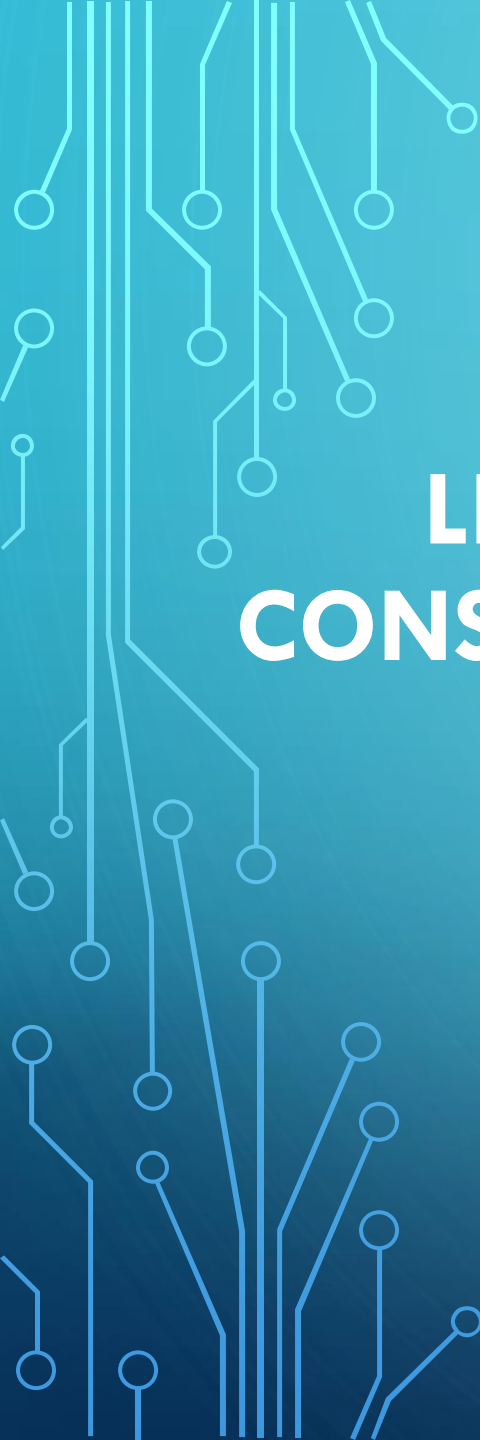


A decorative graphic on the left side of the slide consists of a network of white lines and circles on a blue gradient background. The lines are vertical and horizontal, with some branching out, resembling a circuit board or a neural network. The circles are small and white, some of which are connected to the lines.

LEARNING AND EXPERTISE: CONSIDERATIONS FOR EDUCATION

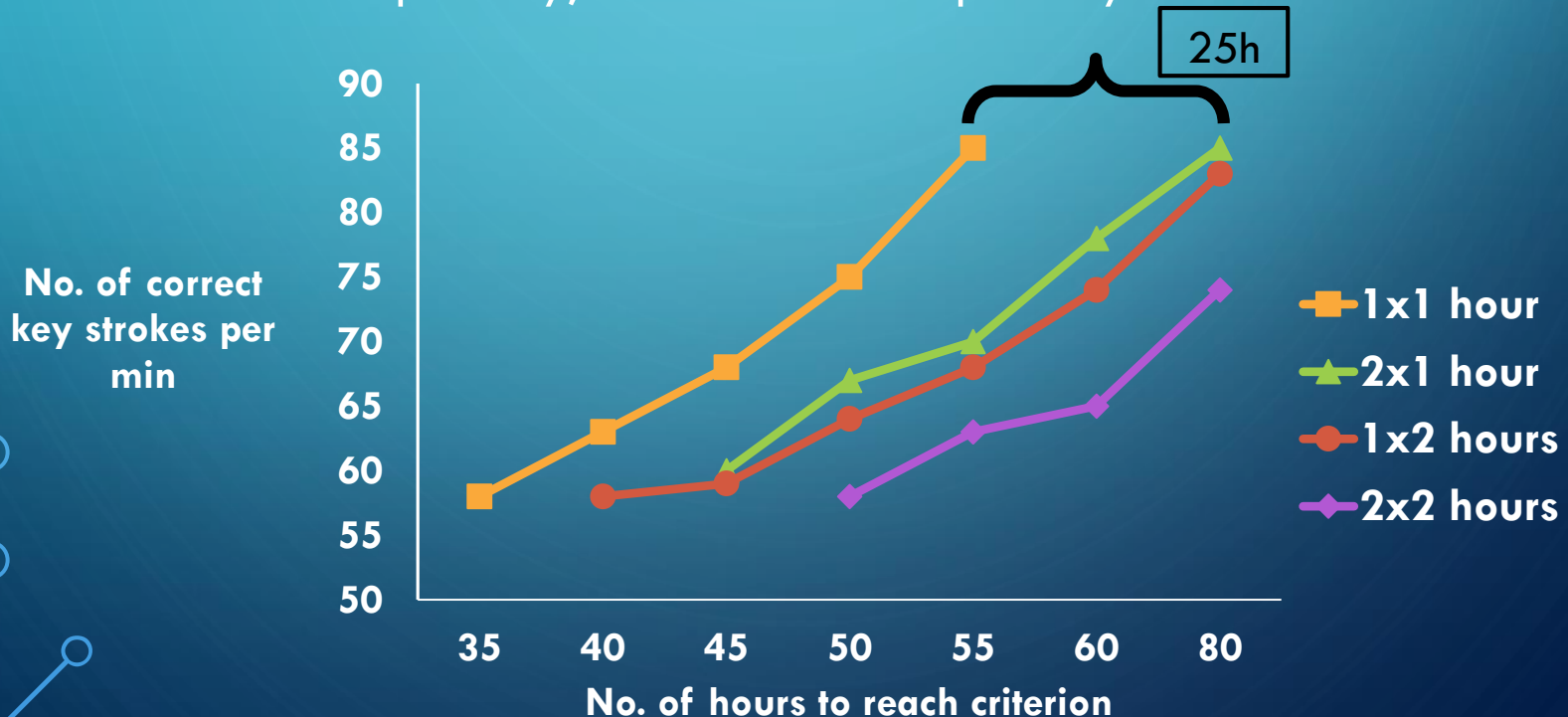
DR KATE WILLIAMS

MEMORY STRATEGIES AND EXAMS

- McDougall & Gruneberg (2002):
 - Notes made before writing essays: indicator of memory strategy.
 - No notes: indication of no memory strategy
 - Ps who wrote down researchers names at beginning performed better than those who did not → provides a cue.
- Effects of spaced revision:
 - Memory for info is much better if it is practiced over a spaced amount of time than massed in to one session.
 - If you are going to spend X number of hours learning material for an exam, better to learn it spread out over hours rather than trying to learn it all at once.

SPACING EFFECTS

- Instead of spending 1 day revising everything for an exam, it is better to spend a few hours per day over a few weeks.
- Baddeley & Longman (1978): teaching postal workers to type.
 - Ps placed into 4 different learning groups:
 - 2x2 hour sessions per day; 1x2 hour session per day; 2x1 hour session per day; 1x1 hour session per day.



MEMORY STRATEGIES AND EXAMS

ROTE LEARNING

Vs.

EXPANDED RETREIVAL

Benefits of Expanded Retrieval:

1. Long-term retention of info:

- Strengthens item to greater extent
- Requires less retrieval attempts to remember

2. Maximises strength of trace

- Based on idea of spacing effect: increased spacing
 - The longer the interval between retrieval attempts the less likely the success but the greater the benefit for long-term retention.
-
- Read notes, put them away & try to write down anything you can remember → makes use of LTM: Active learning.

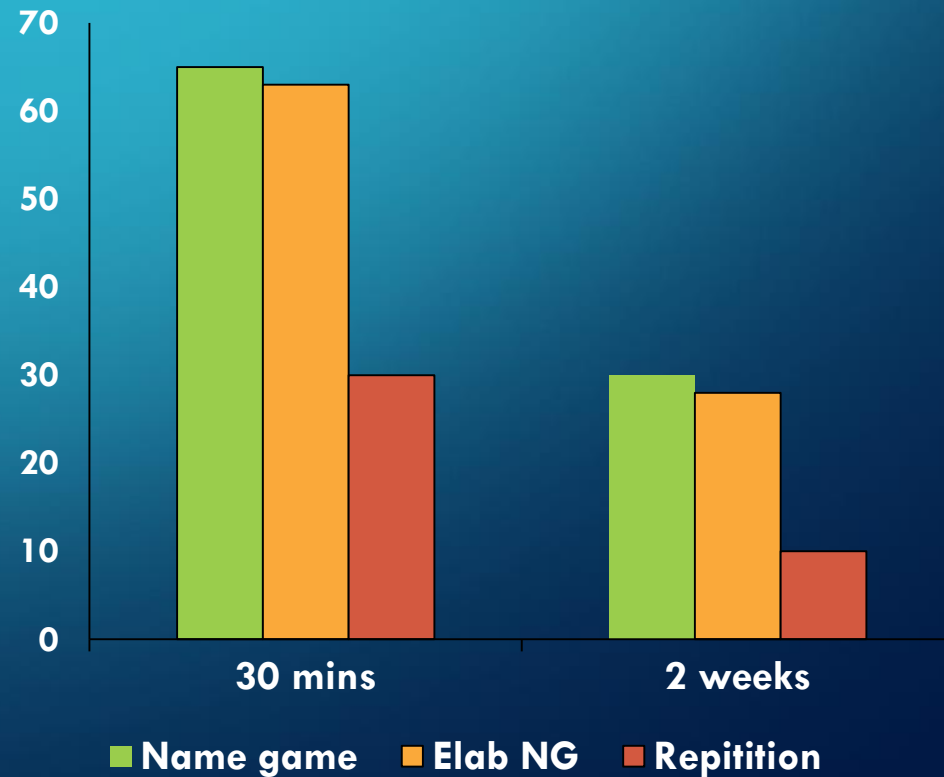
ROTE LEARNING VS EXPANDED RETRIEVAL

THE NAME GAME

- Let's have a go.....
 - Pick a new name for yourself:
 - First name & Surname only.
 - In turn say your “name” out aloud.
 - However, you must also say all of the previous names heard in order before saying yours.

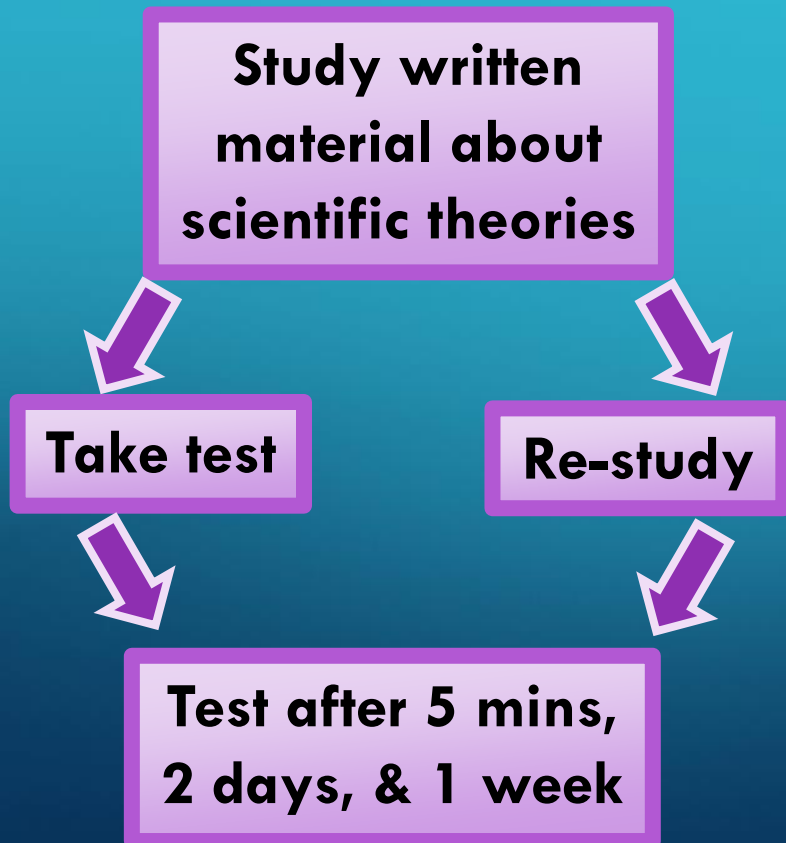
THE NAME GAME

- Time between 1st name and last name continually increases.
 - E.g., 6th member hears 5th members name once but must recall the first 4 names before retrieving the 5th.
 - Makes retrieval of the 5th name difficult but beneficial to learning.
- Morris & Fritz (2000): Three different conditions
 1. Name game
 2. Elaborated name game: e.g., “Jane Smith likes dancing”
 3. Expanded repetition: read names on board
- Memory for names tested 30 mins later & 2 weeks later.....



THE EFFECT OF SELF-TESTING

- Testing yourself on learnt material increases retention
 - The retrieval practice effect.
 - But does testing benefit memory more than revision episode?
- Roediger & Karpicke (2006):



MEMORY STRATEGIES & EXAMS

- Selective Revision: Macrae & MacLeod (1999)
 - Can be useful to save time and resources.
 - However, success of this depends on the assumption that the material revised will appear in the exam.
- If revised material does appear, then performance in exam should be good:
 - Retrieval practice effect - facilitation
- However, what if the revised material does not come up in the exam?
 - Would performance be as bad as not having revised at all
 - Or could it be even worse
 - Retrieval-induced forgetting effect.

MACRAE & MACLEOD (1999)

- Ps told they were to take a geography exam....

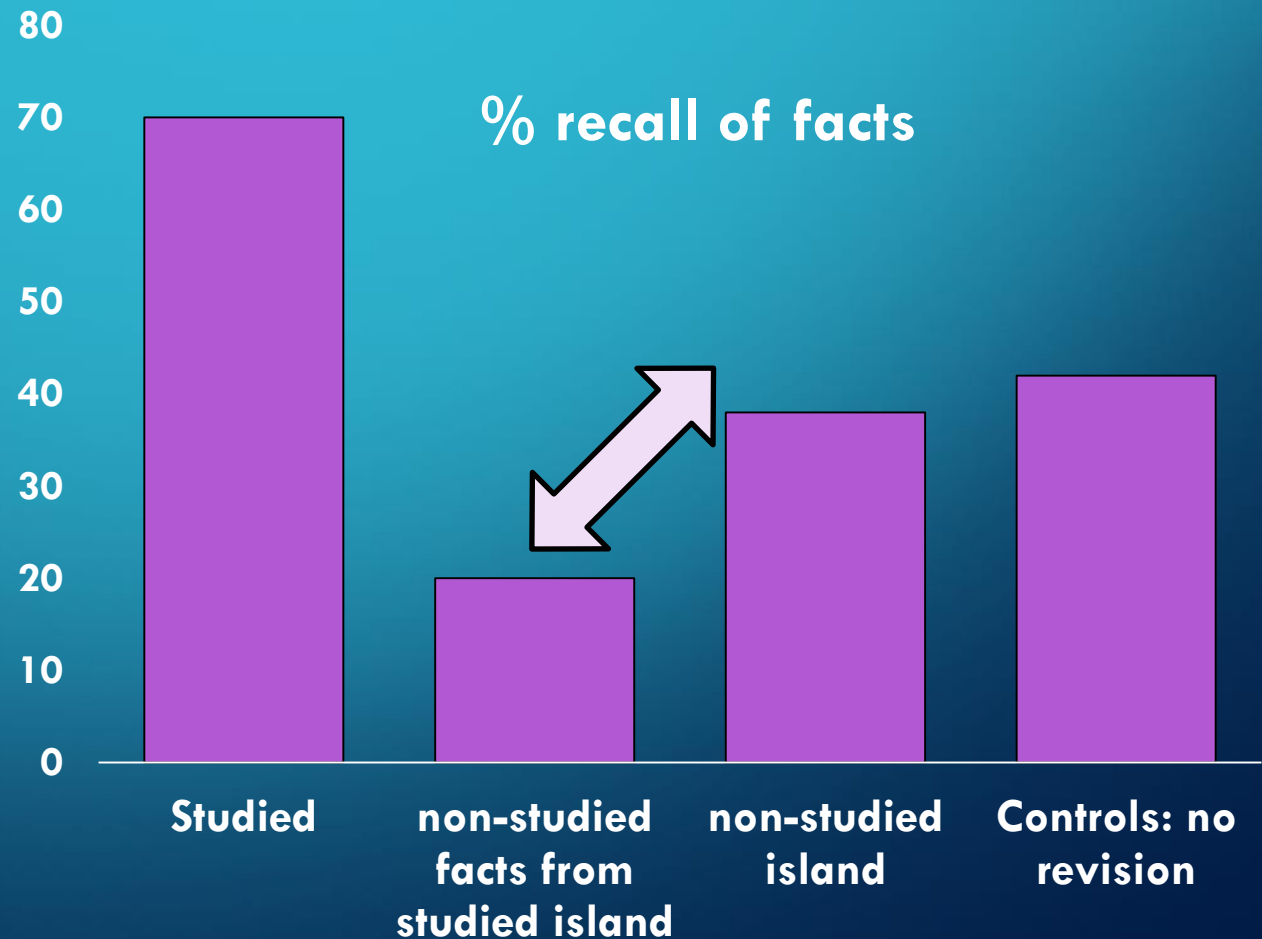
**20 facts about 2
fictitious islands
(Tok & Bilu)**



**Study 1/2 facts
from 1 island**



**Exam: recall
all facts**



MEMORY STRATEGIES & EXAMS

- What can be done if you experience RIF in an exam?
 - Integration of information protects memories from RIF.
 - Make connections across materials
 - Work out what constitutes these connections during revision (not during the exam – too late).
- Compose structures for mock essays.
 - Make any links explicit between items.
- If you forget any info, then the cues provided by the retrieval of other info, or the related connections, should help cue the related but forgotten info.
 - Make use of sub-headings.

FACTORS THAT MAY HELP EXAM PERFORMANCE

- Distributed studying
- Integration of information
- Retrieval of material: especially expanded and elaborative practice
- Administering self-tests
- Having an understanding of the material & not just trying to learn in parrot fashion.
- Make use of memory strategies.
- Make sure to answer the specifics of the exam question (& not just broad topic area).
 - Say why what you have said applies to the question.

FACTORS THAT MAY NOT HELP EXAM PERFORMANCE

- Mass Studying
- Cramming
- Selective revision
- Not integrating information
- Rote rehearsal
- Not testing
- Not understanding material
- Not using memory strategies