Deep, surface and strategic learning

Students approach their learning in different ways, operating in response to a series of motivations, internal and external to themselves. The concept of deep and surface learning grew out of the research of Marton and Säljö in 1976. The terms describe *the way students tackle their learning*. Learners may use deep or surface strategies, or a combination of both throughout their studies. Course and assessment design and teaching methods all play an important role in fostering deep, surface and strategic learning.

Surface learning

In this approach learners focus upon details and parts of the information deemed important. There is an emphasis upon memorising individual details or pieces of information in a way to signify enough comprehension to complete the assignment. In a surface learning approach, tasks are treated as an imposition or a hurdle to be gotten over. Surface learning is focused on 'what do I need to do to pass?' Learning may be more superficial and not promote understanding. Learners may focus on unconnected facts that they believe they will need to reproduce later in an assessment such as an examination.

Deep learning

In this approach learners look at the significance of what they are being taught and attempt to make sense of it, connecting information and thinking into the topic. They look for the overall meaning and attempt to process information in a holistic way. The learners develop their own interpretation of the content by integrating it with their existing knowledge. Deep learning develops critical analysis and encourages long term retention of concepts. Deep learning is valued and fostered by educators.

Strategic learning

In this approach learners organise their learning with the objective of achieving a high or positive outcome. Strategic learning can involve a combination of both deep and surface learning strategies depending on the tasks at hand. There are times in a learner's life when it may serve them to be a strategic learner, for example, when they have large chunks of information to learn or when they are time-poor. Strategic learning when closely allied with deep approaches to learning can deliver both success and good understanding of a subject.

A word about rote learning

Rote learning or memorisation of vocabulary, facts or figures is often considered a negative strategy and reflective of a surface approach. But in many disciplines such memorisation is key to applying understanding of or using a concept. As such intelligent use of rote learning can be a stepping stone to deep learning.

Differences between deep, surface and strategic learners are summarised below.

At-a-glance

Course and assessment design and teaching methods all play an important role in fostering deep, surface and strategic learning.

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Deep learning	Surface learning	Strategic learning
Actively seek to understand the material/the subject	Try to learn in order to repeat what they have learned	Intend to obtain high grades
Interact vigorously with the content	Memorise information needed for assessments	Organise their time and distribute their effort to greatest effect
Make use of evidence, inquiry and evaluation	Take a narrow view and concentrate on detail	Ensure that the conditions and materials for studying are appropriate
Relate new ideas to previous knowledge	Fail to distinguish principles from examples	Use previous exam papers and assessments to predict questions
Tend to read and; study beyond the course requirements	Tend to stick closely to the course requirements	Uses marking criteria carefully
Are motivated by interest	Are motivated by fear of failure	

As teachers we want to foster deep and/or strategic learning so that students can engage with a subject. The design of learning activities and assessment tasks are key to this engagement. The following strategies are known to engage students:

1. Relevance of subject matter: The more relevant a subject appears to a student the more likely they are to engage in it. Authentic assessments have considerable influence in deep engagement.
2. Higher order objectives: Ensure that learning objectives, assessment tasks and marking criteria require higher order thinking e.g. apply, synthesise, solve, analyse. Consider the skills you wish students to acquire rather than the knowledge you want to acquire.
3. Appropriate questions and questioning: Students know immediately what calls for surface learning and what calls for more. Ensure that activities encourage higher order thinking associated with using, applying or evaluating content rather than reproducing information alone.
4. A reasonable workload: Students need to have time to do think deeply. Benchmark the workload in your unit to determine if learning and assessment workload is reasonable.
5. Choice over learning tasks: Allow students to choose learning activities or assessment tasks can engage students to a deeper approach to their study.

Sources

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Marton, F. and Säljö, R. (1976). On qualitative differences in learning: Outcome and process. British Journal of Educational Psychology, 46, 4–11.