ACTIONING PODCAST

An edited conversation with Phil Tyson

PT
Hello again. The title of this podcast is Actioning Learning. What's that all about, Melvin?

MF
Hello, Phil. It's about facilitating learning.

It addresses the last two gateways in the resource question-led learning. That is, practical considerations from frame 99 to 123, which looks at key issues that shape what teaching and learning practice is or could be like, and useful tools from frame 124 to 142, which focuses on strategies that can be used to bring question-led learning into action.

In essence, these two gateways focus on practicable ways and means to facilitate learning. As I think you might say, Phil, it's where the engine is put into gear and the rubber is put on the road.

PT
Indeed!

MF
You could argue that the major role of teaching is to facilitate learning, knowing that learners are the people who do the learning. As we said many times in previous podcasts, no two learners learn in the same way or at the same rate, and they are often engaged in diverse experiences or different aspects of the content or substance of their inquiries. For me, the issue is to bring out the best in each learner, to build their knowledge and experience and their talents.

Teaching facilitates learning

PT
I would assume that these considerations should be taken into account before, during and after learning.

MF
Yes, Phil, especially as learning is a continuous process. It's not just a matter of delivering the good oil and expecting learners to absorb whatever it is like a sponge and regurgitate it on demand.

A continuing process

Instead, it's a continuous process where learners can develop and apply the five minds of being disciplined, synthetic, creative, reflective and being ethical described in frame 100; and in so doing, bring to bear the range of their multiple intelligences. And reflect back metacognitively at the end of an inquiry on how they learned and studied during that inquiry. So it's an ongoing process of facilitation of learning with the teacher being instrumental in the process.

Five disciplines of mind apply

Engage multiple intelligences

Metacognitive reflection

PT
Frame 107 is focused on deep learning. I've come across that term in connection with AI, I think. It's about teaching computers to process data. Is that the meaning you have in mind?

MF
No, Phil, with a capital N-O. What the frame looks at is deep learning for all of us and among all of us as a requirement in a complex and rapidly changing world.

Look at curriculums particularly the prescriptive ones we currently have in place. There's a massive amount of content. Many would say, especially primary school teachers, it is impossible to do adequate justice to such a vast amount of detail, with learning almost by definition relegated to superficial coverage of a smorgasbord-like menu. Because you can't do that breadth of stuff in a deep way or in a profound way. A reality that is accentuated by the explosion in knowledge that has occurred in recent decades.

Massive content demands

Difficult to do justice

Superficial learning

An alternative is to say, well, let's look at fewer things and do them more deeply. It's a question of 'less is more'. As opposed to what we currently do a lot of the time which is 'more is less'.

Less is more

Moving from 'more is less' to 'less is more' enables learners to formulate ideas and concepts and build the necessary skills embedded in the substance of their inquiries. Concepts and practices are developed through these experiences from which 'big ideas' can be formulated. These 'big ideas' are broad and can be applied across different fields of knowledge and experience. They evoke generative questions which provoke deeper understanding.

From experiences to concepts to 'big ideas'

Generative questions incite deep learning

One other point, Phil, to clarify what I have been trying to say about deep learning. A 'more is less' approach is content-bound, which tends to encourage conformity and even demand conformity, whereas 'less is more' is content-related, thereby enabling and encouraging diversity and creativity in learning. In my experience, a decent swim is more beneficial and satisfying than just putting a toe in the water.

'More' is content-bound

'Less' is content related

PT
Well, I think I'm convinced that less is more. Thank you.

Let's move to frame 115, learning preferences and practices. A cursory look at it suggests that there is much diversity within any group of learners and even within an individual's preferences and intelligences. Is that what you're describing here, metacognitively?

MF
Metacognitively, I'm not sure! But it's important that distinctions are made between processes and intelligence.

Processes and intelligences differ

Processes are things that relate to how something or some event happens. Collaborating, discussing, inquiring, reflecting, presenting, visualizing are processes. They are things you do. Depending on the inquiry at hand, they provide opportunities for learners to engage different intelligences as they develop and apply their talents.

At least eight intelligences have been identified. But in the past, we have often emphasized the logical, mathematical, and linguistic intelligences more than the others, when the emotional side, the musical side, and so on are just as important.

Range of intelligences skewed

There's an important distinction between processes for doing things and intelligences. Yet different intelligences do lead to things that learners like to do. For example, if you're word smart, you'll enjoy reading and writing and telling stories and things like that. If you're picture smart, you like viewing pictures and slides, watch movies, and play with machines. And if you're people smart, you have lots of friends, talk to people, and join groups. What counts is not how smart you are but how you are smart, and that is reflected in your learning preferences.

What learners like reflects their intelligences

How you are smart influences your learning preferences

Frame 115 has a video attached to encourage further exploration of these differences. In fact, there's a video for many of the frames in the Practical Considerations gateway to the resource. The purpose of these videos is to provide food for thought.

Videos highlighted as food for thought

PT
Will you take us into frame 118, which describes the characteristics of an effective community of learners?

MF
Yes, but first it's important to say kids need to feel safe. They need to be able to take risks. They need to ask questions and make mistakes and learn to trust each other and to share feelings, all of which are crucial aspects in effective learning communities. What kind of conditions enable that to happen? Well, in this frame, there are four.

Free safe and enabled to risks

One is participant rights. You need and want to encourage the expression of different ideas, views, and feelings, and yet people can remain quiet if they want to without being forced to say stuff. How many times have you and I, Phil, been forced to stand up and say something, whether we wanted to or not, leaving our minds frozen by the pressure?

Participant rights

The second thing is accepting personal responsibilities. Everybody has responsibility to listen, to respect what other people are saying, and to participate. A community culture if you like.

Personal responsibilities

The third element is a team culture where things are negotiated with ideas and practices and feelings shared. Teamwork conversations build understanding and commitment.

Teamwork culture

The last element of the frame is resilience, which means encouraging learners and groups of learners to be autonomous, to be creative, and to be caring.

Resilience qualities

These four elements, participant rights, personal responsibilities, teamwork culture, and resilience qualities help to create an interactive environment that is supportive and creative.

PT
We've covered a lot of territory in the last few minutes, but now I'd like to explore some of the teaching and learning strategies which are described in the useful tools gateway of the resource. Could we start with frame 126, which gives advice on the construction of questions?

MF
Okay, Phil. Given the way we have been emphasizing generative questions, consequent questions, and pointed questions, it's a particularly important frame. Each step generates a process. Let me say again, it's not a mechanism or a mechanistic set of steps, one, two, three, four, five, and so on.

A process for finding questions

The first one is to select the generative questions. Select two or three that are most relevant for the inquiry being undertaken, either from the perspective of the learners or the teachers or both. And then identify consequent questions. Two different levels of strategy are outlined.

Select generic generative questions

One is to seek broad questions such as wonder-based questions which search for ideas and practices, vexed questions which look at contradictions, and what-if questions when there is no previous precedence. Sometimes more specific questions are needed, but beware it is seldom a matter of brainstorming everything you can think of as that often lacks direction and purpose and can lead to an aimless smorgasbord of questions. Better to be more targeted by focusing on issues such as the fluency, diversity, originality, or detail.

Identify consequent questions

The next step in constructing effective questions is refining the consequent questions and the pointed questions by grouping them according to their similarities and differences. But beware that the grouping process doesn't develop a life of its own. It can easily become a distraction.

Group consequent questions

Then you need to prioritize the questions by identifying and agreeing on which ones to emphasize in your investigations. You can do this by electronic means or by the well-known sticky notes process. In this process, each sticky note with one question written on it is put up on a display board. The notes are then grouped, and eventually participants are given a limited number of stickers to place on their preferred questions.

Prioritise consequent questions

By adding up the votes so to speak, a sense of priority is obtained. There is a strong element of privacy in the process which can be helpful where sensitive issues are being explored.

Privacy if required

PT
I suspect the six hats would be familiar to many of those listening, a proven means of exploring different perspectives. Should we visit or revisit de Bono's thinking hats now?

MF
We could, Phil, but I think people are familiar enough with them. And if they have a look at the relevant frame, which I think is frame 127, it speaks for itself. But I would make one comment. We often tend to be black-hatted, and hence the diversity created by the six hats is very valuable. It gives learners who are coming from different points of view a means of expressing what is in their minds.

Promote views people have in their minds

PT
Questions that have distinct purposes are the focus of frame 129.

MF
Yes, we need a repertoire of questions with clear intent and purpose behind them. For example, you can have exploratory questions that unfold new knowledge. You can have focused questions designed to develop hands-on activities. Hierarchical questions differentiate and assess sophistication. Then there's reflective questions and input questions, and so on.

A repertoire of purposeful questions

There's a whole stack in frame 129, not to mention taking a broad approach by employing what-if questions or wonder questions or vexed questions, which we have already mentioned in this podcast.

Using such a repertoire adroitly to meet the needs of the inquiry at hand is an important aspect of making question-led learning deep and practicable.

Makes question-led learning practicable

PT
You have some fascinating hypothetical questions appearing in frame 131, but in what circumstances might we want to use those?

MF
The other day I was talking to somebody from the academic milieu who was saying there wasn't enough emphasis in our question-led learning resource on asking what-if questions. That is, questions that are developed where there is no previous precedent. There is nothing to hang on to, unlike vexed questions where looking at the contradictions, or wonderment questions where you're thinking of a proposition.

Because what-if questions are a way into the unknown, they fit well with hypothetical challenges. For me, I think we should use what-if questions more than we do. Hypotheticals are a good way, but only one way.

What if questions open the unknown

In the flying machines example, we discussed previously, what if we were to use this piece of equipment to do this? In the transport system challenge, what if the local community were changed to do this? You could do the same thing in a big way about climate change. Or in the case of proportion and percentage, what might happen if the trends in these figures were to be repeated in the future?

What if questions valuable in a wide range of inquiries

I could go on and on, Phil. Yes, there is a huge repertoire of what-if questions. In my view, it is an attitude of mind.

PT
I notice strategies for visualizing ideas and practices are given a fair amount of attention in frames 132, 133, 134 and 135, and to some extent in the mandala in frame 136. Why is this important?

MF
Visualizations and imagery in all its forms are valuable and important ways to express ideas and describe practices, both well-formed ones and speculative ones that are either first thoughts or embryonic concepts. Artists do this all the time in their paintings and other artifacts, including multimedia productions and musical sound imagery.

Visualisations reflect and reveal thinking

Why then shouldn't learning environments use these processes regularly? Yet in many educational settings, these learning opportunities are often the first to be lost due to pressures to cover content and sometimes limited resources, or both, A total anomaly, in my opinion, when you think of the huge role visualizations and visual representations play in everyday life.

Visual means refine and summarise thinking

There is also a raft of other, more targeted means of visualizing. These include concept diagrams, schematic diagrams, flow diagrams, fishbone diagrams and the like. They can be used to organize first thoughts or to express complex ideas and practices distilled over time. For example, building plans and changing patterns in electronic systems are schematic.

Targeted visualisation processes

Visualizations encompass thousands of words.

PT
Well, I think that is the end of our podcast series, for the time being anyway. We will be back if the need arises.

MF
May I raise a controversial thought? If you are thinking about what's central in a curriculum, and I don't want to use the word ‘core’ because that's got too much baggage. Could the 12 generative questions put forward in the question-led learning resource, or variations of them, be at the heart of learning?

A challenging thought

Phil, let's get up onto the mountaintops and envisage teaching and learning for living and working in the world of today and tomorrow.

PT
An exciting challenge. Thank you very much, Melvin.