Empowering 21st Century Learners to Own Their Education: Tools and Strategies to Promote Learner Development

Please pick a table topic (you can switch later)

1. Assessment as a catalyst for learning (white)
2. Deliberately planning learning experiences (blue)
3. Monitoring learning through reflection and mindfulness (pink)
Empowering 21st Century Learners to Own Their Education: Tools and Strategies for Promoting Learner Development

March 23, 2018
APPD Spring Meeting 2018
We have no financial relationships to disclose or conflicts of interest to resolve.
Describe the development of lifelong learning skills, including: assessing, planning, and monitoring learning

Explore tools and strategies for fostering assessment, planning, and monitoring of learning

Integrate tools and strategies for promoting learner development with existing educational experiences
What does lifelong learning look like?
What are lifelong learning skills?

Assess

Plan

Monitor
How do lifelong learning skills develop?

Progressive autonomy over time

Other-directed → self-directed

MS   PGY1   PGY2   PGY3/fellow   Practice
How do we foster lifelong learning
Lifelong learning skills

Assess

Monitor

Plan
Assessment as a catalyst for learning
Assessment of learning

- Helps the program and the learner know about the learner’s level of performance
  - Informs curricular effectiveness
  - Helps those responsible for the learner’s performance make decisions regarding clinical assignments and corresponding levels of supervision
  - Provides the learner with a “grade” or indication of how others judge her/his performance
- Less helpful in guiding the program and/or learner in how to advance, improve, or reinforce effective behaviors
Alignment of learner goals and programmatic goals in curricular development and assessment

- Engaging learners in development of:
  - assessment content (“what” behaviors, artifacts or evidence should be collected)
  - reports or representation of assessment outcomes (how should the data collected be represented “meaning”)
  - shared goals (what is important; what is the shared vision of competence, high performance)
  - action steps for improvement of lower performance or reinforcement of high performance
Assessment that *supports* learning

- Content is valued by the learner (ideally learners participate in design of items, instruments)
- Outcomes describe behaviors that are changeable; recommendations are reachable
- Reports provide pathway for development
- Pathway aligns with learner goals
- Feedback discussions promote growth mindset
Deliberately planning learning experiences
<table>
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<th>Reflection</th>
<th>PDSA</th>
<th>Experiential</th>
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<td>Understand the task and set goals</td>
<td>Reflect on previous knowledge and performance relevant to the task at hand before acting</td>
<td>Analyze baseline data, create an aim, and determine actions to take</td>
<td>Plan an experience</td>
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Schumacher et al, *Academic Medicine*
How can we guide learners to plan their learning activities?

- Resident as driver
- Teacher as coach
- Resident AND teacher as responsible party
  - But, remember: resident as driver
- Which definition of autonomy will you use?
  - Self-determination theory or “vs supervision”
- Take advantage of the overlap found in common learning theories to inform a deeper dive in planning experiences
Monitoring learning through reflection and mindfulness practices
Reflection is “the process of engaging the self in attentive, critical and iterative interactions with one’s thoughts and action and their underlying conceptual frame, with a view to changing them and with a view on the change itself”. [Nguyen]

Reflection - often offered as a key element in improving learning; beyond our intuition and desire, is there evidence that reflection is a skill, and can be developed to augment learning in medical education?
Monitoring Learning by Developing Reflection and Mindfulness Practices

Mindfulness means “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.” [Kabat-Zinn]

Mindfulness - often associated with better mental health/QOL; can facilitate better stress adaptation and even better patient communication scores. Is it a boost to learning? appreciation, is there evidence that reflection is a skill, and can be developed to augment learning in medical education?
Hypothesis 1
Improving reflection augments learning

Hypothesis 2
Developing more effective mindfulness improves learning
Hypothesis 1: *Improving reflection augments learning*

Experiential Learning Cycle (Kolb)

Reflection in Action // Reflection on Action // Reflection for Action

Killion and Todnem, 1991
## Self-Regulated Learning: Areas and Processes

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Cho BMC 2015
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Cho BMC 2015
Hypothesis 1

Improving reflection augments learning

Yes

- Reflection quality and utility can be improved through specific interventions (Cho 2017).
- Improved reflection associated with better diagnostic thinking (Sobral 2000), professional identity formation (Niemi 1997), and academic performance (Lonka 2001, Lucieer 2016).
Hypothesis 2: Developing more effective mindfulness improves learning

Experiential Learning Cycle (Kolb)

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Hypothesis 2
Developing more effective mindfulness improves learning

Maybe – You might bet it will…………

- No effect on knowledge assessment (psychology) although learners thought they learned better (Yamada 2012); no difference in memory function, intellectual performance or academic achievement (medical students) (Paholpa 2012).

- Improved acquisition of communication skills and demonstration of clinical decision making (surgery residents) (Real 2017).

- Improved visuo-spatial processing, working memory and executive functioning (Zeidan 2010).
Lifelong learning skill: Goal setting

Tool: Individualized Learning Plan structure, SMART

Faculty Development Strategies
- Share feedback about observations to target goals
- Suggest resources

Learner Development Strategies
- Individual: Review evaluations
- Collaborative: Share goals with clinical supervisors and ask for guidance/feedback

Settings/integration: semi-annual review, mentorship meetings, rotation orientation, first day with new clinical supervisor
Tools/strategies

Who?
- Learner uses independently
- Learner and faculty use together

Where?
- Clinical teaching
- Advising/mentoring
- Program/rotation expectations
Small group discussion

Pick a table theme:
- Encourage assessment as a catalyst for learning (white)
- Guide learners to deliberately planning learning experiences (blue)
- Foster reflection and mindfulness practices to monitor learning (pink)

1. Individual: Write down a few ideas of tools or strategies to promote the skills for your table

1. Small group discussion:
   - Share ideas for tools/strategies
   - Discuss how to integrate each with existing experiences
Large group report out and discussion

what's in your TOOLBOX?