

Vocabulary

(One lesson from the literature is that vocabulary is an important source of misunderstanding and so of wasted teaching in HE, in this university).

Iteration: repetition (until finished)

Convergence: closer and closer approximations

Mathemagenic: likely to promote learning

Stage model: as in Piaget

Teaching/teachers. In HE, a role (lecturer, professor)

Pedagogy, didactique, didactic.

Study of teaching (cf. methodology)

French specialism: designing subject matter for learning

Having the manner of a teacher (i.e. disliked)

Learning, memory, remembering

What is their connection? in your theory?

Epistemology: study of (the nature of) knowledge

What counts as learning? (in HE)

- Cole: our society almost defines learning as recall (not recognition, not procedural skills) (And as individual not team performance)
- Putnam: socially distributed knowledge (what is gold? water? Flu? Statistical significance?)
- HE is NOT any one thing: the type (not just the content) of knowledge taken as defining varies across disciplines
- Deep and shallow learning
Learning for a specific test task; or just trying to understand.
- Study skills: learning how to learn (for lifelong learning), as well as learning content
- Perry: learning what knowledge IS

Learning in Higher Education

Learning in Higher Education is an

- Effortful (deliberate, willed)
Controlled largely by conscious effort
- Planned
Given effort, what is done depends on planned actions
The student's methods of learning
Their study skills,
Their theory of how to learn
E.g. re-reading notes in a panic OR
"teaching" a friend
- Activity
It doesn't just happen: it is planned and managed
It consists of a complex assembly of actions
It is regulated by judgements about whether the student "knows" it now.

Benefits to learners from processing

One theory is that we learn (only) by doing:
particularly mental doing i.e. (re)processing.

=>

The more detail, the more mental processing;
and the more of that, the more learning.

So doing exercises / assignments is good for learning:

- 'Generating your own answers will be much better for you than just listening to others'.
- 'Writing the answers out will be better for you than just thinking about them.'
- 'Writing them out well enough to show them to someone else (e.g. the teacher) will be better for you than just writing a sketchy note for yourself.'

N.B. All of these have some benefit; so it is easy to fool yourself that you don't need to do more. It's true: you have learned something useful without it. But have you "really" learned? is it enough? was it "deep" learning?

Types of depth

Understanding, or deep learning, is never complete.

Some types of connection to make to approach it:

- **Concept to example:** can you produce examples?
- **Concept to personal experience** (feelings, perceptions,...). This is about how a concept or theory shows up in evidence and experience.
Although evidence may decide between theories, a more general issue for learners is to learn how an idea connects to any evidence at all: what does it mean for experience? What is "force" in the world? What is the difference between pain and discomfort?
- **Concept to concept:** alternative theories of the topic [Perry]. This will be about rival claims to truth.
- **Concept to contradictions, inconsistencies, ...**
What things actually or potentially conflict with a given concept or theory?
- **Enlightenment / relevance / validity:**
What prior questions does this answer; what useful problems does this theory solve?

A Perry type C approach to Perry's theory

Black & White claim A student suggested that there is a self-contradiction: that Perry asserts his theory as the only view or truth on the topic: that a given learner is either type A or B or C (or actually, one of his 9 stages in the detailed stage model).

Alternative theories Actually, in the lecture, I tried to present alternative views of the topic: learner attitudes / views of the nature of knowledge.

a) **Perry:** it's a persistent character trait that an individual applies to all topics and knowledge.

b) **Kuhn:** it's a trainable cognitive skill; again, applicable to all topics, though presumably only if the learner chooses to do so or finds it useful for that topic.

c) **Possible new view:** it varies, even in a single individual, with the topic. It is more like part of the knowledge: have you learned (been taught) alternative views or not? The standing of each such view? Evidence or reasons for and against each?

Status: All plausible and believed by some; this lecturer prefers (c).

Evidence: Perry provided evidence for his view (his interview study); and subsequent student studies here have shown individuals' views depend on the topic, which is evidence against Perry and perhaps for (c). But perhaps I'm guilty of skipping this and presenting in a B&W manner?

Perry (William, G.)

Book (1968) first put it forward. Other work since.

Based on a big interview study of Harvard undergraduates.

Key idea: that universities should be supporting students through a developmental progression from a simplistic to a more mature view of what knowledge is.

Perry discriminated 9 stages; recent local work has simplified it to 3 main stages.

Perry implies a view of this being a cognitive attribute: stable, long lasting, uniformly applied by person to all topics. This is questionable.

It has (at least) 4 different manifestations as an attitude about each of:

What knowledge is (implicit epistemology)

Student role

Teacher's role

What exams are / require

Aspects of the issues uncovered by Perry

One view of Perry is that, whatever criticisms of his views and work may be made, he has identified a crucial area of concern. My current view is that in fact there are three independent issues here.

1. Part of the subject content: you learn for any topic whether it is one on which everyone agrees, or that there is no agreement, or that there are well known dissident views; what the main alternative views are, and the status they have.
2. Critical thinking: a generic cognitive skill that in principle can be applied to anything, though in practice partly depends on content knowledge (you can't argue about alternatives without having learned what the reasonable alternatives are, and what the relevant evidence is).
3. Personal development: (perhaps closest to Perry's original spirit). Education, as opposed to mere training, should include qualitative personal development. One aspect of this could be developing personal decisions on how to judge your own learning.