#### Unleashing the Power of Us:

# Mindful Learning When Practice Makes Imperfect

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## Seven Pervasive Myths about Learning

- The basics must be learned so well that they become second nature.
- Paying attention means staying focused on one things at a time.
- Delaying gratification is important.
- Rote memorization is necessary in education.
- Forgetting is a problem.
- □ Intelligence is knowing "what 's out there."
- There are right and wrong answers.

#### What is Mindfulness?

Mindfulness approach has 3 characteristics:

- ☐ The continuous creation of new categories
- Openness to new information
- Implicit awareness of more than one perspective

#### What is Mindlessness?

Mindlessness approach has 3 characteristics:

- Entrapment in old categories: by automatic behavior that precludes attending to new signals
- By action that operates from a single perspective

#### What is Mindlessness?

"The rules we are given to practice are based on generally accepted truths about how to perform the task and not our individual abilities.

If we mindlessly practice these skills, we are not likely to surpass our teachers.

Mindless practice keeps the activity from being our own."

#### Whose Basics?

Basic skills are normatively derived ....

...applicable for most people some of the time ...sometimes not useful at all for some people

For everyone there are certain basics, but that there is no such as *the basics* 

## Two standard approaches to learning

Top-down	Bottom-up
Lecturing to students	Direct experience, repeated practice of the activity in a systemic way

## Sideways Learning ...

.... aims at maintaining a mindful state

- Openness to novelty
- Alertness to distinction
- Implicit, if not explicit awareness of multiple perspectives
- Orientation in the present

## Piano playing study

Students	Recruited thought a flyers announcing free piano lesions
Activity	Introduced to a simple C- major scale. Both groups practiced for twenty minutes. All individuals given the same instruction in piano, with the following variations.
2 Groups	

## Piano playing study

Group 1
Mindful
Instruction

Instructed to be creative an vary their playing as much as possible. "We would like you try to learn these figuring exercises without relaying on rote memorization. Try to keep learning new things about your piano playing. Try to change your style every few minutes, and not lock into one particular pattern."

## Piano playing study

Group 2
Traditional
Instruction

Taught to practice in a more traditional memorization through repetition style

Evaluation Piano playing was taped for evaluation by graduate students.

Subjects were asked how well they liked the lesson.

**Findings** 

The students given mindful instruction in the early steps of piano playing were rated as more competent, more creative and also expressed more enjoyment of the activity.

#### Creative Distraction

When we are distracted we are paying attention (being attracted) to something else.

What is so attractive about the alternative stimulus?

What can we learn for that attraction?

## What does paying attention mean?

"Hold the picture still in our mind"

Look at your finger without shifting your eyes?

It is natural for the mind to seek variety ....

... maybe individuals who have trouble paying attention to a problem maybe that they are following the wrong instructions

People naturally seek novelty in play and have not difficulty paying attention in those situations.

## Enhancing Novelty Experiment

Adults traveling by train were asked to read short stories.

All participants were told they would be asked questions about each story after they finished reading.

## Enhancing Novelty Experiment

Mindful group	Were instructed to vary either three or six aspects of each story: to read the text from different perspectives, to consider different endings.
Focus group	Were asked to focus on either three or six specific aspects of each story. They were not encouraged to do anything more than take the information in as it was in the story.
Control group	Read story without any specific instructions

### **Findings**

- The people asked to vary what they read, those in the mindfulness groups, remembered significantly more details they did members of the other groups.
- Those asked to consider six aspects of the story remembered more of it than did hose asked to consider three.
- Although the mindful groups had more to think about, they remembered more.

## The myth of delayed gratification

"If you work hard now, rewards will follow latter."

"Once you do your homework, then you can go out and play."

"The retirement years are the 'golden years.""

Work	Play
Pressure, deadlines,	Energizing, freely
the possibility of	undertaken for fun
failure, fatigue, lack of	rather than outcome,
choice, set goals,	relaxing rather than
unavoidable drudgery	pressured

"Implicit in the concept of delayed gratification is the idea that work activities are necessarily arduous."

"Most tasks are not inherently pleasant or unpleasant, but an evaluation imposed on a task that carries such a presumption."

# Can disliked tasks be made pleasurable?

## Music Study

Participants	Watched something that they had no particular liking (music tapes or televised football)
Group 1	Exposed to music or football. They were asked to notice three or six novel aspect about the activity.
Group 2 (control)	Exposed to same music or football game without instructions to make distinctions.

People liking for the activity was assessed before and after they engaged in the activity

## **Findings**

- Each group asked to draw distinctions ended up liking the activity more than before.
- The more distinctions drawn, the more the subjects like the activity.
- There was no changes in liking for the control group.

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