Learn or Die

Mark Stacey

“It’s a mistake to think you can solve any major problems with potatoes”

-Douglas Adams
Learn it right
Practise it right
Perform it right
THE ULTIMATE GUIDE TO BEING THE BEST DRIVER YOU CAN BE, BY THE MAN WHO WAS THE STIG

HOW TO DRIVE

THE ULTIMATE GUIDE - FROM THE MAN WHO WAS THE STIG

BEN COLLINS

BUY NOW
Learn or Die - Edward Hess

High-performance Learning organisation:
You need:
Right People
Right Environment
Right Processes
An encounter between a medical educator and reality

Anaesthetist with the head of medical education

Elective Caesarean Section under spinal anaesthesia

Patient becomes unresponsive

Calm to (measured!) panic

“what happened there and how do you teach people to learn to deal with that?”

(“In theory there is no difference between theory and practice-in practice there is”)
“In 1988, the training mantra was ‘see one, do one, teach one’. As one consultant advised: ‘If you’re not sure what you’re doing, put on a mask of relaxed brilliance.’”

“I can remember my first intubation. You’ve got two small tubes one above the other— one right one totally wrong— no pressure!”
First a few questions

Answer by yourself

No google!
Complete the word below with a single letter without using the letter “E”

SEQUENC_
Make 4 equilateral triangles
The firefighter

You are the chief fire officer in charge of a team of firefighters. You are approaching a fire when the wind changes direction and the fire is blown towards you. Your nearest place of safety is a ridge 300m away. The fire will be upon you in 10 seconds - what do you do?
BREAKING NEWS
Twickenham Stadium annihilated by giant fucking dragon

BBC NEWS 16:36  EYEWITNESS: “FUNNIEST THING I’VE EVER SEEN”
Thinking

is slow

is effortful

is uncertain

Nevertheless we find successful thinking pleasurable (link between long term and working memory).

Critical thinking is tied to background knowledge (physical and cognitive)
TIGER
BEAR
LION
TIGER
BEAR
LION
Learn it right

What to learn
How much to learn
Why don't we learn
Learn it right

Inflexible v rote learning

The equator is:

“a menagerie lion running around the Earth through Africa”
Learn the right thing

How to tie shoe laces
How to put your socks on
How to do a squat
How to remove a champagne cork with a sabre
How to fall off a unicycle
Cognitive workload/ Working memory

7 plus/minus 2
4 plus/minus 1
what happens when you’re stressed increasing/decreasing cognitive workload

"Baseball is 90% mental -- the other half is physical."
Simplest Model of the Mind Possible*

Environmental Stimuli Information

Working Memory (site of awareness and of thinking)

Long-Term Memory (Factual knowledge and procedural knowledge)

*Adapted from Daniel Willingham’s Why Don’t Student’s Like School?
Learn lots!

It makes learning easier
It grows exponentially
the rich get richer!
Read and remember

CN
NFB
ICB
SCI
ANC
AA
Try and recall the letters
Now try

CNN
FBI
CBS
CIA
NCAA
Practise it right
Practice

Physical - til it flows
Cognitive - manage yourself
Teamwork
Planning - making the right decision
(Context specific training)

“The present notion (of talent) is deeply misleading. The power of practice, on the other hand, is grossly underrated” Matthew Syed
"Think! How the hell are you gonna think and hit at the same time?"
What to practise?

Core skills and knowledge (inflexible content)

Needs to be known well-overlearn (eg anatomy, physiology etc.)

Remember it later in life (curriculum)
Practice

Physical
Principles

Choose a loveable project
Make dedicated time to practice
Create fast feedback loops
Focus your energy on one skill at a time
Define your target performance level
Multitasking: the single best way to screw up both jobs.
Principles (2)

Eliminate barriers to practice
Practise by the clock in short bursts
Emphasize quantity and speed
Deconstruct the skill into subskills
Obtain critical tools
FOI didactic training
Practice

Cognitive
  Visualisation
  What ifs
  Stress management
Practice

Team

human factor

being in the same movie
But there is something else you can practise

• The next slide will ask you a question
• It will be on the screen for 10 seconds
• By which time you will have to have committed to an answer
• Ready........
A bat and a ball together cost $1.10

The bat costs $1.00 more than the ball.

How much does the ball cost?
Improve decision making
But we are not so smart
YOU are NOT so SMART

WHY YOU HAVE TOO MANY FRIENDS ON FACEBOOK
WHY YOUR MEMORY IS MOSTLY FICTION
AND 46 OTHER WAYS YOU'RE DELUDING YOURSELF

DAVID McCRANEY
FOUNDER OF YOUARENOTSOSMART.COM
Biases

**Availability**: reach for easiest option

**Self interest**: advance our personal interests

**Anchoring**: chain to an idea so don’t explore others

**Superiority illusion**
We think we know something (but we don't)

Familiarity bias

Recollection

Partial access—our mind is fooled

we mentally “check out”: rereading/shallow processing/recollecting related information
Other saboteurs of learning

**Ego:** the view we have of ourselves

“be open minded”

**Fear:**

Overcoming this requires: mindfulness and management of emotions
So how can we counteract this?
GREAT MINDS:
RICHARD FEYNMAN,
THE GREAT EXPLAINER
Tenerife 1977
583 dead

cognition, perception, comprehension, decision, implementation and then movement
Learn or Die!
Metacognition

Mentally rehearse your day
Look at where system 2 thinking may be relevant
Stress test your thinking—Devil’s advocate/Klein’s antemortem.
KNOWSLEY INDIVIDUAL TIME TRIAL
Tuesday 17th September

The Tour of Britain

KNOWSLEY SAFARI PARK

www.thetour.co.uk
Learn it right
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Perform it right
Take home message

• Now, the final piece of this talk, the take-home message from a working memory capacity standpoint is this: what we process, we learn. If we're not processing life, we're not living it. Live life.

• Peter Doolittle (TED)