



THE ECOSYSTEM OF EVIDENCE

Lessons learned in the pandemic
era and future challenges

10th International Conference for EBHC Teachers and Developers
10th Conference of the International Society for EBHC
Taormina, 25th - 28th October 2023

#EBHC2023



Using the Master Adaptive Learning Model to Develop Curriculum that Enhances Evidenced-Based Practice

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Background

- The Master Adaptive Learner (MAL) Framework – 2018

“Master Adaptive Learners utilize a metacognitive approach to self-regulated learning that leads to the development and demonstration of adaptive expertise.”

Cutrer et al. The Master Adaptive Learner: From the AMA MedEd Innovation Series. 1st ed., Elsevier, 2020



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The Mind of a Master Adaptive Learner

But, MAL curricula have not been evaluated



Aims

1. Perform gap analysis - 2 FM Residency programs' readiness for MAL
2. Present curriculum changes to address curricular gaps



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Methods

- 3 educators from 2 LVHN FM residency programs
 - Reviewed prior evidence that residents are not performing as MALs
- Compare curriculum to MAL Model
 - What are we covering?
 - What is missing?
- Implement curriculum changes to address gaps
- Qualitative analysis of resident-written statements



Results – Gap Analysis

- Lack of dedicated time to formally teach the principles of EBHC
- Minimal faculty development about the MAL framework
 - Necessary to shift the learning environment to encourage MAL behaviors
- Process of resident self-assessment/goal setting lacked expectations of **specific** goals to develop measurable individualized education plans



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Results – Curriculum Chang

- Active critical appraisal exercise sessions (“PICO”)
- Addition of Journal Club
- Case-based faculty development re: MAL
- Resident Assessment Facilitation Teams (RAFTs) w/ SMART goals

Foster E, Biery N, Dostal J, Larson D. RAFT (Resident Assessment Facilitation Team): supporting resident well-being through an integrated advising and assessment process. *Fam Med.* 2012;44(10):731-734.



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Results – Qualitative Analysis

MAL Phases/Characteristics Seen in RAFT Statements by Training Level						
	Planning	Learning	Assessing	Adjusting	Coaching	Characteristics
First Year Initial RAFT (N=18)	37.3%	19.0%	6.3%	0.8%	7.1%	29.3%
First Year End of Year (N=15)	33.3%	13.3%	10.5%	3.8%	8.6%	30.5%
Second Year End of Year (N=15)	37.0%	14.8%	8.6%	3.7%	6.2%	29.5%
Third Year End of Year (N=13)	26.2%	12.3%	6.2%	4.6%	21.5%	29.2%

Rezqui S, Hansen A, Biery N, Keister D. Development of the Master Adaptive Learner in Residency Training. Poster presentation. 2021.



Limitations

- Educational case study w/ qualitative analysis
 - May not be generalizable
- Outcomes remain difficult to measure



Conclusions

- MAL framework- a useful description of key component of EBHC
 - Learning environment requires revision- faculty development
 - At 2 FM residencies, implementation of:
 - Didactic sessions
 - Informed self-assessment
 - Case- based faculty development
- ... led to an increased in MAL behaviors when goal setting

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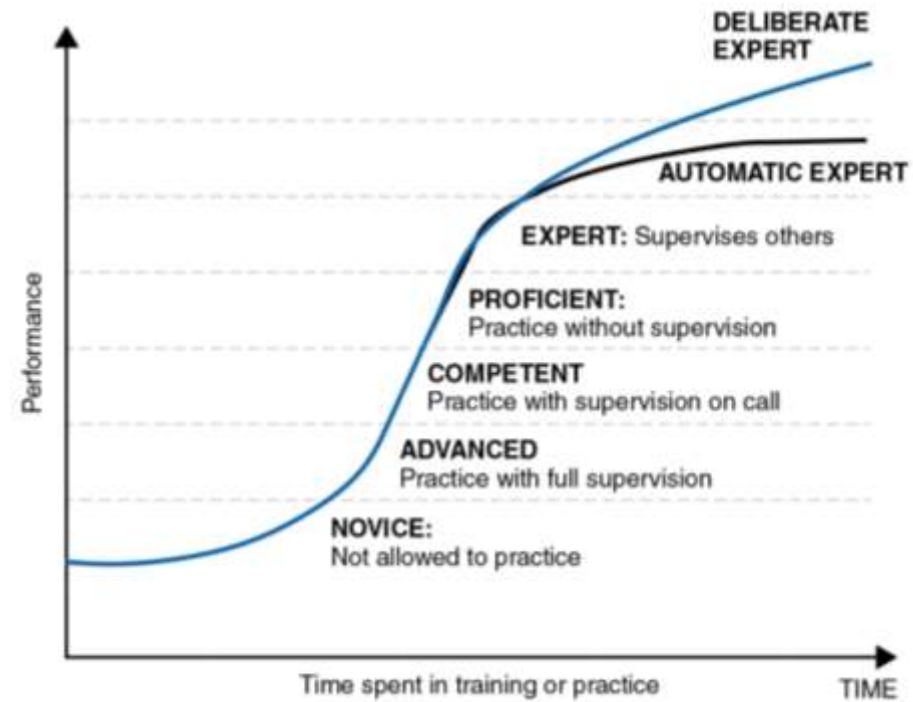
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Dreyfus Model w/ Adaptive Learning



Cutrer et al. The Master Adaptive Learner. Elsevier. 2020

Master Adaptive Learners

- Think about how they learn (Metacognition)
 - Critical thinking
 - Reflection
- Self-monitoring (and self-regulation)
- Develop adaptive expertise



Resident Assessment Facilitation Team (RAFT)

- Our model to involve residents in their own competency assessment
- Key components of the RAFT process:
 - Residents perform a self-assessment (*planning, assessing, adjusting*)
 - Meet with a trusted advisor & discuss self-assessment in context of the feedback from their 360 evaluations (*planning, assessing*)
 - Develop a shared proposal for residents' milestones assessment
 - Meet with the CCC, which we call the RAFT team (*assessing, adjusting*)
 - Residents share key plans/ needs with whole community (*planning, assessing, adjusting*)



The RAFT Process – RAFT Statement

Purpose:

- Give educational supervisors information about progress & learning goals discussed @ RAFT
- This info used to customize education and help meet goals

Expectations:

- Due one week after RAFT
- Sent to faculty and senior residents (others may be included by request)

Guidelines:

- Summary statement of progress from the last RAFT period
- List your goals for the next RAFT period
- Format at discretion of resident (can include but are not limited to prose, lists, drawings, and animation)

Coaching – A novel concept for med ed

- Change in focus to guiding the learning process
- Not just teaching / review of progress
 - Assessing knowledge gaps
 - Encouraging active learning, assist prioritization



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