

USING GAME DESIGN TO CREATE ACCOMPLISHMENT- BASED LEARNING

A yellow starburst graphic with a black outline, containing the text "Creating Engagement!".

Creating
Engagement!



Video
Game
Stare

OUR CHALLENGE: THE MOST BORING TOPIC I COULD FIND:



HSA Procedures

OR one of your own topics

GAMES AND LEARNING...

“One of the subtlest releases of chemicals is at that moment of triumph when we learn something or master a task...

...In other words, with games **learning is the drug.**”

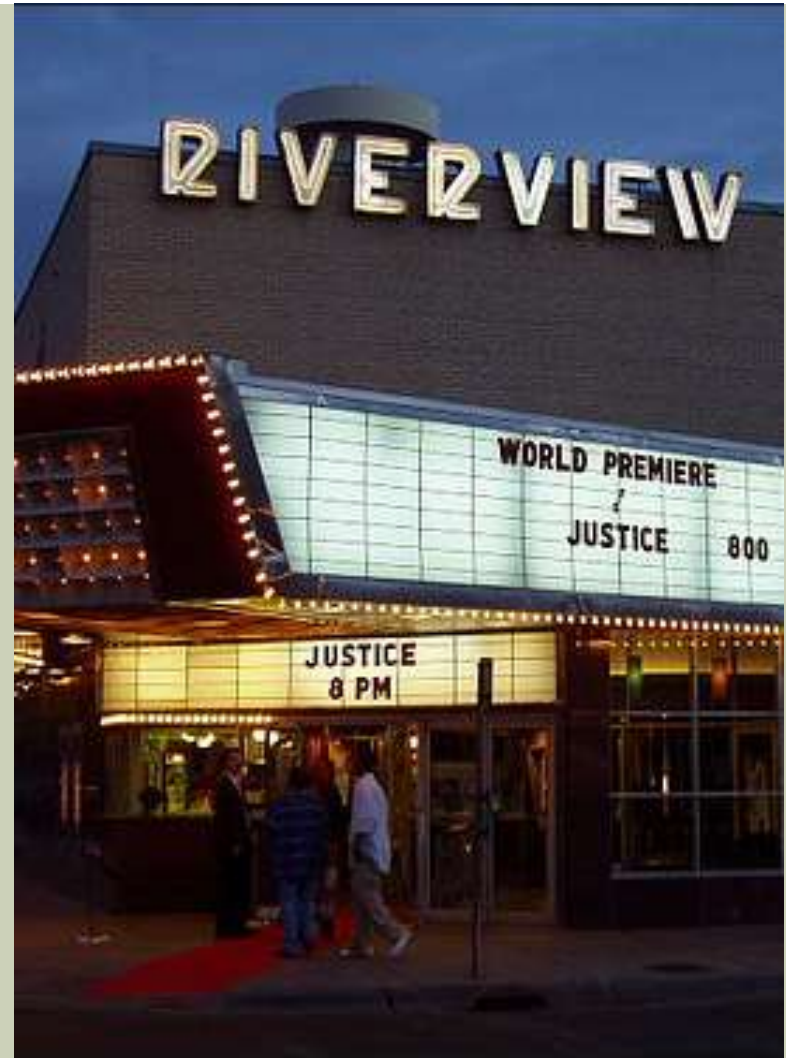
Raph Koster – A Theory of Fun

HOW DO WE DO THAT?

- Attention
- Flow
- Structured

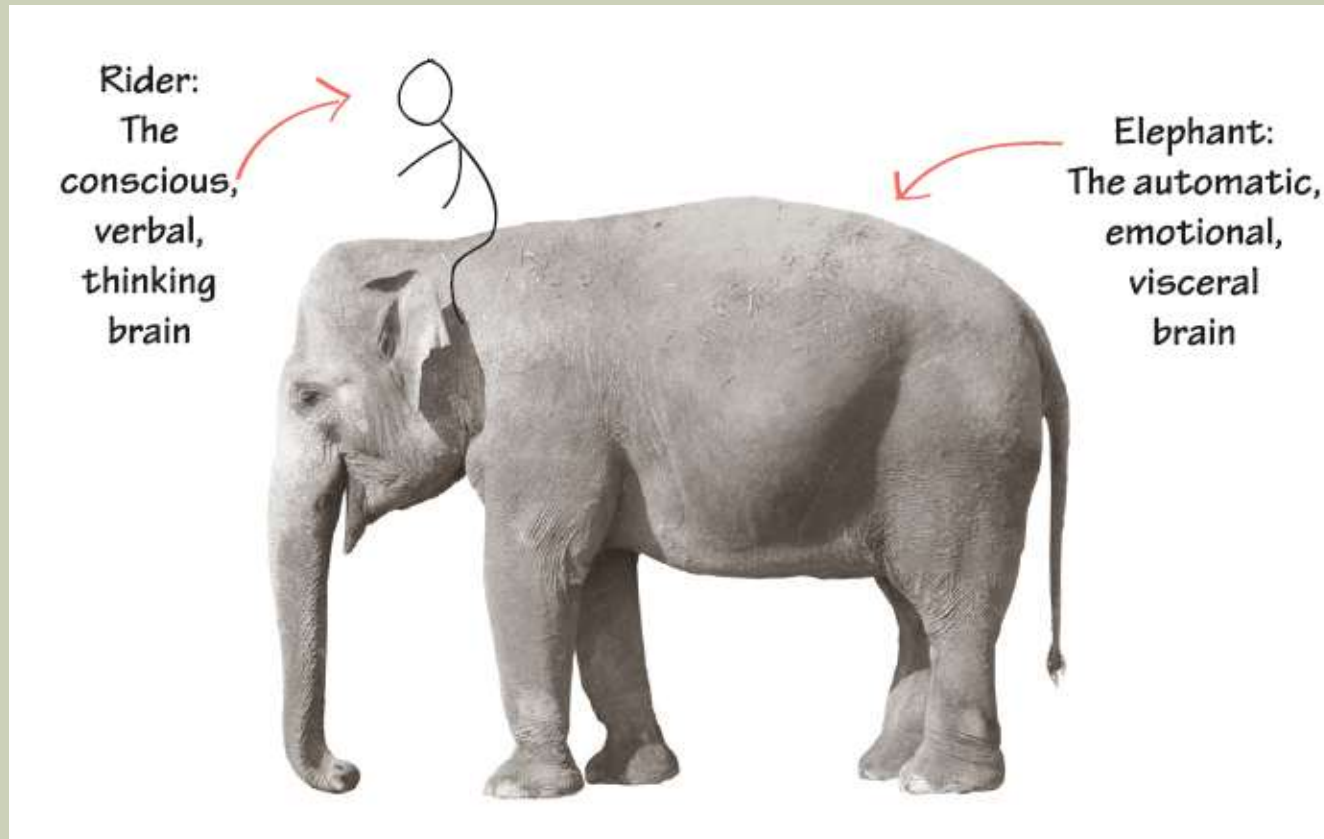
FIRST, LET'S START WITH ATTENTION

- How long is your attention span?

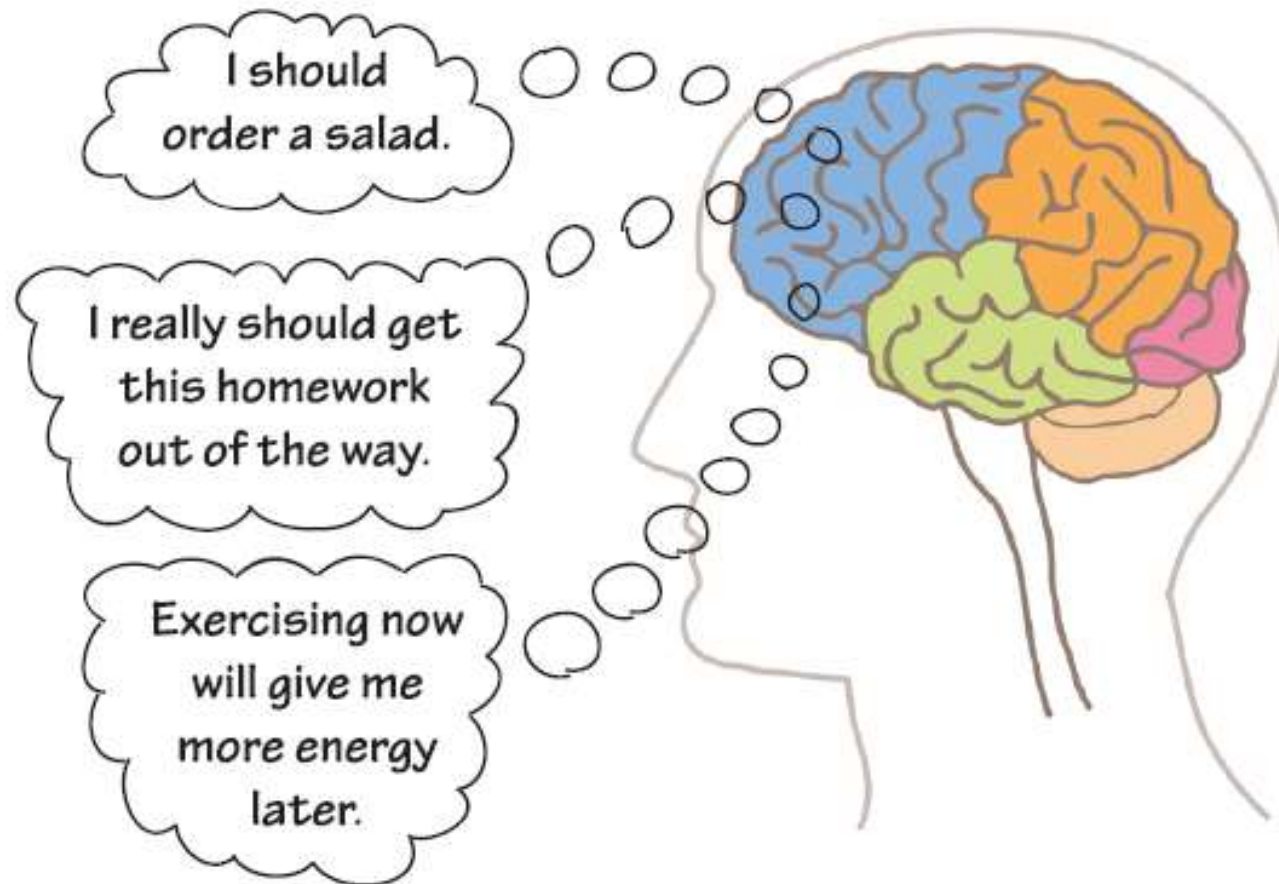


LET'S START WITH THE ELEPHANT

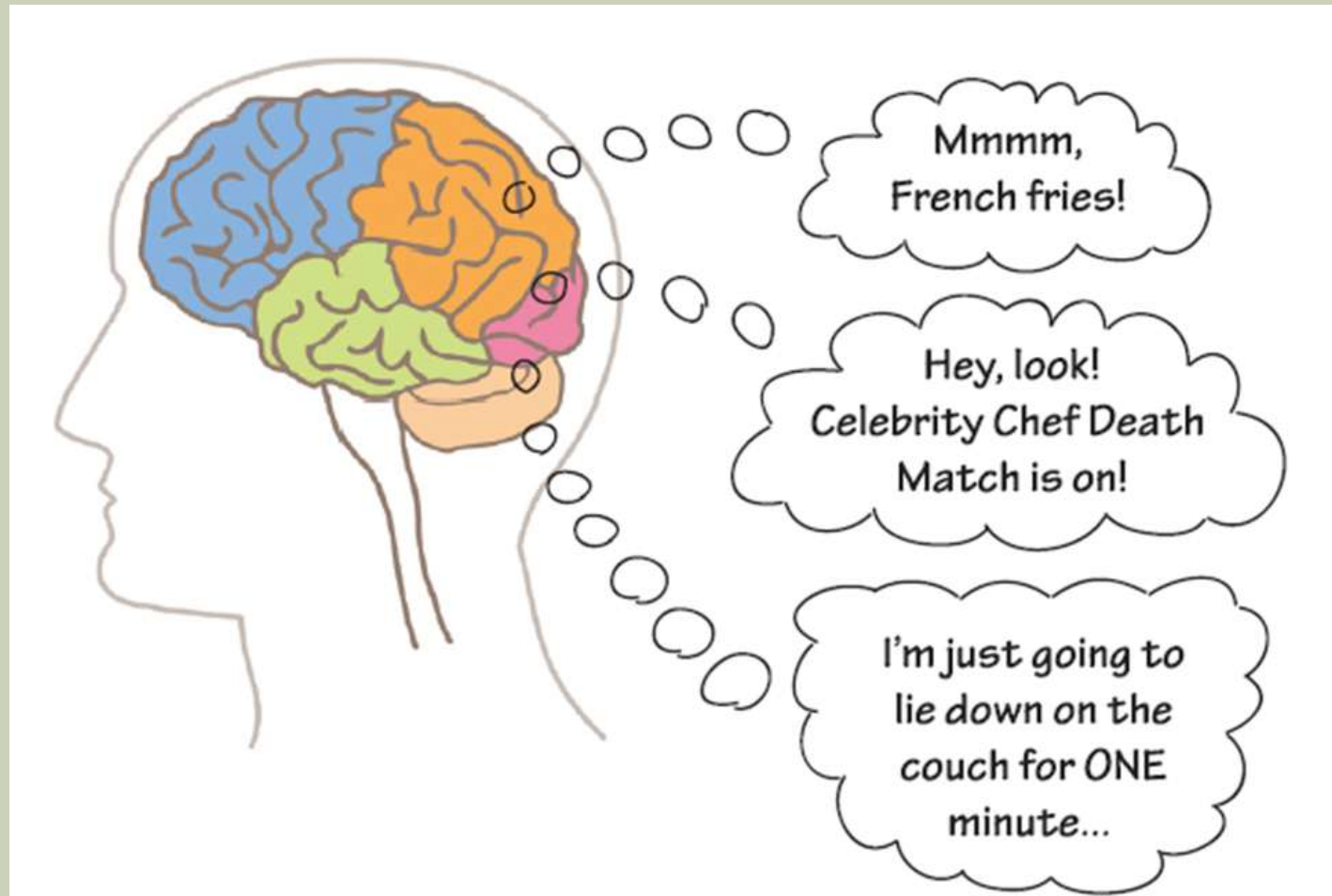
- Let's talk about attention...



THE RIDER



THE ELEPHANT



SO, WHEN THERE'S A CONFLICT...

Who do you think wins?



URGENCY MATTERS

We are creatures of urgency:

Basically, the elephant is bad at waiting for stuff.

Maybe I should consider retirement planning...



WE HAVE TROUBLE WITH THIS...

Classic “I know, but...” activities

Activity	Immediate consequence	Delayed consequence
Smoking	Nice nicotine hit	Lung cancer
Saving for retirement	Less money	More money
Exercise	Ouch	Nice abs!
Doughnuts	Mmm...	I'm not getting on that scale...

We are also *loss averse*...

WHICH DO YOU THINK WORKS BETTER:

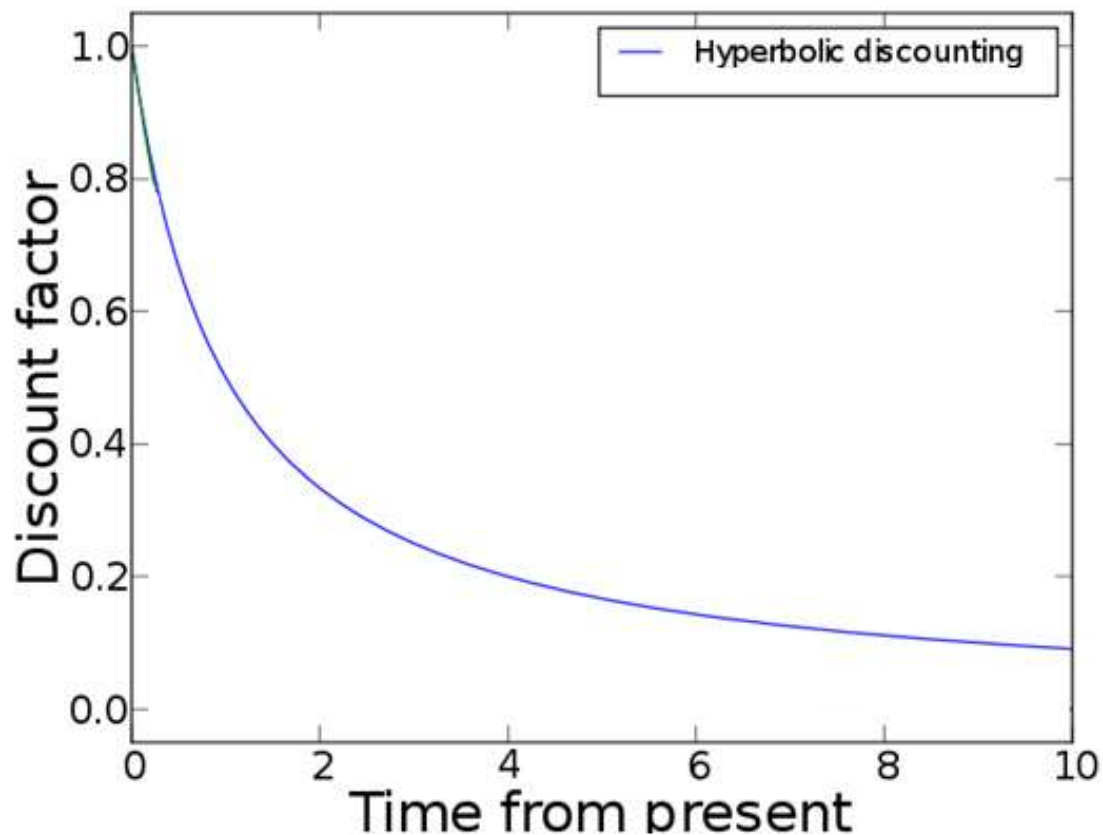
I guess I'll
be glad I
know this
someday...



I'm really
glad I know
this *now*...



AND THE FUTURE IS SOOOOO FAR AWAY...



IT'S ABOUT CAKE VS FRUIT SALAD

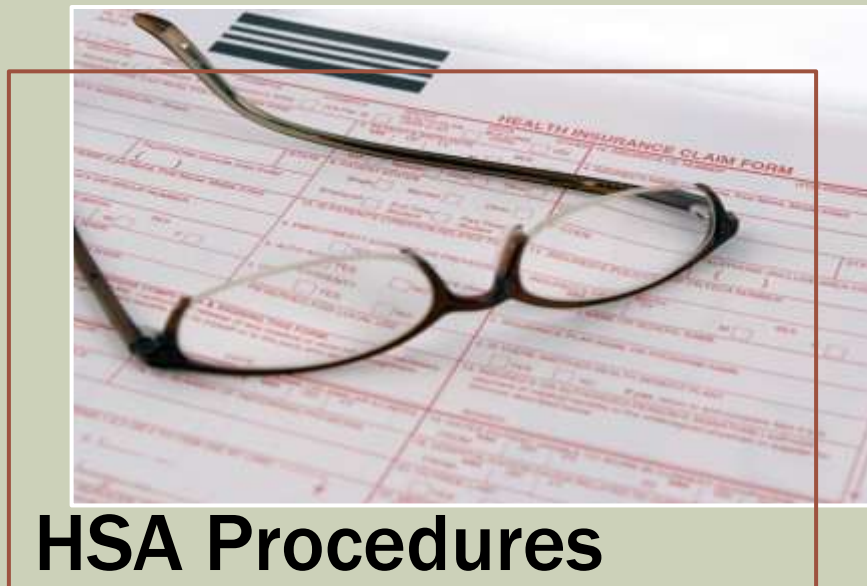


Shiv and Fedorikhin 1999

Heart and Mind in Conflict: The Interplay of Affect and Cognition in Consumer Decision Making

SO, IF OUR LEARNERS ARE FORCING THEMSELVES TO PAY ATTENTION...

...WE'D BE LUCKY TO GET 7-10 MINUTES.



HSA Procedures

POP QUIZ

How you do you say:

“Mihaly Csikszentmihalyi”

[cheat code](#)

WHAT'S FLOW?



Flow: The Psychology of Optimal Experience

By
Mihaly Csikszentmihalyi

High

Challenge Level

Low

Low

Skill Level

High

Anxiety

Arousal

Flow

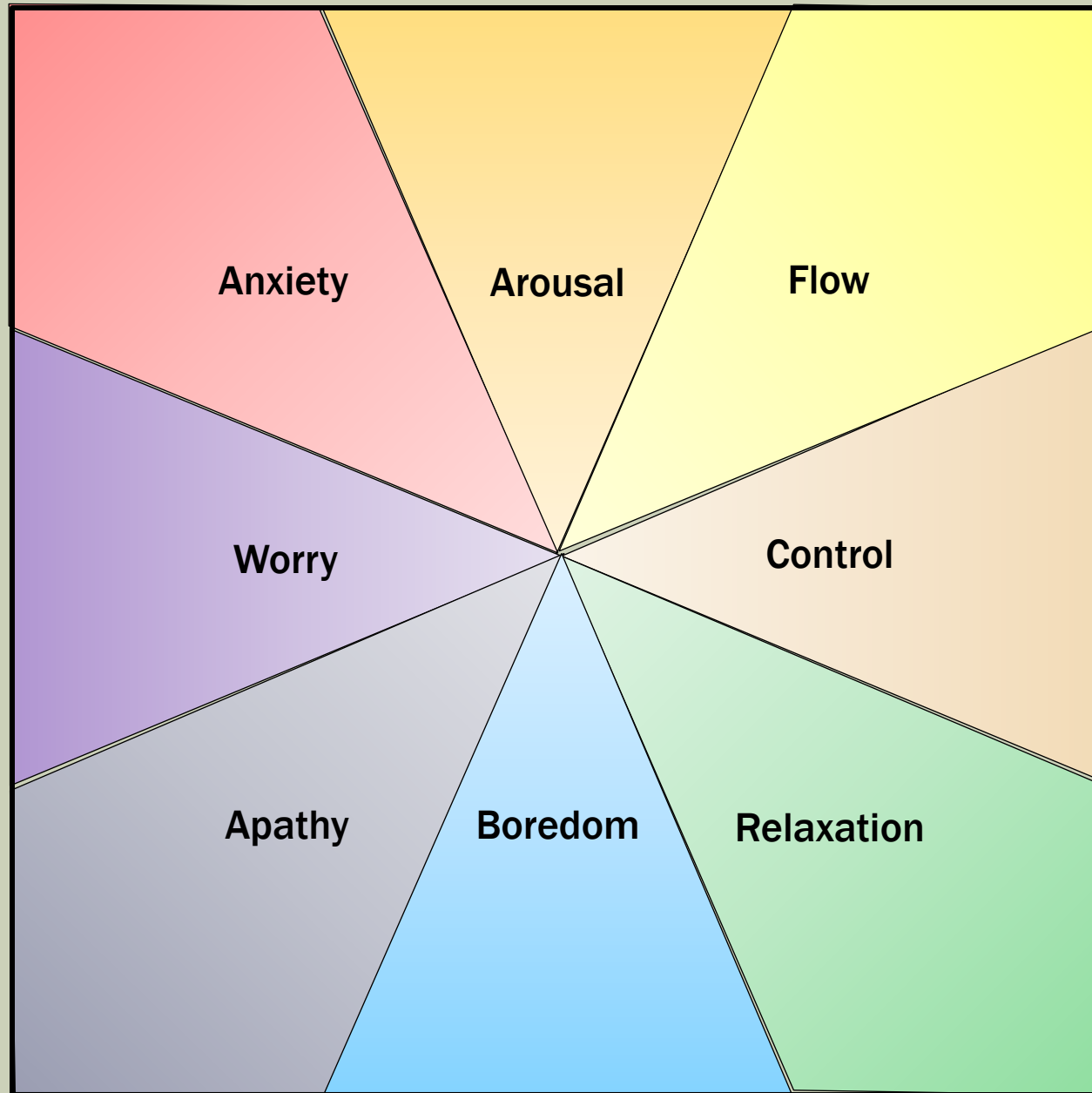
Worry

Control

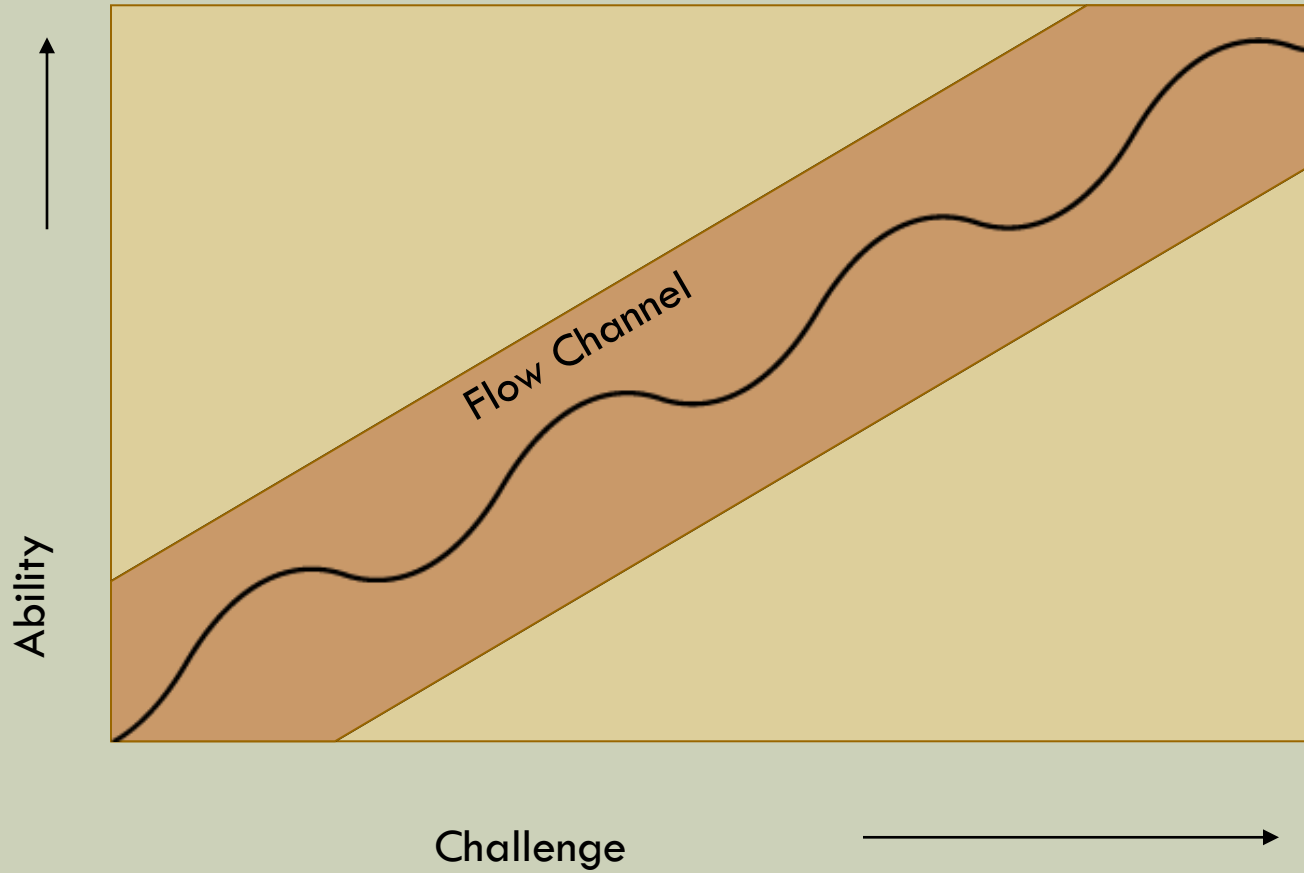
Apathy

Boredom

Relaxation

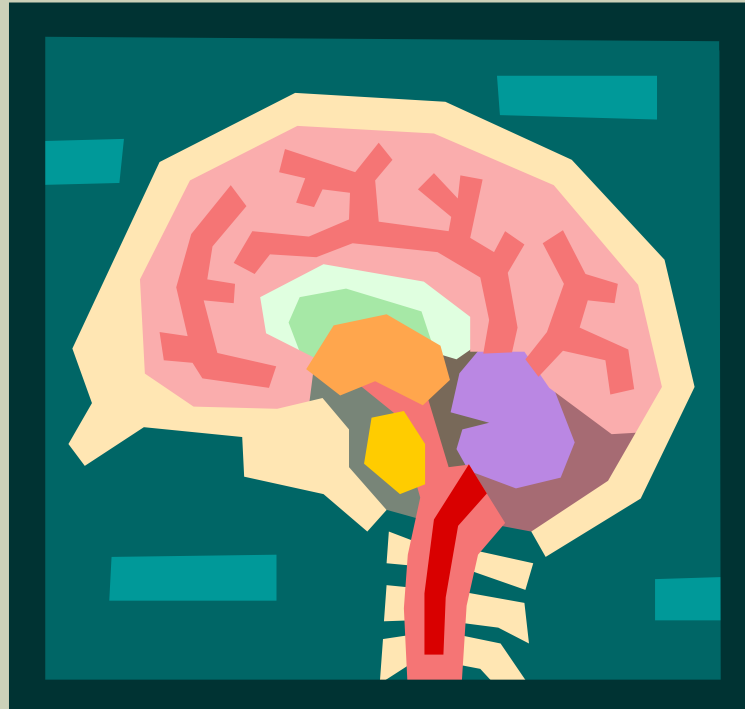


THE FLOW CHANNEL

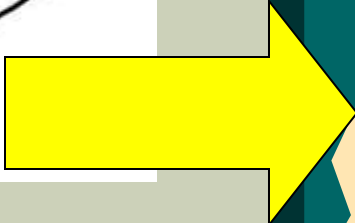
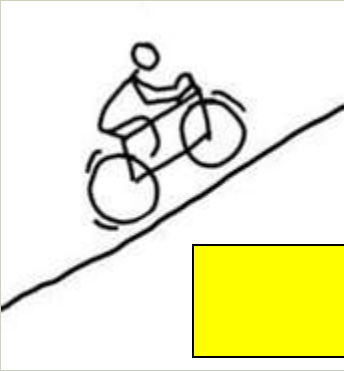


- Flow: The Psychology of Optimal Experience by Mihaly Csikszentmihalyi

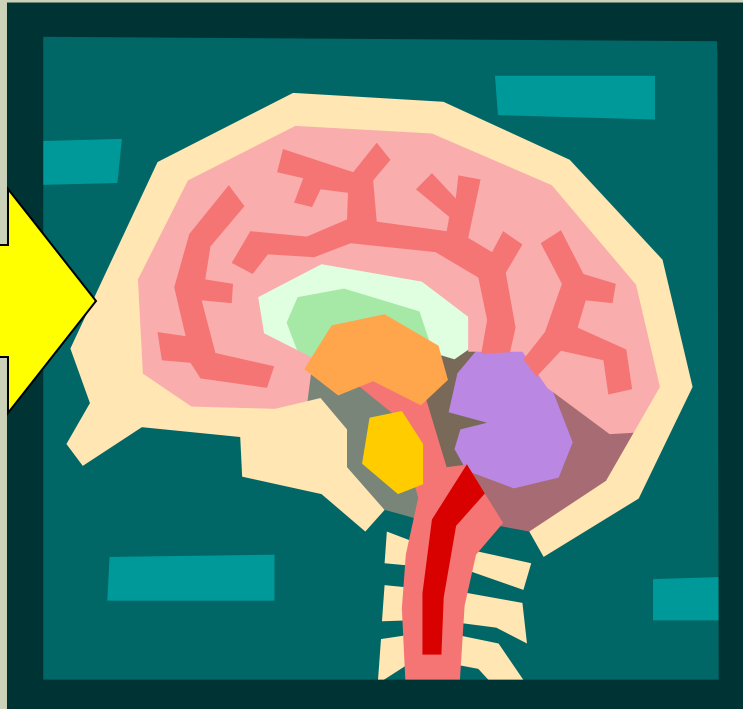
WHAT'S HAPPENING IN THE BRAIN?



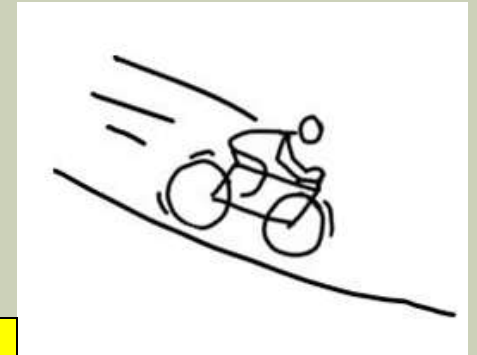
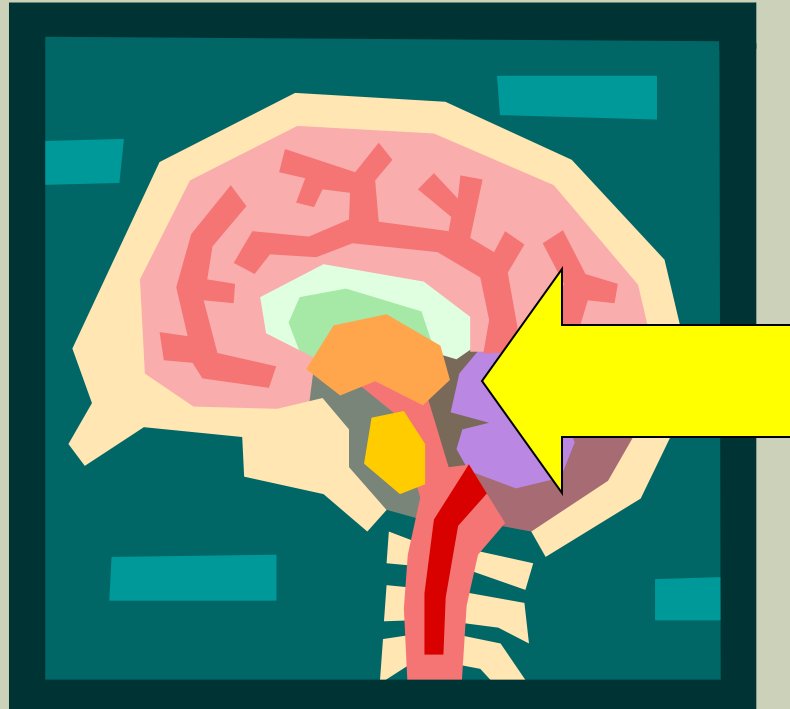
WHAT IS GOING ON WHEN YOU ARE LEARNING SOMETHING NEW?



Well, areas like your frontal cortex gets busy. It starts burning a lot of fuel, and hits its limits pretty quickly.



WHAT IS GOING ON WHEN YOU USING A REGULAR PATTERN YOU ALREADY KNOW?



That leverages parts of the brain/brain functions that can run without a lot of conscious attention.

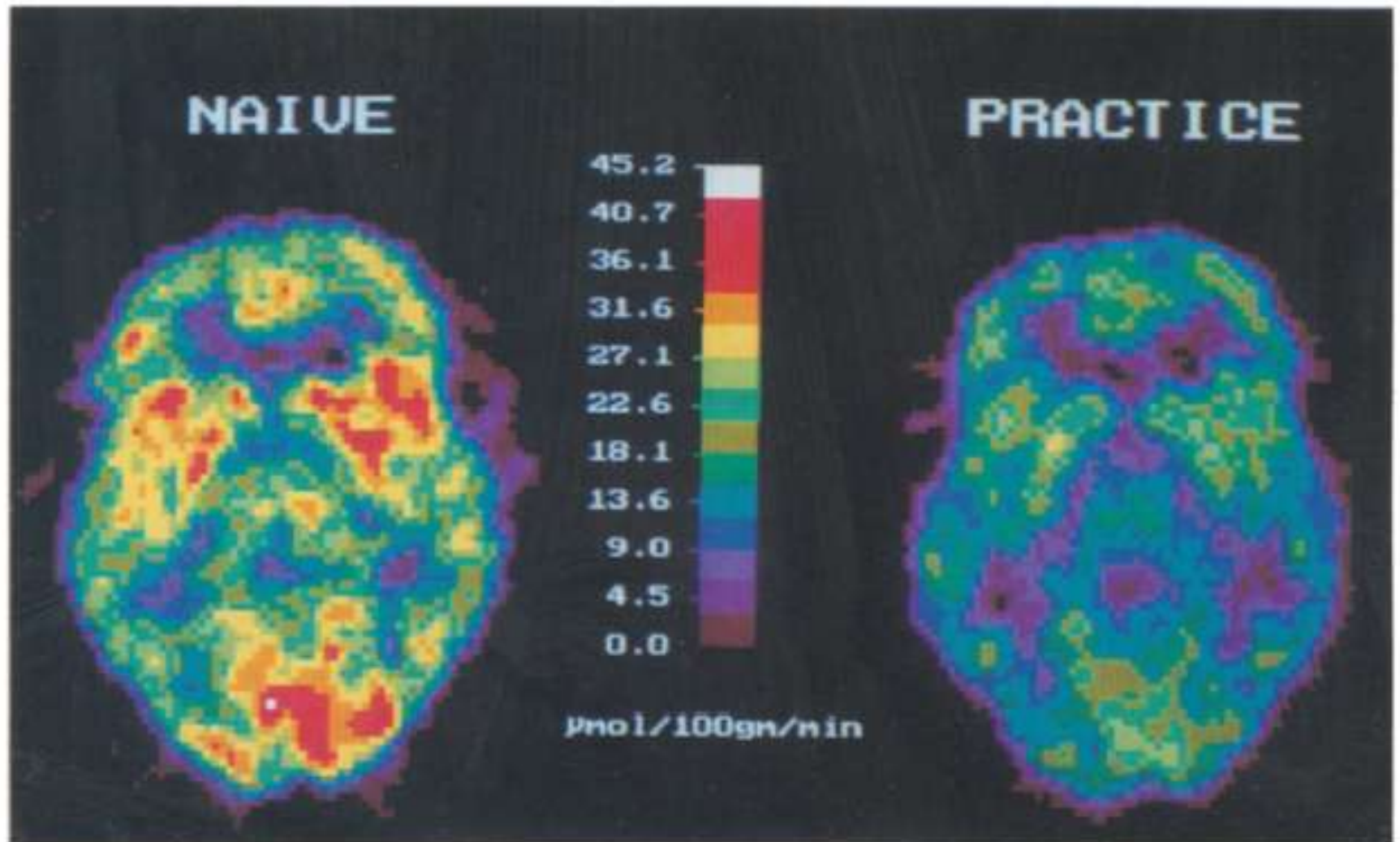


Fig. 6. PET images (41% atlas slice) of a subject in naive and practiced conditions, showing decreases in GMR. Glucose Metabolic Rate after several weeks of Tetris Practice

MOST CLASSES ARE BIKING STRAIGHT UPHILL

New

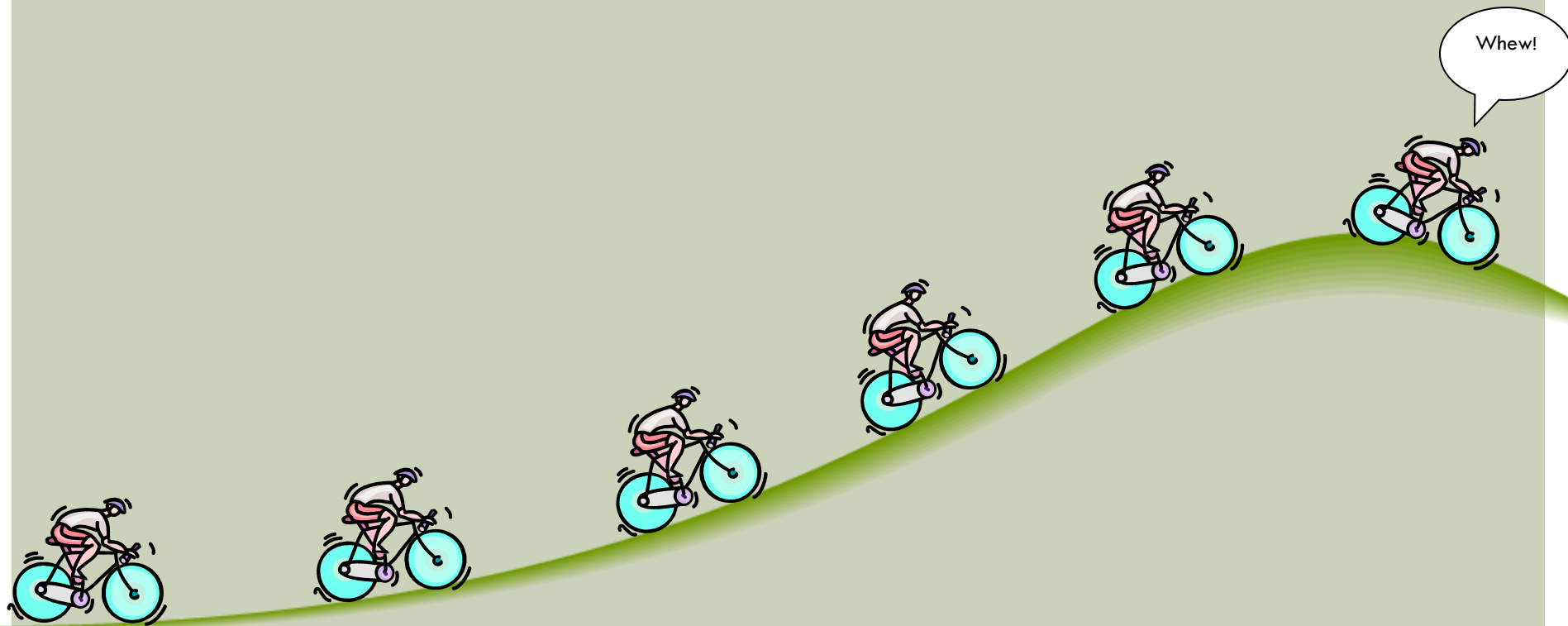
New

New

New

New

New



GAMES, ON THE OTHER HAND...

Level 1

Some new
stuff, pretty
easy
though

Level 2

Stuff you
know plus
a bit more

Level 3

Stuff you
know,
maybe a
little
faster

Level 4

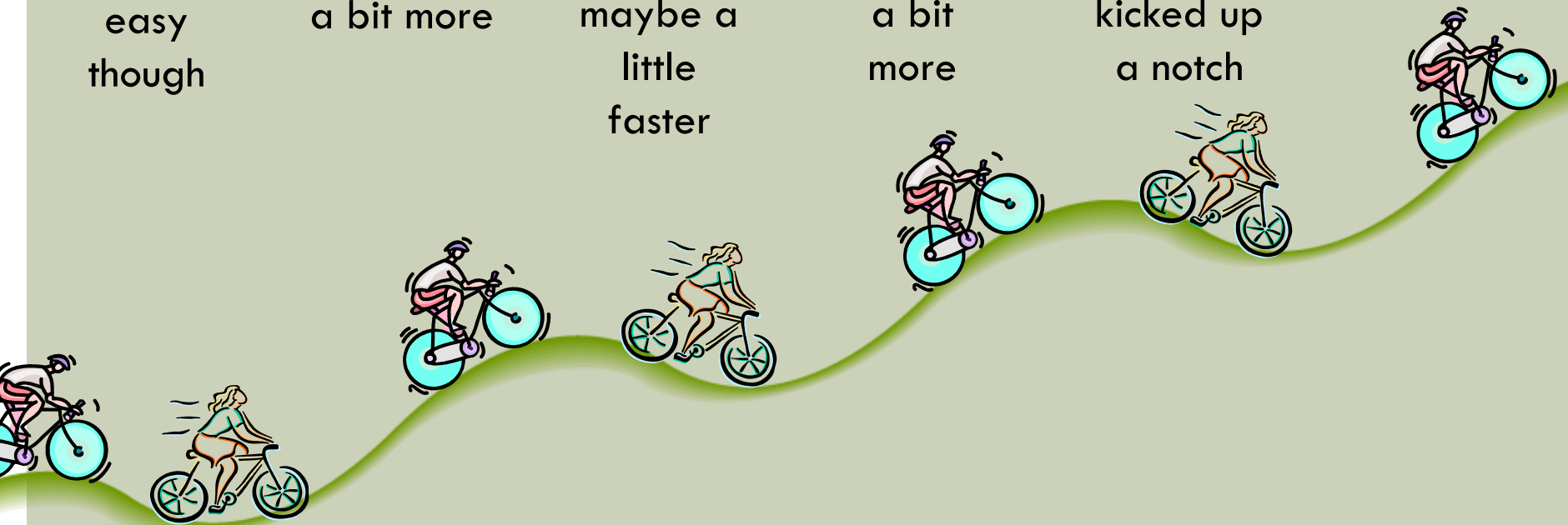
Stuff you
know plus
a bit
more

Level 5

Stuff you
know,
kicked up
a notch

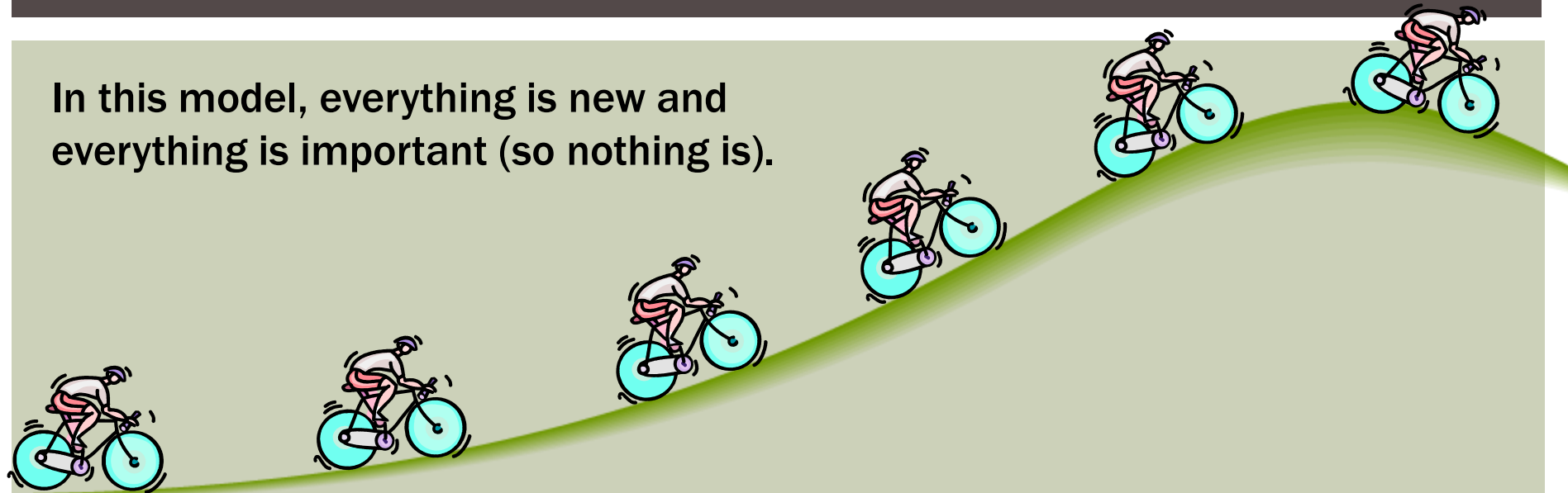
Level 6

Boss Fight



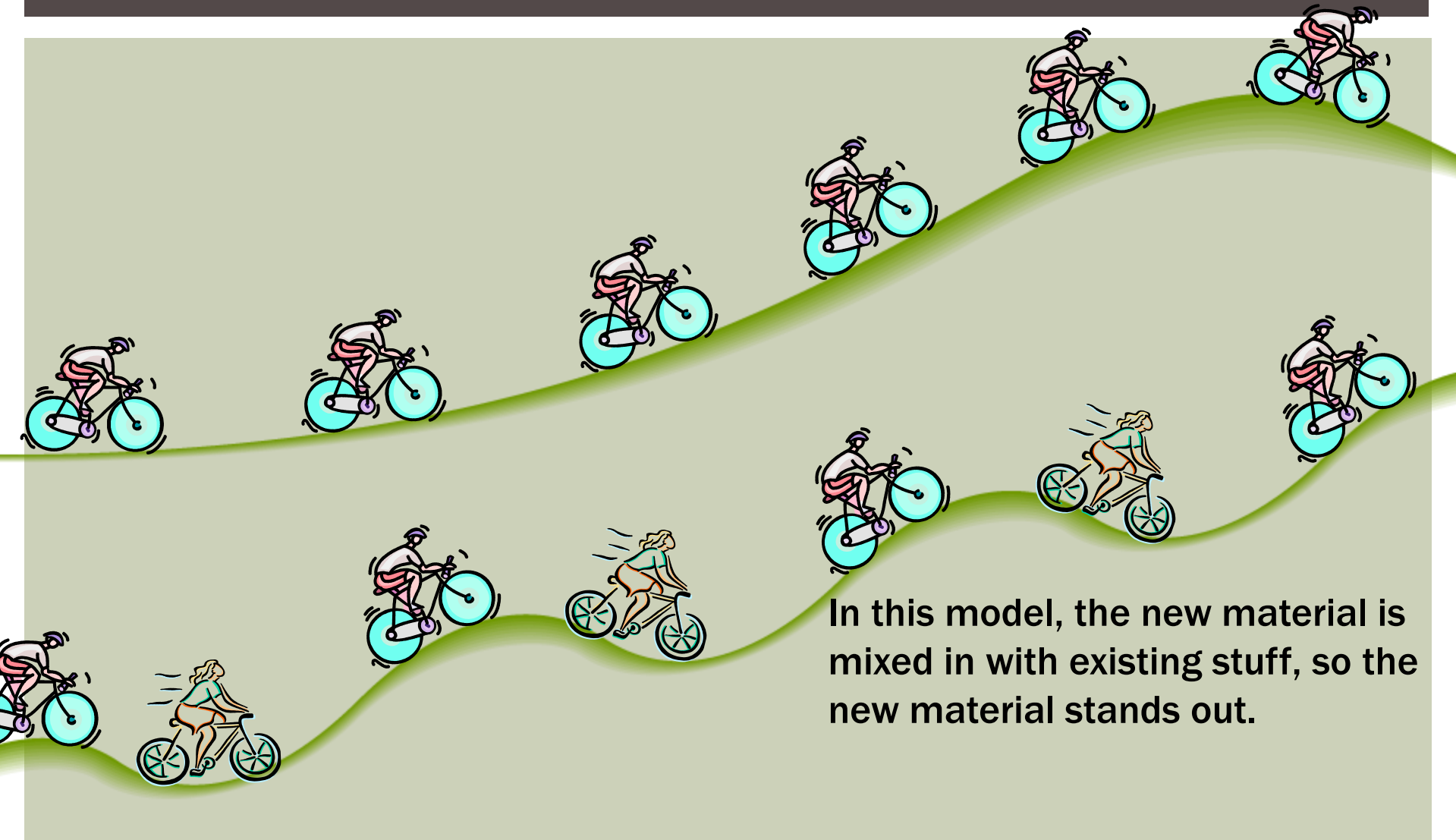
IT ALSO ALLOWS YOU TO PAY ATTENTION TO WHAT'S DIFFERENT.

In this model, everything is new and everything is important (so nothing is).



IT ALSO ALLOWS YOU TO PAY ATTENTION TO WHAT'S DIFFERENT.

Whew !



In this model, the new material is mixed in with existing stuff, so the new material stands out.

NEXT, LET'S TALK ABOUT GOALS

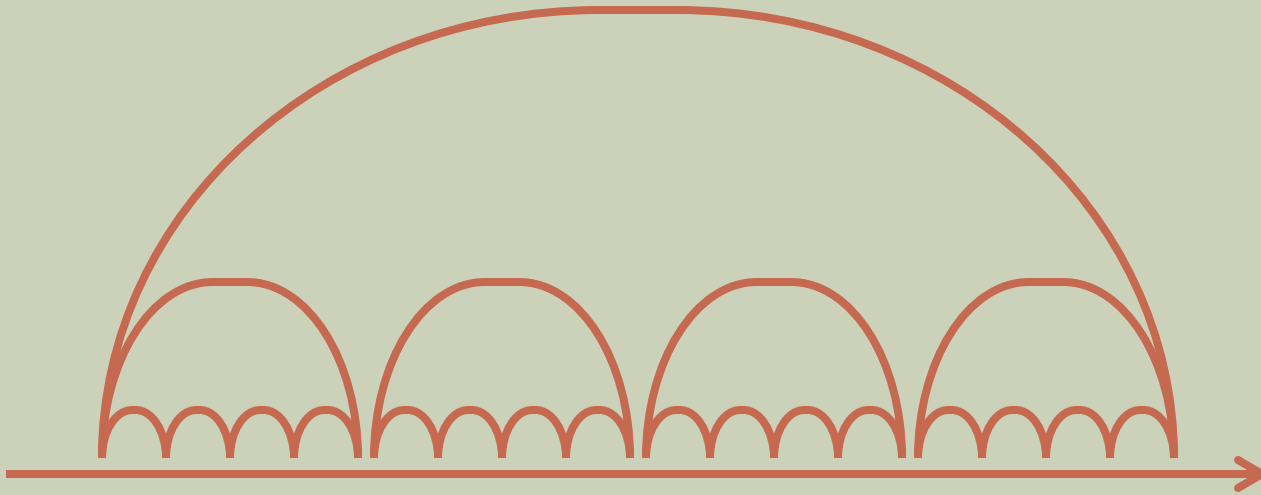


Image Credit – [Sebastian Deterding](http://www.slideshare.net/dings/dont-play-games-with-me-promises-and-pitfalls-of-gameful-design)

<http://www.slideshare.net/dings/dont-play-games-with-me-promises-and-pitfalls-of-gameful-design>

ANYBODY EVERY PLAYED DINER DASH?



EXPERT: 3000
2,800



LEVEL
3

OPEN

CLOSED

CLOSED

+20



PAUSE

FLO'S CAREER

SELECT A LEVEL AND CLICK "NEW GAME" TO START THAT LEVEL -OR- CLICK "CONTINUE" TO RESUME SAVED GAME.

BACK TO MENU



CONTINUE

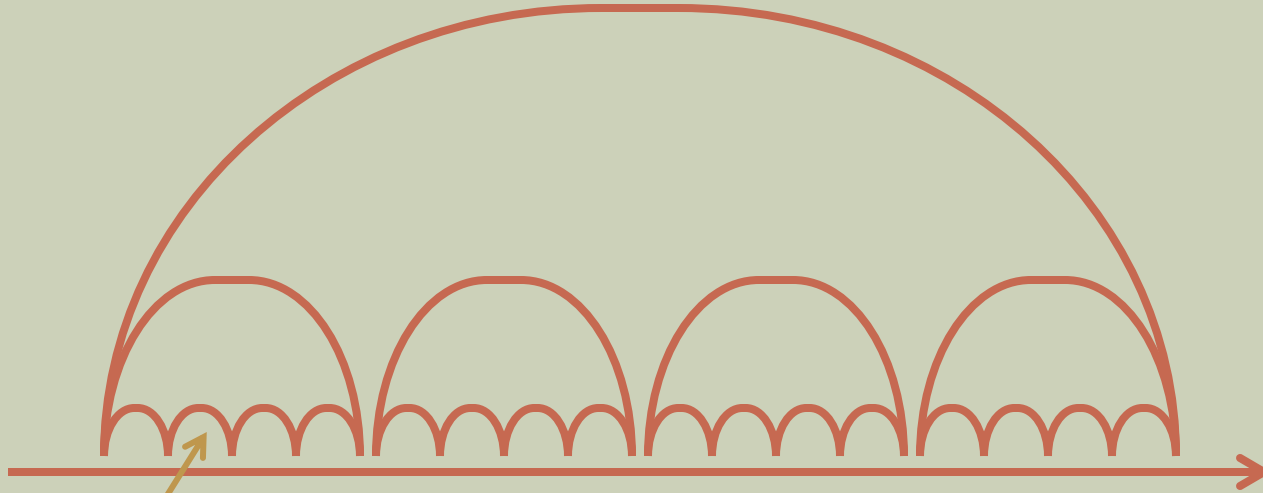


A STAR SHOWS A LEVEL WHERE YOU GOT AN EXPERT SCORE

EVER BEEN ROCK CLIMBING?



MICRO-LEVEL GOALS



Deterding
and-pitfalls-of-gameful-design

MEDIUM GOALS

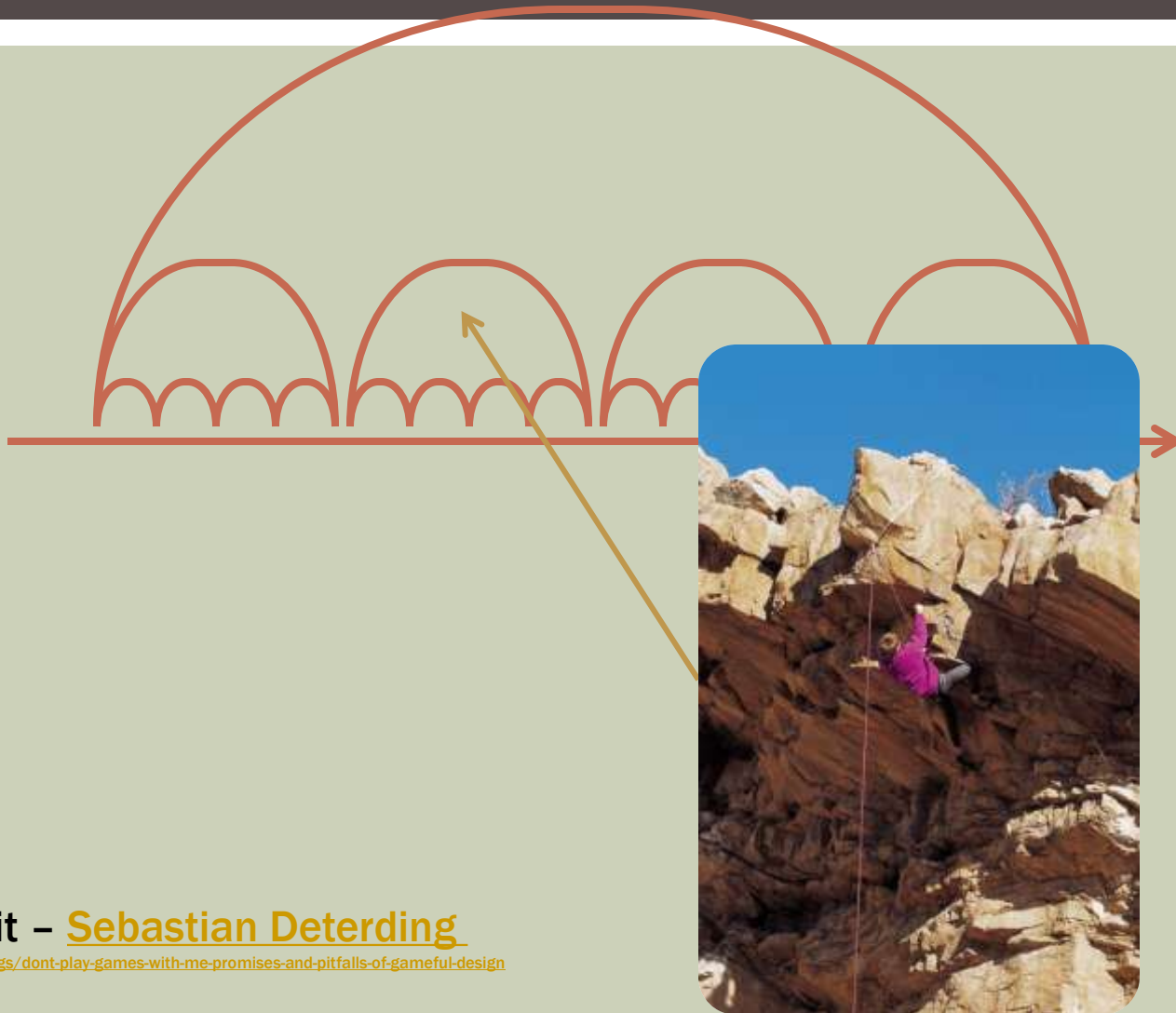


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END GOAL!

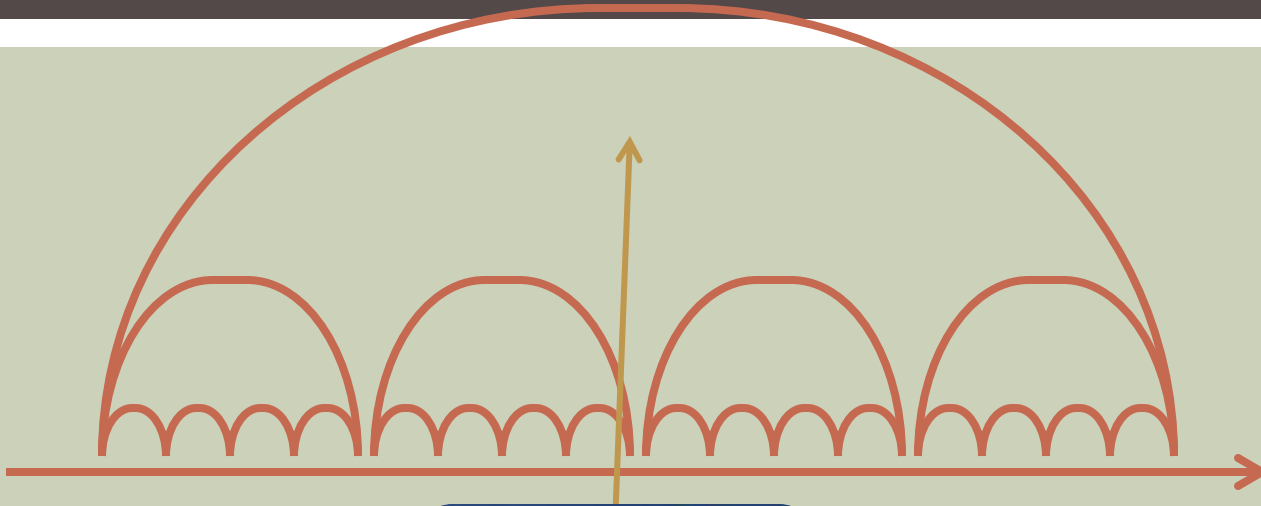


Image Credit – [Sebastian Deter](http://www.slideshare.net/dings/dont-play-games-with-me-promises-and-pitfalls-of)

<http://www.slideshare.net/dings/dont-play-games-with-me-promises-and-pitfalls-of>

BUT WAIT...

5.0 to 5.4 There are two hand- and two footholds for every move; the holds become progressively smaller as the number increases.

5.5 to 5.6 The two hand- and two footholds are there, obvious to the experienced, but not necessarily so to the beginner.

5.7 The move is missing one hand- or foothold.

5.8 The move is missing two holds of the four, or missing only one but is very strenuous.

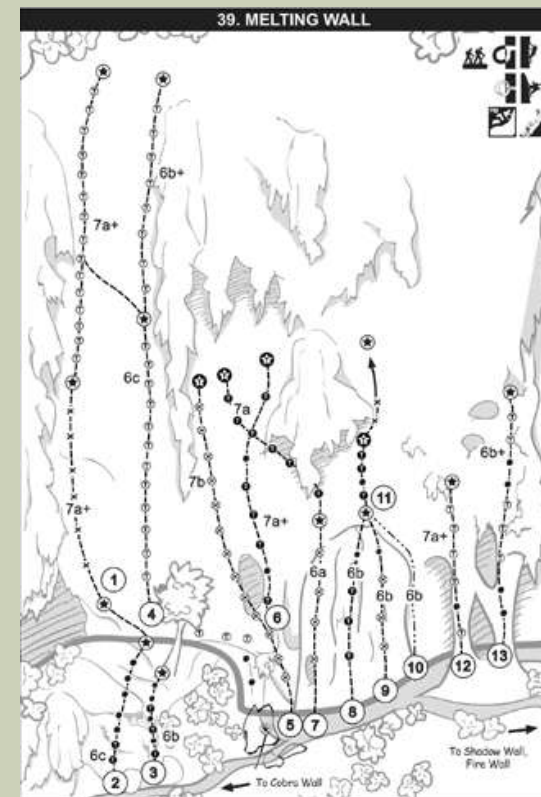
5.9 The move has only one reasonable hold which may be for either a foot or a hand.

5.10 No hand- or footholds. The choices are to pretend a hold is there, pray a lot, or go home.

5.11 After thorough inspection you conclude this move is obviously impossible; however, occasionally someone actually accomplishes it. Since there is nothing for a handhold, grab it with both hands.

5.12 The surface is as smooth as glass and vertical. No one has really ever made this move, although a few claim they have.

5.13 This is identical to 5.12 except it is located under overhanging rock."



THERE'S MORE...

5.0 to 5.4 There are two hand- and two footholds for every move; the holds become progressively smaller as the number increases.

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5.10

5.10a

5.10b

5.10c

5.10d

5.11a

5.11b/c

5.11d

5.12a

5.12b

5.12c

5.12d

5.13a

5.13b

5.13c

5.13d

5.14a

5.14b

5.14c

5.14d

5.15a

EVEN IF YOU DON'T NOTICE IT...



EVEN IF YOU DON'T NOTICE IT...

**The Art of
Game Design**

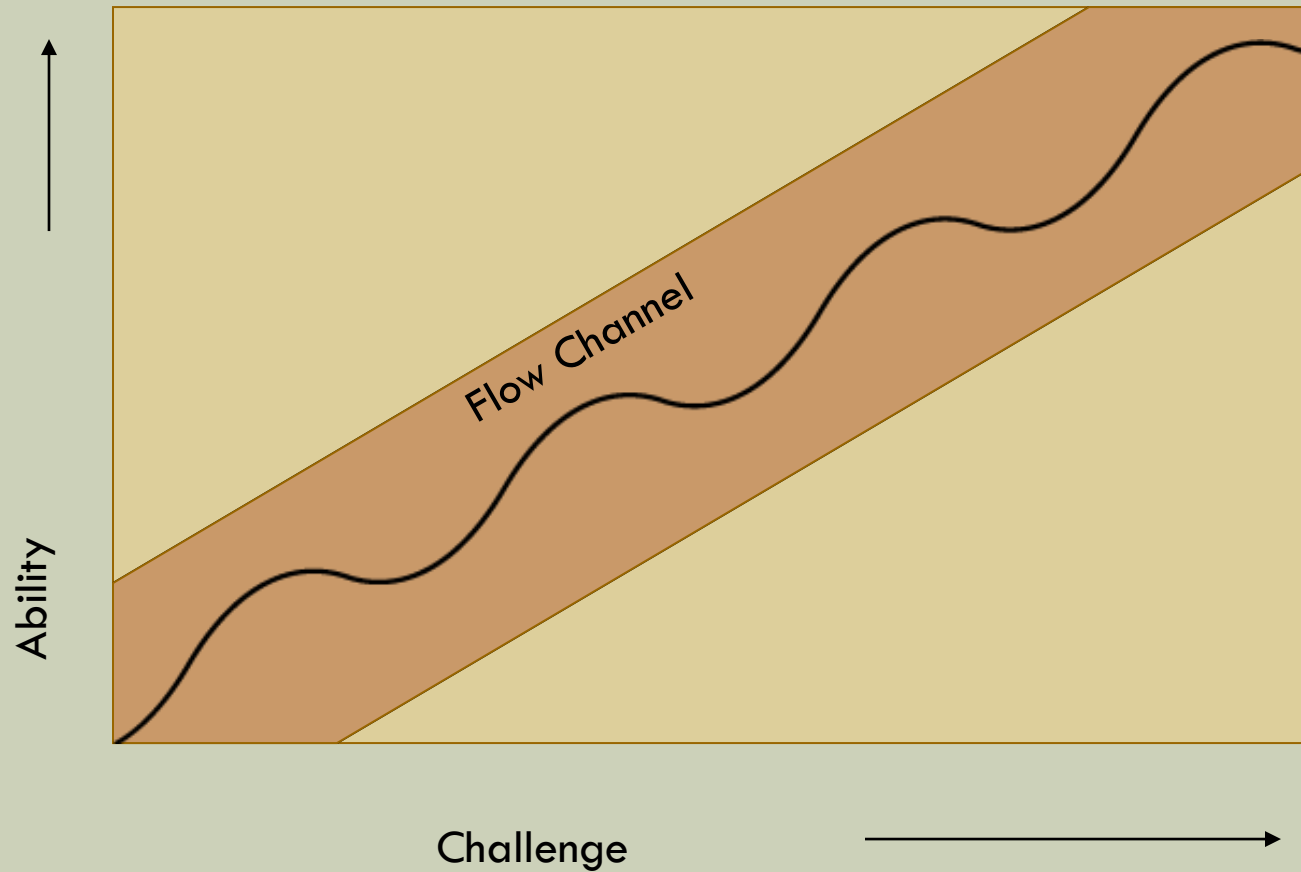
**By
Jesse Schell**



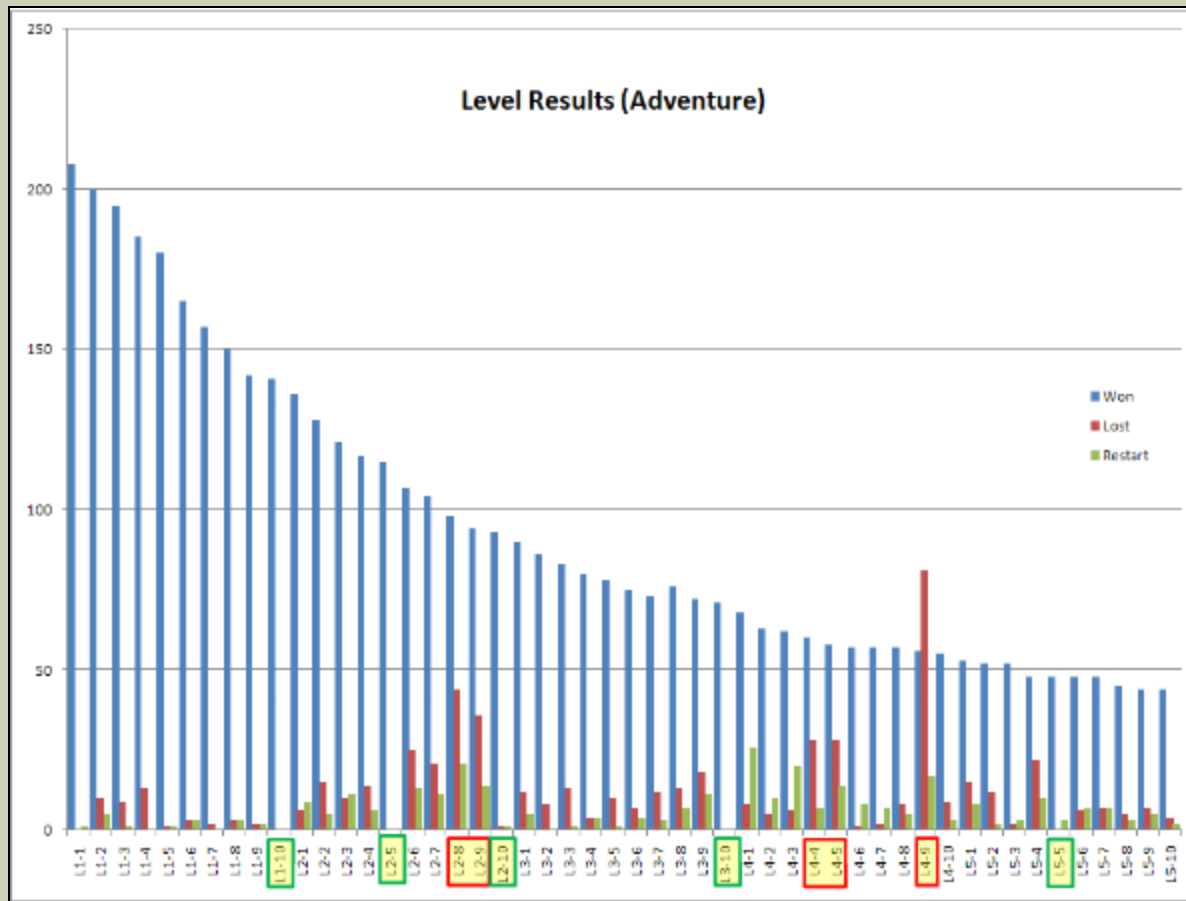
HOW ABOUT MONOPOLY?



KEEP IT BALANCED

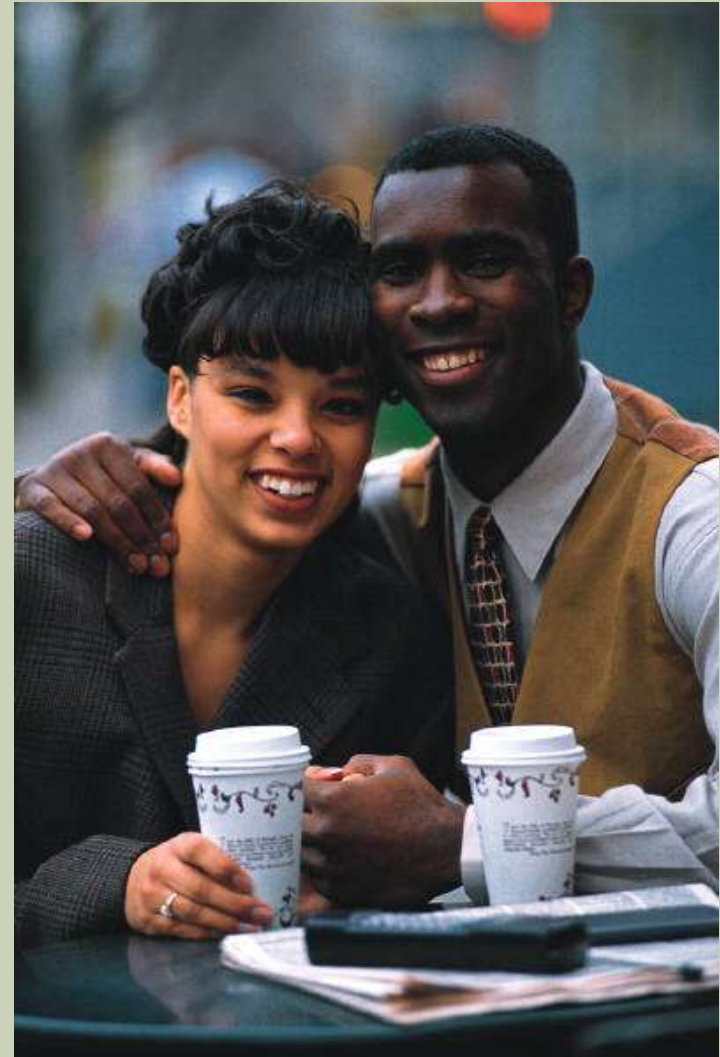


PLANTS VS ZOMBIES LEVEL DIFFICULTY



PURPOSE

- Instead of WIIFM, How about WCIDWT?



WCIDWT?

Photoshop for Beginners - Lesson Outline

Class A

Lesson 1:
Working with layers

Lesson 2:
Photo-editing tools

Lesson 3:
Working with filters and effects

Lesson 4:
Using the Pen tool

Class B

Lesson 1:
How to create a swanky blog header

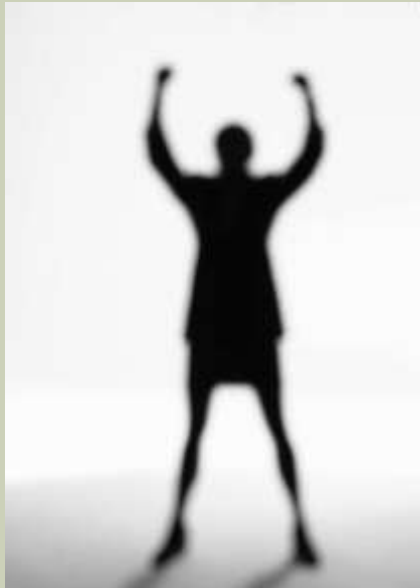
Lesson 2:
How to make a so-so photo look amazing

Lesson 3:
How to create an album cover

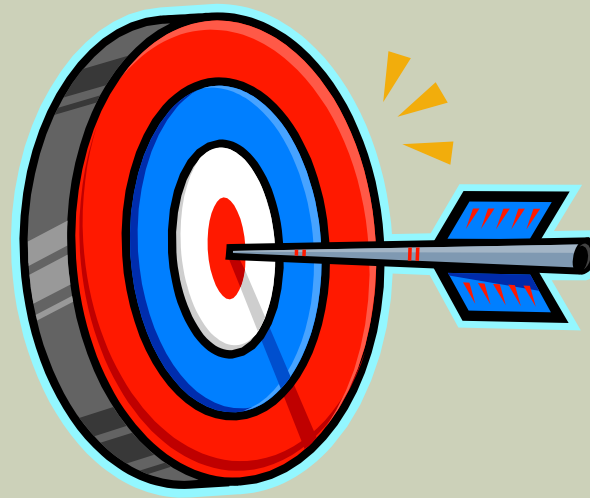
Lesson 4:
How to remove your ex from your sister's wedding pictures

GOALS = ACCOMPLISHMENTS

- A goal needs to be an accomplishment



I crushed the quarterly sales goal!

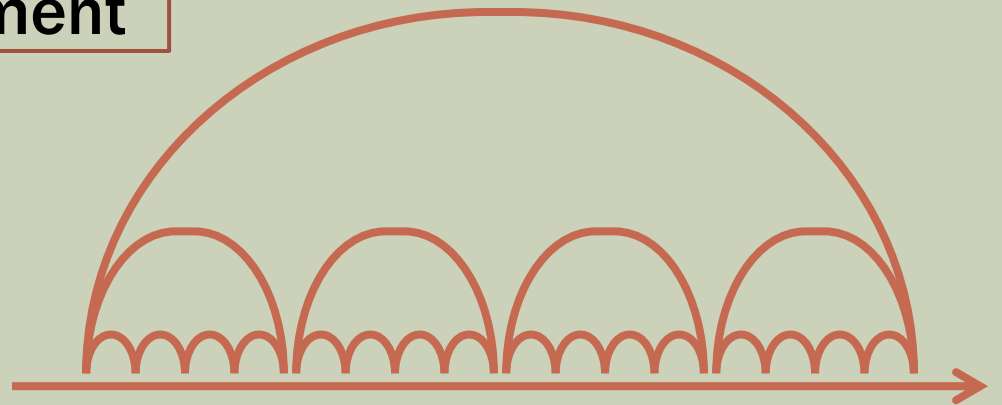


You completed Module 4!

SO LET'S TRY ONE



Restaurant Management



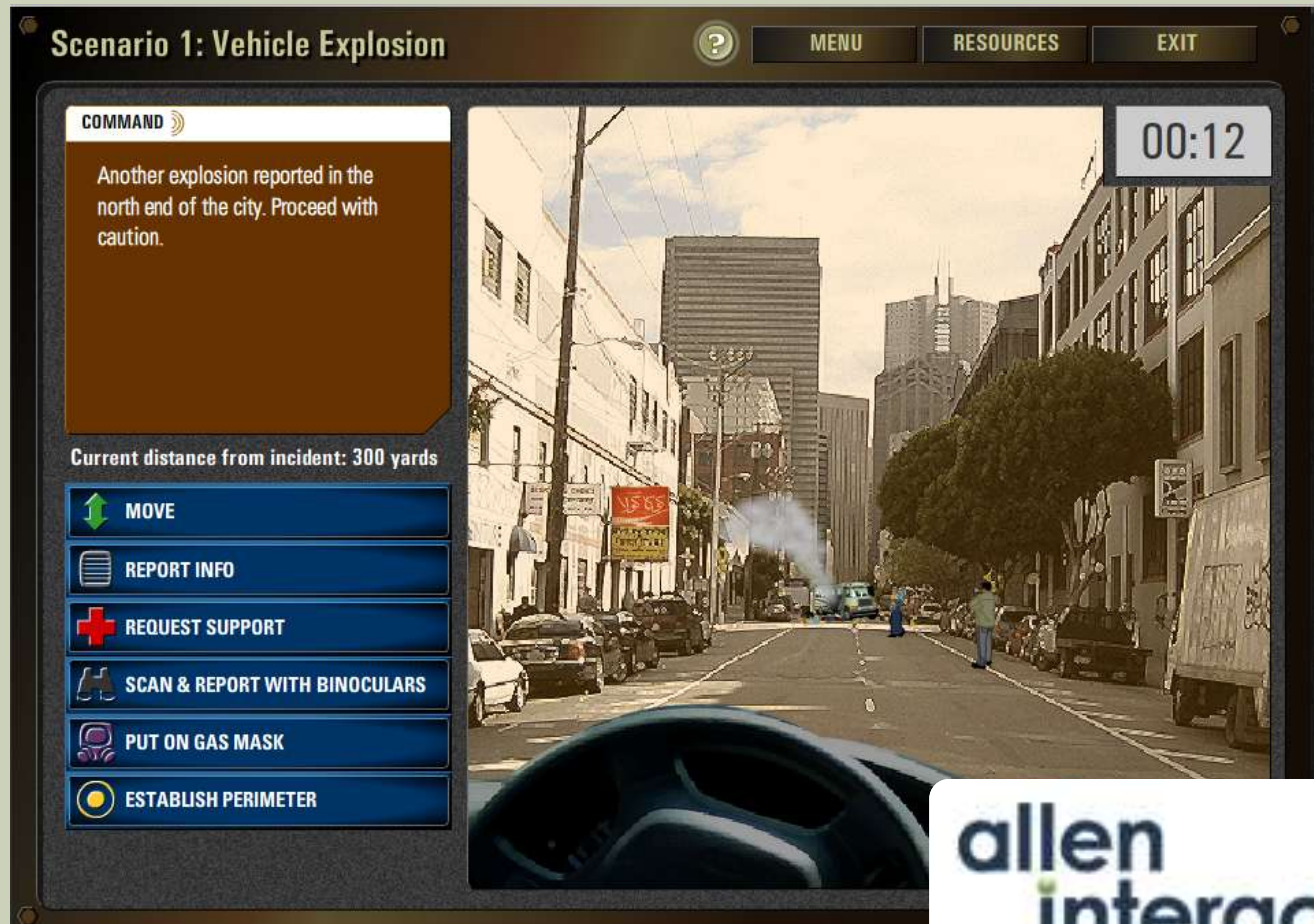
TRADITIONAL COURSE ORGANIZATION



Restaurant Management

- Food Safety
- Managing Staff
- Customer Service
- Marketing
- Restaurant Financials
- Inventory and Ordering
- Etc.

FIGHTING TERRORISM – ANOTHER EXAMPLE



NOW, LET'S TACKLE OUR HSA EXAMPLE



HSA Procedures

OR one of your own topics

OKAY, NOW YOU TRY



Green Work Practices



Software Training



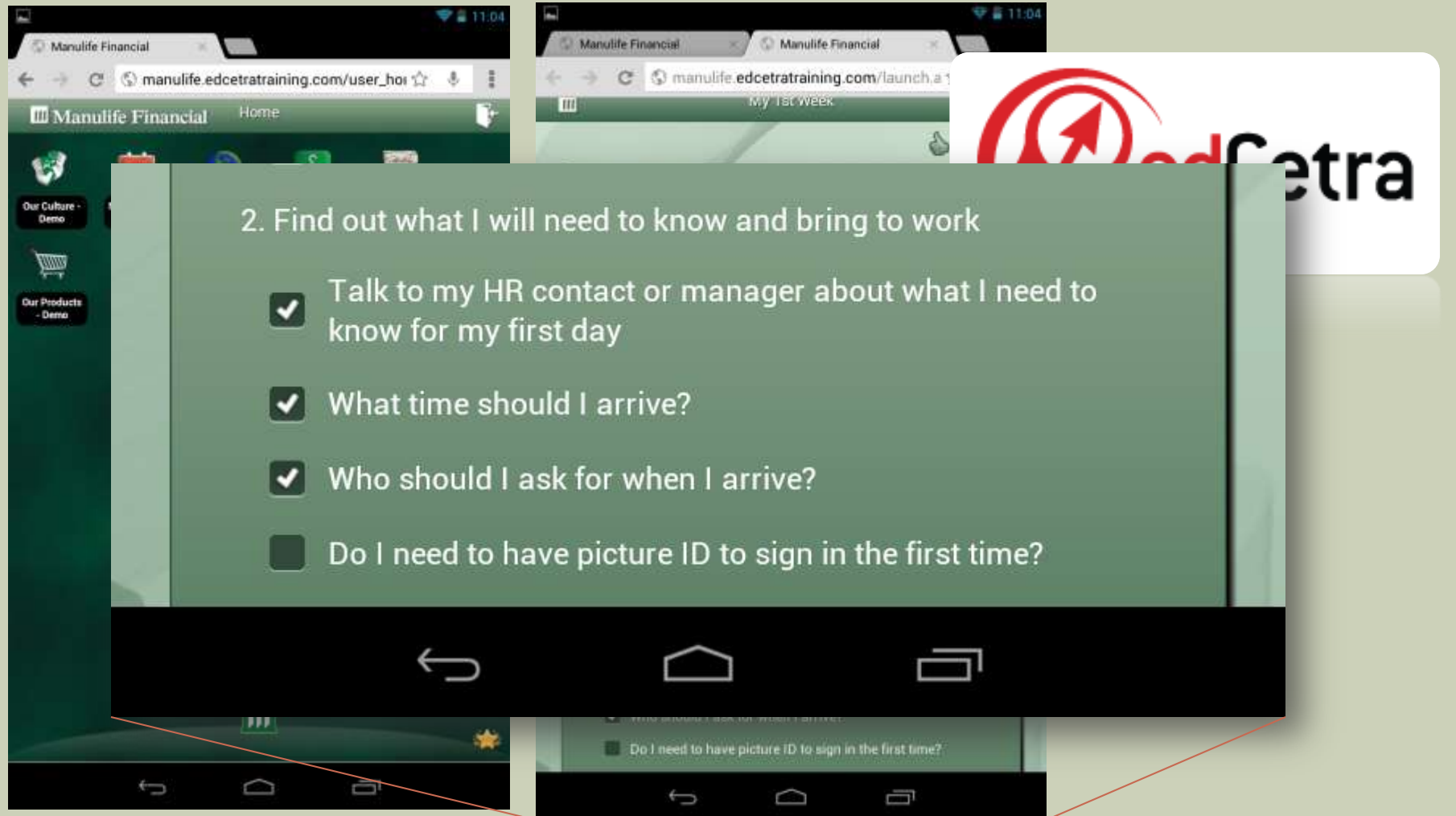
Safety Compliance

OR one of your own topics

What are:

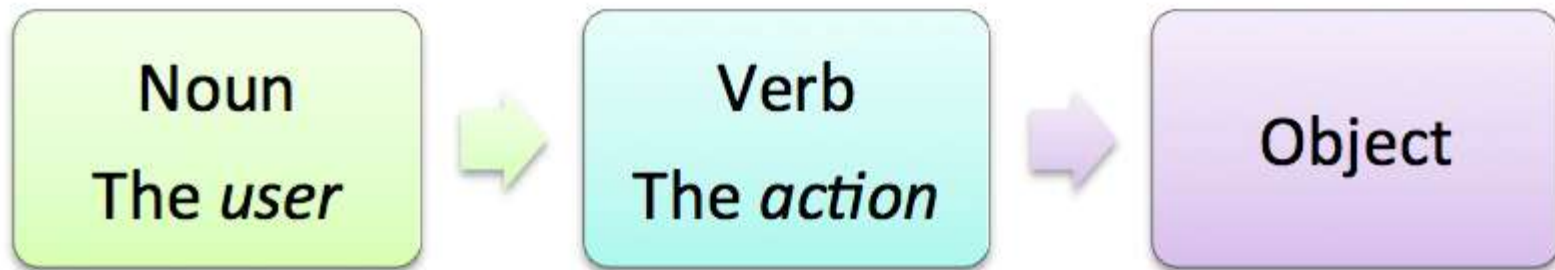
- **Immediate Goals**
- **Short-term Goals**
- **Middle-term Goals**
- **The long-term Goal**

NOW, LET'S MOVE IT TO THE REAL WORLD



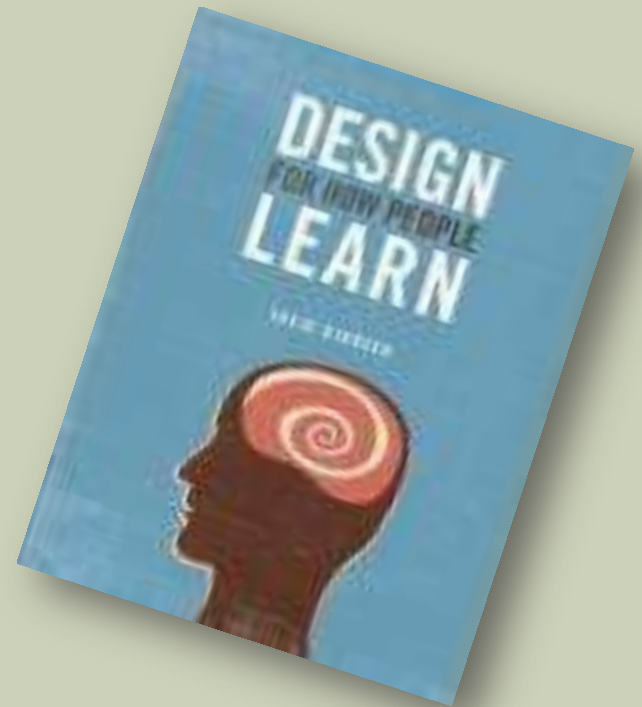
TIN CAN API

- Also known as the Experience API



QUESTION? COMMENTS? VIOLENT DISAGREEMENT?

- Thanks!
- Julie Dirksen
- Usable Learning and Altius Education
- julie@usablelearning.com
- Twitter: usablelearning
- LinkedIn: Julie Dirksen



(In case I forget to mention it –
I have a book signing Thursday afternoon!)