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Conference Abstracts

Change processes to transform health professions education

Conférence sur les changements visant la transformation de l'enseignement des professions de la santé

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October 20, 2021; 11:00 am EDT

Data driven support of change management

Outils de soutien aux processus de gestion du changement fondés sur les données

AJ Kleinheksel

Background: Within the steady stream of innovations and reforms to medical education curriculum lies the commonality of change management. Change management is a complex, multifactorial construct that can either ensure the success or prevent the adoption of an innovation. Furthermore, change management is a process rather than an event. As such, it is critical to integrate longitudinal, systematic evaluation and organizational support into the implementation strategy for any innovation.

Purpose: The purpose of this innovation was to support the implementation of a curriculum redesign at the Medical College of Georgia (MCG). This rigorous study used a validated framework, the Concerns-Based Adoption Model (CBAM), to measure the change management process. The purpose of this study was to both document and disseminate benchmarks and developments for other medical colleges embarking on curriculum reform, but, more importantly, to use the data collected during the study to support and refine the change management process at MCG.

Results: Two years of data have been collected in each of the diagnostic dimensions, and the results have been reported to stakeholders at MCG. As a result, changes have been made to the implementation process.

References

1. Hall GE. Measuring change facilitator stages of concern. a manual for use of the CFSoC questionnaire. Austin, TX: Southwest Educational Development Laboratory. 1991. https://doi.org/10.1037/t43947-000
2. Hall GE, Hord S. Implementing change: patterns, principles, and potholes. 4th ed. Boston, MA: Pearson; 2014.
3. Broyles I, Savidge M, Schwalenberg-Leip E, Thompson K, Lee R, Sprafka S. Stages of concern during curriculum change. *JIAMSE*. 2007; 17(1):14-26.
4. Hord SM, Stiegelbauer SM, Hall GE, George AA. Measuring implementation in schools: Innovation configurations. Austin, TX: Southwest Educational Development Laboratory. 2006.
5. Anderson SE. Understanding teacher change: revisiting the concerns based adoption model. *Curric Inq*. 1997; 27(3):331-67. ttps://doi.org/10.1080/03626784.1997.11075495

11:30 am EDT

Time to move from "push" to "pull": a collaborative process for implementing movement behaviour curricula in undergraduate medical education

Lorsque « pousser » ne marche pas, on « tire » : Un processus de collaboration pour la mise en œuvre d'un cursus sur le comportement lié à l'exercice dans la formation médicale de premier cycle

Tami Morgan

Years of research and several "calls to action" have pushed for medical schools to include physical activity in their already overextended curricula. These efforts have recommended physical activity content and objectives, yet have often neither considered medical education stakeholders' views nor the full complexity of the medical school context, such as competency-based learning.

With this external "push" for curriculum change, few medical schools have sustainably or sufficiently implemented physical activity in their curriculum. Furthermore, with Canada's new 24-Hour Movement Guidelines, which have replaced Canada's Physical Activity Guidelines, the focus is now on integrated movement behaviours across a continuum, from physical activity to sedentary behaviour to sleep. Thus, curriculum change efforts centering on physical activity alone are no longer adequate. This presents an opportunity to think differently about curriculum renewal. For instance, new content on physical activity, sedentary behaviour, and sleep may be incorporated into the medical curriculum in an integrated manner.

Our research argues for a "pull" model of curriculum change by using an integrated knowledge translation (iKT) approach. Medical education stakeholders become equal collaborators who help guide more successful curriculum implementation, leading to more relevant, feasible, and sustainable changes. To illustrate our approach, we will present our findings from a two-phased environmental scan of 24-Hour Movement Guideline content in the Queen's University School of Medicine's undergraduate curriculum and an iKT curriculum map highlighting where new, competency-based content may be embedded that acknowledges the complexity of the medical education context. Emphasis will be placed on the iKT process used.

12:00 pm EDT

Change processes to transform health professions education

Processus de changement orientés vers la transformation de l'enseignement des professions de la santé

Emily Scanlan, Angela Bergene

Faculty at academic medical centers have long been accustomed to competing demands on their time, leading to high work stress, burnout, and limited capacity to meaningfully engage in education-related competencies. In 2019, COVID-19 emerged and demanded an emergency response from educators to rapidly transition their classroom teaching to an online format. In support of faculty who were affected by the pandemic, we created just-in-time faculty development resources for best practices on teaching and implementing active learning strategies virtually.

For this session, we will share strategies to support faculty who transitioned their curriculum to an online format during the pandemic. It is designed to be engaging and relevant for conference attendees by incorporating the following elements:

1. Describe common challenges to faculty who have competing demands
2. List a variety of educational technologies that stimulate active learner engagement for faculty to incorporate while teaching online.
3. Describe next steps for transiting out of an emergency teaching response to more proactive teaching in an online environment
4. Large group sharing of how attendees' academic medical centers are approaching virtual teaching and addressing challenges associated with it.

We referenced our needs assessment data to help with the creation of quick reference guides, and short videos for faculty to reference. Our needs assessment told us faculty would like to learn more about:

- Instructional design components (61%)
- Development of online education materials (61%)
- Clinical teaching and assessment strategies (45%)
- Self-service tools and periodic consultation to help with creation of instructional modules (31%)

12:30 pm EDT

How do medical educators rate content when selecting for courses: a scoping review

Comment les éducateurs médicaux évaluent-ils le contenu à intégrer dans leurs cours : un examen de la portée

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Background: Medical educators have published hundreds of articles reporting multiple different ways to rate content for courses. We sought to capture and analyze those varied approaches.

Methods: We searched databases for articles about rating content in medical education. From over 9000 articles, we included 134 to extract data. Two authors screened each title and abstract and then two different authors screened the full text. Two authors also extracted data from each article. MD and PD resolved conflicts. Small groups of authors analyzed groupings of related data.

Results: The articles we reviewed undertook the process of rating content to provide clear direction (116 articles), rectify deficits in training (48 articles), address poor learning outcomes (38), and to meet societal needs (32) among other reasons. Researchers collected data using a Delta or similar method (80 articles), a one-time survey (39), and others. They used many different criteria such as importance (32 articles), relevant (11), and essential (6). In only 36 studies researchers provided a rationale for the selection of criteria. Most studies used a range or scale (95 articles), a dichotomous scale (14), and interviews of various kinds (16). For judges, most researchers chose physicians (87 articles), then trainees (46), and other health care professions (24).

Conclusions: This area of activity is underdeveloped. Researchers provided few if any rationales for any of the study components or processes they chose. Furthermore, we found little evidence to support any design decision. Future studies need to focus on the strengthening the process such as comparing physicians to trainees, important to relevant, and Delphi to one-time surveys.

1:00 pm EDT

Measuring aspirational change: innovation configuration (IC) mapping

Méthode pour mesurer le changement souhaité : Cartographie de la configuration de l'innovation (CI)

AJ Kleinheksel

Background: An IC Map is one of three diagnostic dimensions in the Concerns-Based Adoption Model (CBAM), which is being used to measure the change management process during a curriculum redesign at the Medical College of Georgia (MCG). CBAM is valid and reliable in a variety of educational contexts. The IC Map illustrates what successful implementation should look like for participants in the change process. Without this shared vision, individuals may perceive the features and intended objectives of an innovation in diverse, unexpected, and disruptive ways. An IC Map is also an essential component in the study of innovation implementation, as it provides concrete objectives to assess.

Design and methods: The goal of this evaluation was to develop and validate an IC Map for a new, redesigned MCG curriculum. An IC Map contains *components* of an innovation. Within each *component,* there will be one or more *dimension*, which can be implemented in a variety of ways; each combination is a *variation*. *Implementation requirements* are also defined so that individual support structures and resources are documented. The resulting IC Map presents a range of implementation possibilities, from ideal outcomes to obstructionist behaviors that can be referenced throughout and at the completion of the process.

Results: The development of the IC Map required a flexible, iterative approach, as did the annual validation process. A complete, 27-page IC Map was developed and validated with stakeholders. The first year of the MCG curriculum implementation was measured using the IC Map.

References

1. Hall GE. Measuring change facilitator stages of concern. a manual for use of the CFSoC questionnaire. Austin, TX: Southwest Educational Development Laboratory. 1991. https://doi.org/10.1037/t43947-000
2. Hall GE, Hord S. Implementing change: patterns, principles, and potholes. 4th ed. Boston, MA: Pearson; 2014.
3. Broyles I, Savidge M, Schwalenberg-Leip E, Thompson K, Lee R, Sprafka S. Stages of concern during curriculum change. *JIAMSE*. 2007; 17(1):14-26.

4. Hord SM, Stiegelbauer SM, Hall GE, George AA. Measuring implementation in schools: Innovation configurations. Austin, TX: Southwest Educational Development Laboratory. 2006.
5. Anderson SE. Understanding teacher change: revisiting the concerns based adoption model. *Curric Inq*. 1997; 27(3):331-67. ttps://doi.org/10.1080/03626784.1997.11075495

1:30 pm EDT

You don't need to be an English teacher: transforming writing instruction in health professions programs

On n'a pas besoin d'être professeur d'anglais : Changer la façon d'enseigner la rédaction dans les programmes de formation des professions de la santé

Michael Madson

Background: Writing is an important skill in health professions education. Students need to write to complete academic requirements, develop professional competencies and attitudes, and do the work of health care and health promotion [1-5]. Accordingly, numerous resources on writing, including textbooks, have been developed to support health professions students. But there are far fewer resources available for health professions faculty who, in many programs, find themselves teaching or at least assessing writing.

Some faculty members teach writing with considerable skill and effectiveness. Yet, many have had little experience or training in writing instruction, and they consider it an afterthought or an unwelcome challenge. A common concern is the time needed to teach writing. It is no surprise, then, that faculty development needs assessments in the health professions have repeatedly stressed training in writing and teaching.[6-8]

Methods: This twitter thread will suggest change processes, aligned with the McKinsey 7-S model that can help health professions faculty "level up" their skills in writing instruction, even in an overcrowded curriculum. The thread will include links to relevant scholarship (in "writing across the curriculum," "writing in the disciplines," as well as medicine, nursing, pharmacy, and public health, which have their own bodies of scholarship on teaching writing), share models of institutional collaboration with English departments and writing centers, and list practical resources on teaching writing. It will also briefly highlight a forthcoming edited collection, *Teaching writing in the health professions* (Routledge, 2022), which will provide additional resources for driving curricular change in writing instruction.

References

1. Charon R. Narrative medicine: a model for empathy, reflection, profession, and trust. *JAMA*. 2001 Oct 17;286(15):1897-902. https://doi.org/10.1001/jama.286.15.1897
2. Chen I, Forbes C. Reflective writing and its impact on empathy in medical education: systematic review. *J Educ Eval Health Prof*. 2014;11. https://doi.org/10.3352/jeehp.2014.11.20
3. Gimenez J. Beyond the academic essay: discipline-specific writing in nursing and midwifery. *J English Acad Prup*. 2008 Jul 1;7(3):151-64. https://doi.org/10.1016/j.jeap.2008.03.005
4. Opel DS, Hart-Davidson W. The primary care clinic as writing space. Written *Commun*. 2019 Jul;36(3):348-78. https://doi.org/10.1177/0741088319839968
5. Yanoff KL, Burg FD. Types of medical writing and teaching of writing in US medical schools. *J Med Educ*. 1988 Jan 1;63(1):30-7. https://doi.org/10.1097/00001888-198801000-00006
6. Behar-Horenstein LS, Beck DE, Su Y. Perceptions of pharmacy faculty need for development in educational research. *Curr Pharm Teach Learn*. 2018 Jan 1;10(1):34-40. https://doi.org/10.1016/j.cptl.2017.09.019
7. Haden NK, Chaddock M, Hoffsis GF, Lloyd JW, Reed WM, Ranney RR, Weinstein GJ. Preparing faculty for the future: AAVMC members' perceptions of professional development needs. *J Vet Med Educ*. 2010 Sep;37(3):220-32. https://doi.org/10.3138/jvme.37.3.220
8. Smith A, Hardinger K. Perceptions of faculty development needs based on faculty characteristics. *Curr Pharm Teach Learn*. 2012 Oct 1;4(4):232-9. https://doi.org/10.1016/j.cptl.2012.05.006

2:00 pm EDT

Universal design for learning in health professions education and patient care

Conception universelle pour l'apprentissage dans l'enseignement des professions de la santé et les soins aux patients

Larry Hubertise

Universal Design for Learning (UDL) is a set of principles, for designing instruction that seeks to provide all learners equal opportunities, regardless of (dis)ability, gender, age, or cultural background[1] While many schools have instituted inclusive practices in admissions, there is a dearth of experience among clinician educators about UDL.

The session will follow the #hmichat tweet chat design process (used by @erhall1, @KreuterMD, and @teresasoro). Participants will be guided to 1) develop a common understanding of UDL, 2) tie the principles to previous learning, 3) analyze UDL practices, 4) apply them to their context, and 5) develop next steps for applying UDL. To facilitate the discussion, the 2021 article, Twelve tips for designing an inclusive curriculum in medical education using Universal Design for Learning (UDL) principles[1] will be shared with the participants and the author @karl_luke will be invited to join the discussion. The session will begin by inviting participants to share their experiences with UDL as a concept and the specific 12 tips. Next the participants will explore how the UDL strategies benefit learners and patients and wrap up sharing plans for implementing UDL in their context. The facilitator will share additional resources about effective teaching strategies that align with UDL principles. In addition to the content, participants will be encouraged to employ effective tweet chat strategies like using hashtags, including the number of the question to which they are responding, and using a "yes and" approach to encourage interaction through reminder tweets and facilitator modeling.

References

1. Luke K, Twelve tips for designing an inclusive curriculum in medical education using Universal Design for Learning (UDL) principles. *MedEd Publish*, 2021. 10, [1], 118, https://doi.org/10.15694/mep.2021.000118.1
2. Crites G, Andrea Berry, Elissa Hall, Denise Kay, Mohammed K Khalil & Larry Hurtubise. Applying multiple frameworks to establish effective virtual collaborative teams in academia: a review and recommendations, *Med Ed Online*, 2020; 25:1, https://doi.org/10.1080/10872981.2020.1742968

2:30 pm EDT

How to rate content: which criteria are the best?

Comment les enseignants en médecine évaluent-ils le contenu à intégrer dans leurs cours : un examen de la portée

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This study falls within the conceptualization of curriculum derived from outcomes[1,2] which implies the importance of content. Few authors provide any direction for this complex activity. Blight[3] described several methods but did not include one of the most widely used: a panel of expert judges.

We wanted to find evidence to support the use of certain criteria when asking judges. We developed then pilot tested our instrument that asked participants to select the most appropriate criterion (and to explain why). We then revised our survey. Participants selected one of four criteria applied to four likely medical school objectives. The four criteria contained either the verb "improves" or "contributes to" and the object "patient care" or "general medical practice." One criterion was "contributes to general medical practice". Each of us authors analyzed the text responses. We tallied then analyzed the 2x2 matrix of responses for any significant differences using a *Chi* square calculation.

Our 30 participants selected the criterion "improves patient care" 52 times, almost twice as often as each of the other three criteria. They selected "contributes to medical practice" only 19 times, the least often. There was no statistically significant difference among any of the choices. In the text responses, we found participants had different interpretations of the criteria.

Further research should involve larger sample sizes, different criteria, participants from different groups of potential judges, and an explanation of each criterion. There is much work remaining to develop an evidence informed approach to rating course content for medical schools.

References

1. Barrow M, McKimm J, Samarasekera DD. Strategies for planning and designing medical curricula and clinical teaching. *South-East Asian J. Med. Educ.* 2010;4(1):2-8.
2. Prideaux D. Curriculum development in medical education: from acronyms to dynamism. *Teach Teach Educ.* 2007 Apr 1;23(3):294-302. https://doi.org/10.1016/j.tate.2006.12.017
3. Blight D. International education: Australia's potential demand and supply. IDP Education Australia; 1995.