

5 BRAIN-BASED APPROACHES TO INCREASE RETENTION

Introductions



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Please tell me what
you'd like to learn in
this session.



The success or failure of your learning design depends on what happens in the minutes, days, and weeks **after** the learning experience is completed.

Learning Objectives

In this interactive session you'll learn:

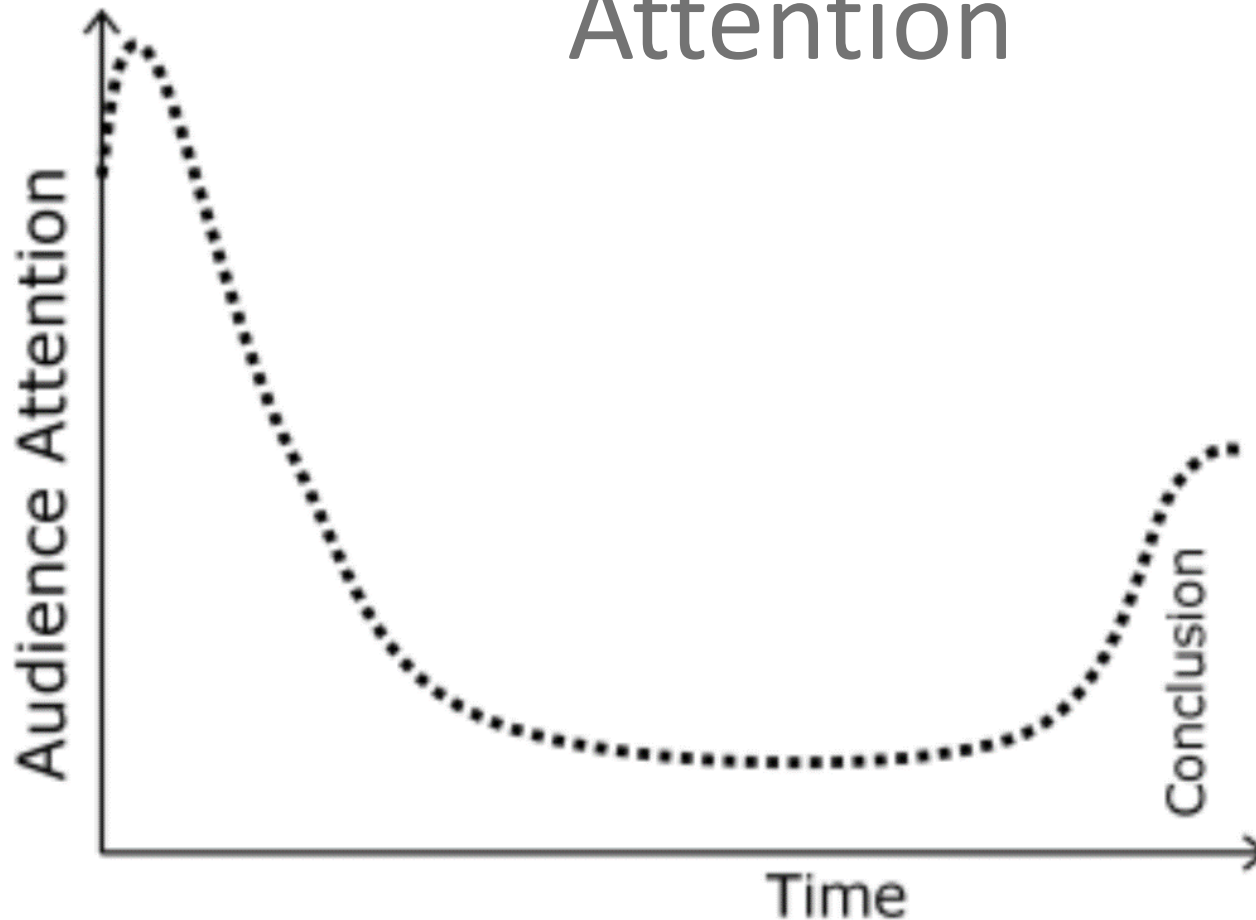
- Why learning (and forgetting) actually begins the minute your course ends.
- How the spacing effect can keep your audience on the learning curve and off the forgetting curve.
- How the 80/20 rule affects instruction design.
- The power of a Just Noticeable Difference (JND) to change behavior.
- How to avoid learner burnout by understanding the Law of Diminishing Returns.
- The five biggest mistakes that propel learners down the forgetting curve.

Learning and Forgetting



They're part of the same biological process inside your brain!

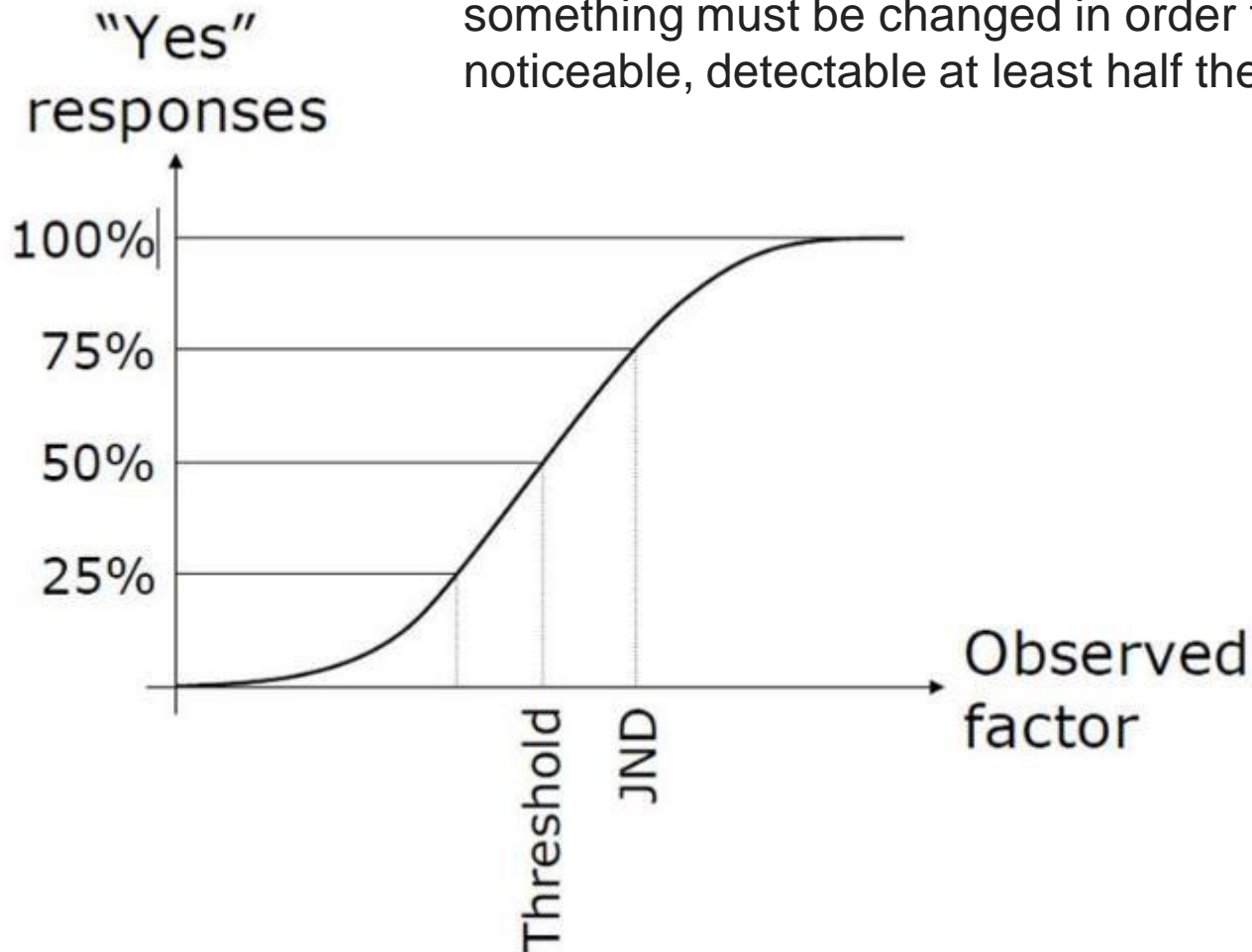
Attention



Sensorial perception ... occurs with greater or less accuracy according to the degree of **interest**.

A Just Noticeable Difference (JND)

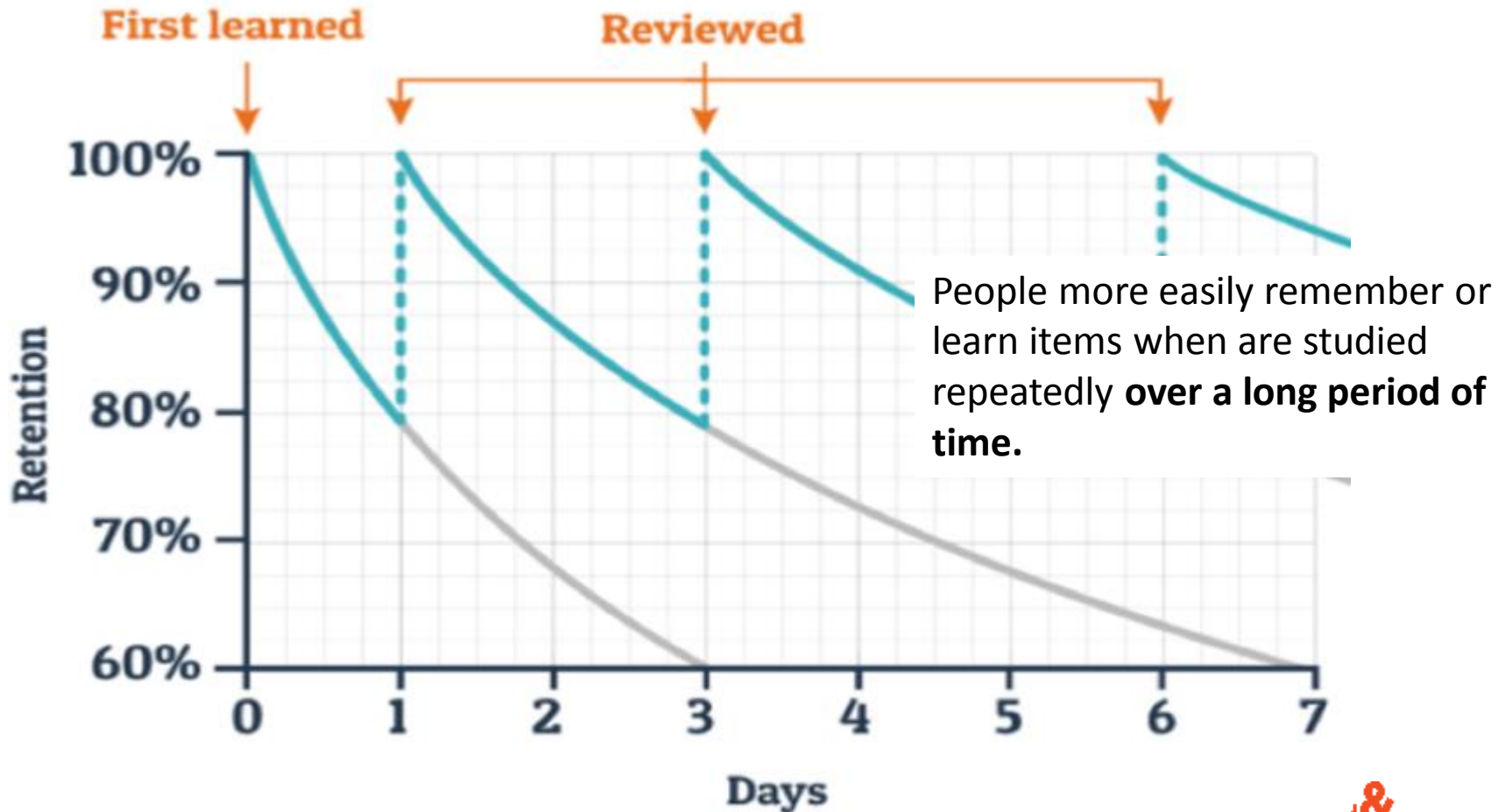
A **just-noticeable difference** or **JND** is the amount something must be changed in order for a difference to be noticeable, detectable at least half the time.



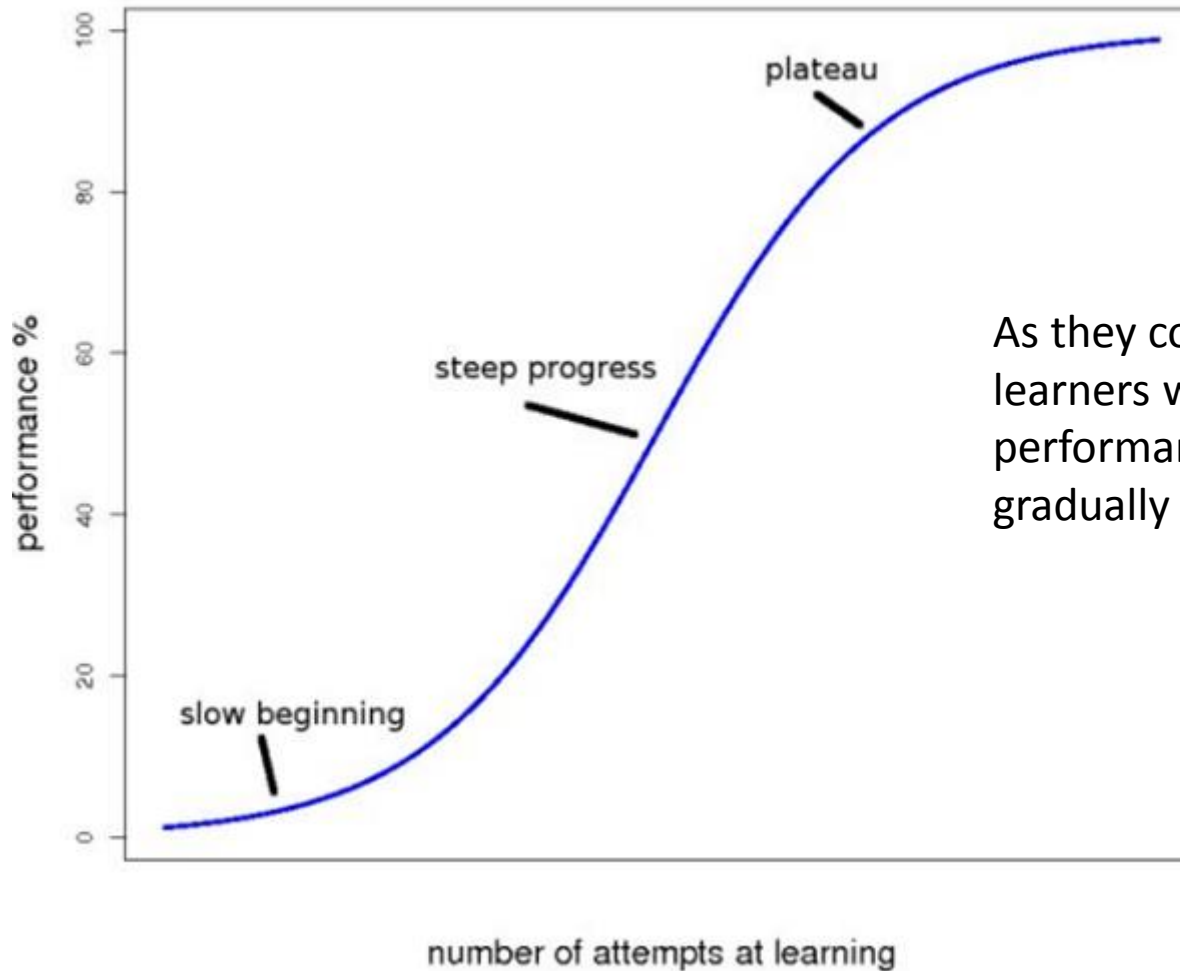
The Forgetting Curve



The Spacing Effect



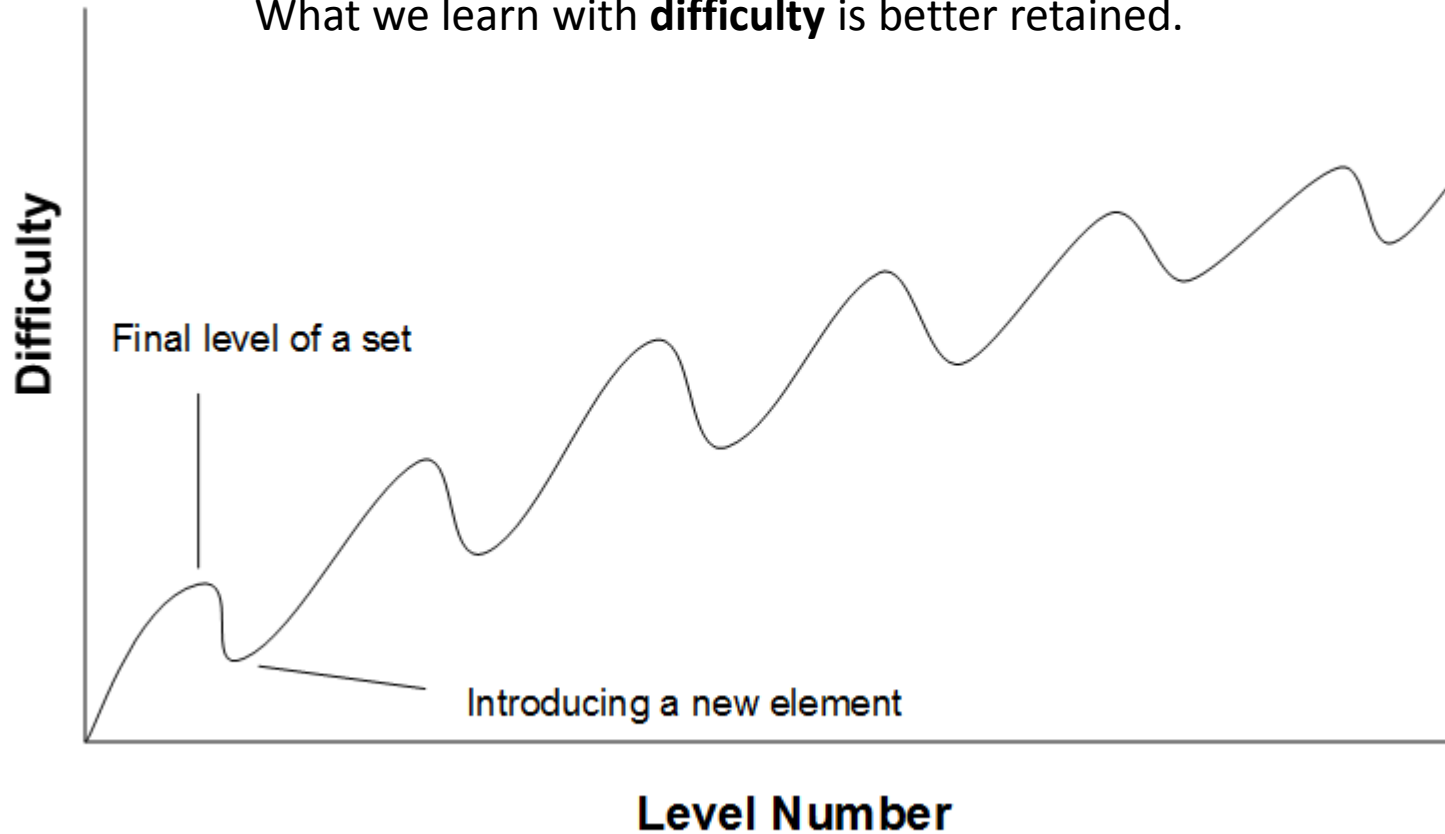
The Learning Curve



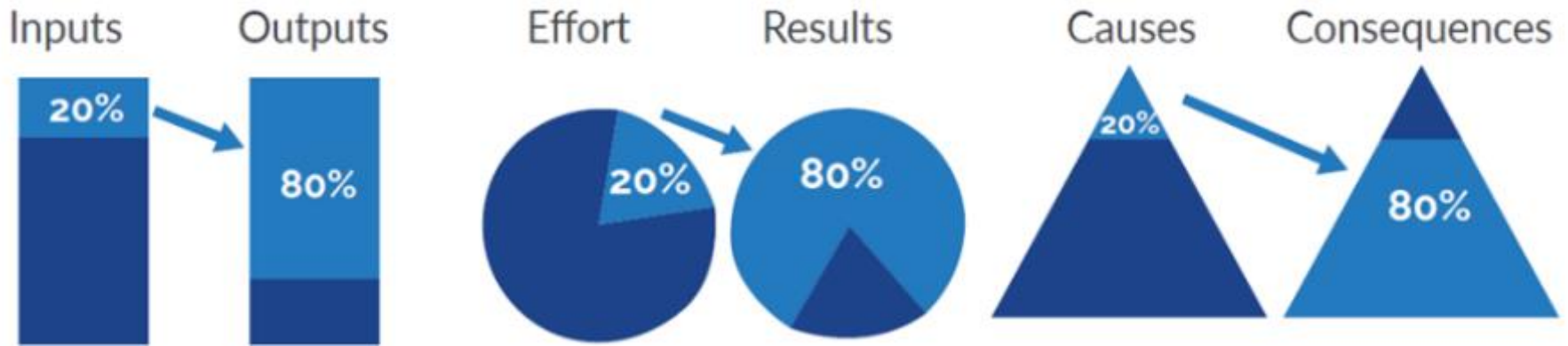
As they continue to gain experience, learners will reach a **plateau** where performance improvement slows and gradually levels off.

The Difficulty Factor

What we learn with **difficulty** is better retained.

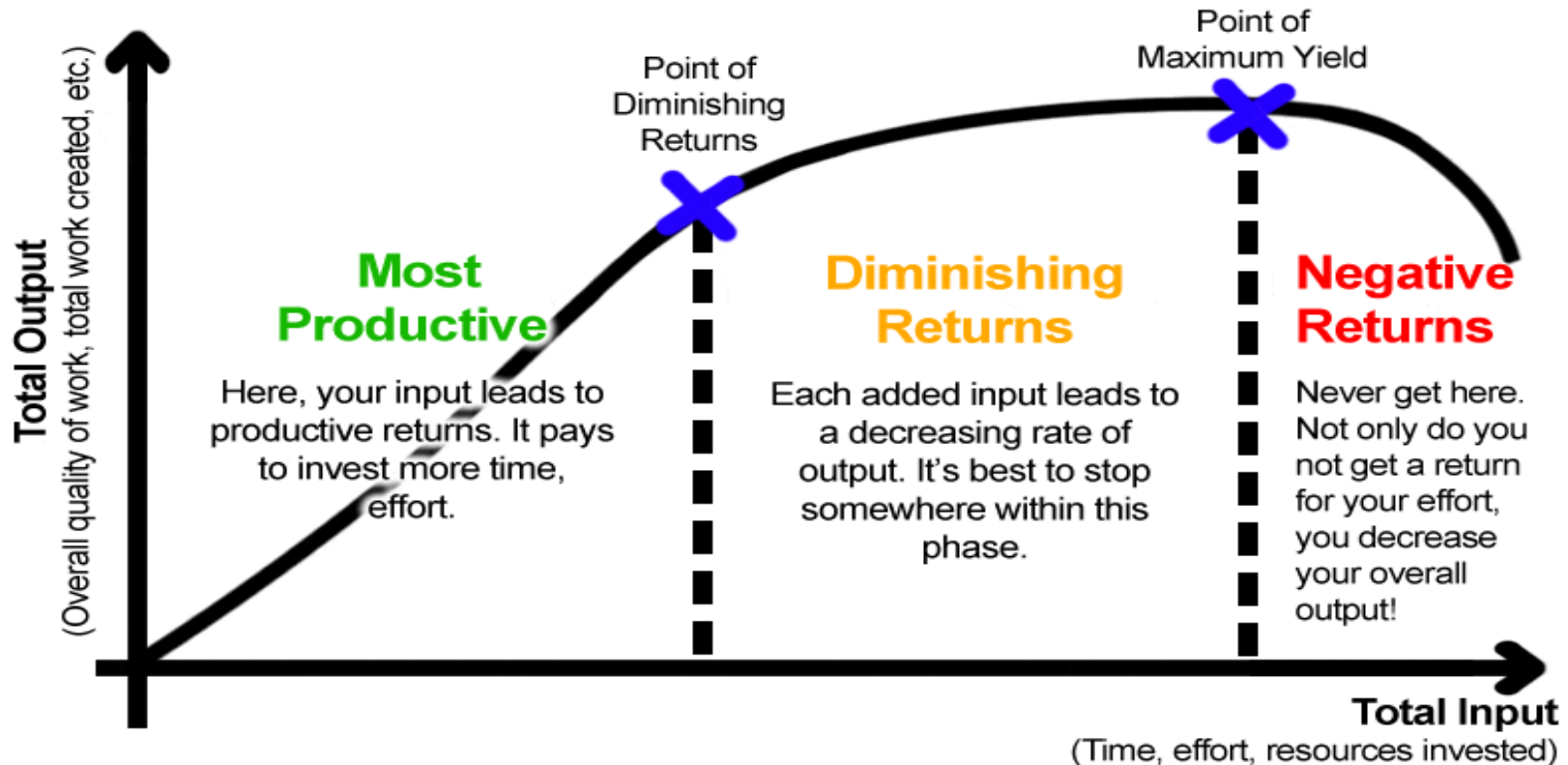


The 80/20 Rule



While the ratio may not always be exactly 80:20, there's typically a non-linear relationship between input and output, between effort and results, and between causes and consequences.

The Law of Diminishing Returns



The amount of improved performance reaches a point of diminishing and even negative returns over time due to cognitive **fatigue**.

5 Biggest Mistakes

Or How to Guarantee They'll Forget

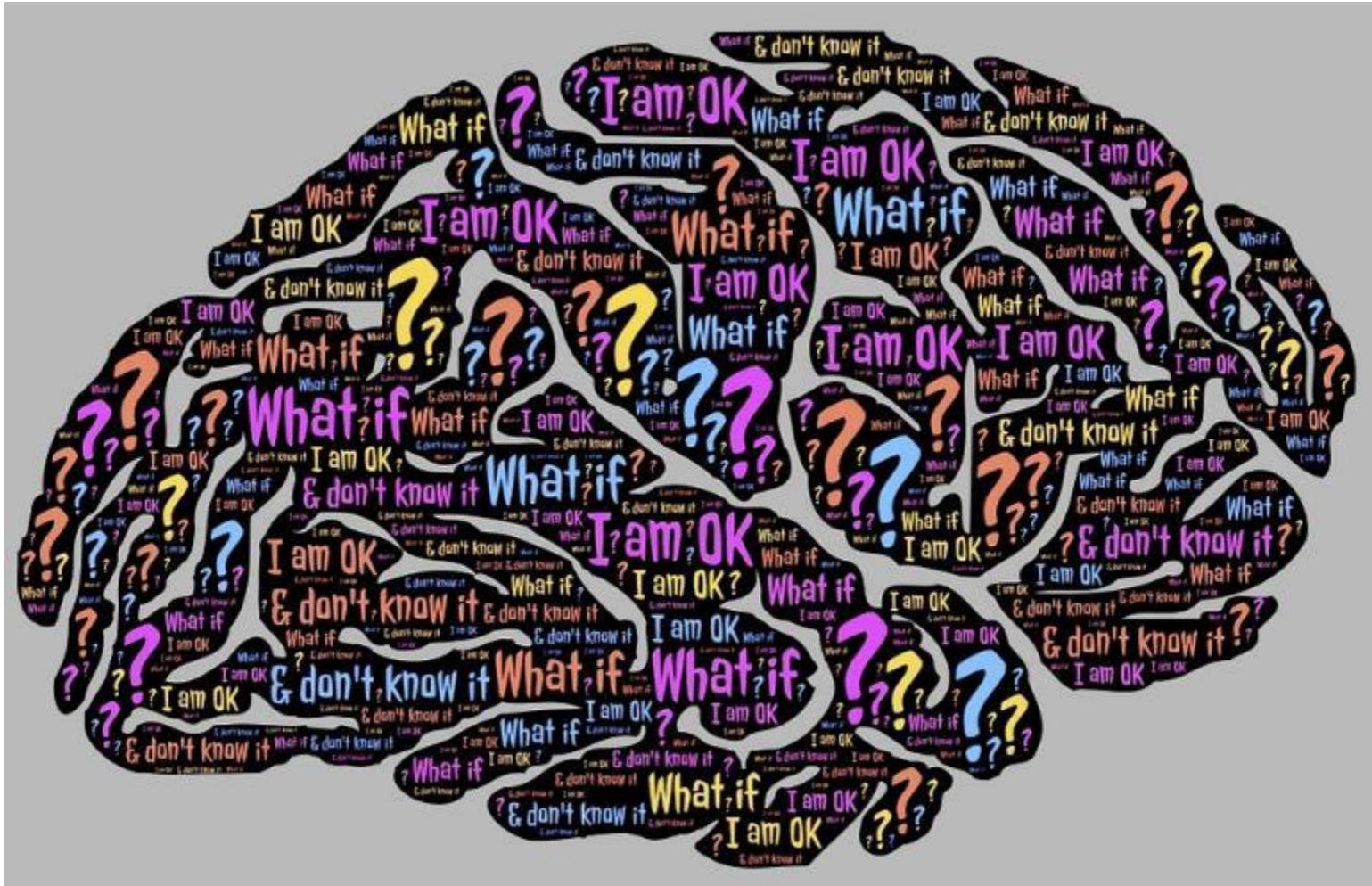
- Fail to earn your audience's **attention**.
- Deliver your content **once** and consider it “done.”
- Spend **80%** of your time on background or less-important information.
- Make it **too easy**.
- Create fatigue through **cognitive overload**.

Brain Storming!



Margie Meacham 8.8.19

Questions?



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Learn More



If you could understand what was happening in the brains of your target audience, would you be a more effective trainer, designer, consultant, or leader?

In [*Essentials of Brain-Based Learning*](#), you will learn how the brain receives, encodes, and retrieves information to construct knowledge, and use these insights to improve your learning programs.

Sign up now to take advantage of **Summer Sizzle** pricing!
And don't forget your **member discount**!

For More Information

The 80/20 Principle: The Secret to Achieving More with Less,
by Richard Koch and Nightingale-Conant <https://tinyurl.com/y6reggmk>

THE DIFFICULTY OF DIFFICULTY, Infinity Makers blog,
<https://infinitymakers.com/the-difficulty-of-difficulty/>

Brain Matters: How to help anyone learn anything using neuroscience
by Margie Meacham: <https://tinyurl.com/yxwzzxkp>

Cognitive load during problem solving: Effects on learning, Cognitive Science, by John Sweller, 12, 257-285 (1988).

Let's Connect!



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Thanks for attending
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