

### 3. High Impact Inquiry means Going Further Upstream

By Tony Burkin

**Systems thinkers are interested in cause and effect. They seek to understand how and why things happen.**

Who 20 years ago would have thought one of New Zealand's biggest contributions to greenhouse gas emissions and to global warming would be cow burps?

*Systems thinking* informs us (for the moment and not accounting for future technological innovations) decreasing our contribution to environmental damage requires a decrease in herd stock numbers. Or somehow reducing cow burps.

*Systems thinking* also provides a useful way to think about how best to ensure *teaching as inquiry* is a high impact process and one that contributes significantly to our learning as teachers.

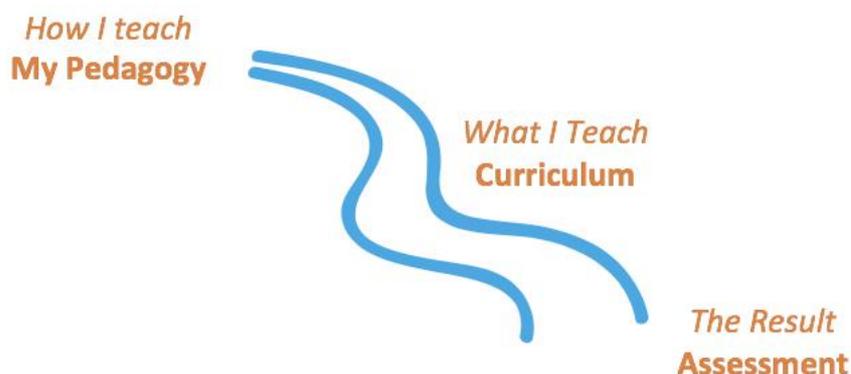
High impact means through the inquiry process, we are adding considerable value to our students'

learning experiences. If we asked students what changes they noticed around how we were teaching them, they would be able to articulate some of them because they were experiencing those improvements in our practice; there is from their perspective a very definitive impact on how they are learning.

Rivers are very useful for thinking about *systems thinking*.

What happens downstream is a consequence of factors upstream.

Student achievement (all or some of social, cognitive, behavioural, emotional, meta-cognitive, academic) in schools and centres lies at the mouth of the river system. This catchment area we refer to as *assessment*. Assessment is evidence of our students' ability to demonstrate knowledge, understanding and application of areas of the curriculum. It's the result of our efforts as teachers and of our learners' efforts upstream.



Upstream is curriculum. This is *what we teach*. For students this is what they need to learn and master. Curriculum is found in documentation and is about having informational knowledge.

As teachers we need to be familiar with those strategies' students are required to learn. For example, successfully adding single digit numbers up to 10 can be achieved using a range of different counting strategies. As teachers we need to understand those strategies before being able to successfully teach them.

Further upstream lies our pedagogy. This is the *how we teach* part of the system.

One of our consultants reflected recently on a couple of experiences they had as a learner.

One was in their final year of school and the other as an under-graduate at University. They were reflecting on their mathematics teacher and a lecturer who were both, in their words, "*dreadful*". They both had PhDs in their areas of expertise (their curriculum knowledge was outstanding) but how they taught – their pedagogy – was seriously lacking.

If you ask a 5-year-old, 16-year-old or a 57-year-old what is more important – what they are learning or how they are learning – we believe almost everyone will say how they are learning. Our pedagogy is the longest lever we have as teachers if bringing about change and improvement downstream are our desired outcomes.

When *teaching as inquiry* moves upstream into the pedagogical catchment area the focus of attention shifts to us as teachers. This can be uncomfortable work. As a teacher I am working out how I may be impeding my learners from

making progress and how I need to change how I'm teaching them. This is daunting and unnerving work, one requiring intellectual humility but making oneself vulnerable lies at the heart of being a learner.

Focusing downstream in the curriculum catchment is considerably more comfortable because something other than me has to change. ,

Brenton Prosser, Bill Lucas and Alan Reid in their book **Connecting Lives and Learning – Renewing Pedagogy in the Middle Years**

(<https://www.amazon.com.au/Connecting-Lives-Learning-Renewing-pedagogy/dp/1862548927>)

remind us how, "*Inquiry .... involves intuition, passion and emotion .... Teachers who are inquirers will never announce that they 'do' inquiry, thus separating the activity from their professional being.*"

When we share this quote with teachers many look at us quizzically. "*But how is that possible*", a teacher once asked us, "*when we're doing a writing inquiry?*"

When inquiry moves downstream and out of the pedagogical catchment, we turn our inquiry switch on when, in this case, we're teaching writing, and then we switch it off when we move to another curriculum area. This is the risk we run by moving downstream.

Moving inquiry upstream allows us to ask powerful questions such as:

- *How can I create a psychologically safe learning environment underpinned by a culture of intelligent failure – one in which students encourage each other to step outside their comfort zones and celebrate each*

*other's' efforts even when their classmates are stretched and fail?*

- *How can I successfully create a learning focused environment – one where crucial social and learning behaviours underpinning learning are embedded and lie at the heart of all interactions?*
- *How can I best develop and maintain relationships of considerable influence with my struggling and underachieving boys and through them ensure they consistently experience success, are actively engaged as learners and positively orientated towards their learning?*
- *If active learning means being 'cognitively active', how can I effectively ensure my struggling and underachieving boys are constructing meaning, making important connections, committing important information and retaining it in their long-term memories and taking ownership of their learning?*
- *How by building learning-centric relationships with extremely challenging learners can I successfully support the development of new neurological pathways that support healthy interpersonal interactions with adults, peers and self?*
- *How can I ensure lessons are consistently underpinned by students being actively engaged in the challenging work of problem-solving, decision-making, and critical thinking?*
- *How can I provide all students the time needed to be engaged intellectually, to make connections and to consolidate understanding through my lesson structure?*
- *How, by working across the explicit – implicit modeling spectrum can I best support and challenge students to be curious and to take more control within their learning?*

Thinking in this way we can successfully reframe inquiry from being something done intermittently for example, when teaching writing, to something we are thinking about the entire time we are teaching.

Thinking in this way too we ensure our efforts are more likely to be of direct benefit to our students holistically as opposed to focusing on school targets in a Managing by Objectives/Managing by Results framework (for more on this see ***Teaching as Inquiry: A 21<sup>st</sup> Century Pedagogy for Teachers***).