There were significant improvements at one week post-intervention in all outcome variables: mindfulness ($\beta = 0.19$, $\Delta R2 = 0.04$, $p = .040$, $f^2 = 0.05$), perceived stress ($\beta = -0.26$, $\Delta R2 = 0.07$, $p = .009$, $f^2 = 0.10$); mental distress ($\beta = -0.28$, $\Delta R2 = 0.10$, $p = .003$, $f^2 = 0.15$); and self-efficacy ($\beta = 0.30$, $\Delta R2 = 0.09$, $p < .001$, $f^2 = 0.21$). Six months after the intervention, those who had joined the program reported higher self-efficacy compared to those in the control group ($\beta = 0.24$, $\Delta R2 = 0.06$, $p = .020$, $f^2 = 0.08$); but there was no difference in other outcome measures. More than 90 % of the participants found the program applicable in helping patients and all reported that they would recommend it to others. This study indicates that the program is potentially an effective stress management program for medical students in Malaysia.

**To read more:**

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-015-9591-3/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-015-9591-3/fulltext.html

**7. Readiness for Residency: A Survey to Evaluate Undergraduate Medical Education Programs**

Peterson, Linda; Rusticus, Shayna; Wilson, Derek A; Eva, Kevin; Lovato, Chris.

Background: Health professions programs continue to search for meaningful and efficient ways to evaluate the quality of education they provide and support ongoing program improvement.

Despite flaws inherent in self-assessment, recent research suggests that aggregated self-assessments reliably rank aspects of competence attained during preclerkship MD training. Given the novelty of those observations, the purpose of this study was to test their generalizability by evaluating an MD program as a whole

Method: The Readiness for Residency Survey (RfR) was developed and aligned with the published Readiness for Clerkship Survey (RfC), but focused on the competencies expected to be achieved at graduation. The RfC and RfR were administered electronically four months after the start of clerkship and six months after the start of residency, respectively. Generalizability and decision studies examined the extent to which specific competencies were achieved relative to one another.

Results: The reliability of scores assigned by a single resident was $G = 0.32$. However, a reliability of $G = 0.80$ could be obtained by averaging over as few as nine residents. Whereas highly rated competencies in the RfC resided within the CanMEDS domains of professional, communicator, and collaborator, five additional medical expert competencies emerged as strengths when the program was evaluated after completion by residents.

Conclusions: Aggregated resident self-assessments obtained using the RfR reliably differentiate aspects of competence attained over four years of undergraduate training. The RfR and RfC together can be used as evaluation tools to identify areas of strength and weakness in an undergraduate medical education program.

**To read more:**

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c8%7c sl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c8%7c sl_10

**8. From Cheerleader to Coach: The Developmental Progression of Bedside Teachers in Giving Feedback to Early Learners**

Wenrich, Marjorie; Jackson, Molly Blackley; Maestas, Ramoncita R; et al

**Abstract:**

**Background**: Medical students learn clinical skills at the bedside from teaching clinicians, who often learn to teach by teaching. Little is known about the process of becoming an effective clinical teacher. Understanding how teaching skills and approaches change with experience may help tailor faculty development for new teachers. Focusing on giving feedback to early learners,

the authors asked: What is the developmental progression of clinician–teachers as they learn to give clinical skills feedback to medical students?

**Method:** This qualitative study included longitudinal interviews with clinician–teachers over five years in a new clinical skills teaching program for preclinical medical students. Techniques derived from grounded theory were used for initial analyses. The current study focused on one theme identified in initial analyses: giving feedback to students. Transcript passages were organized by interview year, coded, and discussed in year clusters; thematic codes were compared and emergent codes developed.

**Results:** Themes related to giving feedback demonstrated a dyadic structure: characteristic of less experienced teachers versus characteristic of experienced teachers. Seven dominant dyadic themes emerged, including teacher as cheerleader versus coach, concern about student fragility versus understanding resilience, and focus on creating a safe environment versus challenging students within a safe environment.

**Conclusions**: With consistent teaching, clinical teachers demonstrated progress in giving feedback to students in multiple areas, including understanding students' developmental trajectory and needs, developing tools and strategies, and adopting a dynamic, challenging, inclusive team approach. Ongoing teaching opportunities with targeted faculty development may help improve clinician–teachers' feedback skills and approaches.

**To read more:**

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c16%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c16%7csl_10

9**. Cause and Effect: Testing a Mechanism and Method for the Cognitive Integration of Basic Science**
   Kulasegaram, Kulamakan ; Manzone, Julian; Ku, Cheryl; Skye, et al
 **Academic Medicine:**  Volume 90(11) Association of American Medical Colleges Medical Education Meeting: Proceedings of the 54th Annual Research in Medical Education Sessions, November 2015, p S63-S69

**Abstract:**

**Background**: Methods of integrating basic science with clinical knowledge are still debated in medical training. One possibility is increasing the spatial and temporal proximity of clinical content to basic science. An alternative model argues that teaching must purposefully expose relationships between the domains. The authors compared different methods of integrating basic science: causal explanations

linking basic science to clinical features, presenting both domains separately but in proximity, and simply presenting clinical features

**Method**: First-year undergraduate health professions students were randomized to four conditions: (1) science–causal explanations (SC), (2) basic science before clinical concepts (BC), (3) clinical concepts before basic science (CB), and (4) clinical features list only (FL). Based on assigned conditions, participants were given explanations for four disorders in neurology or rheumatology followed by a memory quiz and diagnostic test consisting of 12 cases which were repeated after one week.

**Results**: Ninety-four participants completed the study. No difference was found on memory test performance, but on the diagnostic test, a condition by time interaction was found ($F[3,88] = 3.05$, $P < .03$, $[eta]_p^2 = 0.10$). Although all groups had similar immediate performance, the SC group had a minimal decrease in performance on delayed testing; the CB and FL groups had the greatest decreases.

**Conclusions**: These results suggest that creating proximity between basic science and clinical concepts may not guarantee cognitive integration. Although cause-and-effect explanations may not be possible for all domains, making explicit and specific connections between domains will likely facilitate the benefits of integration for learners.


**To read more:**

 http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c12%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.17.0a/ovidweb.cgi?&S=DFDDFPIDCADDLKHNNCJKIHJCCHPDAA00&Link+Set=S.sh.22.23.27.31%7c12%7csl_10


**10. Considering "Nonlinearity" Across the Continuum in Medical Education Assessment: Supporting Theory, Practice, and Future Research Directions**

Steven J. Durning , Stuart Lubarsky, Dario Torre, Valérie Dory and Eric Holmboe MD

**Abstract**

The purpose of this article is to propose new approaches to assessment that are grounded in educational theory and the concept of "nonlinearity." The new approaches take into account related phenomena such as "uncertainty," "ambiguity," and "chaos." To illustrate these approaches, we will use the example of assessment of clinical reasoning, although the principles we outline may apply equally well to assessment of other constructs in medical education. Theoretical perspectives include a discussion of script theory, assimilation theory, self-regulated learning theory, and situated cognition. Assessment examples to include script concordance testing, concept maps, self-regulated learning

microanalytic technique, and work-based assessment, which parallel the above-stated theories, respectively, are also highlighted. We conclude with some practical suggestions for approaching nonlinearity.

**To read more:**

**11. Socialization to professionalism in medical schools: a Canadian experience**
Anna Byszewski⸴ Jeewanjit S. Gill anad Heather Lochnan

*Abstract*

*Background*

Accrediting bodies now recognize the importance of developing the professionalism competency, by setting standards that require medical schools to identify where professionalism is addressed and how it is evaluated within the formal curriculum.

The objective of this study was to compare how professionalism competency is formally addressed in the curricula of Canadian medical schools, and to better understand the Canadian approach to reporting and remediation of lapses.

*Methods*

A literature review was performed and with the input of the AFMC(Association of Faculties of Medicine of Canada) Professionalism group, questionnaires were generated. An electronic survey was circulated to key leaders across the country at all the medical schools. In-depth telephone interviews were used to further explore themes, and a subsequent focus group was held to discuss challenges, particularly related to reporting and remediation.

*Results*

The preponderance of formal professionalism teaching remains in the form of lectures and small group sessions in the preclinical years. Formal teaching declines significantly in the clerkship/clinical years. Evaluation is usually performed by a clinical supervisor, but OSCE, portfolio, and concern notes are increasingly used. Role modeling is heavily relied upon in clinical years, suggesting faculty training can help ensure clinical teachers recognize their influence on trainees. Formal remediation strategies are in place at most schools, and often involve essay writing, reflection exercises, or completion of learning modules about professionalism. Lack of clarity on what defines a lapse and fear of reprisal (for both trainees and faculty) limits reporting.

*Conclusions*

This study provides an overview of how professional identity formation is supported in the Canadian context, guided by the standards set out by CanMEDS. Despite a rich literature that describes the definition, program design and evaluation methods for professionalism, in some areas of the curriculum there is still an opportunity to ensure programs embrace the suggested framework. Examples of teaching and evaluation methods, deficiencies in the clinical years of study (clerkship) and challenges in addressing lapses and organizational structure are identified. The results help identify the gaps that need to be addressed and some solutions that can be modeled at other academic institutions.

**To read more:**

http://www.biomedcentral.com/1472-6920/15/204