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1.Tying knots: an activity theory analysis of student learning goals in clinical education

Douglas P Larsen, Austin Wesevich, Jana Lichtenfeld et al

Abstract:

Context

Learning goal programmes are often created to help students develop self-regulated learning skills; however, these programmes do not necessarily consider the social contexts surrounding learning goals or how they fit into daily educational practice.

Objectives

We investigated a high-frequency learning goal programme in which students generated and shared weekly learning goals with their clinical teams in core Year 3 clerkships. Our study explores: (i) how learning goals were incorporated into the clinical work, and (ii) the factors that influenced the use of students' learning goals in work-based learning.

Methods

We conducted semi-structured interviews with 14 students and 14 supervisors (attending physicians and residents) sampled from all participating core clerkships. Interviews were coded for emerging themes. Using cultural historical activity theory and knotworking as theoretical lenses, we developed a model of the factors that influenced students' learning goal usage in a work-based learning context.

Results

Students and supervisors often faced the challenge of reconciling contradictions that arose when the desired outcomes of student skill development, grading and patient care were not aligned. Learning goals could function as tools for developing new ways of acting that overcame those contradictions by facilitating collaborative effort between students and their supervisors. However, for new collaborations to take place, both students and supervisors had to engage with the goals, and the necessary patients needed to be present. When any one part of the system did not converge around the learning goals, the impact of the learning goals programme was limited.

Conclusions

Learning goals are potentially powerful tools to mediate interactions between students, supervisors and patients, and to reconcile contradictions in work-based learning environments. Learning goals provide a means to develop not only learners, but also learning systems.

To read more:

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13295/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13295/full

Abstract:

Aim: Learning analytics (LA) is an emerging discipline that aims at analyzing students' online data in order to improve the learning process and optimize learning environments. It has yet un-explored potential in the field of medical education, which can be particularly helpful in the early prediction and identification of under-achieving students. The aim of this study was to identify quantitative markers collected from students' online activities that may correlate with students' final performance and to investigate the possibility of predicting the potential risk of a student failing or dropping out of a course.

Methods: This study included 133 students enrolled in a blended medical course where they were free to use the learning management system at their will. We extracted their online activity data using database queries and Moodle plugins. Data included logins, views, forums, time, formative assessment, and communications at different points of time. Five engagement indicators were also calculated which would reflect self-regulation and engagement. Students who scored below 5% over the passing mark were considered to be potentially at risk of under-achieving.

Results: At the end of the course, we were able to predict the final grade with 63.5% accuracy, and identify 53.9% of at-risk students. Using a binary logistic model improved prediction to 80.8%. Using data recorded until the mid-course, prediction accuracy was 42.3%. The most important predictors were factors reflecting engagement of the students and the consistency of using the online resources.

Conclusions: The analysis of students' online activities in a blended medical education course by means of LA techniques can help early predict underachieving students, and can be used as an early warning sign for timely intervention.

To read more:
http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2017.1309376?scroll=top&needAccess=true

http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2017.1309376?scroll=top&needAccess=true

3**. Survey Incentives in Medical Education: What Do Students Say Will Entice Them to Participate in Surveys?**
  Kenneth D Royal and Kevin Flammer
  Medical Science Educator e-pub ahead of print (March 2017) DOI: 10.1007/s40670-017-0407-3

Abstract:

Surveys are the most commonly utilized tool for collecting data from college students. In recent years, the increasing number of surveys administered to students has resulted in low response rates due to survey fatigue. The use of incentives, especially those of a lottery-based nature, has become a popular strategy for improving response rates. At present, however, there is little research on the effectiveness of incentives for surveys involving students. Thus, the purpose of this study was to investigate what types of incentives are most likely to be effective for boosting response rates among students in medical and health professions programs, and what odds of winning a prize are likely to be most effective given lottery-based scenarios. Results indicate two major findings. First, lottery-based incentives, including those that offer a prize of considerable value (e.g., $250 cash and iPad) were reported to be much less attractive to students than guaranteed prizes, including those of relatively little value (e.g., $5 gift card). Second, students reported they were highly motivated to participate if the topic was of interest, they knew their feedback would make a difference, be taken seriously, be sincerely appreciated by the researcher(s), and if the topic appealed to their sense of professional responsibility/civic duty.

To read more:

https://link-springer-com.ezproxy.library.uvic.ca/article/10.1007/s40670-017-0407-3

https://link-springer-com.ezproxy.library.ubc.ca/article/10.1007/s40670-017-0407-3

4. Staging a performance: learners' perceptions about direct observation during residency
Kori Ladonna, Rose Hatala. Lorelei Lingard, Stephane Voyer and Christopher Watling
Medical Education Volume 51, Issue 5 May 2017 Pages 498–510

Abstract:
Context
Evidence strongly supports that direct observation is a valid and reliable assessment tool; support for its impact on learning is less compelling, and we know that some learners are ambivalent about being observed. However, learners' perceptions about the impact of direct observation on their learning and

professional development remain underexplored. To promote learning, we need to understand what makes direct observation valuable for learners.

Methods

Informed by constructivist grounded theory, we interviewed 22 learners about their observation experiences. Data collection and analysis occurred iteratively; themes were identified using constant comparative analysis.

Results

Direct observation was widely endorsed as an important educational strategy, albeit one that created significant anxiety. Opaque expectations exacerbated participants' discomfort, and participants described that being observed felt like being assessed. Consequently, participants exchanged their 'usual' practice for a 'textbook' approach; alterations to performance generated uncertainty about their role, and raised questions about whether observers saw an authentic portrayal of their knowledge and skill**.**

Conclusion

An 'observer effect' may partly explain learners' ambivalence about direct observation; being observed seemed to magnify learners' role ambiguity, intensify their tensions around professional development and raise questions about the credibility of feedback. In turn, an observer effect may impact learners' receptivity to feedback and may explain, in part, learners' perceptions that useful feedback is scant. For direct observation to be valuable, educators must be explicit about expectations, and they must be aware that how learners perform in the presence of an observer may not reflect what they do as independent practitioners. To nurture learners' professional development, educators must create a culture of observation-based coaching that is divorced from assessment and is tailored to developing learners' identities as practitioners of both the art and the science of medicine.

To read more:

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13232/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13232/full

and the commentary:

All the (training) world's a stage
Judy Shea and John Norcini
Medical Education Volume 51, Issue 5 May 2017 Pages 458-460

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13269/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13269/full

5. **Evidence against vs. in favour of a null hypothesis**

Jimmie Leppink, Patricia O'Sullivan and Kal Winston

Perspectives On Medical Education April 2017 pp.155-118

There is a widespread habit in educational research of interpreting statistically non-significant findings, also called *null findings*, as evidence in favour of a null hypothesis (i. e., 'no difference', 'no relation' or 'no effect'). Null findings are frequently interpreted as 'informing' theory or as 'confirming' theoretical expectations. In this entry, we explain two arguments against the habit of interpreting a null finding as evidence in favour of a null hypothesis. Based on these arguments, we explain that statistical power and required sample size calculations along with replication research and meta-analysis can help us counter the habit of interpreting non-significant findings as evidence in favour of the null hypothesis, and that Bayesian hypothesis testing can help researchers to evaluate the strength of evidence in favour of the null hypothesis or against it.

To read more:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5383568/?report=classic

6. **How Do Thresholds of Principle and Preference Influence Surgeon Assessments of Learner Performance?**
Tavis Apramian; Sayra Cristancho; Alp Sener; Lorelei Lingard
Annals of Surgery May 1 2017 ePUb ahead of print doi: 10.1097/SLA.0000000000002284

Abstract:

OBJECTIVE:
The present study asks whether intraoperative principles are shared among faculty in a single residency program and explores how surgeons' individual thresholds between principles and preferences might influence assessment.

BACKGROUND:
Surgical education continues to face significant challenges in the implementation of intraoperative assessment. Competency-based medical education assumes the possibility of a shared standard of competence, but intersurgeon variation is prevalent and, at times, valued in surgical education. Such procedural variation may pose problems for assessment.

METHODS:
An entire surgical division (n = 11) was recruited to participate in video-guided interviews. Each surgeon assessed intraoperative performance in 8 video clips from a single laparoscopic radical left nephrectomy performed by a senior learner (>PGY5). Interviews were audio recorded, transcribed, and analyzed using the constant comparative method of grounded theory.

RESULTS:
Surgeons' responses revealed 5 shared generic principles: choosing the right plane, knowing what comes next, recognizing normal and abnormal, making safe progress, and handling tools and tissues appropriately. The surgeons, however, disagreed both on whether a particular performance upheld a principle and on how the performance could improve. This variation subsequently shaped their reported assessment of the learner's performance.

CONCLUSIONS:
The findings of the present study provide the first empirical evidence to suggest that surgeons' attitudes toward their own procedural variations may be an important influence on the subjectivity of intraoperative assessment in surgical education. Assessment based on intraoperative entrustment may harness such subjectivity for the purpose of implementing competency-based surgical education.

To read more:

http://insights.ovid.com.ezproxy.library.uvic.ca/pubmed?pmid=28463897
(then click on Ovid and the full article will come up)

http://insights.ovid.com.ezproxy.library.ubc.ca/pubmed?pmid=28463897

7. The Development of an Indigenous Health Curriculum for Medical Students
Lewis, Melissa PhD; Prunuske, Amy PhD

Abstract:

Indigenous populations experience dramatic health disparities; yet, few medical schools equip students with the skills to address these inequities. At the University of Minnesota Medical School, Duluth campus, a project to develop an Indigenous health curriculum began in September 2013. This project used collaborative and decolonizing methods to gather ideas and opinions from multiple stakeholders, including students, community members, faculty, and administration, to guide the process of adding Indigenous health content to the curriculum to prepare students to work effectively with Indigenous populations. A mixed-methods needs assessment was implemented to inform the instructional design of the curriculum. In June 2014, stakeholders were invited to attend a retreat and complete a survey to understand their opinions of what should be included in the curriculum and in what way. Retreat feedback and survey responses indicated that the most important topics to include were cultural humility, Indigenous culture, social/political/economic determinants of health, and successful tribal health interventions. Stakeholders also emphasized that this content should be taught by tribal members, medical school faculty, and faculty in complementary departments (e.g., American Indian Studies, Education, Social Work) in a way that incorporates experiential learning.

Preliminary outcomes include the addition of a seven-hour block of Indigenous content for first-year students taught primarily by Indigenous faculty from several departments. To address the systemic barriers to health and well-being and provider bias that Indigenous patients experience, this project sought to gather data and opinions regarding the training of medical students through a process of Indigenizing research and education.

To read more:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.25.0a/ovidweb.cgi?&S=IMPPFPLOINDDFOOMNCGKAAJCEPPMAA00&Link+Set=S.sh.22.23.26%7c35%7csl_10

8. Beyond Fidelity: Deconstructing the Seductive Simplicity of Fidelity in Simulator-Based Education in the Health Care Professions

Schoenherr, Jordan Richard PhD; Hamstra, Stanley J. PhD

Abstract:

Summary Statement: Fidelity has become a ubiquitous feature of discourse in simulation studies. Recent studies have highlighted the often ambiguous and contradictory manner in which fidelity has been defined, with each definition emphasizing different physical and functional features of simulation. We suggest that regarding fidelity as an objective property of a simulation obscures the interactive nature of the educator-learner relationship and should be abandoned. Rather than conceiving training as tasks performed by an individual in isolation, we suggest that it is more accurately understood as the social learning of affordances. Affordances represent the functional features of a simulator, which are taken as relevant in a specific learning context by means of analogy. Training is successful to the extent that educators and learners share an understanding of those affordances. Even when explicitly formulated, the concept of fidelity has greater difficulty accounting for the complex, interactional features of the training situation in comparison with accounts based on social learning. We conclude that continued attempts to redefine and use fidelity in the context of training will likely yield little benefit to the field compared with an interactive social learning framework.

To read more:

9.Twelve tips for effective body language for medical educators

Andrew J. Hale, Jason Freed, Daniel Ricotta

Abstract:

Background: A significant proportion of human communication is nonverbal. Although the fields of business and psychology have significant literature on effectively using body language in a variety of situations, there is limited literature on effective body language for medical educators.

Aim: To provide 12 tips to highlight effective body language strategies and techniques for medical educators.

Method: The tips provided are based on our experiences and reflections as clinician-educators and the available literature.

Results: The 12 tips presented offer specific strategies to engage learners, balance learner participation, and bring energy and passion to teaching.

Conclusions: Medical educators seeking to maximize their effectiveness would benefit from an understanding of how body language affects a learning environment and how body language techniques can be used to engage audiences, maintain attention, control challenging learners, and convey passion for a topic. Understanding and using body language effectively is an important instructional skill.

To read more:

http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2017.1324140

http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2017.1324140

10. Doctors without borders
   Wass, val and Southgate, Lesley
   Academic Medicine Volume 92(4), April 2017, p 441–443

Abstract:

The unprecedented demands of patient and population priorities created by globalization and escalating health and social inequities will not be met unless medical education changes. Educators have failed to move fast enough to create an education framework that meets current population needs. A new common set of professional values around global social accountability is necessary. Education borders must be broken down at three levels—societal-institutional, interpersonal, and individual.

At a societal-institutional level, global health must be embraced as part of a philosophy of population needs, human rights, equity, and justice. A move from informative acquisition of knowledge and skills to formative learning where students socialize around values, develop leadership attributes, and become agents for change is needed. At an interpersonal level, radical changes in curriculum delivery, which move away from the well-defined borders of specialty rotations, are required. Students must develop an integrated understanding of the future of health care and the patient's journey through health care delivery, within the context of population needs. At an individual level, doctors need to understand the boundaries of the professional values they hold within themselves and develop a deeper understanding of their own internal prejudices and conflicts. Opening the borders between the sciences and humanities is essential. Fostering and mentoring that emphasize that resilience, leadership, flexibility, and the ability to cope with uncertainty are needed to tackle the complexities of current, as well as future, health care. Doctors need to understand the restraints within themselves to work effectively without borders.

To read more:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.25.0a/ovidweb.cgi?&S=LHHBFPPIHDDDJOAJNCGKJADCDEHMAA00&Link+Set=S.sh.47.48.52.66%7c27%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.25.0a/ovidweb.cgi?&S=LHHBFPPIHDDDJOAJNCGKJADCDEHMAA00&Link+Set=S.sh.47.48.52.66%7c27%7csl_10