The Days Are Just Packed:
Learning Surgery on the Go

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THE DAYS ARE JUST PACKED

A Calvin and Hobbes Collection by Bill Watterson
CALVIN AND HOBBES

IT'S TRUE, HOBBES, IGNORANCE IS BLISS!

ONCE YOU KNOW THINGS, YOU START SEEING PROBLEMS EVERYWHERE...

...AND ONCE YOU SEE PROBLEMS, YOU FEEL LIKE YOU OUGHT TO TRY TO FIX THEM...

...AND FIXING PROBLEMS ALWAYS SEEMS TO REQUIRE PERSONAL CHANGE...

...AND CHANGE MEANS DOING THINGS THAT AREN'T FUN! I SAY PHOOEY TO THAT!

BUT IF YOU'RE WILLFULLY STUPID, YOU DON'T KNOW ANY BETTER, SO YOU CAN KEEP DOING WHATEVER YOU LIKE.

THE SECRET TO HAPPINESS IS SHORT-TERM, STUPID SELF-INTEREST!

WE'RE HEADING FOR THAT CLIFF!

I DON'T WANT TO KNOW ABOUT IT.

I'M NOT SURE I CAN STAND SO MUCH BLISS.

CAREFUL! WE DON'T WANT TO LEARN ANYTHING FROM THIS.
Why do you need to learn???
Need to know how to take care of patients

“If you don’t know anything, it’s hard to learn anything else.”       ED Hirsch

10 yrs or 10,000 hrs.    A. Ericsson

“The next time you see something, someone’s life may hang in the balance.”
Repair of Aortobronchial Fistula Using Extraanatomic Grafts and Hypothermic Arrest
A VASCULAR ANASTOMOSIS

This treatise was first written in about 1985 as I was learning to do coronary anastomoses and thought no one was telling me how to do it (at least not very well). I have edited this document several times since.
What's the problem?

Is it ignorance or apathy?

I don’t know and I don’t care.
Great mysteries in medicine?

Myxomas, Barrett’s, pilonidal cysts, and why residents can’t seem to learn!

Former med students are the best learners on the planet, right??

The tacit message has been: you can forget everything you learn.
SWOT Analysis

- Strengths
- Weaknesses
- Opportunities
- Threats
S: best learners, good at tests

W: old paradigms don’t work

O: take a different tack

T: to you: failing the Boards
to us: RRC accreditation
to pts: bad outcomes
What can we do?

• Will offer some suggestions
• More granular than philosophical
• Will try not to be too long winded
(Perhaps the subject warrants more than one talk........)

• How to learn on the go
• Preparing for tests

• Preparing for operations
• Decision making
• Teaching others
What you should ask of your teachers

Don’t tell me things; help me learn.

Demand not information, but a way of learning.

The real purpose of education? Teaching people to teach themselves.

Jacob Neusner
“The Social Contract Between Students and Teachers”
Studying for students & residents
Have a seat Kermit. What I’m about to tell you might come as big shock...
Attitude

Should love to learn
Anosognosia: the neglect syndrome
Must be active not passive
Use the language of commitment

- Sir, I want to be a doctor will all my heart.
- You can't control my spirit, gentlemen.
- You can't keep me from learning, you can't keep me from studying. I ... will not go away.
- Is that all?
- I hope not, sir.
Figure 1. Quality of Experience as Relationship between Challenges and Skills.
What's your learning style?

**Gutenberg 1440**

**Schlain: The Alphabet vs. The Goddess**

**Mike Mallare: read less, listen more**

**Special Forces: find your best time**
Studying on the go....

7 Habits: first things first

Study guides: The Recall Series, Apps

Flash cards: Oxford series, make 'em

Q Stream

Always have something with you
What should you read?

Journals: subscribe
What else should you read?

“They hide that ‘stuff’ in books………..”
Mark Iannettoni, MD

“Designed to be read in an evening....”
Secrets of speed reading

Read intro and conclusions
Read headings, legends

Sort out organization of material
Read the end first

Make the book comfortable to hold
Skim to get overview of ideas

Don’t read aloud, push with finger
Take a course
Aoccdnig to rseerach at Cmabrigde Uninervtisy, it deosn't mttaer in waht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rght pclae.

The rset can be a total mses and you can sitll raed it wouthit porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe.

Amzanig huh?
“I can read a physics book in an hour……

…… because I only pay attention to what I don’t already know.”

Commander ‘Tex’ Leverett
Columbia High School, 1970
QSTREAM
(Interactive Spaced Education)

The forgetting curve (~80% in 30 days)

The spacing effect (increased retention)

The testing effect (active learning)

Fun for learners
Some study tips

Start with a matrix

How many times till it takes?

Take action: notes, highlight, develop them

Look things up

Variety is the spice of life
Proven study adjuncts

Change locations

Music is good: loud music is best

Fatigue is bad: sort out your caffeine dose

Movement is good: stretch, walk

Chew gum
More study adjuncts

Make flash cards
Write on scratch paper
Challenge your memory
Say things out loud (record 'em sometimes)
Vary conditions with each review
Planning out study time

Write out a plan

Keep a record of what you did

Break up the work
How can you make it stick?
Sniff: new mown hay best, candles anyone?

Chew gum: may increase oxygen delivery

Cut calories: 30% down yields 20% gain

Add fat: olive oil activates the amygdala

Take Mg++: works in rats, an apple a day!
Be dour: negative emotions = less mistakes

Power nap: 1 hour = 40% improvement

‘Sleep listening’: listen to bullet points
The Wisdom of Crowds

An environment friendly to learning

Study with others

Bouncing ideas off pals: forums, list-serves

Email notes after discussions

Emulate successful learners
Scraps of time

Skim journals during TV time with family

Get info on iPod

Audio-Digest Surgery

SESAP Audio Companion

Good to listen to an authority
Locking in it......

Make associations
Be a storyteller
Learn in the moment
Prepare daily
Reflect
Review (informal, courses)
Remembering what you study

Take notes

Look something up every day

Reflective writing
Keeping up with what you've learned

Filling in the matrix
Keep a log
Parkland Papers system
Cut up a textbook
Electronic library
The Fedoruk flash drive
Hypertrophic Cardiomyopathy (HOCM)
Cardiology Presentation
ACC recommendations
Chapter 48, Kirklin
Diagrams & Pictures

Lynn Fedoruk, MD
British Columbia, Canada
To teach is to learn twice

Teach someone else
Set an example: the leadership of seniors

Small talks: become an expert
Blurbs: write out a summary & share it

Rounds: a point at each door
Being Held for Questioning
Why Do We Have Tests Anyway????

To insure product of system
Pushes us to ‘put the hay in the barn’
To provide ‘inspiration’
Feedback is necessary, intermittently
“I think we’re the only guys here with training wheels!”
The Mystery of Tests

Why are some people good at them? (prior results are predictive)
How Do You Prepare for the Tests?

Know the answers
Don’t study multiple choice questions
(at least not often)
Simple questions are good

“The questions have been painstakingly researched, but the answers have not.......”
Test Taking Strategies

Answer the question, then look for answer

Blitz through

Later questions may jog memory

Mark uncertain ones to return to

Answer 'em all (I choose 'C')
Frank Miele’s Suggestions

'No look' questions
(don’t look at answers)

'Peek' questions
(peek & answer)

'Look' questions
(use scratch paper: X’s or ?’s)

Never leave a question unanswered
(best chance is first, might not have time)
More test taking strategies

Rhythm of concentration
about every 20 minutes or 6 questions

Parsing the question
write key word, draw
make a table
don’t read and re-read

Use as much scratch paper as much possible
Computer Tests

Paper is very important here, too
(often can’t see everything at same time)

Best short-term memory: 7 facts
(most can retain 3 to 4)

Most try to retain too much
(and forget the core of the question)
More on computer tests and scratch paper

Number paper with number of questions

Follow # with letters
  (so you can eliminate them as you go)

Don’t know answer?
  (2 or 3 keywords, guess, mark, move on)

Try to never re-read the question
What do you want your mentors to do?

(Leo Gordon in “So you failed your boards.....”)  

- Force demonstration of knowledge daily
- Expose ignorance with Socratic method
- Avoid prioritizing your self-esteem
- Be a taskmaster, demanding the best
Dr. Gordon: continued

Make you act like a professional not a kid

Push you to maintain continuity of care
Not allow you to be indecisive

Take charge at M&M. Best hour of the week.
At one time I thought the most important thing was talent.

I think now that the young person must possess infinite patience, to try and try until it comes right.

If you have that, then I don’t think talent makes much difference, whether you’ve got it or not.

William Faulkner
I was born for this moment......

I expect to live intensely......

But, I have no illusions.

I expect an ordeal, but it will be an ordeal of grandeur.

Webb Chiles
Son, I don’t care if you can read or write, I just wanna know if you can play football.
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All questions have been painstakingly researched though the answers have not.

Ambiguous, misleading, or poorly worded questions are par for the course.

Michael Feldman
The Unvanquished
THE UNVANQUISHED

More Than Survival in Surgical Residency

John Pilcher
Doug Newburg
Curt Tribble

Non Illegitimi Carborundum!
Listening to the data is important, they say, but so is experience and intuition. After all, what is intuition at its best but large amounts of data of all kinds filtered through a human brain rather than a math model?

Steve Lohr, NY Times
December 29, 2012
Why might I have some ideas?

- Pretty good student
- Pretty good on medical exams
- Ran clerkships, residencies, etc
- Have seen it all......
To the untrained eye ego-climbing and selfless climbing may appear identical.

What the ego-climber rejects is the here. He wants to be further up the trail but when he gets there he will be just as unhappy...... because he imagines his goal to be external and distant.

Robert Pirsig
You gotta own it

( Beware the Rain Man )

Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?

T. S. Eliot
The hard part about being a bartender is ……

figuring out who is drunk
and who is just stupid.

Richard Braunstein
quoted in JVS 12-12
It's obvious you won't survive by your wits alone.

Brains
- Competitors
- Beavers
- You

A Dilbert book
By Scott Adams