

# My Personal Pedagogy: A Constructivist's Perspective - Not what but who!

## Will Haywood



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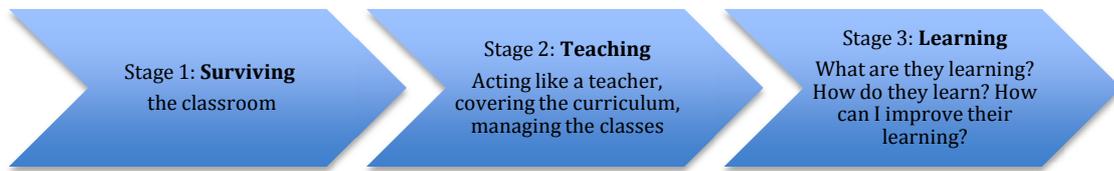
## First impressions

When I first saw the topic '*Personal Pedagogies*' in the lead up to #LTHEchat [1] the first thought which came to mind was an ongoing joke that my '*signature pedagogy*' consists of flipchart paper and coloured marker pens! My thoughts then moved on to when I had to create a '*teaching philosophy*' statement or outline my 'aims as a teacher' where I'm not ashamed to admit when having to condense it down to three words I cheesily said I aimed to, '*engage, challenge and inspire*' learners. But when the Twitter chat arrived, the chat itself delved much deeper than that and I think anyone who participated will agree it was one of the more thoughtful and perhaps even challenging chats we've had.

During the Twitter chat, I shared that prior to working in HE I was a science teacher and my practice as a science teacher was greatly influenced by the *constructivist* movement and it is around this that I was then invited to reflect and share here. But before considering constructivism I'd like to share another guiding principle. My first head teacher, inspired by Bill Clinton's "It's about the economy, stupid!" had a sign in his office stating, "It's about the learning, stupid!" to act as a constant reminder that no matter what else was happening the students' learning was what mattered most. This focus on learning is also a feature in the suggested stages in the development of a teacher put forward by Scaife <sup>[2]</sup> (Figure 1).

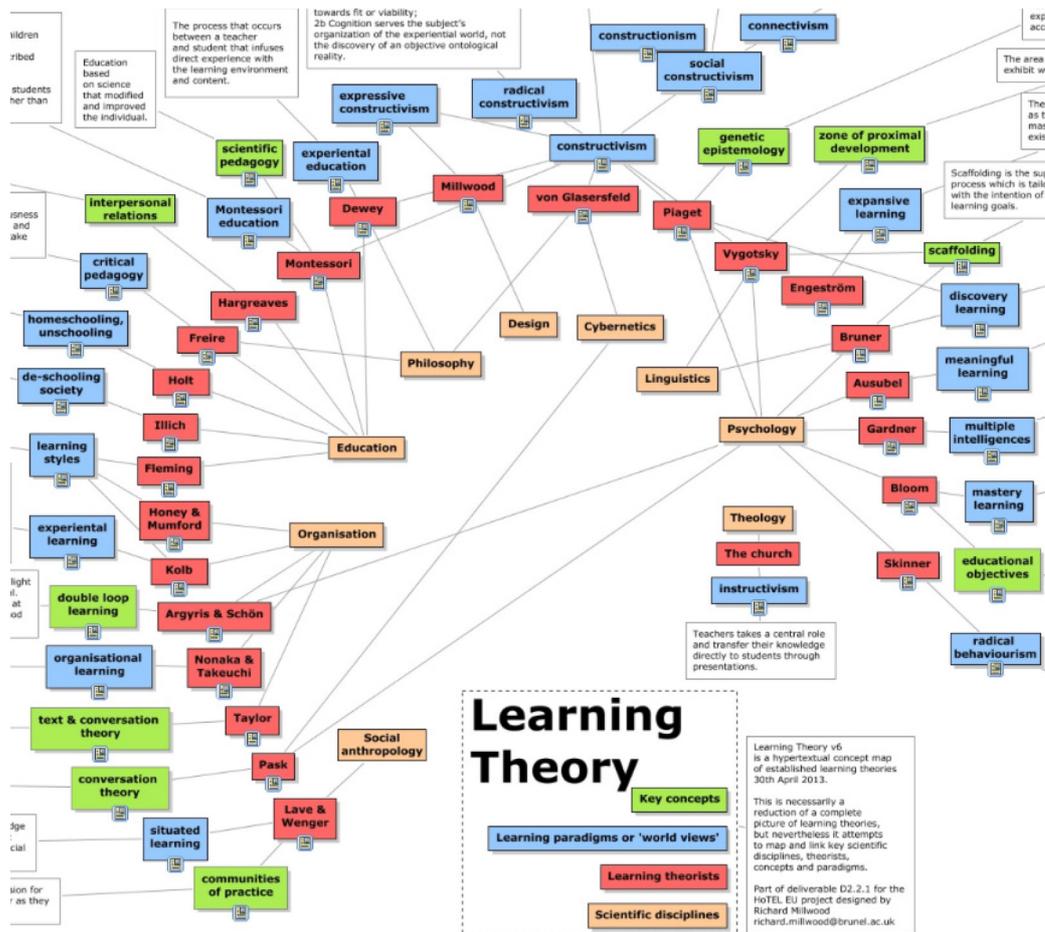
So perhaps this notion of a developmental journey would form a key part of my personal pedagogy; it is not about me as a teacher and how I am teaching - it's about the learning, stupid!

Figure 1 Stages in the development of a teacher<sup>2</sup>



The issue, however, is that how people learn is not a straightforward question. The concept map shown in Figure 2<sup>[3]</sup> gives an indication of the many schools of thought when discussing leaning theories, along with their different disciplinary roots and how they interlink.

Figure 2 Learning theories concept map<sup>3</sup>



In science education the discussion of teaching and learning is often simplified down to that of *transmission* versus *constructivism*. Transmission refers to traditional didactic teaching or 'chalk and talk', where the teacher passes their knowledge on to the student. Constructivism can be seen as being a fairly 'broad

church' which is home to several schools of thought (eg Figure 2) A key belief held by constructivists is that people construct knowledge to fit what they experience rather than acquire knowledge about an independent reality <sup>[2]</sup> While constructivism is not without its criticisms, some key ideas have influenced my practice as a science teacher and I would say still continue to influence my practice today, and therefore my personal pedagogy. I outline below some of the educational theorists who have influenced my pedagogical thinking so perhaps my pedagogical thinking owes a lot to this group of individuals, their ideas and writings and my readings and appropriation and application of their ideas.

## Piaget

Constructivism began with Jean Piaget and although his ideas of maturation and staged cognitive development in children may not be so relevant now I'm working with adults in HE, however the idea of progressing from the concrete ideas through to the more abstract can be a sensible one. However the idea that learners construct their knowledge through interactions with the environment is still appropriate. Furthermore his notion that individuals can learn through the resolution of the cognitive conflict that can occur between their expectations and observations can be a powerful tool<sup>[4]</sup>, one which I often use in deploying examples and scenarios which may challenge their expectations and trigger thinking and discussion.



## Ausubel

*Ausubel wrote about what he called meaningful learning and stressed the*



importance of learners being active, criticising passive learning in favour of discovery and inquiry<sup>[2]</sup> He particularly criticizes rote learning and suggests that in order to develop knowledge it should be well connected with other knowledge and not superficial or arbitrary. Ausubel stresses that "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly."<sup>[5]</sup> (apologies for the gendered pronoun!) This is a crucial point and links with the ideas of *diagnostic assessment* and *assessment for learning*. This

establishment of what my learners already know has been important for guiding what and how I teach them.

## Vygotsky



*Social Constructivism* is a movement stemming from the ideas of Vygotsky who regard the development of knowledge as a social activity where one can develop their understanding through joint activity and conversation with others. This is typically with '*more knowledgeable other*' who in the context of the course could be a peer, colleague, mentor or teacher,

but beyond that could be a friend or family member<sup>[2]</sup> These ideas have led to the focus on discussion and peer learning embedded within my teaching.

## Siemens

Stepping away from constructivism but building on the social idea, a few years ago I saw a talk by George Siemens introducing the idea of *connectivism - a learning theory for a digital age*. Connectivism “uses the concept of a network with nodes and connections to define learning. Learners recognize and interpret patterns and are influenced by the diversity of networks, strength of ties and their context. Transfer occurs by connecting to and adding nodes and growing personal networks.”<sup>[6]</sup>



The idea of connectivism chimes with my own experiences of how I learn and develop, in the internet enabled world. I respond well to being part of a network (online such as #LTHEchat, or otherwise), learning from my connections, and looking to them when I have a problem. This has influenced me in finding opportunities for my students to collaborate and form networks within the class and stay connected through in between and my ongoing encouragement for them to increase their wider professional networks.

## Recent example

Constructivism means that we are constantly evaluating and adding concepts to what we already understand. For example I was introduced, through the #LTHEchat to the idea of *learning ecologies*, a theory currently being developed by Norman Jackson. An ecology for learning includes the processes and set of contexts, relationships and interactions, and resources that provide an individual with the affordances for learning, development and achievement <sup>[7]</sup>. I work in Initial Teacher Education, teaching on the Post-Graduate Certificate in Education (PGCE) leading to Qualified Teacher Status (QTS) for secondary teaching in the UK. The nature of this course and the vast range of different backgrounds of the students make for a rather complex learning situation. All students are graduates so they are bringing their existing university experiences; many are career changes and so bring experiences of employment too in addition to their personal life and prior school experiences. The PGCE is a one year intensive course and is different to a lot of traditional university courses, after an initial induction at university our course is one day a week at university with the remainder of the week on professional placement in a school. So in addition to teaching at university and individual scholarly engagement with literature, our students have their school experience in their ecology. This includes their own practice as a teacher, their school-based mentor and other colleagues. There are also not only academic influences, in order to achieve QTS they must engage with the Department for Education’s Teacher Standards and there are influences of Ofsted, subject associations and more. On reflection, I have been pedagogically aware of the complexity of this learning situation, but until I was introduced to the idea of learning ecologies, I did not have a theory by which to explain it. The theory of learning ecologies fits with my observations and experiences and builds on what I

already know and believe; and so my appropriation of the theory and assimilation into my own working understanding could be considered an illustration of constructivism in action.

## Pajares



Frank Pajares<sup>[8]</sup> writes about the importance of understanding teachers' beliefs due to the affect they can have on a teacher's practice and how beliefs can be used to predict how teachers make decisions and can sometimes be considered more influential than a teacher's knowledge. To this end, constructing a personal pedagogy could be a valuable exercise as it allows opportunity for reflection and to unpick one's beliefs and consider how they influence your teaching.

In considering some of my own influences and through writing this article, on reflection perhaps my aims to engage and challenge were well grounded in my beliefs around constructivism and weren't so contrived after all, and who as a teacher doesn't want to inspire?

Finally, Shulman<sup>[9]</sup> describes the signature pedagogy of a teacher as consisting of surface structures (the concrete acts of teaching and learning), deep structures (assumptions about how best to teach a body of knowledge) and implicit structures (beliefs about professional attitudes and values). If this is the case then the implicit structures of discussion and reflection; deep structures of constructivist principles of students working together to construct knowledge; which can be realised through the surface structure of using flipchart paper and coloured marker pens then perhaps that is a principle driven signature pedagogy I can be proud of after all!

## References

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