

Many Factors Affect Learning

- We learn faster when practice is frequent, regular, and precise
- We learn faster when operation is task focused, simple and consistent
- We learn faster when vocabulary is task focused, familiar, and consistent
- When risk is low, we explore more and learn more

Frequency of Practice

- Rarely using interactive systems makes it harder for you to remember how to use them
- ATMs don't expect you to remember everything from one usage to the next
- Most messaging platforms do the opposite, as they expect very frequent usage



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16%2F&psig=AOvVaw2Cl1s0nKoW6LTUBU8V0l3_&ust=1667314989589 000&source=images&cd=vfe&ved=0CAwQjRxqFwoTCJijvsDeivsCFQAA AAAdAAAAABAh

Regularity of Practice

- Building an automatic habit
- Lally conducted a study asking 100 volunteers to choose a new activity to do every day for at least two months
- Anywhere from 18 to 254 days
- Form faster if daily
- Regular skipping slows progress

Precision of Practice

- Be intentional with your practice
- Going through the motions and not focusing will train you to do just that
- Practice how you play
- Design with this is mind
 - Guides and grids
 - Encourage purposeful and careful use

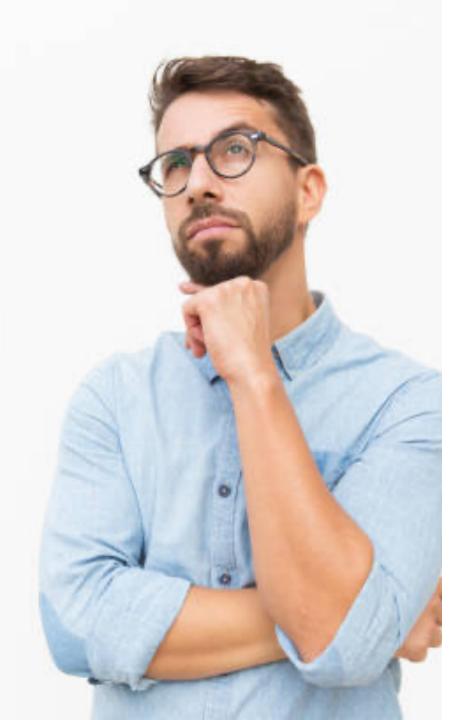


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We Learn Faster when Operation is Task Focused, Simple, and Consistent

- We need to translate what we want to do into a tool's operations
 - Pointing a telescope at a star
 - Calling someone not in your contacts list
- Reduce the gulf of execution
 - Create a database of celestial objects to track
 - Add that number to your contacts list
- Perform task analysis
- Conceptual model
- Design the UI based on those things



Task Analysis

- Answers these types of questions:
 - What goals do users want to achieve by using the application?
 - What set of human tasks is the application intended to support?
 - Which tasks are common, and which ones are rare?
 - Which tasks are most important, and which ones are least important?
 - What are the steps of each task?
 - What are the result and output of each task?
 - Where does the information for each task come from?
 - Etc.

Conceptual model

- We've talked about this a lot before you guys already know what it is
- Here's a cat



Conceptual model (continued)

	Document Editor Keyboard Shortcuts: Alternative Designs				
Design A		Design B		Design C	
Cut	Paste	Cut	Paste	Cut	Paste
CTRL-X	CTRL-V	CTRL-X	CTRL-V	CTRL-X	CTRL-V
CTRL-X	CTRL-V	CTRL-C	CTRL-P	CTRL-X	CTRL-V
CTRL-X	CTRL-V	CTRL-Z	CTRL-Y	CTRL-X	CTRL-V
CTRL-X	CTRL-V	CTRL-M	CTRL-N	CTRL-X	CTRL-V
CTRL-X	CTRL-V	CTRL-Q	CTRL-R	CTRL-E	CTRL-R
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- Devise a model that is:
 - Task focused
 - As simple as possible
 - As consistent as possible
- Goal of keystroke-level consistency
 - Builds muscle memory
 - Stratified by type

Terminology should be task focused

- Focus on the task, not the technology
- Investment transaction templates
 - Save to their PC or to a network server
 - PC saves were private
 - Network saves were available to others
 - "database" and "local"
 - BAD
 - "shared", "public", "private"
 - GOOD

Terminology should be familiar

- We want to reduce the time for people to master your application
- Familiar words
 - Automatic recognition
 - Good
- Unfamiliar words
 - Conscious decoding methods
 - Consumes short-term memory resources
- No "geek speak"

Terminology should be consistent

- Same name, same thing; different name, different thing
- Photoshop
 - Replace color function uses "fuzziness"
 - Paint bucket tool uses "Tolerance"
- But what about this powerpoint?

When Risk is Low, we Explore More and Learn More

- Think about this:
 - Two cities
 - City A
 - Beautiful, eco-friendly, nice consistent layout, friendly people
 - Detroit
 - UGLY, POLLUTED, ONE WRONG TURN AND YOU WILL DIE, CAN'T HAVE SHIT
- Which would you visit?
- Apply similar thinking to UI design

Thank you

• Questions?