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***'Whether they grow up to a life of inquiry, invention and ideas – or a life without these – depends on nothing more or less than the company of adults who stoke their intellectual fires.'* (Susan Engel, 2021, p.192)**

Discussions about inquiry-based approaches, particularly in relation to the role of the Teacher Librarian (TL), often focus on models that explain and scaffold the process of inquiry itself. Numerous models exist, including my own 'Cycle

of Inquiry' (Murdoch, 2015) and these models, while varied, generally agree on key (non-linear) elements including activating prior knowledge, formulating questions, locating, gathering and analysing information, synthesising, reflecting and applying learning. Adopting or developing an inquiry model to support the process can be very helpful in building shared language and understanding across a school, but less often discussed and just as significant (if not more so) is how we actually *teach* this way: the pedagogy of inquiry itself.

How we teach matters. In fact, the quality of teaching is regularly cited as the most influential factor in determining learners' success (Hattie, 2003; OECD, 2005). How we teach not only influences learner achievement, it also shapes the way learners think about themselves as learners and the way they think about the nature of learning itself (Claxton, 2018; Johnston, 2012). Critics of inquiry routinely define the approach as one that involves minimal teacher guidance. In arguing against its efficacy, inquiry is often pitted against direct instruction, suggesting that it ignores the issue of cognitive load, eschews the benefit of worked examples and fails to offer students the opportunity to learn from what others can tell or explain – leaving them to flounder in problem solving tasks with little or no support (Sweller, 2021). This positioning of inquiry-based learning in opposition to direct instruction plays into a broader, persistent narrative of 'progressive' vs 'traditional' education. Persistent as it may be, it is ultimately simplistic and unhelpful. I would argue that the inquiry vs direct instruction dichotomy is, for the most part, a false one. As Claxton suggests:

"Traditional and progressive education are both caricatures and bashing cartoon images of each other is unprofitable and unedifying".
(2021, p.16)

For decades now, I have had the privilege of working alongside both generalist and specialist teachers (predominantly in primary schools) as they design experiences to support young

learners in the exploration of questions that matter to them and to the community at large. I spend a lot of time around the planning table, but I also spend a lot of time in classrooms, art and music studios and libraries, observing teachers at work. It can be easy to assume that creating more learner-centred opportunities such as those favoured by inquiry-based teachers means relinquishing responsibility as a teacher, but nothing could be further from the truth. Far from providing 'minimal guidance,' a teaching for inquiry requires a sophisticated, varied repertoire of pedagogical practices that includes explanation, demonstration, clarification and scaffolding alongside questioning, observation, listening and analysing. The pedagogy of inquiry invites the *teacher* to be an inquirer – observing, listening, questioning, analysing and responding and designing in turn. Intentional and mindful, inquiry teachers draw on a broad spectrum of techniques and approaches while anchored in a firm belief in the right of the child to have their agency nurtured.

The pedagogy of inquiry is, first and foremost, one that repositions the dominant role of the educator simply as 'instructor' to one that is more complex and sophisticated. Of course, direct instruction (telling, demonstrating, explaining) remains in the inquiry educator's repertoire, but these techniques are used far more judiciously as we encourage learners to confidently manage and drive their own learning. Commitment to more inquiry-based approaches requires a kind of artistry – carefully selecting from a palette of practices in response to observation, listening and reflection both *on* and *in* practice.

Building on the artistic metaphor is the parallel many have made between inquiry and improvisation. Carter and Pelo (2018) argue that, just as improvisation is the opposite of scripted performance in theatre, so too a culture of inquiry requires a willingness to improvise rather than follow scripted lesson plans. Like the skilled improviser in theatre, the inquiry educator understands the dance between offering and receiving and accepts that teaching and learning is a co-constructed experience. This kind of teaching requires a nimbleness of mind and alert curiosity. It is the kind of teaching that requires non-attachment and a willingness to let go rather than forcing a

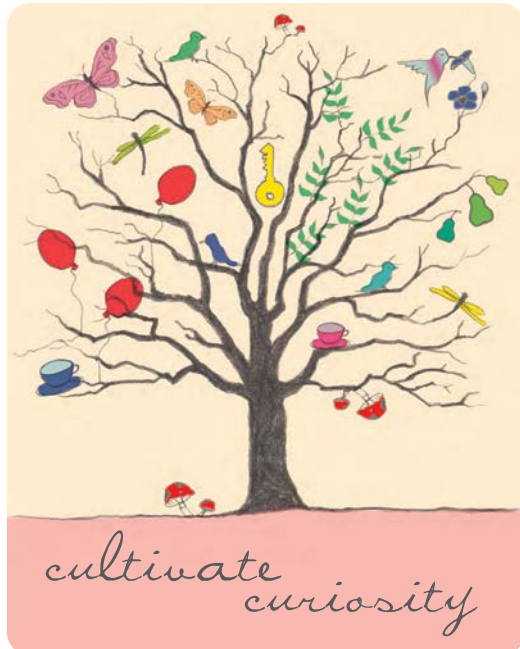
predetermined story line or outcome. They go on to remind us that, like the best improvisers, we must be fully present and willing to slow down, trust, and allow creativity, inventiveness and curiosity to thrive.

I would add that great improvisation is, in fact, highly disciplined. In order to improvise well one needs to have a solid foundation in your discipline. This is particularly true for inquiry-based teaching and critical to supporting learners in inquiry. I can be at my most responsive, present and creative when I have invested time to really get to know my learners *and* know my curriculum - and when I feel I have a strong repertoire of practices to draw upon. Like the jazz musician who knows the melody intimately, I can move on new, unexpected pathways without completely losing my way. We can differentiate our advice according to what we know about the needs of each learner, linking the learner to resources, and providing structure and support that ensures accountability. Like a coach, our purpose is not to do the learning for them (we can't) but to do what we can to empower them to do (and improve) the learning for themselves. Through careful and incremental 'nudging', we encourage learners to continue to better themselves, setting goals and working towards them.

Developing a language to describe the way we teach for inquiry is just as important as the language we use to describe the inquiry process itself. Conversations about pedagogy can and should be held between all staff – regardless of subject area specialisation or grade level. Too often, discussions of inquiry pedagogy marginalise those who work in specialist settings when, in fact, it is in these settings in which the pedagogy can flourish.

In 2018, after many years of observing inquiry-based educators at work, I identified a set of ten pedagogical practices routinely employed by teachers, regardless of subject area or age groups. In collaboration with the artist Justine Hutchinson, I produced a resource called *The Art of Inquiry*, which provides educators with advice for weaving these practices into their daily repertoire. In the years since, we have found the practices provide us with a useful lens

through which we can more closely examine our teaching. They are the focus of regular 'walk throughs' and 'learning labs' - opportunities to observe each other at work followed by deep, reflective dialogue about what we noticed, learned and wondered. For the purposes of this article, I outline five of the practices below and some examples of how they are applied.



Cultivate curiosity

While most teachers purport to value curiosity in their learners, fewer intentionally encourage or design ways to promote it. In her detailed research into curiosity in the classroom, Susan Engel (2015) concluded that the role of the teacher in determining the degree to which children demonstrated curiosity is hugely significant. There are multiple techniques teachers apply to better ensure that the curiosity of our young learners is nurtured and sustained. Simply *being* curious and modelling what it looks and sounds like to be fascinated by what you are learning is particularly powerful as is questioning and wondering aloud as part of our self-talk. Often surrounded by texts (both digital and hard copy) that bring the world into the classroom, their own delight in and enthusiasm for investigating those texts models what Engel calls '*the hungry mind*'. We also nurture curiosity by paying attention to the questions children ask and by showing an interest in and respect for the things in which they are fascinated. Thirdly, attending to the *language* we use can help create or diminish curiosity. As Peter Johnson (2004) reminds us in his remarkable book *Choice words* (2004)

choosing 'might' over 'does', 'could be' over 'is' and peppering our discourse with words like 'maybe', 'seems like', 'perhaps' and 'sometimes' all contribute to a culture in which learners stay open to possibility, conjecture and wonder. The TL is in an enviable context for the cultivation of curiosity.



Question

Of all the pedagogical tools in the teacher's repertoire, questioning is arguably our most potent. Both what we ask and how we ask it have a significant influence on children's thinking and on their willingness to share that thinking with others. Questions are at the heart of the inquiry classroom. Children's questions help determine the course of a lesson or unit - but building our *own* competence as questioners is just as important to the process of inquiry. Questioning is something all teachers can continually work on, in any lesson and across all subject areas. In an inquiry-based context, teacher questioning focusses not just on what is learned but on *how* the learning is unfolding. Teachers are as likely to ask "*What are you noticing about your thinking?*" as they are to ask "*What do you think the theme of this story might be?*" As young learners engage in locating and determining appropriate resources, investigating, analysing and synthesising information, it is the teacher's deft questioning that can help strengthen their skill set and promote deeper understanding. As children engage with texts, asking rather than telling them how to navigate their way through information nurtures an active, inquiring mind.

The inquiry teacher is less likely to say, “You need to see whether that information is backed up by at least one other source” and more likely to pose a question. “How might you figure out whether you can trust this information?” or “I wonder how we could find out whether this is true?” The skilled questioner is committed to helping the child ‘figure out’ more for themselves, gradually building their identity as capable, competent learner.



Notice

The pedagogy of inquiry asks that we intentionally take time to observe, listen and ask ourselves “What am I noticing?” Learning to do more ‘noticing’ as we teach can be transformative. Among other things, it means teachers begin to talk less and listen more and, in so doing, become much more aware of the learning that is happening in the moment (rather than relying on assessments after the fact). For many teachers, particularly those in specialist roles such as a TL, the pressure of time can work against this critical practice but when there are opportunities for deliberate observations during a lesson we become so much better informed about the needs of the learners and about where to next. Building more noticing into our teaching takes self-discipline. Learning to plan fewer ‘activities’ to allow for more space and time for observation and listening is often the first step. Having more than one adult in the learning space can also free us up to observe and document. Significantly, the observations and ‘noticings’ of the specialist teacher such

as the TL can provide insights into children’s learning that can otherwise be missed in the generalist classroom.

Release

If there is one aspect of inquiry-based learning that is most often described as challenging, it is the relinquishing of power. Many teachers agree, in principle, that children benefit from having more voice in their learning but admit to finding it challenging to let go and invite greater collaboration with and ownership by young learners. There are several reasons for this – a fear of not ‘covering’ the curriculum, concerns about classroom management, a lack of trust in one’s own capacity to be responsive and nimble in the moment and the oft-stated lack of time. For young learners to experience inquiry, teachers need to be prepared to give them plenty of opportunities to formulate theories, test ideas, experiment and explore possibilities. This is as true when figuring out how to use a new search engine as it is when solving a mathematical problem.

The tendency for many of us to begin a lesson by carefully modelling, explaining and demonstrating can reduce the likelihood that children will engage in this kind of ‘figuring out’ for themselves. One strategy we have found helpful is to flip the standard ‘gradual release’ model in favour of a more rapid release experience. Here we pose a question, challenge or problem and invite children to work with each other to see what they can uncover or clarify (drawing on their prior learning). Children share their strategies and discoveries followed by any necessary instruction, explanation or demonstration by the teacher. I recall a powerful lesson conducted by the TL of Jakarta Intercultural School many years ago in which she challenged the children to figure out how she knew where to return non fiction books, posing the question: “How are the non fiction books organised?” Several interesting theories were shared before the children took to the shelves to explore, discuss, test their ideas and figure out with each other. I recall the enthusiasm with which they returned to report back on what they noticed and what they had wondered as they looked for patterns and hypothesised about systems. The TL’s eventual, short explanation provided some clarity and vocabulary but there

was so much the children had discovered for themselves - and some wonderful unexpected questions to continue on with! Considering rapid release as an alternative to gradual release can mean children become more active and engaged in 'productive struggle' with instruction happening at the point of need.

Grow learning assets

One of the most striking developments in the field of inquiry-based learning over the last two decades in particular has been the growing emphasis on what are variously described as key competencies, 21C skills, approaches to learning, habits of mind or general capabilities. In my work, I refer to these simply as 'learning assets': the dispositions and skills that will be lifelong and life-wide assets to us as learners. The emphasis on generic skills and dispositions reflects the view that contemporary education can no longer focus only on what students come to know and understand but must simultaneously address HOW that knowing and understanding evolves and who we become as we learn. Guy Claxton (2018) reminds us that whether we are aware of it or not, the way we teach – our interactions with the young each minute of each day, gradually form in them attitudes towards learning and, indeed, their view of themselves as learners. Our teaching can steer them towards being risk-averse, competitive, and compliant or towards adventurousness, collaboration and enthusiasm. To successfully inquire, one needs more than a cycle of inquiry or a step by step research process. One needs, amongst other things, perseverance, critical thinking, curiosity, open mindedness, empathy and a healthy scepticism. Bringing these 'ways of being' to the forefront of our classroom interactions can be a game changer. Every 'library lesson' for example, has the potential to be a lesson about what it means to learn and about growing our capacity as learners. Teachers who prioritise learning about learning, are careful to use the language in their self-talk, learning intentions and feedback and they regularly invite children to reflect on their growth as learners.

Each of us who has the privilege of educating young people - be it in the generalist classroom, the library or in a virtual space, holds a great deal of power to affect whether or not those learners will flourish as agentic inquirers. While models

of and for the inquiry process remain a useful and important element in this work, it is the way we choose to *teach* that impacts so profoundly on the learner. The language we use, the way we respond to children's questions, the manner in which we ask questions, the degree to which we intentionally value and foster curiosity and our preparedness to release more responsibility and open up the possibilities for investigation all make a difference. Inquiry teaching is much more than seeing ourselves as a passive 'guide on the side.' The pedagogy of inquiry is active and intentional – and in the hands of a thoughtful educator committed to honouring the agency of the child, it is artistry indeed.

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