


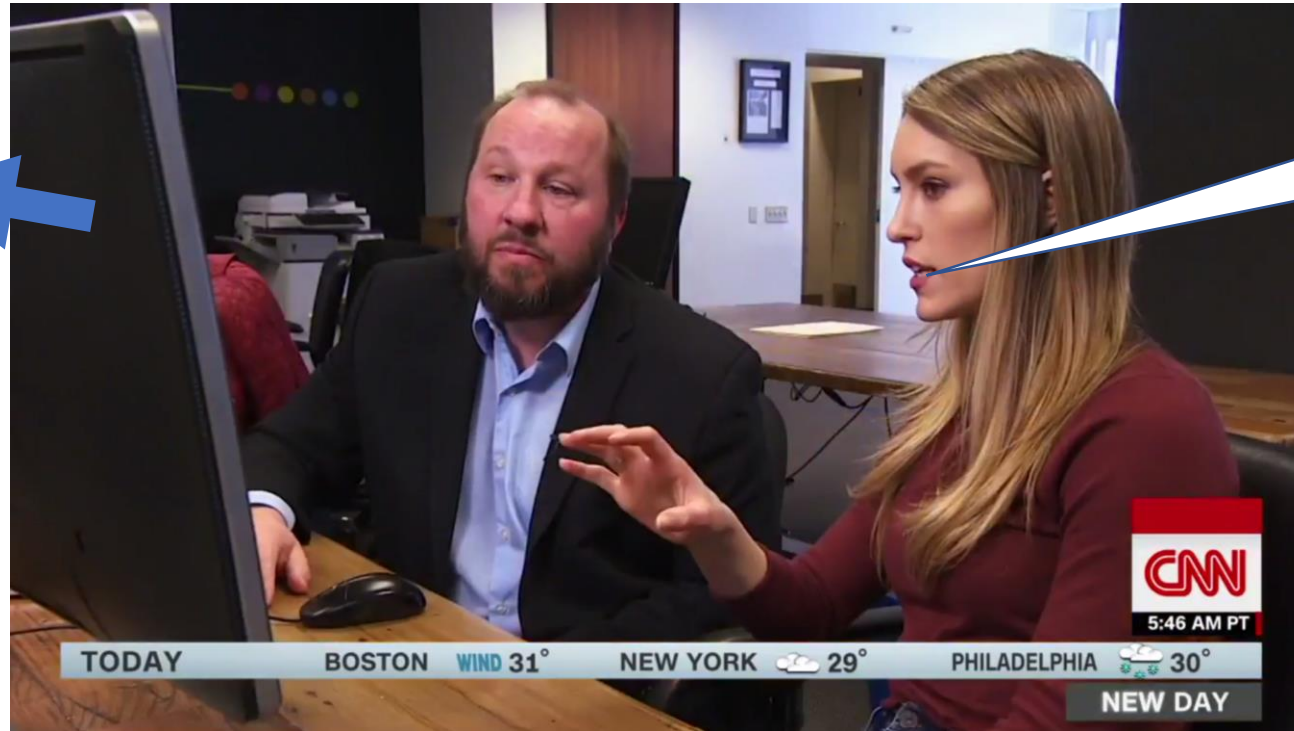
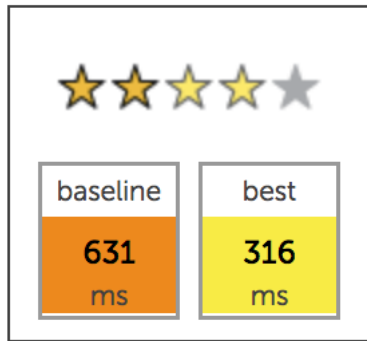
There are substantial scientific challenges in developing real-world cognitive assessments

- Standard test development issues
- Validation with standardized in-person assessments
- Analytic methods for high volume data
- Usability/self administration by users with cognitive impairment, without trained supervision



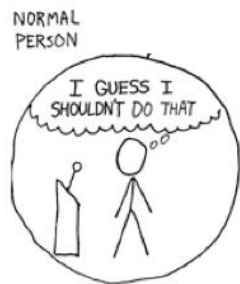
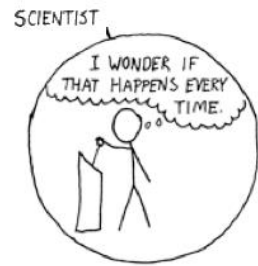
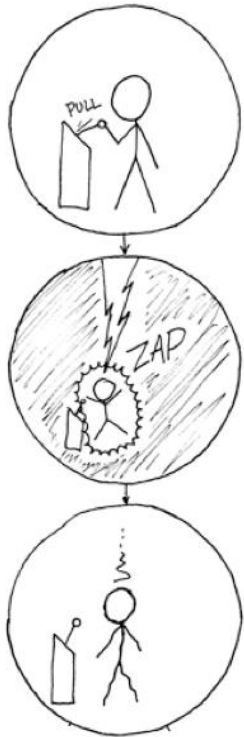
There are also substantial user experience in developing real-world cognitive assessments

Some Interesting Problems That Can Emerge (1)

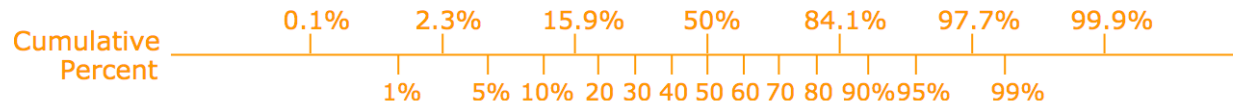
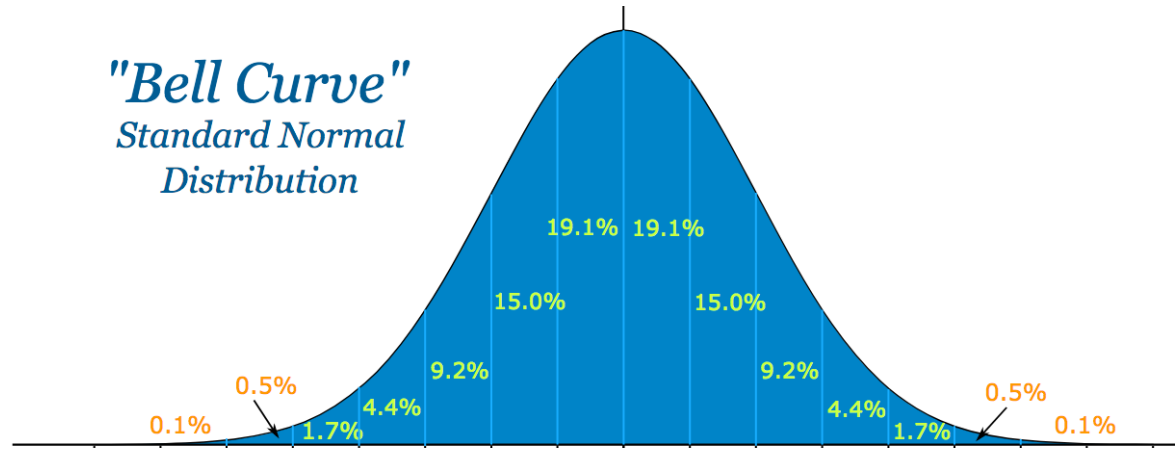


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Some Interesting Problems That Can Emerge (2)



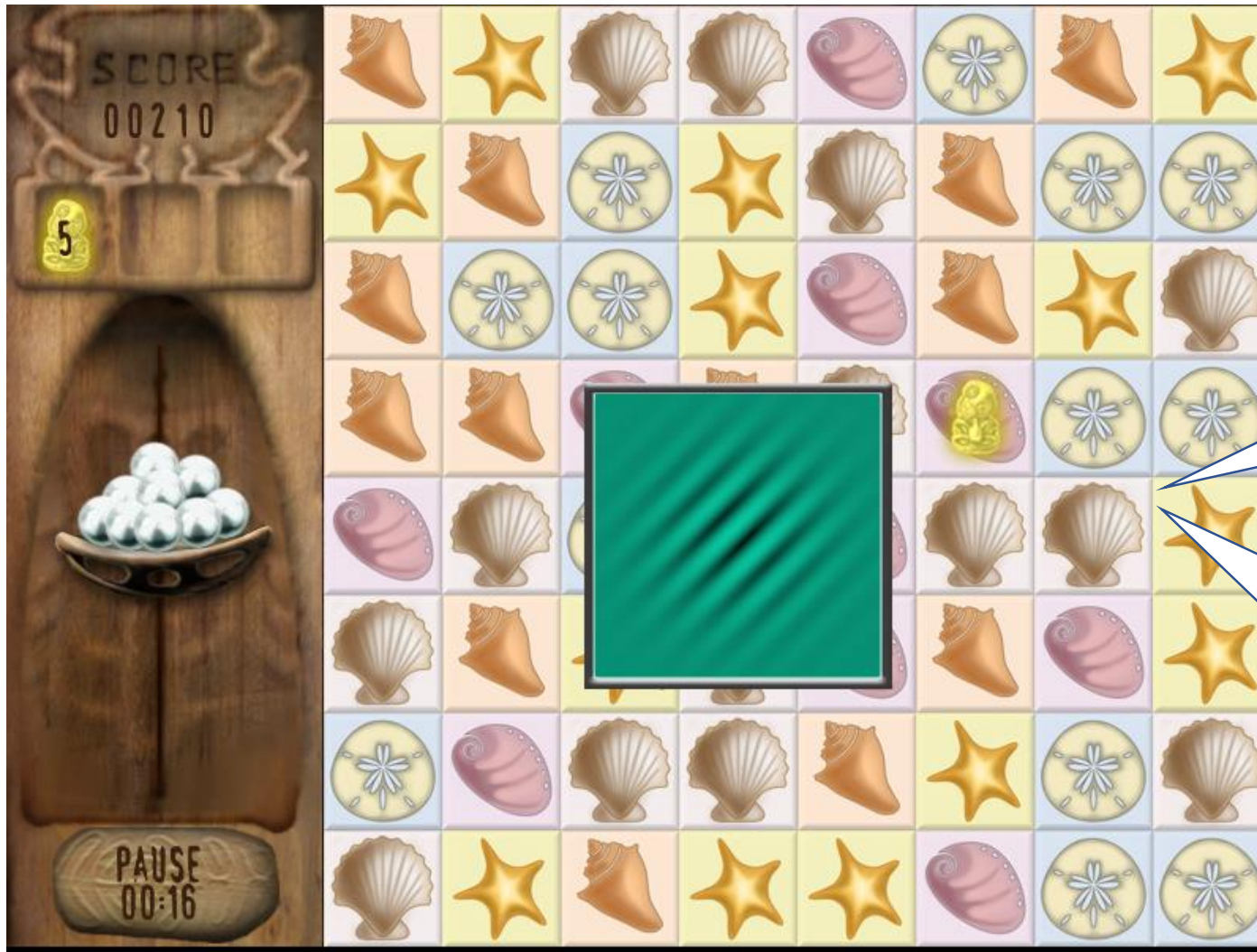
"Bell Curve"
Standard Normal
Distribution



Not So Good	OK!	You're Fine
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Failing Grade (F)	D	C	B	A
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Some More Interesting Problems That Can Emerge (3)



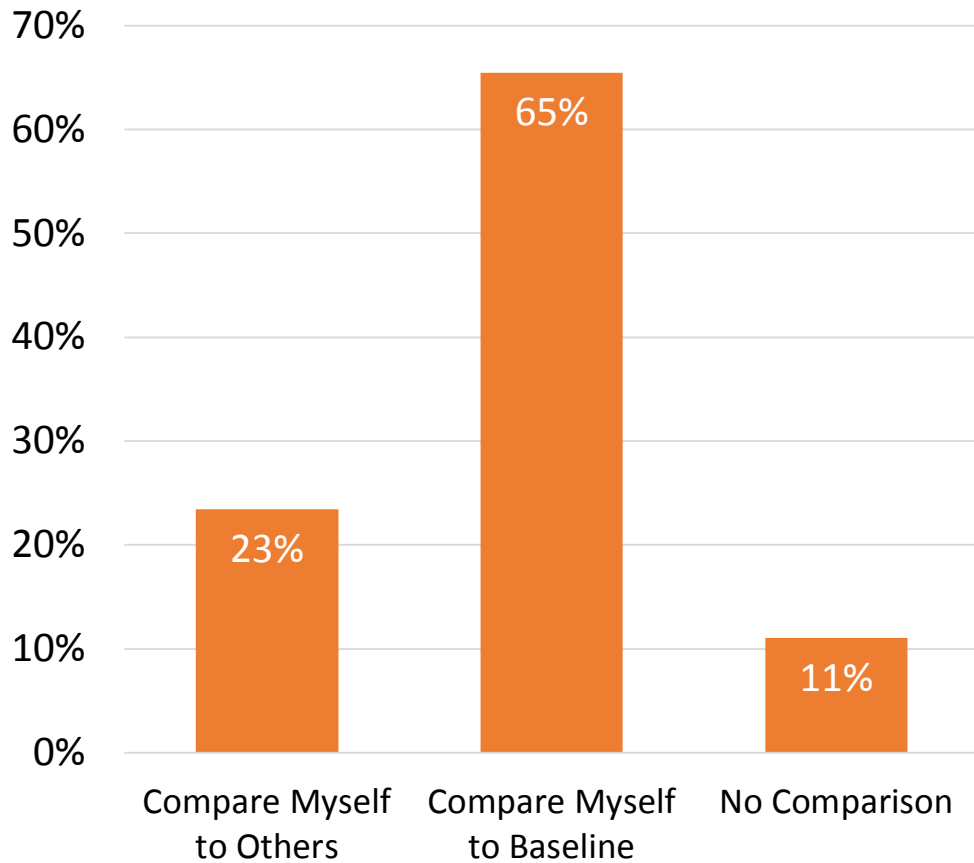
When given a repeated cognitive assessment (e.g., processing speed) over the course of computerized cognitive training...

90% of people improve – they are quietly content

10% of people decline – likely due to test-retest variance – and every single one calls and complains “do I have Alzheimer’s?”

How Do People Want to Track Cognitive Function?

Quantitative Responses: “How do/would you prefer to measure your brain performance?”



Persona Development



GRACE

- Wants to track her performance vs. herself, not vs. others.
- Nervous about “taking a test”
- Scared to see where she performs compared to others



RAY

- Competitive, wants to see where he stands compares to others
- Expects to be in the top 20%, wants to be higher

We Should Build Tracking Tools For Specific Personas

Personas



GRACE

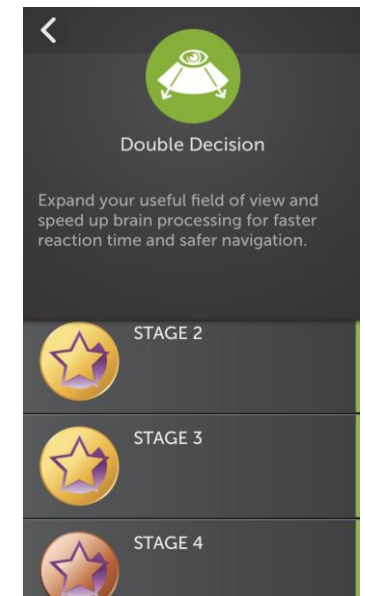
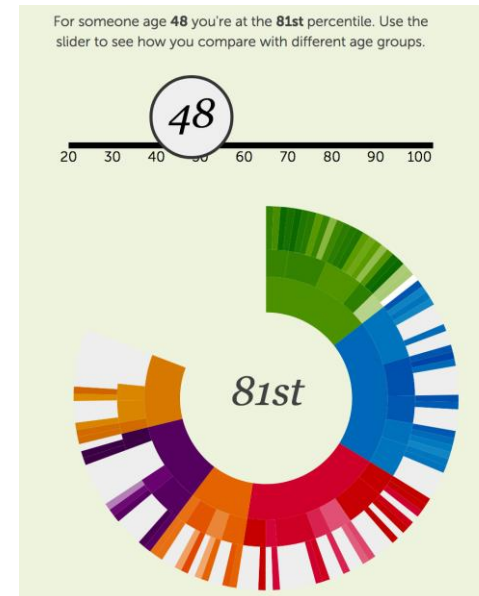
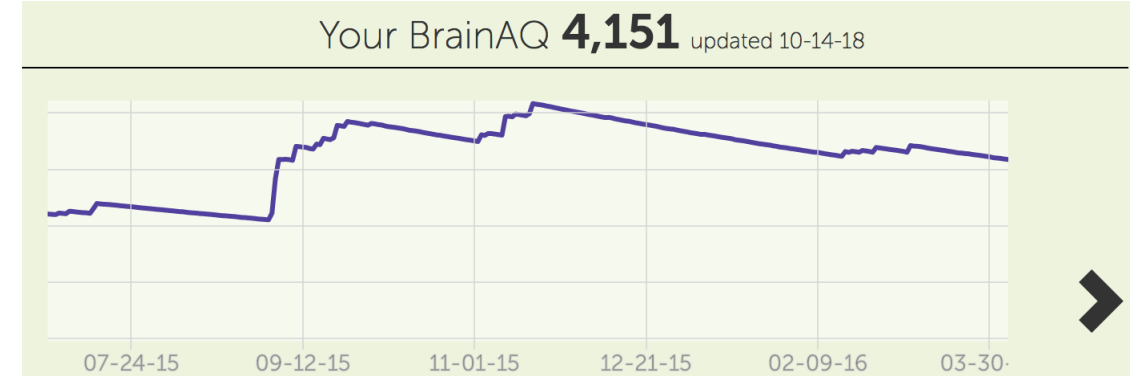
Give Grace a graph in arbitrary units that goes up as she completes training levels, and decays slowly as she takes time off. No comparison to others.



RAY

Give Ray relative performance based feedback with the assumption he will score relatively well

User Experience Elements



- The only question people really have is “Am I going to get Alzheimer’s? Or am I safe?”
- We might be able to answer the question “Am I holding my ground, or am I getting better/worse?”
- We should make sure we are answering questions that people have, and not just questions that scientists have