

Personal Epistemology – Lynne Rutter Bournemouth University

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Learning development – who needs it? Positions and choices

My personal understanding - it is how **we** view learning development that can influence whether others perceive us, or our work, as 'needed' or indeed 'relevant'.

There are many tools, **methods**, aids etc. to use but we obviously have **choices** in how, and why, we might use them – and these choices should be made within our role and place within the learning experience. To be able to explicitly state and align with a particular **position** allows us (and even demands that we) **consider and evaluate** any methods or tools, rather than uncritically adopt them.

This is probably not a contentious issue. The real issue, perhaps, is whether our own stance aligns, or is conflict, with others, e.g. that of our colleagues', department's, or the University's....

I can best illustrate this with an **example** from my own current research (on a professional doctorate) into personal epistemology. From my research and reflection so far I see my educational role as a facilitative one, aiming to help people develop themselves by making use of empowering and andragogical (e.g. Knowles 1990) approaches to learning. My view of learning support also aligns with a developmental and integrative model (Cottrell 2001) rather than a remedial / deficit model of learning. I know that I do not want to impose the "more strategic and generalising approaches to the study of student learning that are dominant in this context" but instead value the "situated uniqueness of adult learning experiences" (Haggis 2002, p.218). Therefore, when I investigate the various approaches to personal epistemology I am interested in those that align with this more naturalistic position but I can also question whether those that don't might be used in other ways.

This is the focus of the session and where we can hopefully share ideas.

This briefing now looks at personal epistemology and its use for learning development in more depth

Personal epistemology - definition

Generally it is what students believe or assume about:

- how knowing occurs
- what counts as knowledge
- where knowledge resides
- how knowledge is constructed and evaluated

(Hofer (2004, p. 1)

It has also included beliefs about learning in the past, although there is a philosophical debate about this now.

Personal epistemology and learning

1) A very brief overview of some of the key theorists

This is a complex and contested arena (Schraw 2001) and there is not a unified model of epistemological understanding to guide research.

Original work by **Perry** (1968) investigated the intellectual development of Harvard undergraduates over a four-year period. It concluded that first year students mainly believe that knowledge is about omniscient authority handing down facts, but by their later years at college they tend to believe that tentative complex knowledge is derived from reason and enquiry. Perry created nine developmental positions for this journey - ranging from dualism to multiplism, to relativism and then to commitment. Since then many other authors have undertaken research on personal epistemology and focused on different aspects.

Cognitive developmental or stage models

A popular view has followed Perry's work and sees personal epistemology as cognitive developmental/staged process, with learners moving from absolutist views (viewing knowledge as either right and wrong only and is justified by acclamation of authority) – to multiplist/relativist (believing that everyone has a right to their opinion but with an inherent danger that all opinions are equally right) - to more sophisticated contextual and evaluativist views (believing that claims to knowledge are tentative and need to be examined, debated and reasoned in a framework of context, alternatives and evidence).

Within this developmental paradigm researchers use mainly survey instruments, but also interviews, to measure or assess where a learner is

along the developmental scale, and then investigate how an intervention may change and develop that position.

e.g. King and Kitchener (1994) – reflective judgment model

7 stage model from pre-reflective thinking to quasi-reflective thinking to reflective thinking and judgement. It is a developmental approach to understanding the epistemic assumptions that are related to individual's judgments about ill-structured problems i.e. critical thinking. Research tools used = structured interviews and systematic codings.

e.g. Baxter Magolda (1992) - epistemological reflection model

Absolute knowing to transitional knowing to independent knowing: to contextual knowing. These views are socially constructed and context bound. Research tools used = qualitative interviews, longitudinal developmental journeys.

E.g. Kuhn D., Weinstock M. (2002) - stage models have a weakness in depending on multiple and diverse characteristics to define each stage but there is a lack of cohesion with respect to these characteristics so not clear what defines the essence of each stage and what drives the movement from one to the next. They ask: what is the *developmental task* to be achieved or the developmental goal toward which changes in epistemological understanding are directed? Answer proposes: the developmental task that underlies the achievement of mature epistemological understanding is the *coordination/balance of the subjective and objective dimensions of knowing.*

Beliefs

A dominant view sees personal epistemology as a system of more or less independent beliefs that are a feature of the individual – a trait-like aspect of individual differences.

Within this paradigm researchers are interested in how beliefs influence learning and the beliefs are seen as predictors of outcome variables such as achievement, comprehension and conceptual change.

e.g. Schommer (1990) – pioneered the construct of independent epistemological beliefs covering distinct dimensions covering simple knowledge (i.e. knowledge consists of discrete facts); certain knowledge (i.e. absolute knowledge exists and will eventually be known); omniscient authority (i.e. authorities/experts have access to other wise inaccessible knowledge); innate ability (i.e. the ability to acquire knowledge in innate); and quick learning (i.e. learning occurs in a quick or not-at-all fashion).

Research tools used = questionnaires & Likert scales; factor analysis. Key epistemological questionnaire developed as assessment tool.

Certain sophisticated beliefs and stages have been aligned with requirements of **critical thinking/problem solving**. These developmental and beliefs models have tended to be set within a more positivist tradition but views about personal epistemology can, however, also take a more qualitative stance and recent research looks at personal epistemology as a meta-cognitive process and as much less well-defined constructs:

Epistemological Theories – Epistemic Metacognition

e.g. Hofer and Pintrich (1997). Here individual ideas about knowledge and knowing are structured and organised into ‘theories’ as organised ways of knowing – operating at general and specific levels. These theories are envisioned as concepts that are activated and engaged during learning (knowledge acquisition and construction) as an aspect of metacognition. Research tool used = develop ‘*think-aloud*’ investigation.

Epistemological Resources

e.g. Hammer and Elby (2002) critique the view that epistemologies are stable and coherent structures and offer alternative approach that says they are unstable and fine-grained. The learner will have a host of epistemological resources available to them and the context determines what will be evoked and drawn on productively – therefore much may be achieved by manipulating the teaching and learning context. Research advocated = explore how these epistemological resources are activated using tasks, open format interviews/naturalistic case studies/observations (close as possible to context).

These alternative perspectives view the outcome as the dynamic process of learning and knowledge building, influenced through the metacognitive monitoring of epistemological beliefs, resources and theories. It permits the possibility of a more interactive conception, and one that is malleable, situated and influenced by teacher, task and learning environment. (Hofer 2004).

2) Use for learning development

However it is viewed, personal epistemology can be a lens to use in understanding students’ ideas and behaviour, in assessing students’ abilities and needs, and in adapting their plans and strategies for instruction. (Hammer and Elby 2002, p169). Epistemological beliefs may influence comprehension, cognitive processing, and conceptual change learning (Hofer 2004).

The study of personal epistemology thus serves to identify some critical sources of learning problems and allow modification of teaching. However, we are still unsure how best to model what takes place in an individual’s mind – “ what is the internal form of an informal epistemology?” (Hammer and Elby 2002 p. 170).

Whichever ideas we adopt (from the list above) will say a great deal about what we believe learning to be about.

Position 1:

As beliefs or as a developmental cognitive process:

Personal epistemology is stable, robust, consistent - articulate, declarative so about:

- measuring and assessing
- developing and changing them

Use instructional intervention

Position 2:

As resources, or metacognitive processes:

Personal epistemology has constructivist and contextual agenda - tacit and unconscious so about:

- understanding
- invoke; draw on; activate
- modify which resources get activated

Use learning environment and context

Potential – pigeon holingempowerment

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Notes:

Look at personal epistemology and learning in your own arena ...

Knowledge

- Note the different types of knowledge students deal with on their programmes:

- Are these different types of knowledge given parity?

Knowing

- Is 'reflection' expected in written work?

- Is 'I' accepted in assignments

Do you think personal epistemology is a potentially useful 'tool' for learning development?

If not, why not?

If yes, how would you consider using it: measuring audits? information? discussion? Other?