

Learning and teaching or performance and instruction?

This material was developed as part of the Camau i'r Dyfodol co-construction group thinking on process-oriented curriculum design and what this means for how we approach teaching and learning. Moving away from an objectives-based approach to teaching means thinking through the differences between learning and performance and thinking about the difference between teaching and instruction. (An objectives-based approach tends to think about teaching and learning in terms of instruction and performance.)

We begin by summarising the findings of a literature review by Soderstrom and Bjork, before considering a paper by Alexander, Schallert & Reynolds. The review looks at learning and performance from the standpoint of cognitive psychology; the paper takes a more holistic view to think about learning more broadly. The thinking points are designed to support reflection on your practice in terms of the differences between learning and performance, teaching and instruction following on from what has been discussed in Seminar 2 ('Rethinking assessment: from measuring performance to supporting learning').

Sections

Learning and teaching or performance and instruction?	1
1 Learning Versus Performance: An Integrative Review	2
1.2 Thinking points.....	2
2 What is learning anyway?	2
2.1 Thinking points.....	3

1 Learning Versus Performance: An Integrative Review

Nicholas C. Soderstrom and Robert A. Bjork (2015). *Perspectives on Psychological Science* 10(2): 176–199.

The authors describe learning as ‘relatively permanent changes in comprehension, understanding, and skills’. However, they write that during an ‘instruction or training process... what we can observe and measure is performance, which is often an unreliable index of whether the relatively long-term changes that constitute learning have taken place’.

The authors then make the following points:

- Learning refers to ‘durable’ and flexible knowledge and skills: i.e. they remain accessible long-term (even after periods when the knowledge and skills are not being used) and are usable in various contexts (not just the ones in which they were learned).
- Performance refers to behaviours that can be observed during or shortly after they have been acquired through instruction.
- Learning can occur when no discernable changes to performance are seen.
- Improvements in performance can fail to lead to learning.
- Psychological research indicates that ‘the conditions that produce the most errors during acquisition are often the very conditions that produce the most learning.’

1.2 Thinking points

Soderstrom and Bjork refer only to studies from cognitive psychology in their article and their discussion of ‘instruction’ presupposes a teacher-led approach. However, their question about learning or performance can help us to think about the nature of learning and our role as teachers:

- From your professional experiences and knowledge, what do you think are the differences between learning and performance?
- In what areas of the curriculum (if any) might you focus appropriately on performance rather than (or as well as) learning? What are your reasons for thinking this?

2 What is learning anyway?

Patricia A. Alexander, Diane L. Schallert & Ralph Reynolds (2009). *Educational Psychologist*, 44:3, 176-192.

- Learning is a multidimensional process that results in relatively enduring change(s) in a person.
- The changes influence how the person perceives the world and responds to it physically, psychologically, and socially.

- The process of learning is founded on the ‘dynamic and interactive relation’ between the learner and what is being learned (both in a particular time and place, and over time).

2.1 Thinking points

- What do you think are the differences between teaching and instruction?
- To what extent are you i) teaching to support learning or ii) instructing for performance? To what extent is the approach you take appropriate for learner development and why?