Understanding Adult Learning and Development

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<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
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<tbody>
<tr>
<td>• What does it take to learn and improve as a first- and second-year medical student?</td>
<td>• What does it take to learn and improve as a resident and physician?</td>
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Metacognitive Awareness

Being Self-Directed

Pushing Yourself to Improve
1. Metacognitive Awareness
Schön’s Reflective Practitioner

- His work has had a large impact on professional education.
**Technical Rationality**  
Standard, textbook solutions used to solve standard problems  

**Reflection-in-Action**  
Phenomena that are:  
1) Complex  
2) Uncertain  
3) Unstable  
4) Unique  
5) Value-conflicted  

*Spark reflection-in-action*

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Intellectual Humility

Source: Smerek, R. E. (2017). Organizational Learning and Performance
“What I’ve found in business is that almost no one will ever admit to not knowing the answer to a question.

“So even if they absolutely have no idea what the answer is, if it’s within their realm of expertise, faking is just an important part.”

“I really have come to believe teaching MBAs that one of the most important things you learn as an MBA is how to pretend you know the answer to any question even though you have absolutely no idea what you’re talking about.”

“And I’ve found it’s really one of the most destructive factors in business — is that everyone masquerades like they know the answer and no one will ever admit they don’t know the answer, and it makes it almost impossible to learn.”

2. Being Self-Directed
Stages of Mental Development

• Piaget’s Study of Child Development
  – “Those people down there *are* tiny.”
  – “Those people down there *look* tiny.”

“You might say that this moment was [her] agency moment, the moment when she began the process by which she would stop being blown about by her voids and begin to **live according to her own inner criteria, gradually developing a passionate and steady capacity to initiate action and drive her own life.**”

George Eliot

Source: Kegan & Lahey (2009). *Immunity to Change*
3. Pushing Yourself to Improve
Breaking Through Comfortable Plateaus

“I'd entered practice in 2003, and for the first several years, it was just this steady, upward improvement in my learning curve.

“I watched my complication rates drop from one year to the next. And after about five years, they leveled out.”

And a few more years after that, I realized I wasn't getting any better anymore. And I thought:

‘Is this as good as I'm going to get?’”

“It was painful. I didn't like being observed, and at times I didn't want to have to work on things.”

https://www.ted.com/talks/atul_gawande_want_to_get_great_at_something_get_a_coach?language=en
“Competency Traps”

**Exploit**

Doing the *same thing* cheaper, faster, or more reliably.

**Explore**

Exploring new markets, ideas, and building capabilities for the future.

Source: Smerek, R. E. (2017). *Organizational Learning and Performance*
Getting feedback that you are not as good as you think you are.

Having a desire to be better than you are today.

“Creative Tension”

Growth Mindset

• Growth Mindset
  – Are intelligence and capabilities innate and fixed?

• Fixed Mindset
  – With effort, can we continue to grow and improve?

Revealed in how we interpret mistakes and setbacks

Growth Mindset

• What is one thing you learned that you originally thought you couldn't?
What are the benefits?

- Growth Mindset/Learning Orientation:
  1. Increases effort and persistence
  2. Increases feedback-seeking behaviors.
  4. Share more information with others.

Increases Effort and Persistence

• Among 109 job unemployed job seekers

• 8-weeks after the workshop, those in the learning goal orientation condition were more likely to be reemployed (33%) compared to 9% for those in performance goal condition.

“Desirable Difficulties”

Massed Practice

vs.

Interleaved Practice
Massed practice “feels” more productive.

Fig. 1. Mean number of solid hits (per 45 pitches) for each condition

#1 Key Takeaway

• How can you better model (or incorporate social modeling) of Reflection-in-Action?
  – e.g. Teaching residents, “Here’s a situation where I was confused and puzzled…”
  – Admit not knowing (when appropriate and at least to yourself) opens up learning.
#2 Key Takeaway

• Build a bridge from socialized mind to a self-authoring:

“People grow best where they continuously experience an ingenious blend of support and challenge; the rest is commentary.”

#3 Key Takeaway

• Fostering a Growth Mindset to help break through comfortable plateaus and persist when faced with negative feedback.
  – Move from being “Know it all’s” to “Learn it all’s”
For more, see:
www.eloc.northwestern.edu
Appendix
iGen

Why Today’s Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood*

*and What That Means for the Rest of Us
Figure 1.13. Percentage of 12th graders who have a driver's license, have ever tried alcohol, who ever go out on dates, and who worked for pay at all during the school year. Monitoring the Future, 1976–2016.
Psychological Safety