

Feedback

Tuesday, April 10, 2012

14:52

Review

- Importance of prior knowledge / beliefs ... but also pit falls.
- How knowledge is organized affects its durability and its accessibility.
- How knowledge is organized affects its durability and its accessibility.
- Importance of decomposition and re-integration in promoting mastery

Expertise

Chunking → divide & conquer, quick classification to } compression
focus attention on important things. } and classification

Automaticity → need to slow down and give processing time

Shortcuts → skipping steps

Example

Jeff steals Sandy's lunch and runs away at 5 mph.
Six minutes later, Sandy returns to the spot and notices her lunch missing. She spots the slow little twerp in the distance and runs to catch him; she runs at 5 mph along the same path. How long will it take Sandy to catch up with Jeff.

Process

1) Locate, then define variable of interest:

Let t = time for Sandy to catch up.

2) What's the condition that needs to be satisfied?

→ Sandy catches up with Jeff

→ What does that mean? unpack!

→ Sandy's distance = Jeff's distance

Unpack!

$$(\text{Sandy's rate}) \times (\text{Sandy's time}) = (\text{Jeff's rate}) \times (\text{Jeff's time})$$

Example

Mega-Millions: 5-balls: drawn from a pool of 1-56

1-ball: drawn from a pool of 1-46

How many tickets would my friends and I have to buy to ensure a $\geq 25\%$ win?

Let t = # of tickets that my friends and I buy

Condition: probability of win > 0.2

Define probability:

$$\frac{\text{total \# of events of interest}}{\text{total \# of possible events}}$$

$$56 \text{ choose } 5 = \binom{56}{5} = 3819816 \quad \left. \vphantom{\binom{56}{5}} \right\} \begin{array}{l} (56 \text{ choose } 5) \cdot 46 = \\ 175711536 \end{array}$$

$$46 \text{ choose } 1 = 46$$

$$175711536 \times 0.2 \approx 3.5142 \times 10^7 \text{ tickets}$$

Chapter 5 of How Learning Works is all about

Feedbacks

→ lots of feedback → overwhelm

→ too much feedback → fix nitpicky stuff

Exit Exam Proposal Due April 23

~ areas for improvement

Exit Exam Proposal Due April 23

- opportunity for revision
 - reflect on 2-3 main writing points that you got from the feedback
 - use track changes
- areas for improvement
1-2 pages in length

UDL

What is UDL → teaching/learning for everyone.

→ wheelchair ramp example (should snow off ramp, not stairs, for the wheelchair kids & everyone else)

→ multiple intelligences

→ provide multiple paths of learning, students may try different paths they may not know @ the beginning

→ flexibility in teaching/assessing material