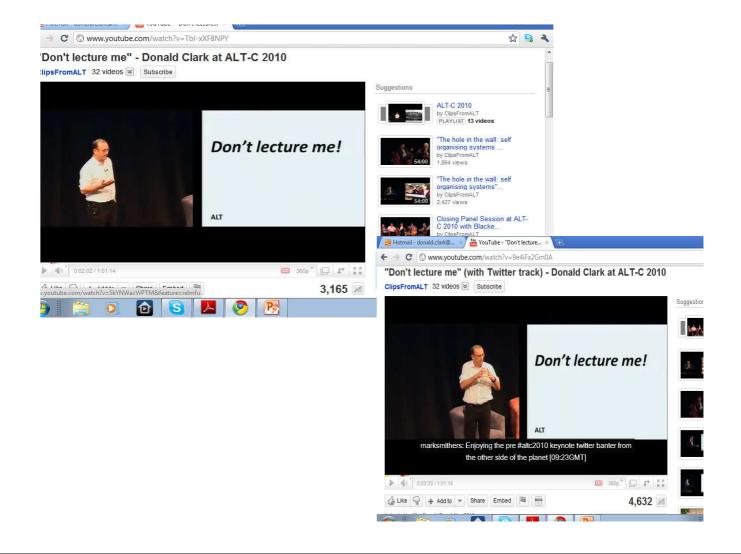
# Don't lecture me!







"Now, I cannot see that lectures can do so much as reading the books from which the lectures are taken.

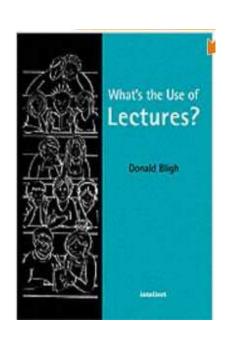
I know nothing that can be best taught by lectures"



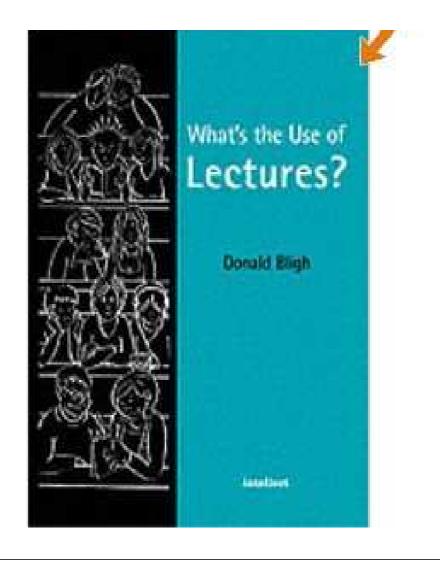
**Samuel Johnson** 

## **Double standards**

Little changed: dominant use



Plural of anecdote is not data!



# 1. Tyranny of location

- Costs too high
- Need maintenance
- Mostly empty

# 2. Tyranny of time

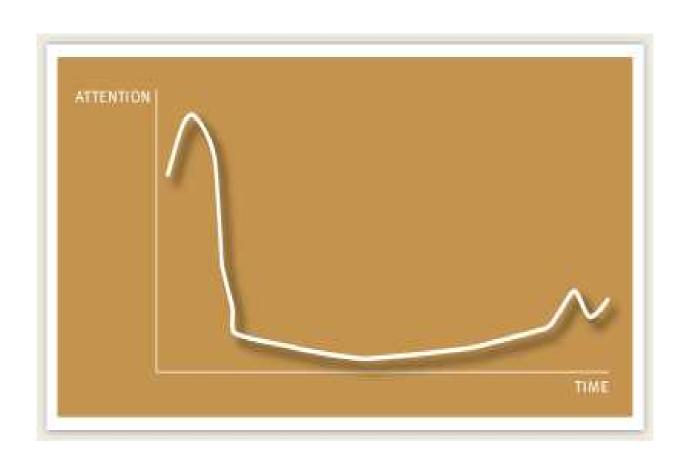
- Babylonian hour
- Travel time to & from
- Padded out





# 3. Attention problems

- •Student attention falls (Johnstone 1976, Macmanaway 1970, Trenaman 1968 etc)
- •Lecturer performance falls (Lloyd 1992)
- Heart rates fall (Bligh 2000)
- •Take less notes (Scorba 1992)
- •<25 mins (Cowan 1981)
- •20-30 mins (Bligh 2000)
- •Breaks beneficial (Wilkinson 1959, Weaver 1985, Ruhl 1995)



# 4. Do lectures inspire & motivate?

- •Bligh: 15 studies show lectures less effective than other methods for encouraging positive attitudes, only 1 found the reverse
- •Hale Report: of 7 teaching methods. 'lectures' ranked 7<sup>th</sup> for efficiency, 5<sup>th</sup> for enjoyment, 1<sup>st</sup> for frequency
- McLeish reported distaste for lectures in students from 10 Colleges of Education and several Universities

# 5. Do lectures aid critical thinking?

- •Bligh: 21 studies found lecturing to be less effective than: discussion, reading, individual work in class and so on. He could not find a single study to show lecturing to be more effective than another method for the promotion of thought.
- •Bloom: during lectures students' solve problems, synthesise or inter-relate information only 1% of the time, mostly "passive or irrelevant thoughts about subject"
- •CLA longitudinal study on 2,322 students for 4 years from 2005-09 across broad range of 24 U.S. colleges and universities

## 6. Do lectures teach values/attitudes?

- •Bligh: Dozens of studies show that lectures are less effective than other teaching methods
- •Kochan (2003), Dobbin (2006), and Kalev (2011) show that diversity training made no measurable difference, sometimes a backlash

# 7. Do lectures teach knowledge?

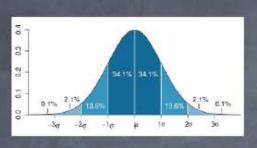
 Bligh: 'no significant difference' Buildings & staff expensive Go for cheaper options!

Bloom: The 2 sigma problem

**Group 1: Lecture** 

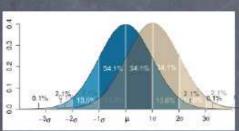
Group 2: Formative feedback

Group 3: One to one

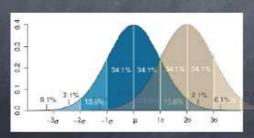


#### Control:

50% above the mean 2% doing "really well"

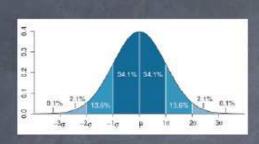


Mastery Learning: 84% above control mean 16% doing "really well"



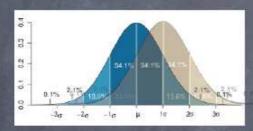
### Tutoring:

98% above control mean 50% doing "really well"

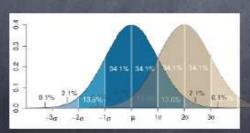


#### Control:

65% time on task
.60 aptitude/achievement
correlation



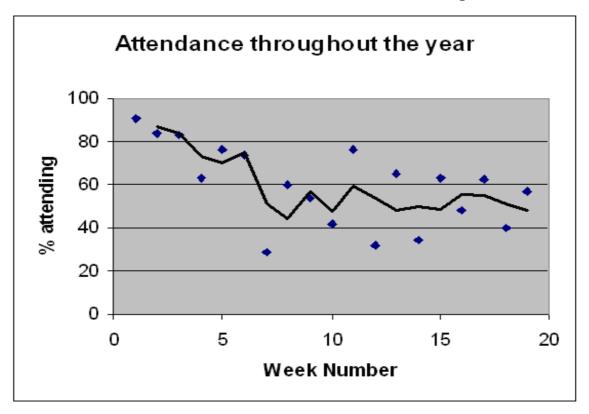
Mastery Learning: 75% time on task .35 correlation



## Tutoring:

90% time on task .25 correlation

# 8. Is student attendance a problem?



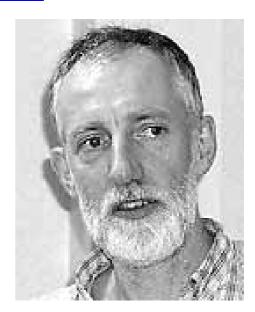
www.ics.heacademy.ac.uk/italics/vol5iss2/burd-att-italics-06-

# **9. 20 'terrible' reasons for lecturing** Graham Gibbs (1981)

http://www.brookes.ac.uk/services/ocsd/2 learntch/20reasons.html

Does it give students a rich and rewarding educational experience?

NO



## Gibbs 9 defensive arguments:

- 1. Should be 1 hr. If I can do 1 hour, so can they
- 2. Only way to make sure ground is covered
- 3. Best way to get facts across
- 4. Best way to get students to think
- 5. **Inspirational**: improve students' attitudes towards subject, & students like them
- 6. Makes sure that students have proper set of **notes**
- 7. Students incapable of working alone
- 8. Criticisms only apply to bad lecturing
- 9. Value can only be judged in context of **other teaching & learning activities**

## Gibbs 11 'real' reasons for lecturing

- 1. Ignorant of evidence on effectiveness of lectures
- 2. **Ignorant of alternatives** to lectures
- 3. Alternatives involve more work
- 4. Changes take time
- 5. Shortage of **books**
- 6. Shortage of **learning resources**
- 7. Attitudes stop change: lectures a coping strategy
- 8. Institutionalised in way teaching hours counted
- 9. Institutionalised relationship between courses
- 10 Course validation & external forces
- 11. We don't know how to design courses

# 10. Institutional inertia Cathy Ellis

(Lecturer English Univ Huddersfield)

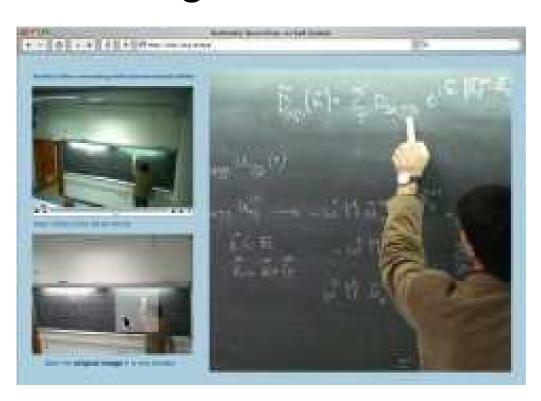
"Default" or "Normative discourse"



"This is evident in our job titles, our institutional architecture, our workload models, our quality assurance strategies, our timetabling software and countless other systems and principles that define and demarcate our working lives."

http://tinyurl.com/6xgle43

## **Recording lectures**



# Recording lectures

Student survey of 5 Diploma courses
All but one watched recordings & found useful
Advantages noted by students:

- 1. Original lecture went too fast
- 2. Review lecture
- 3. **Revision** for exams
- 4. Clarification of difficult handwriting
- 5. English was student's second language
- 6. Avoid writing notes (focus on lecture)
- 7. See lecture after missing it through illness
- 8. Relax when tired of reading



Students watching 13 hours a week on average Completely revolutionising the traditional teaching & learning model

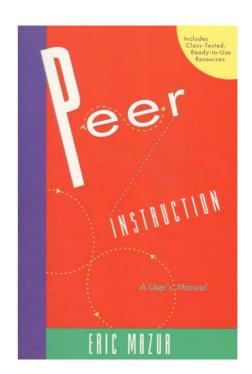
"One year of ICTP diploma courses on-line using the automated EyA recording system" - Computers & Education 53 (2009) 183-188.

http://sdu.ictp.it/eya/about.html

# YouTube EDU

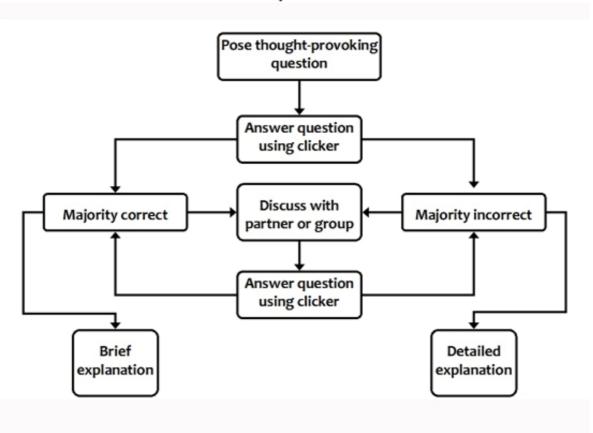


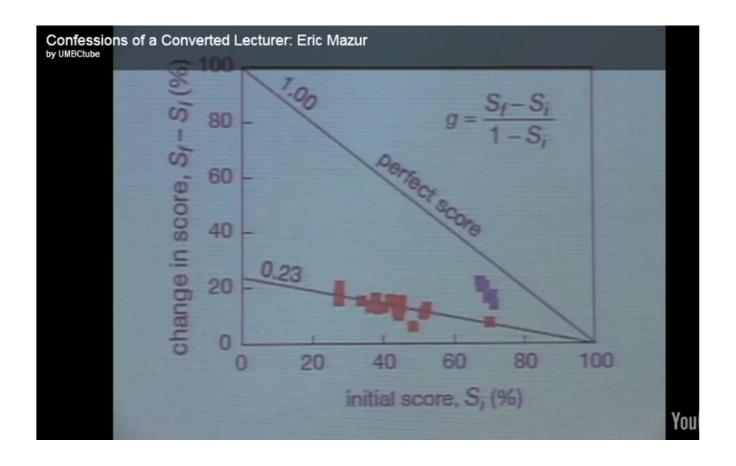


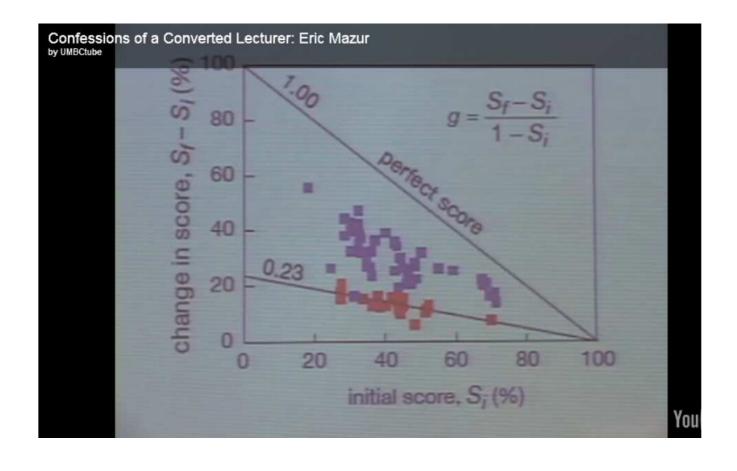


"Data is not the plural of anecdote"

### The ConcepTest Process



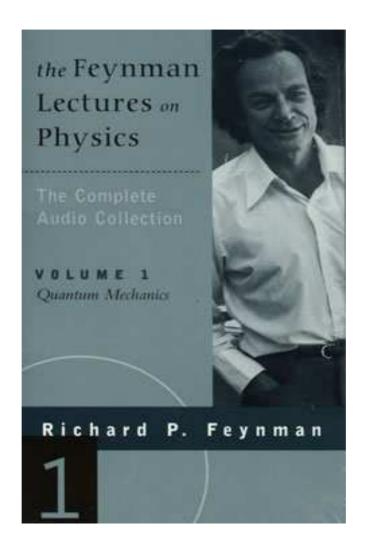




http://fm.schmoller.net/2010/05/data-is-not-the-plural-of-anecdote-eric-mazur-talks-about-how-to-improve-large-group-learning.html

http://www.nature.com/nature/journal/v425/n6955/full/42 5234a.html





### **Conclusion**

- •"one serious difficulty...wasn't any feedback from the students to lecturer"
- •"My own pint of view is pessimistic. I don't think I did very well by the students.... the system was a failure."
- "It's impossible to learn very much by sitting through a lecture"

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