

# FIRES IN THE MIND

What Students Can Tell Us About  
Motivation and Mastery



presented by Kathleen Cushman  
and the students of What Kids Can Do

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## What does MASTERY look like?



• Playing chess



• Doing scientific research



• Speaking a foreign language



• Cooking

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### EXERCISE 1

Do people get to be experts because they are born with talent? Or do they get there by practice?



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### The Big Research Questions

INBORN ABILITY?      OPPORTUNITY?

AFFINITY?



COACHING?

EFFORT?

PRACTICE?

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## The Practice Project

- Ask youth about their expertise
- Youth ask adults about their expertise
- Think together about expert habits & process
- Transfer to new areas



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## Getting Started • Keeping at It



Watching an expert  
Spark of interest – noticed!  
Opportunity to explore



Practice with a coach  
Small successes  
Meaningful context

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Getting Started • Keeping at It

$$\text{Value} \times \text{Expectation} = \text{Motivation}$$



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What makes us keep at it?

- Steady and satisfying work (often with others)
- The hater or the motivator
- The thrill of competition
- The sheer fun of it
- The moments you know that you know it



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Not just any practice ...  
**DELIBERATE** practice



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### Deliberate Practice



"I draw what I like"  
"I draw what's hard to me"



"You go step by step"  
"You take your time"

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## EXERCISE 2

How would you describe your own process when you are practicing something?



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## What is Deliberate Practice?

- Has an express purpose
  - Involves attention
  - Is geared to the individual
  - Involves rehearsal
  - Leads to new knowledge & skills ...
- ... that lead to even more complex knowledge & skills



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## Deliberate Practice in the Classroom

Express purpose



Math work that helps solve everyday problems

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## Deliberate Practice in the Classroom

Express purpose

Involves attention



Putting facts to use in history and geography

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## Deliberate Practice in the Classroom

Express purpose

Involves attention

Geared to the individual



Reading and writing that connects to interests and needs

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## Deliberate Practice in the Classroom

Express purpose

Involves attention

Geared to the individual

Involves repetition or rehearsal



Preparing to perform or present in public

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## Deliberate Practice in the Classroom

Express purpose

Involves attention

Geared to the individual

Involves repetition or rehearsal

Leads to new knowledge or skills



Always asking what you still don't know

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## Deliberate Practice in the Classroom

- Considering different perspectives

- Looking for evidence

- Noticing why information matters

- Connecting knowledge to other knowledge

- Asking "what if ...?"



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## Is homework deliberate practice?

### Deliberate practice ...

Has an express purpose

Is geared to the individual

Involves attention and focus

Requires repetition or rehearsal

Requires careful timing

Leads to new skills

### But with homework ...

We don't know the point

It's the same for everybody

We can do it without thinking

It's just repeating something

We don't have enough time to do it

We don't use it for anything

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## EXERCISE 3

What are you currently asking your students to practice?

How are you asking them to practice it?



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## What does it take to get really good?

Looking at student strengths

Asking the experts

Value x Expectation =  
Motivation

Deliberate practice



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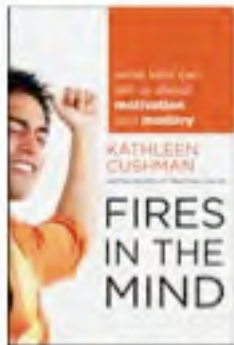
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[www.FiresInTheMind.org](http://www.FiresInTheMind.org)

A project of What Kids Can Do

MADE POSSIBLE BY  
MetLife Foundation

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