

Self- and Peer-Assessment: can it influence student learning outcomes?

- Paul Orsmond Staffordshire University
- Teach biology – University Learning and Teaching Fellow – interest in assessment

Outcomes of Learning

- Many students are accomplished at complex routine skills in science, mathematics and humanities, including problem solving
- Many have appropriate enormous amounts of detailed knowledge, including subject specific terminology
- Many are able to reproduce large quantities of factual information on demand
- Many are able to pass examination

Outcomes of Learning

- But many are unable to show that they understand what they have learned, when asked simple yet searching questions that test their grasp of content. They continue to profess misconceptions of important concepts, their application of their knowledge to new problems is often weak. Conceptual changes are ‘relatively rare and fragile and context-dependent occurrences’ (Prosser and Trigwell 1999, page 117)

Outcomes of Learning

- Marton and Saljo (1976) notion of deep and surface learning
- Deep learning is associated with developing personal understanding, linking ideas together using integrating principles and relating evidence to conclusions
- Surface passive acceptance of information and ideas, lack of recognition of guiding principles or patterns (Harlen and James, 1997, page 368)

Teaching and Student Learning

- The quality of learning linked to perceived learning environment (Trigwell and Prosser, 1991, page 263)
- Prosser *et al.* 1994 different descriptions used by teachers to conceptualise their student learning and their teaching
- Trigwell *et al.*, 1999 who demonstrated a link between approaches to teaching and student learning.
 - Information transmission = surface learning
 - Student-focused (conceptual change) = deep learning.

Assessment and Learning

- Biggs (1996) Constructive Alignment.
Constructive how we learn, and alignment, how we emphasis alignment between the objectives of a course, assessing practice and learning activities.
- Self- and peer-assessment can be formative (learning activities) and summative (end-point) assessment.

Assessment and Learning

- *'You shallow learn for an exam but you don't know the stuff. It's poor learning which you quickly forget'.*
- *'You think 'Just let me remember this for the next hour and a half'. Then you don't care'.*
Brown et al. (1998)

Assessment and Learning

- *everything else we do here, like essays and so on are just not relevant to real life*'.
- *we need to understand how presentations are assessed; 'what does a mark of 70% mean?*
- These example illustrate issues related to memorising work, authentic issues related to assessment topics and making judgements. Impacts on student learning. Assessment done to the student.

Self- and Peer-Assessment

- *‘Whenever we learn we question ourselves. How am I doing? Is this enough? Is this right? How can I tell? Should I go further? In the act of questioning is the act of judging ourselves and making decisions about the next step. This is self-assessment’* (Boud’s 1995)
- Peer assessment defined by Topping *et al.* (2000) as *‘An arrangement for peers to consider the level, value, worth, quality or successfulness of the products or outcomes of learning of others of similar status’*.
- Students closely involved in assessment.

Self-Assessment

- Formative learning – shaping
- *whenever we learn we question ourselves. How am I doing? (**Feedback/standards**) Is this enough? (**Feedback/standards**) Is this right? (**Feedback/criteria**) How can I tell? (**Criteria**) Should I go further? (**Criteria and feedback**) In the act of questioning is the act of judging (**Criteria/standards**) ourselves and making decisions about the next step (**Future Learning**). This is self assessment’.*

Criteria, Feedback and Standards

- Criteria – against which judgements are made - consideration on construction. Common understanding between tutor and students
- Feedback – students need to understand/recognise where they are and where they need to be/able to close the gap
- Standards – level of attainment or degree of quality

Self- and Peer-Assessment

- Hinett (1995) *'It's painful, but it works and I learn more'* or *'I like self-assessment because I can reflect back and know what I should study'*
- Cowan *et al.* (1999) *'self- assessment did make me realise that I need to develop myself further into being more critical of my work. I tend to rely too much on feedback rather than critically evaluating myself. Self- assessment did give me the opportunity to question this'*

Learning Encouraged by Self-Assessment

- Boyd and Cowan (1985)
- What is your real priority in your work this week
 - 10 – wished to be able to answer questions similar to those on tutorial sheets
 - 3 wished to keep up to date with worked issued to them
 - 2 wished to understand their notes sufficiently to be able to apply them.

Learning Encouraged by Self-Assessment

- The self-assessment programme
 - 3 wished to improve their ability to conceptualise viable and distinct solutions to real design problems
 - 1 was attempting to integrate both theoretical and practical requirements to give a total approach to design
 - 1 wished to pursue a particularly design problem and its implications.

Self- and Peer-Assessment

- Focus on student learning – consider a student's perspective
- Autonomy in learning
- Learning socially constructed – takes into account students' goals and experience
- Can encourage reflection
- Needs to engage student with central problems and issues in specific fields - context and content specific

Assessment for Learning

- Carl Rogers 1951
 - What is desired in students is ‘growth and this involves change in self’
 - Goals of education. Students should be:
 - Critical learners able to evaluate the contributions made by others
 - Able to cooperate effectively with others in various learning activities
 - ‘Even in our culture these are functional goals of very few educators’

Assessment fit for purpose

- Future Learning
 - The Learning Society (Dearing Report, 1997)
 - Supercomplex world (Barnett, 2000)
 - Sustainable assessment (Boud 2000)
 - PDP – reflective practice (Cowan 2002)
 - Employability (Knight and Yorke, 2003)
 - What next – ?
 - Realisation of Carl Rogers ‘goals of learning’

Self- and Peer-Assessment: instruments of change

- Need to consider intention and strategy – intention - to get students to work together will be unsuccessful if the strategy is just to be seen creating an opportunity – the intention has to be improving the quality of student learning outcomes, the strategy may be self- and peer-assessment
- More than just the individual tutor needs to be involved – departments/faculties.