



CHAPTER 6:

MAPPING THE REALM OF PEDAGOGY

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Armed with their knowledge of knowledge, and their understanding of understanding, Mikezilla and Markzilla can finally journey deep into the Realm of Pedagogy. But the landscape before them is confusing, full of thick woodlands, deep caves and scattered villages.

'Where do we go? What does it all mean? Shall we go back?' they ask. Just then, someone emerges from the land before them. It's Beckzilla.

'Are you lost?' she asks. 'Follow me, I can show you around.'

Mikezilla and Markzilla breathe a sigh of relief. 'Do you know where we're going?' Mikezilla asks.

'Indeed I do,' says Beckzilla. 'In fact, I have a map. Look here.'

Why do we need a map?

Throughout this book we talk about lots of theories of learning and teaching, some of which are closely related, others not so much. One of the issues Markzilla had when he was first studying pedagogic theory was that he encountered these theories as a series of separate ideas. The links between them may have been pointed out, but the hierarchy of broader theories and subsidiary approaches was never explained, and it wasn't clear which ideas were considered most important. This was why publications that came out in the early-2000s, such as the Mayes and de Freitas (2004) review of pedagogies and the book *Effective Teaching with Technology in Higher Education* (Bates & Poole, 2003) were such a help to him; they organised the various approaches into three overarching themes (different themes in each case), and located other approaches within these themes.

As an aside, two principles have guided us during our discussions in the world of *Pedagodzilla*:

- No model is true in all cases; some models are useful.
- Where there are two or more competing theories, you probably just need to take a step back and look for a single theory that encompasses the others.

So, when we're talking below about our map, this was designed to be a useful guide to what's out there. But, as with all maps, it's a representation of reality, but not the only way of understanding that reality. And it's not the actual reality. A map of the neighbourhood where you live might focus on the roads, or the underlying geology, or the underground network of pipes and cables, or the economic status of the inhabitants.

All the maps would (probably) be accurate, but not all of them would help you find the area you're looking for.

Our map is designed to help you navigate the theories we cover in this book. Like the other chapters, this one's not purely theoretical – we've used Dwarves and Elves to draw attention to significant differences between theories. You'll read more about the Dwarves, Elves and the lands where they live in the short introductions to each chapter.

Our map may not arrange pedagogic theories in quite the same way as other representations you've encountered. You may find the Dwarves and Elves distracting, or infuriating. If that's the case, use the representation that makes most sense to you. Some overviews of pedagogical theories blur the distinctions between categories, or alternate between them. Getting hung up about which category something falls into isn't something we do in this book. In fact, we spend a lot of time pointing out the links and overlaps between theories, and waving cheerily at metacognition (thinking about thinking), which pops up all over the place.

In addition, we don't see these theories as being in competition with each other. Sometimes one will be helpful, sometimes another. Where the arguments always break down within the literature (or certainly on social media) is when one approach is adopted to the near exclusion of another. But more of that later.

Our map looks like this (see over). The Zillas arrive in a harbour at the northwest of the Realm of Pedagogy and step ashore into Positivist – the Land of the Dwarves. The capital of this land is Behaviourism, which is situated near the caves and megaliths that make up the land's cognitive foundations. To the west lies the Quagmire of Neuromyths and Learning Styles, which all well-informed Dwarves and Elves will avoid at all costs. To the south is a narrow land bridge that leads to Constructivism

– the Land of the Elves. This land includes the twin towns of Problem-based Learning and Active Learning, as well as the town of Experiential Learning. A mist conceals the boundary to the *Matrix*-like town of the Cyber Elves, where reality is known to fluctuate. Moving further south, another land bridge leads to Social Constructivism, which neighbours the Situative land. The Pedagogue’s Arms pub is located in this area, together with the Vale of Constructionism and the Communities of Practice. The map ends at this point – perhaps there is more to be discovered, or perhaps the virtual realms of the *World of Warcraft* are too complex and too well copyrighted to be included here.

In our model, the Realm of Pedagogy is divided into four lands. In the north is the Land of the Dwarves. These Dwarves like to delve deep into the earth – a metaphor for delving deep into the brain. The Land of the Dwarves is where we’ve located all the theories based on how the brain works and how memory functions. Some approaches you can find in this region are concerned with structuring subject matter to take advantage of our knowledge of memory and the brain, for example those that use schema and similar ideas. When we employ Barak Rosenshine’s principles, or take cognitive load into account, we’re focusing on ways of constructing the learning content that experiments have shown can help students learn as effectively and efficiently as possible.

The Land of the Dwarves is where people from the world of cognitive science like to hang out. On other maps, this region is often assigned the umbrella term of behaviourism. That’s not really accurate, though, because behaviourism is a specific theory that was developed before we were able to investigate the brain in as much detail as is now possible. In fact, behaviourism was developed specifically because, at the time, it wasn’t possible to observe the brain at work. Because we’re aware of the difference between approaches based on cognitive science, we’ve named



this region according to the worldview shared by the people who developed the pedagogies in this area, a positivist worldview that comes to conclusions based on measurements, systematic observations, and quantitative analysis. We've characterised the Positivist people as Dwarves, not because they're short in stature, but because they like efficiency and solid things they can count.

When we travel south, we're in the Land of the Elves. Elves try to understand the point of view of the learner. They generally carry out interpretive investigations involving qualitative analysis. This land contains the constructivist theories, including experiential learning and problem-based learning. It's where researchers hang out who like to spend time perfecting their stories about what goes on in people's minds. Practitioners in this region like to provide opportunities for students to construct their own knowledge, helping them to construct firm foundations and then enabling them to build on those. Most Elves have little interest in cognitive architecture, in fact, the Dwarves would argue that their stories have little basis in how the brain works, but the Elves do their singing and their magic and it all seems to work anyway.

The Realm of Pedagogy includes many different approaches to education that look at learning from a constructivist perspective. Those in the land of Constructivism focus on the development of individual learners, and are concerned with how those learners might build on their own experience, being guided to find solutions to authentic problems, and engaging actively with their learning.

Constructivism is neighboured by Social Constructivism. Here's where we find the theories about how people learn through interacting with each other. Collaborative Learning and Communities of Practice are located in this region. The residents of this land are interested in how people interpret their learning, but are also interested in using different perspectives to provide

richness, challenge, extension and critique. Think of this as the land of the Wood Elves, because they're pretty gregarious and they like their wine. Good thing they have the Pedagogue's Arms close at hand to provide a site for conversation and debate.

The final land on our map is Situative, which is closely connected to social-constructivist ideas. So closely connected, in fact, that it's difficult to spot the boundary between the two lands. The Deep Elves live here. They focus on how people learn by interacting not just with other people, but with the environments around them, with the tools they use, as well as by co-creating things. So constructionism and all the narratives about learning together by developing things externally belong in this region. The Deep Elves make use of both positivist and interpretivist approaches because they recognise that not only does learning take place in the minds of those involved in the co-construction but also the objects created during that process leave a trail and can be used as data sources.

The behaviourist arguments of the Dwarves draw on the more empirical evidence of neuroscience and laboratory experiments and tend to be favoured by people with a more positivist approach (which – if you skipped it – we covered in the previous chapter). Those who have a more interpretivist approach to data collection and analysis give more credence to constructivist and situative narratives.

These are rough and ready divisions, designed to make our exploration of the different theories a bit easier to understand in relation to each other. You could easily argue that an approach contains elements from several lands. Some concepts, such as constructionism (Chapter 17) clearly bridge many approaches.

The rest of this book represents a journey across the Realm of Pedagogy as mapped here, crossing each land in turn. The first part is concerned with the Land of the Dwarves. Chapter 7 looks at behaviourism, Chapter 8 sets out Barak Rosenshine's ten

principles of instruction and Chapter 9 deals with cognitive load. Moving on to the Land of the Elves and different constructivist approaches, Chapter 10 looks at active learning, Chapter 11 at problem-based learning, and Chapter 12 at experiential learning – with the added bonus of a brief exploration of the nature of reality. In Chapter 13, we pick apart the discussion between positivist and constructivist approaches. After that, we take a brief tour of social constructivism in Chapter 14, before moving on to situative learning in chapter 15, with communities of practice covered in Chapter 16. Chapter 17 shows how constructionism brings together many theories.

That's the map we'll be using. Just remember: no map is completely true, some maps are useful. Feel free to explore the lands we describe. Just be aware your mileage may vary.

I tried a few ways of wrapping my head around the different domains of pedagogy in the early days. One of the best I found was writing awful jokes, here's the least worst:



A behaviourist, a constructivist, and a social constructivist walk in to a pub...let's call it the Pedagogue's Arms...

The behaviourist, straight to the point, walks up to the bar and says to the bartender, 'Every time I say, "Bring me a beer," I want you to bring me a beer.' He repeats this instruction three times, just to drill it in. The bartender, a bit taken aback by the straightforwardness, obliges and throughout the night, diligently brings the beers. With each delivery, the behaviourist offers a tip, nodding to the concept of 'positive reinforcement.' It's a strange way to order, but hey, the bloke leaves satisfied.

Next up, the constructivist ambles to the bar with a thoughtful look. He says, 'Consider the times you've felt thirsty, found yourself in a bar, and had cash to spend. Reflect on

your experiences as a bartender. What solution comes to mind for my current parched state?' The bartender, intrigued by this philosophical approach, ponders his own experiences and decides on a proactive strategy, delivering a pint every hour on the dot. The constructivist enjoys his evening, thoroughly inebriated and grateful for the insightful service. He ends his night asleep outside a kebab shop.

Lastly, the social constructivist doesn't head for the bar. Instead, he settles at a table and gathers the other patrons around for a grand discussion on the most effective method to acquire beer. The bartender, busy with a barrel change, returns to find a full-on collaborative workshop in progress. They're deep into devising a prototype for an extendable beer pump, based on collective research and feedback. Alas, the night ends with the call for last orders, and the social constructivist, absorbed in the thrill of collaboration, forgets to actually drink. Badum-tish.

-Mikezilla

References: an unexpected journey into further reading

- Bates, T. and Poole, G. (2003) *Effective Teaching with Technology in Higher Education*, San Francisco: Jossey-Bass/Wiley
- Mayes, T. and de Freitas, S. (2004). *Review of E-Learning Theories, Frameworks and Models*. London: JISC. Available from: <https://core.ac.uk/download/pdf/228143942.pdf>

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