

# **Empowering 21<sup>st</sup> 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 21<sup>st</sup> Century Learners to Own Their Education: Tools and Strategies for Promoting Learner Development**

March 23, 2018  
APPD Spring Meeting 2018

# Disclosure

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We have no financial relationships to disclose or conflicts of interest to resolve.

# Objectives

Describe the development of lifelong learning skills, including: assessing, planning, and monitoring learning

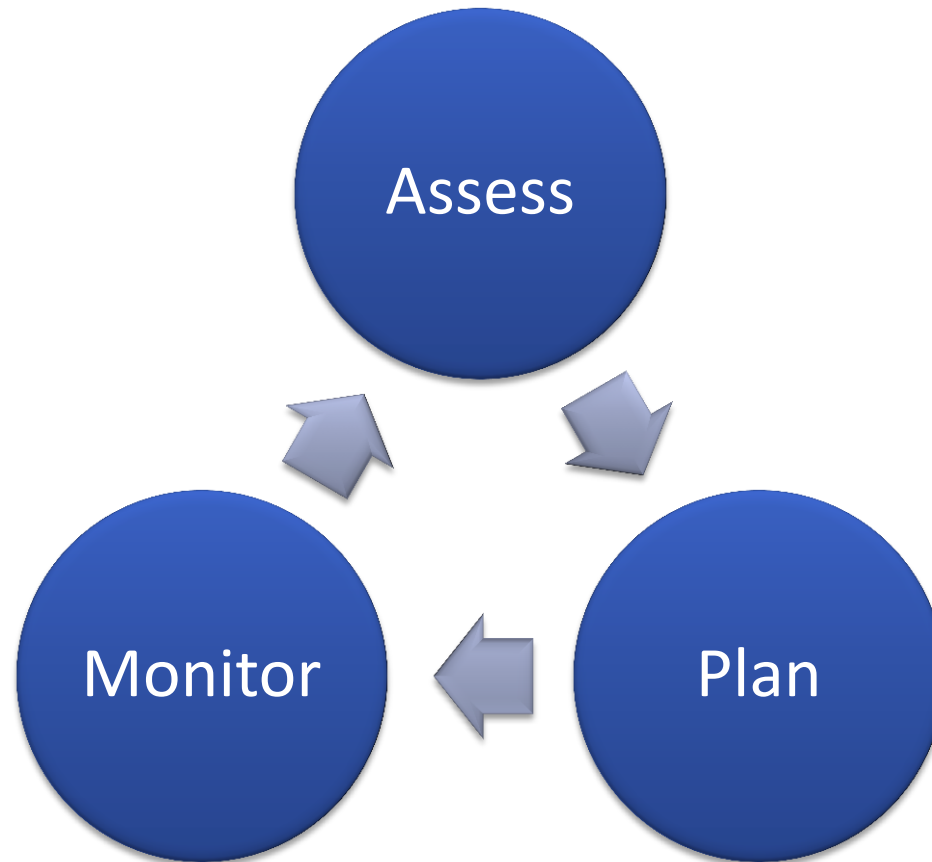
Explore tools and strategies for fostering assessment, planning, and monitoring of learning

Integrate tools and strategies for promoting learner development with existing educational experiences

# What does lifelong learning look like?

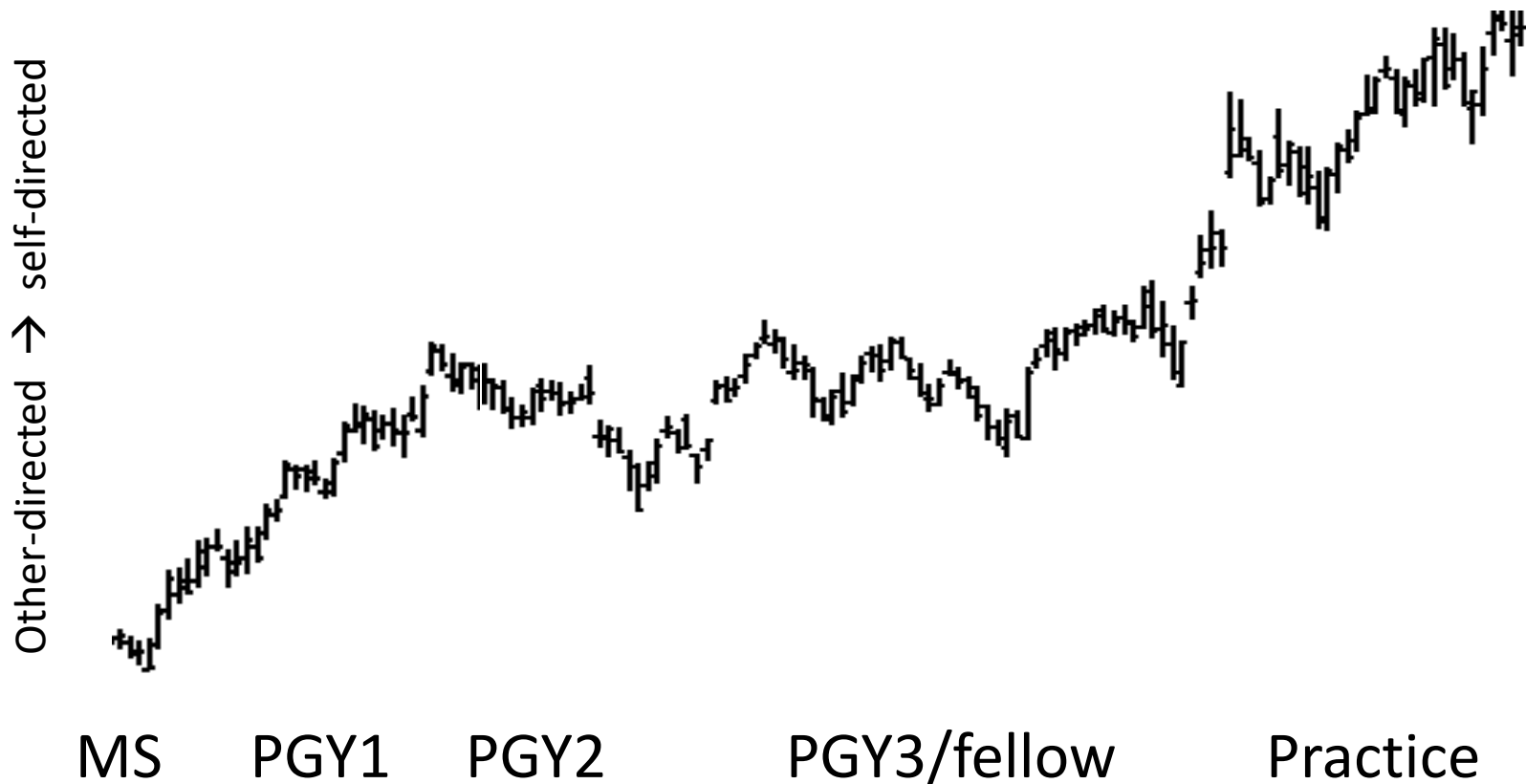


# What are lifelong learning skills?



# How do lifelong learning skills develop?

Progressive autonomy over time



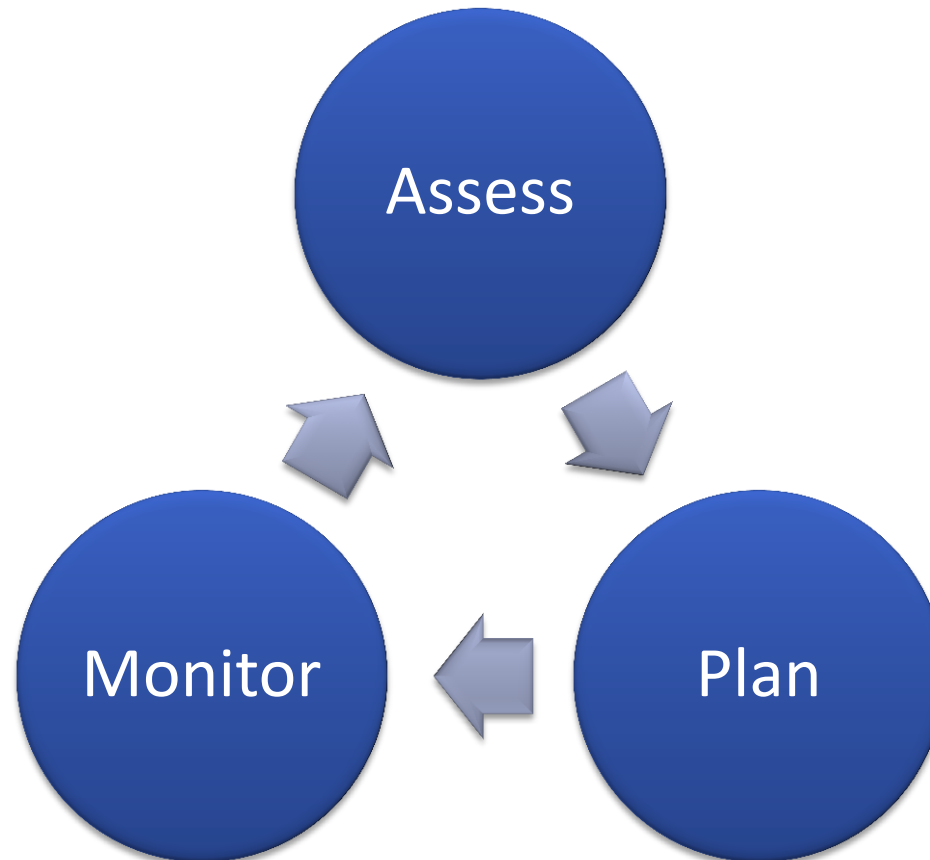


# How do we foster lifelong learning





# Lifelong learning skills



# Assessment as a catalyst for learning

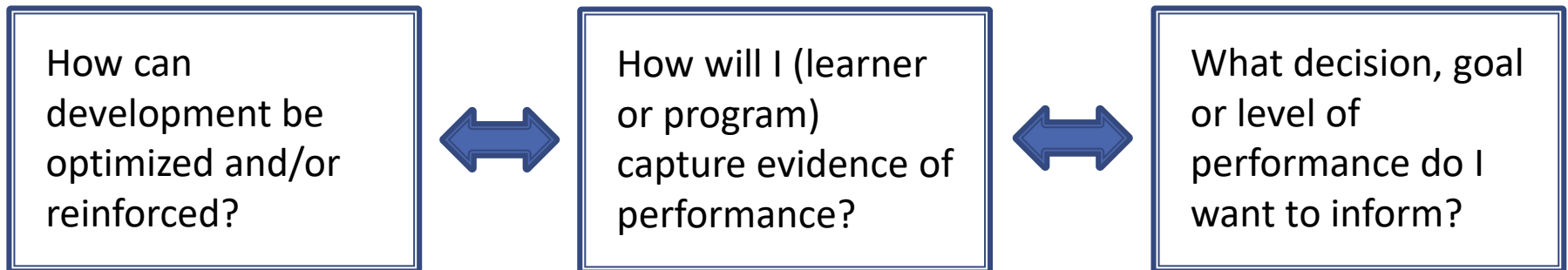
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# Assessment *of* learning

- 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

# Assessment *for* learning

- 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

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# Forethought

Self-Regulated Learning	Reflection	PDSA	Experiential
Understand the task and set goals	Reflect on previous knowledge and performance relevant to the task at hand before acting	Analyze baseline data, create an aim, and determine actions to take	Plan an experience



# 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

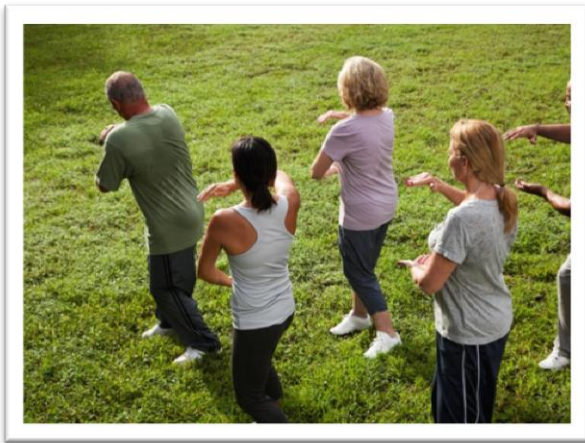
# Monitoring learning through reflection and mindfulness practices

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# Monitoring Learning by Developing 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]



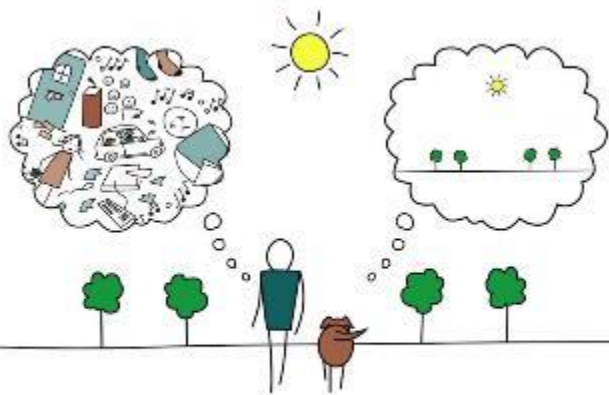
**Reflection** - often offered as a key element in improving learning; beyond our intuition and desire, is there evidence that reflection is a skill, and can be developed to augment learning in medical education?

# 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?



Mind Full, or Mindful?



## **Hypothesis 1**

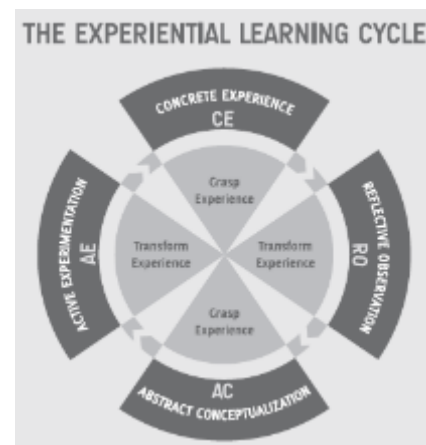
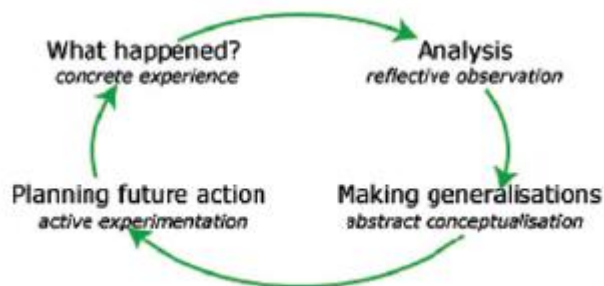
***Improving reflection augments learning***

## **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

Self-Regulated Learning Processes	Areas for Self-Regulation			
	Cognition	Motivation/ Affect	Behavior	Context/ Environment
Goalsetting/ Forethought				
Self-Monitoring				
Feedback Loop				
Control				



# Self-Regulated Learning: Areas and Processes

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Goalsetting/ Forethought	R	R	R	R
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Feedback Loop	R	R	R	R
Control	R	R	R	R

# Hypothesis 1

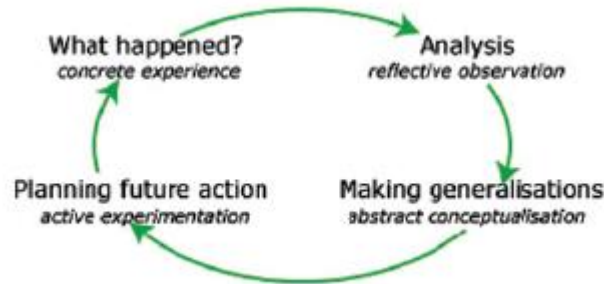
## *Improving reflection augments learning*

### **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)



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



Killion and Todnem, 1991

# 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).



# Example

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

