



# THE TEACHING DOCTOR

Illuminating Evidence-Based Ideas for Effective Teaching



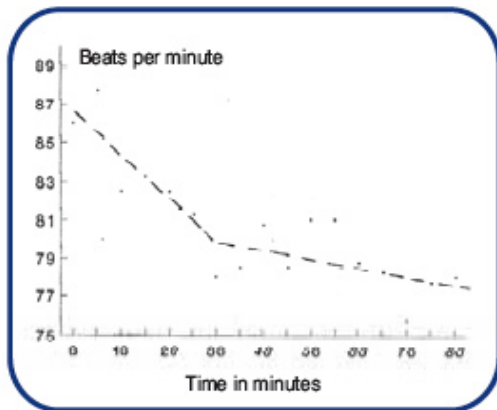
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## Small Group Learning: Where's the Evidence?

The 2007 accreditation report recommends that Queen's School of Medicine increase opportunities for **Small Group Learning**. But where's the evidence that small group learning is more effective than lectures?

*What's wrong with Lectures?*

Well, if your goal as a teacher is to provide information that students will **retain** and subsequently **transfer** to other settings (e.g. clerkship), consider the following:



*Students' heart rates in un-interrupted lectures (Bligh, 1998)*

- Students' attention in a lecture steadily decreases over a 30 minute period (*Biggs, 1999; Bligh, 1998*)
- Students are not paying attention to what is being said in a lecture 40% of the time (*Pollio, 1984*)
- No more than 10% of students surveyed were able to answer a basic question immediately after the lecture (*Weiman & Perkins, 2005*)
- Lectures rarely provide evidence of students' understanding and knowledge. That is better demonstrated through seminars and small group learning (*Bligh, 1998; Brown & Manogue, 2001*)

*Does that mean you should never lecture?*

Not at all. Lectures can be a good method for transmitting information, to model thinking and decision-making (*Bligh 1998*). But remember. . .when learners are overwhelmed by the amount of novel information presented to them (more than 7 items in short term memory), performance degrades (*Pass, Renkl & Sweller, 2004*). In fact, **retention** and **transfer** are enhanced when long term memory is engaged (*Paas, Renkl & Sweller, 2004*). Long term memory is activated when students have an opportunity to build on their own experiences, knowledge and preconceived notions (*Mayer, 2008*). Therefore, we need to create learning experiences where there is a high degree of **interaction** between the students and the instructor, among students and between the students and the material. These are the conditions found in **small group learning**.

*With respect to small group learning:*

- Students placed in small groups, where they were challenged to solve problems, scored higher on exam questions than those students who only attended weekly lectures. As well, the quality of student learning improved. Students who experienced small group learning performed better on exam questions that required higher level thinking (*Preszler, 2009*).

*The bottom line:*

Effective lecturers carefully select key information (*Brown & Manogue, 2001*). Skilled performance however, develops when learners are able to apply that information to real life situations. Therefore, to enhance retention and transfer effective teachers use a deliberately designed blend of lecture and small group learning experiences.

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See also:

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