

**experiment sandbox**



experimental debrief

**@cjlortie**

debrief



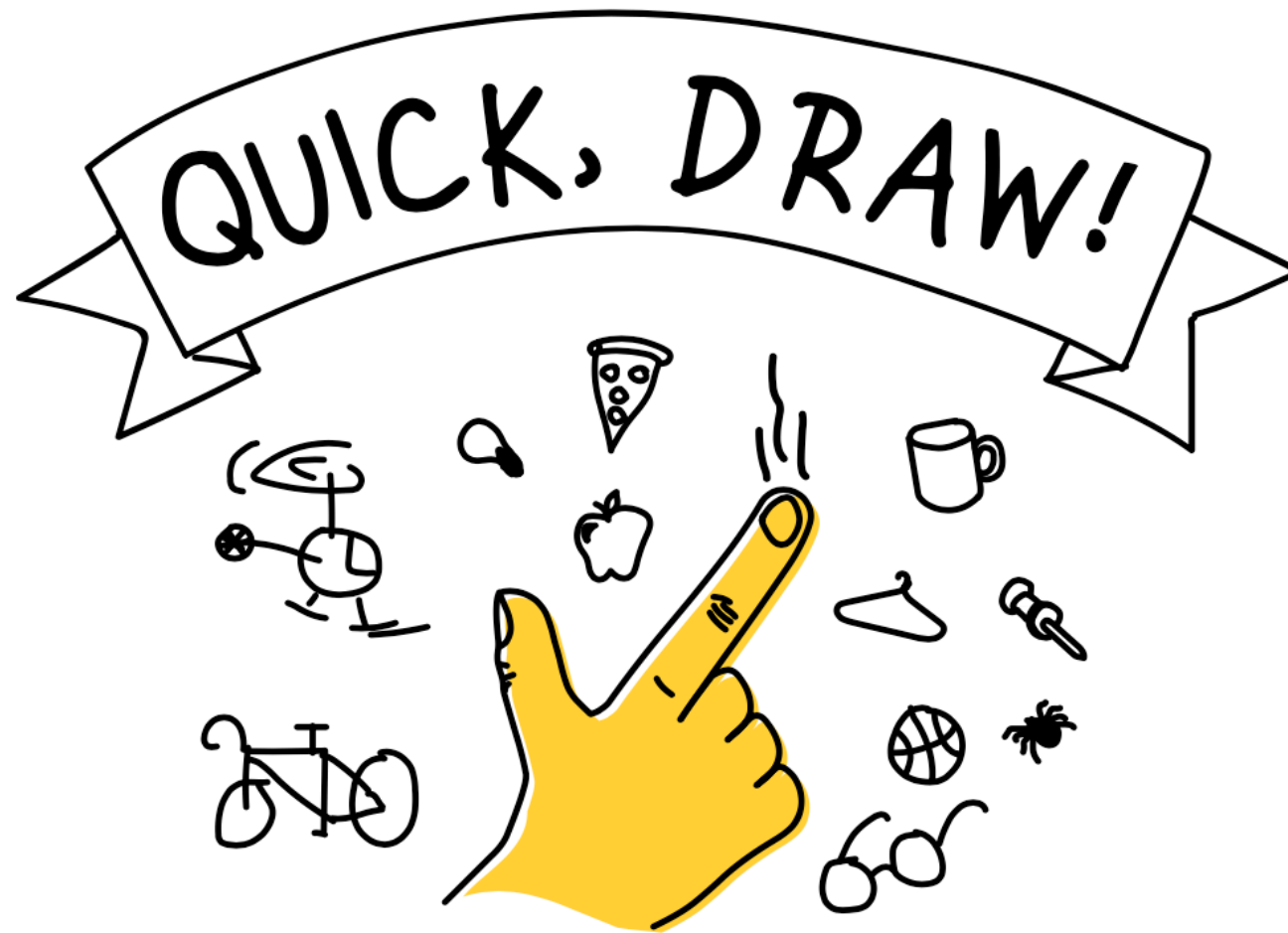
question (someone, typically a soldier or spy)  
about a completed mission or undertaking

experimental design debriefing  
is about iteration, progress,  
discover, creativity, and  
learning

close the loop



every experiment also  
changes the system and the  
observer



Can a neural network learn to recognize doodling?

Help teach it by adding your drawings to the [world's largest doodling data set](#), shared publicly to help with machine learning research.

Let's Draw!

surveys  
tracking  
treatments  
interventions  
questions

process-based  
thinking more powerful



do not let the learning fade





this course and every course you do  
are experiments

<b>experiment</b>	<b>challenge</b>	<b>goal</b>
<b>pilot data</b>	moderate	application
<b>field data</b>	easy	practice
<b>test</b>	easy	consolidation
<b>field report</b>	moderate	application
<b>grant</b>	easy	creativity
<b>data report</b>	moderate	practice
<b>discussion</b>	moderate	insight
<b>gaming</b>	easy	consolidation

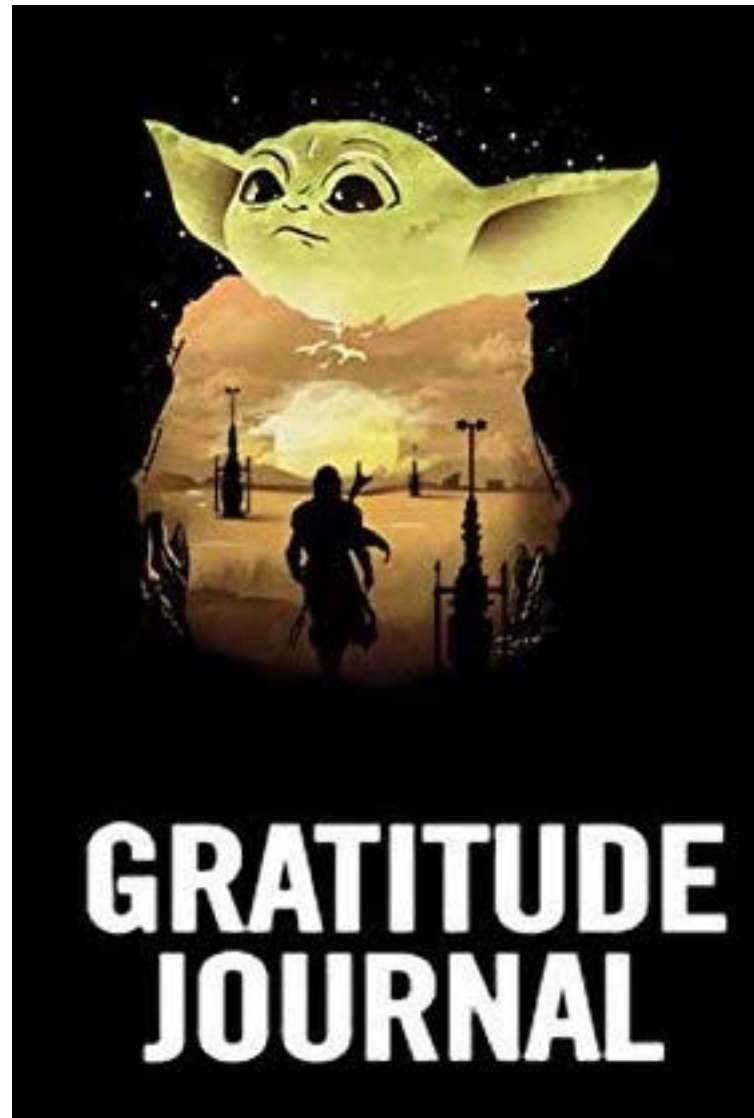
learning 20% insight and  
**80% practice** or consolidation  
as estimated from neuroscience  
and brain imagery studies

debrief **challenge** is to log or journal  
what you did in some or every course  
and examine whether the treatments you applied  
(work, timing, frequency, effort, attendance)  
were successful

data and reflection provides experimental insight



recognize external kindness and support





THIS IS THE WAY