Supervising students as a PhD-candidate

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The most effective learning happens when we can fulfil these criteria:

- ✓ We really want and need to learn
- ✓ We know how we will apply it
- ✓ We will be rewarded one way or another for having it
- ✓ We can draw on our own experience
- ✓ We can learn at our own pace and style
- ✓ We are stretched and challenged
- ✓ We are supported
- ✓ We are treated as an individual with unique needs by whoever is helping us learn.

Jenny Rogers (2001). *Adults learning*. Buckingham: Open University Press.

Teaching myths

- Some students are inherently lazy, rebellious, or difficult
- Anyone can teach
- The more education or experience, the better the teacher
- Keep a professional distance
- Set high expectations
- Public praise gives students a big head, and public rebukes keep them in line
- A magic curriculum, method, or theory will work for everyone

Liesveld, R. & Miller, J.A. (2005). *Teach with your strengths: How great teachers inspire their students.* New York: Gallup Press.

One more myth:

If you are good at research, you are good at teaching.

(Marsh & Hattie, 2004, p. 2). They find that the relationship between quality of teaching and research is close to zero (.06) irrespective of type of institution, domain of study or type of teaching or research measure. On the individual level they find that: *"Those who spend more time on research do have higher research outcomes, but those who spend more time on teaching do not seem to be more effective teachers".*

Teaching is filled with ironies (Ironies of effective teaching: Deep structure learning and constructions of the classroom [Roberts, K.A. (2002) *Teaching Sociology,* Vol.30, *No.1*,1-25]

- The content we teach is important, but if we focus only on content we may fail to help our students develop the deep structure perspectives that enhance their ability to practice the discipline or to analyze society.
- Intellectual development is enhanced through benign disruption, yet this disruption may interfere with the student/instructur rapport and supportive environment that is so important to effective teaching.
- Careful organization and high levels of energy can keep students engaged in the material, but that very organization and energy can intimidate students and inhibit their willingness to take risks.

Advantages of peer assessment (Stephen Bostock - http://www.keele.ac.uk/depts/aa/landt/lt/docs/bostock_peer_assessment.htm)

- giving a sense of ownership of the assessment process, improving motivation
- encouraging students to take responsibility for their own learning, developing them as autonomous learners
- treating assessment as part of learning, so that mistakes are opportunities rather than failures
- practising the transferable skills needed for life-long learning, especially evaluation skills
- using external evaluation to provide a model for internal self-assessment of a student's own learning (metacognition), and
- encouraging deep rather than surface learning

Assessment, feedback, marks and learning

”Most students work for marks and want their assignments to ’count towards the degree’ in order to put their best work into them; but increasing the emphasis on grades cannot compensate for lack of interest in what is being learned, the opportunity to be self-directed, and the feeling that your teachers care about you”

”Cynical messages about what will and will not be rewarded in assessment, creating excessive anxiety, and a perceived emphasis on recall of detail and trivial procedures: all these conduce to superficial approaches”

(Ramsden, P. (2002). *Learning to Teach in Higher Education*. London and New York; Routledge/Falmer, s. 252).

Feedback:

”It is impossible to overstate the role of effective feedback on students’ progress in any discussion of effective teaching and assessment. Students are understandably angry when they receive feedback on an assignment that consists only of a mark or a grade. I believe that reporting results in this way, whatever the form of assessment, is cheating students. It is unprofessional teaching behaviour and ought not be tolerated” (Ramsden, P. (2002). *Learning to Teach in Higher Education*. London and New York; Routledge/Falmer, s. 193).

Feedback

- Hattie (1987/2007): feedback is the one factor that contributes the most towards learning.

- In that case; two questions arise:
  - ✓How should we give feedback?
  - ✓How can we make sure that students actually use the feedback?

Hattie, J. (1987). Identifying the salient facets of a model of student learning: a synthesis of meta-analyses. *International Journal of Educational Research, 11*, 187-212.

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, Vol. 77, *No. 1*, 81-112.

Hattie, J. (2010) *Visible learning. A synthesis of over 800 Meta-analyses Relating to Achievement.* London: Routhledge.

Feedback needs to provide information specifically relating to the task or process of learning that fills a gap between what is understood and what is aimed to be understood

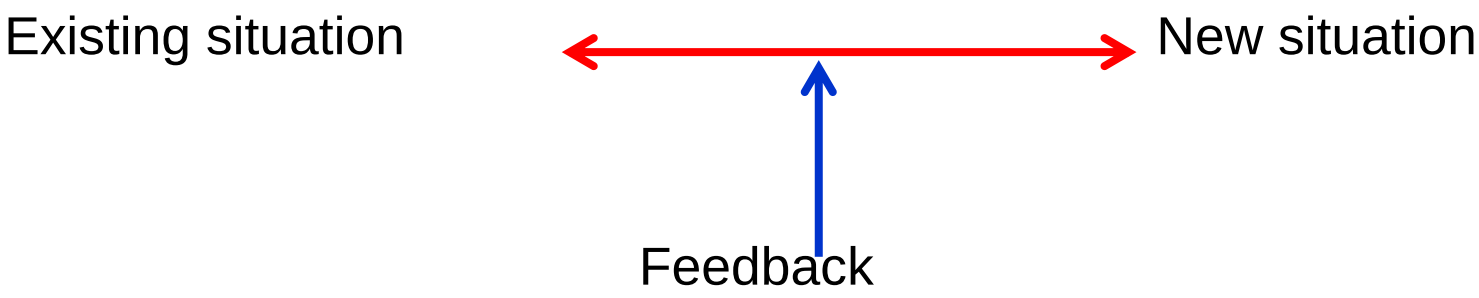
The learner needs an answer to the following three questions:

1. Where am I going (”feed up”)
2. How am I going? (”feed back”)
3. Where to next? (”feed forward”)

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, vol. 77, nr. 1, 81-112.

«Feedback is the one factor that contributes the most towards learning».

Learning as problem solving:



Three questions:

1. Where am I going (what is the goal)?

   Feed up

2. How am I going (where am I in relation to the goal)?

   Feed back

3. Where to next?

   Feed forward

The three questions work at 4 levels:

Task level (how well tasks are understood/performed)

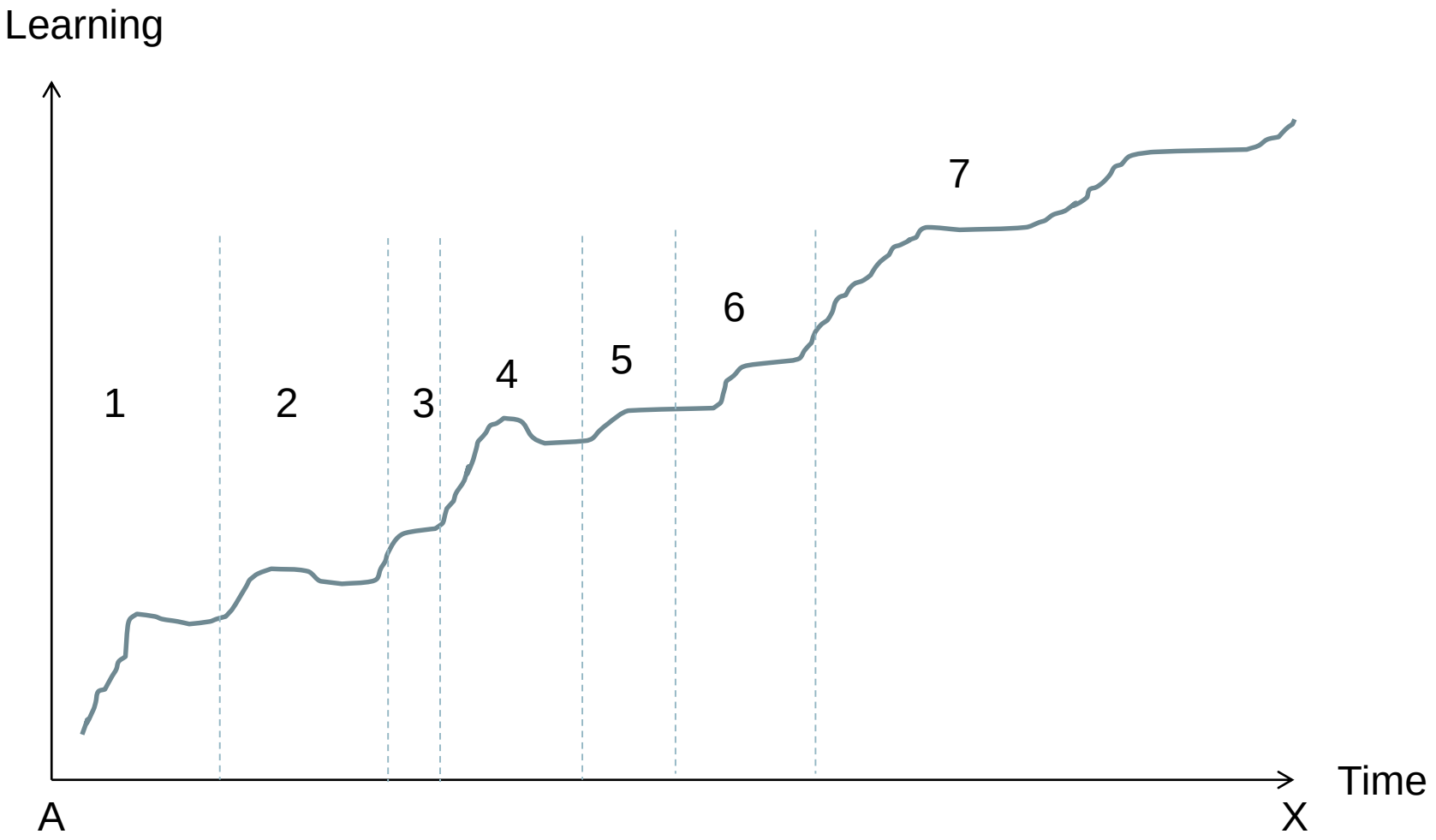
Process level (the main process needed to understand/perform tasks)

Self-regulation level (self-monitoring, directing and regulating of actions)

Self level (personal evaluations and affect – usually positive – about the learner)

The effects at the self level are too diluted, too often uninformative about performing the task, and too influenced by students' self-concept to be effective. The information has too little value to result in learning gains (Hattie & Timperley, 2007, s. 96).

The ups and downs of learning



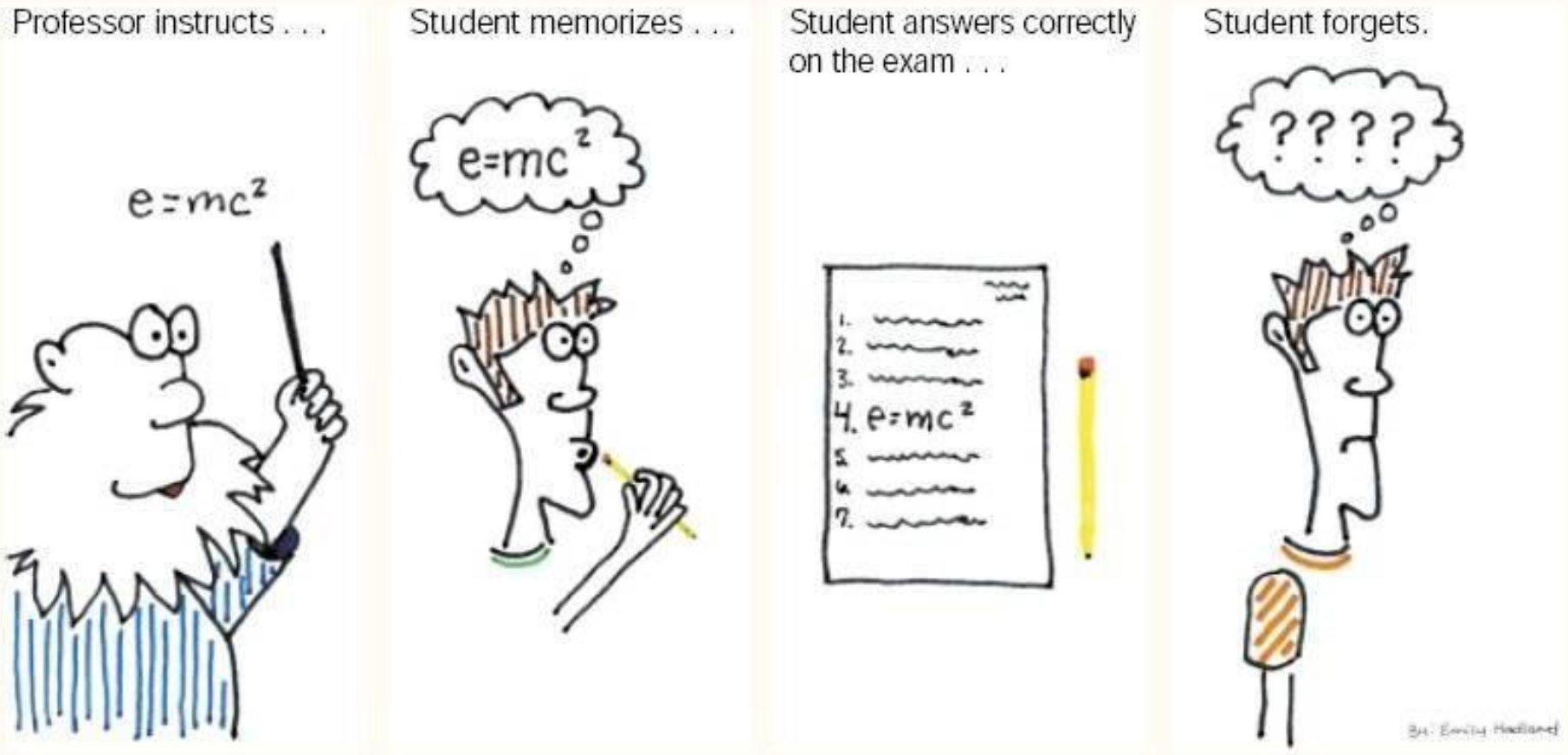


Figure 1 | **The quantum theory of education.** Courtesy of Emily Hadland.

Source:
Molecular Cell Biology, “The future of education in the molecular life sciences”, Bell Ellis, 2001 Macmillan Magazines Ltd, p. 222, March 2001, VOL 2.

The unimportance of feedback (for the behaviour of professors)

Do university teachers, like good wine, improve with age?

195 teachers who were evaluated continuously over 13 years (6,024 classes, an average of 30.9 classes per teacher).

Results; absolutely not!

(But, - good teachers did not become worse).

Marsh, H. W. (2007). Do University Teachers Become More Effective With Experience? A Multilevel Growth Model of Students' Evaluations of Teaching Over 13 Years. Journal of Educational Psychology, Vol. 99, No. 4, pp.775–790.

Many professors seem to believe:

- That students learn what the professors say
- That students learn only as long as they (the professors) have said it
- That the best way to say it is to invite students to large lecture halls for 2 times 45 minutes every so often
- That student activity is good but only as long as it does not steal time from what really matters; what the professors say
- That they are good teachers

- That they themselves learn best when they read, write and discuss with colleagues (in that order)

Curriculum design – how and when do we lecture

14000 medical students (1989-1998) in 8 Dutch medical schools.

- time available for self-study was the only determinant of graduation and study duration.
- lectures were negatively related to study duration
- extensive lecturing may be detrimental in higher education

«Generally, students who were part of a program that allowed for more time for self-study completed their training faster and in larger numbers. These effects were sizable…... The more lecturing, the less time for self-study, the fewer students completing their studies» (Schmidt et al., 2010,p 296-7).

Schmidt, H.G., Cohen-Schotanus, J., van der Molen, H., Splinter, T.A.W., Bulte, J., Holdrinet, R. & van Rossum, H.J.M. (2010). Learning more by being taught less: a «time-for-self-study» theory explaining curricular effects on graduation rate and study duration. *Higher Education, 60*, pp. 287-200.

Good teachers …..

- Enthusiasm
  - love of their subject (the joy of knowing/seeking knowledge)
  - love of teaching (a need and willingness to share)
- Concern
  - audience (respect thy audience! – preparation)
  - tasks (what is challenging?)
  - design (how and when does it take place?)

Nira Hativa, Rachel Barak, Etty Simhi (2001). The Journal of Higher Education, Vol. 72, No. 6, pp. 699-729

- “Exemplary teachers enjoy teaching, show enthusiasm for the subject, have excellent command of the language and good delivery, inject humor, and introduce dramatic elements. They make an earnest attempt to promote students' learning, and actively involve them in the learning process through questions and discussions …. They offer clear, organized, and interesting presentations, and they communicate positive regard to students and motivate them …. A review of observational studies on effective classroom teaching behaviors (Murray, 1997) found enthusiasm/expressiveness, clarity of explanation, and rapport/interaction to be the main effective teaching characteristics” (Op.cit. p. 701).

In other words, easy!

All we have to do is:

- be enthusiastic
- organise ourselves
- make sure we are informed (about our audience)
- make room for active participation
- reflect on the follwing questions:

What does it mean to learn? What does it mean to possess knowldge?

Result? Curiosity (internal motivation) intact.

Some challenges…

- We often believe that what we do is good, whilst the audience does not agree
- Often a discrepancy between what we know/believe (about learning), and the way we teach
- The use of technology does not necessarily make us better teachers, nor does it necessarily mean that students learn better («more is not better»)
- Being good at research does not necessarily mean that one is a good teachers (close to zero correlation).

The unorthodox behavior of great teachers

- Create flexible structure
- Share control
- Express emotions

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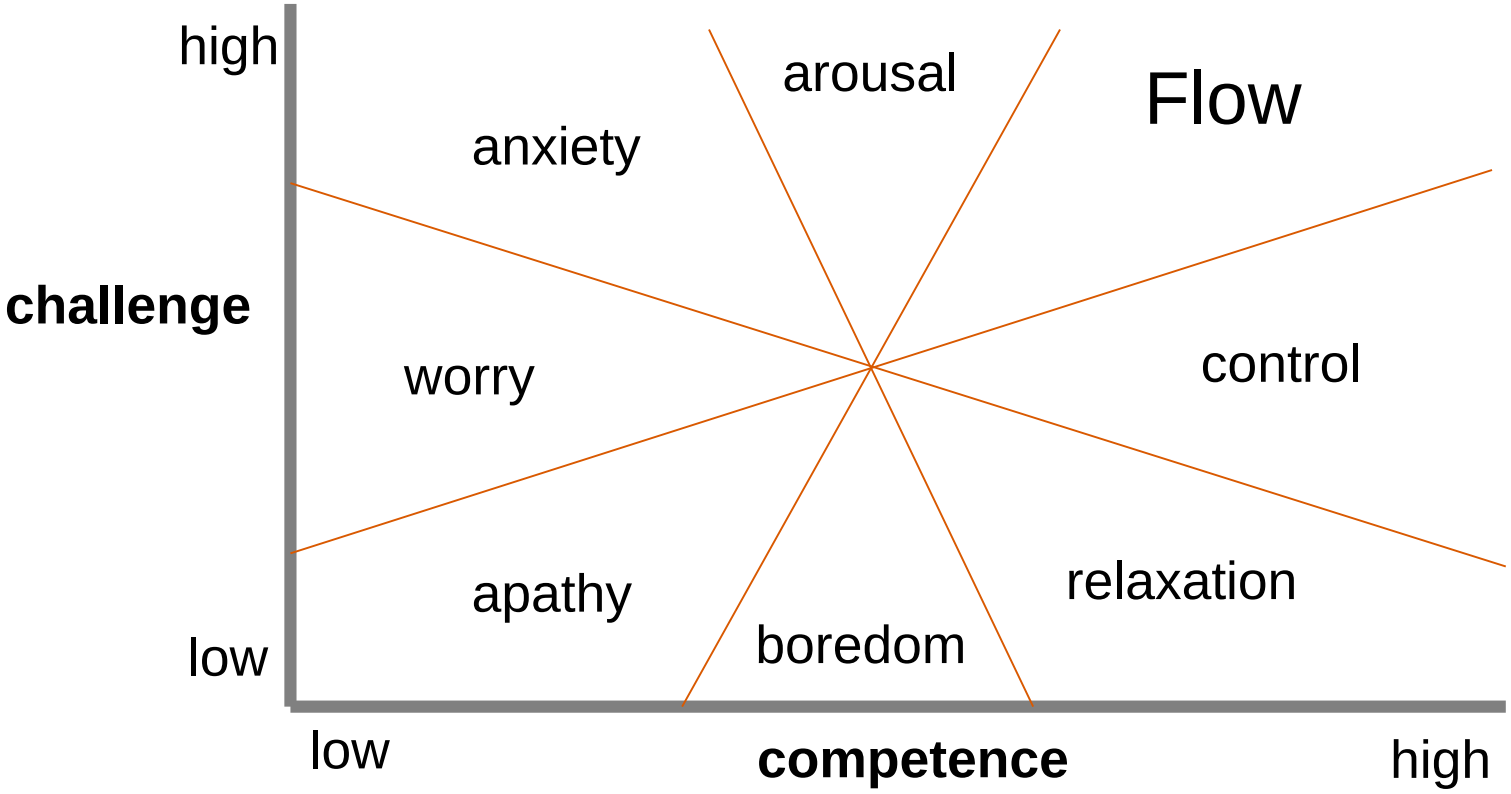
Motivation: cause or effect?



(Csikszentmihalyi, 1990) Flow: The Psychology of Optimal Experience", New York: Harper & Row.

Some key points related to learning

- Autonomi
- Competence
- Relatedness

Ryan & Deci – self determination theory

Factors that promote/inhibit learning among adults

Inhibit

- Negative self worth
- Negative expectations (own and others)
- Too low/too high demands
- Little or negative feedback
- A learning community characterised by negativity and cynicism
- Lack of self perceived control
- Time pressure

Promote

- A learning community (community of practice) characterised by openness, tolerance, respect and cooperation
- High level of self efficacy
- Self perceived control
- Previous successes
- Positive/realistic expectations and demands
- Feedback

Factors which encourage deep learning

1. An appropriate motivational context
2. A high degree of learner activity
3. Interaction with others, both peers and teachers
4. A well-structured knowledge base

Source: Toohey, S. (2002). *Designing courses for higher education.* Buckingham: Open University Press.