THE ESSENTIAL LEARNINGS
&
‘INCLUSIVE COGNITION’

A WORKBOOK

by

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PROLOGUE

Over the next two days together, we will explore some vital connections between a number of different aspects of learning as they reflect the profound and very exciting reformation that are currently occurring in South Australian education.

The particular emphases will be on The Essential Learnings and their connections with the Learning to Learn initiatives. The process that will be used will reflect what I term ‘inclusive cognition’: that is a process of learning that integrates four different modes of learning: (i) **experiential**, (ii) **propositional**, (iii) **practical**, and (d), one perhaps less familiar to most of you at least under this name, **inspirational**.

My intention here is to illustrate my personal take on how one can use different modes of learning in order to learn how to (better) learn. My hope is that through this process you will learn something new that will be useful both to you as an individual and to you as an educator/educational administrator to embrace within your practice/praxis.

The material and processes that will be used will of course reflect my own particular worldview, as presenter/facilitator of this workshop: A worldview that has been informed (as it continues to be) by a host of rich experiences (both within and without formal education) and by a wide body of theories and philosophies to which I have continuously been drawn as I try to learn my way consistently into ‘better futures’.

Obviously experiences and theories are intimately interconnected – and indeed one of my fundamental beliefs (a prejudice that clearly influences my worldview) is that they are mutually inter-connected: each influences the other in such a way that what we do in this world is both affected by, and affects, the way we ‘see’ (or construe) it. And such ‘seeing’ is as profoundly influenced by our values and our emotions, as it is by our thoughts and actions.

The aim of this particular workbook is to act as a record of the proceedings as a combination of inputs from you, from me, from a number of educational theorists, and from others with whom you will be working during these two days. In this manner we will combine propositions with practices and with reflections on experiences (including feelings) in the true spirit of ‘inclusive cognition’.

To many, the word ‘cognition’ smacks of a cold, unemotional, peculiarly ‘scientific’ view of learning and of ‘theoretical’ knowledge that is one of its outcomes. I want to encourage you to think of the word in a much more ‘holistic’ sense – of both making meaning and taking meaningful action under circumstances that are filled with emotion, and indeed spirituality. No learning occurs without feelings and passions.

As a way of launching the event, permit to share with you five particular **propositions** that form the foundations for the worldview that I currently embrace with respect to learning – and which thus provide the logic (the conceptual framework as it were) upon which this workshop has been designed. I will then move into an exploration of the Essential Learnings in ways that I hope will illustrate the propositions in action, as it were.
Proposition One:

**Learning is a Process of Adaptation.**
We seek to make meaning from the world around us (including other people within it), in order to take meaningful action to improve “our fit” within it. Learning thus combines ‘making meaning’ with ‘taking action’ as a process of individual and social adaptation.

Proposition Two:

**Learning is a Process of Transformation.**
The meaningful actions that we take (both as individuals and collectively) can result in transformations to (a) the bio-physical world, (b) the socio-cultural world, (c) ourselves, and/or (d) relationships that exist between all or any of the above. Change is thus our motivation for learning.

Proposition Three:

**Learning is a Multi-dimensional Process.**
It is useful to think about different (a) ‘pillars of learning’ (Delors), (b) ways or modes of learning (Reason/Bawden/Belenky), (c) motivations for learning (Habermas) (d) levels of learning (Kitchener), and (e) ‘essential learnings’ (SACSA).

Proposition Four:

**Learning is a Process that has to be Learned.**
As humans we have the remarkable to capacity to be able to ‘meta learn’: that is to learn how to learn. Indeed it might be argued that meta-learning is THE essential learning – the very essence of human-ness.

Proposition Five:

**Learning is a 3R Process.**
Learning is (a) reflective, (b) recurrent, and (c) recursive.
Pillars of Learning

Learning to Know
Learning to Do
Learning to Live Together
Learning to Be

Modes of Learning

Propositional Learning (to know from being told)
Practical Learning (to know from being shown what to do)
Experiential Learning (to know through the process of being)
Inspirational Learning (to know from ‘innate’ insight)

Motivations for Learning

To manage the natural world
To deal with social situations
To emancipate those who are disempowered

Levels of Learning

Learning 1 = cognition
Processing the ‘matter to hand’

Learning 2 = meta-cognition
Processing the manner by which the matter to hand is processed

Level 3 = epistemic-cognition
Processing the epistemological assumptions that influence both meta-cognition and cognition.

Essential Learnings

Futures
Identity
Interdependence
Thinking
Communication
“Drawing upon a constructivist view of learning, the [SACSA] Framework explicitly identifies five Essential Learnings which, together with concepts and processes drawn from the learning areas, provide the connecting threads for the whole curriculum: Futures, Identity, Interdependence, Thinking and Communication”.

In this first session I want to (a) present the argument that identity deserves to be treated as different to the rest of the essential learnings, and (b) explore some of the implications of this with respect to the ideas of learning as adaptation and transformation.

As I have expressed it elsewhere:

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THINKING  FUTURES

IDENTITY

COMMUNICATION  INTER-DEPENDENCY
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And as we shall a little later, I have already mounted an argument that the other four essential learnings fit neatly into three key philosophical categories (identified by Immanuel Kant) that are crucial to the development of identity (one’s beliefs about knowledge [epistemology], one’s values about right and wrong [ethics], and one’s sense of what is fine and virtuous and beautiful [aesthetics]. But identity is the core!

There is nothing ‘evil’ or inadequate about the notion that our identity is the center of our universe. Personal autonomy has been recognized as a primal human focus for as long as philosophers have mused – as Socrates emphasized with his position that it was important to “First know thyself”. And the evidence is overwhelming that survival is the primal instinct that we share with all sorts of other life forms on this planet.

So let’s look first at identity, and address the following three issues:

- “Who do I think I am?”
- “How have I learned about me?” and
- “How do I relate to the world about me – given who I think I am?”

And let’s start this inquisition in a somewhat unusual manner:
Please select an animal that you believe symbolizes for you some of the crucial attributes that you regard as central to your personal/professional identity. Draw that animal in the space below, and then share the drawing and your logic with a neighbour.
When both of you have finished, you might like to share your observations around the table, and reflect personally on what emerged from the group discussions. What have learned from that exercise?

And you might like to add a few words about how you are feeling at the moment.
So that’s who you think you are.

Now, being who you think you are, how do you go about adapting to the world about you? Essentially, how do you learn to transform your experiences in the world into knowledge and meaning as the basis for taking meaningful action?

To explore these questions, let’s move to a formal ‘experiential process’ and a very brief explanation of the theory behind it as articulated particularly by David Kolb.

Kolb posits that the experiential process occurs as a result of our need to reconcile two dialectic tensions that we feel as a result of two different ways through which we ‘grasp’ reality (through concrete experience or through abstract conceptualisation), and two ways through which we transform what we have grasped (through reflective observation or through active experimentation). He expresses these two dialectics as polar positions on a matrix, which he then converts into a cycle to illustrate the dynamics of the dialectic resolution (Figure 1).

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Figure 1. An Experiential Learning ‘Cycle’ (after Kolb 1994)

Kolb has further argued that experiential learners, in attempting to resolve the dialectical tensions between these two pairs of polar opposites, involve themselves intimately in four basic activities which he termed divergence, assimilation, convergence and accommodation respectively.

• divergence involves the learner moving from concrete experiences to reflective observations
• assimilation from reflective observations to abstract conceptualizations (and together we might argue these constitute ‘making meaning’ = finding out)
• convergence from abstract conceptualisation to active experimentations, and
• accommodation from active experimentations to concrete experiences (which together constitute ‘taking meaningful action’)
The essence of these four activities can be captured with the notions of perceiving (or observing) as the act of *divergence*, understanding (or thinking) as *assimilation*, planning (or designing) as *convergence*, and acting (or practicing) as *accommodation* (Figure 2).

We might conceive of this process as apparently occurring partly in the ‘real’ world of concrete experience, and partly in the ‘abstract’ world of the mind.

![Diagram of Four Basic Activities in Experiential Learning Process](image)

Figure 2. The Four (2 x 2) Basic Activities in an Experiential Learning Process and the Two Worlds in which they Apparently Occur (which may or may not occur in a strictly cyclical manner in practice – and indeed rarely does!)

The process of learning starts with the immersion of the learner in a concrete experience from which as many observations as possible are gathered and perceptions recorded. This stage of information gathering is then followed by a phase of thinking, during which attempts are made to understand what has been experienced - and sense is made out what has been sensed! This stage is followed, in turn, with plans for action based on the understanding achieved. Finally, the planned action is taken, and as this changes the situation, the whole process is repeated, and more knowledge created.

Vitally the process is repeated in ‘three dimensions’, for we need to reflect (a) on what ‘actually’ happened in the matter to hand, (b) on how we went about dealing with the matter to hand, and (c) on what worldview influenced (prejudiced) the way we went about both (a) and (b). In language we shall explore shortly, we need to reflect at a cognitive level, a meta-cognitive level, and an epistemic cognitive level.

*Experiential learning is a reflective, recursive, and recurrent process of adaptation to change, involving a rigorous process of transformation.*
So let’s now try it out in practice by using it to explore an issue with which you have had to deal in the recent past (or indeed not-so-recent past if you have good memory)!

Identify an experience that you have and explore the way you dealt with it. In the grid below, make brief notes with respect to the outcomes of each of the four activities respectively. (If you missed one, be honest, omit it!)

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<thead>
<tr>
<th>THOUGHTS</th>
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<th>PLANS</th>
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Having completed your ‘display’ turn to your neighbour, and share notes.

The task is to not just to share stories but to explore similarities and differences in the process by which the experiences were treated.

A second feature for discussion relates to the meanings that you attribute to each of the four activities and their outcomes:

In other words:

What does each of us mean by observing? And what constitutes observations?

What does each of us mean by thinking? And what constitutes thoughts?

What does each of us mean by planning? And what constitutes a plan?

And finally, what does each of us mean by doing? And what constitutes actions?

At this stage it is important to have some clarification of these notions. Clearly as you delve more deeply into learning about learning, the more rigorous your ideas will have to be with respect to the meanings that you and others attribute to the activities and outcomes.

**Thinking** is one of the essential learnings, and therefore will merit your particular attention which will draw you increasingly into discussions about the nature of thinking and thought themselves. You will learn to be rigorous in your ‘definitions’ of, and distinctions between ideas, concepts, theories, principles, truths, laws etc. These have been topics of profound interest to philosophers, psychologists and sociologists since time immemorial.

The point that I wish to emphasize here is that ‘Learning to Learn’ – meta-learning – involves not just the development of an increased awareness of the need to be increasingly precise in the attribution of meaning, but also a critical appreciation of their nature, and crucially, their interactions. Nothing is neutral here! How and what we think markedly influences what and how we observe, and plan and act, just as what we do influences what and how we think. And so on.

In other words, meta-learning is not only a matter of knowing more about such notions as observing and thinking, but of being able to critique that knowledge and how it was gained and validated. How you know that you can trust what you know! In such manner we learn how to learn better!
But on with motley – share away!

Reflections on the ‘sharings’.
In the last exercise, you were encouraged to think somewhat analytically about how you dealt with a matter-to-hand as well as about how you dealt with that matter: To reflect through cognitive as well as meta-cognitive processing.

Clearly, as we become more and more aware of the processes and activities of experiential learning, we can imagine ways by which we could become better at it! We can become more critical in our meta-cognition, or to restate in a different form, we can become critically reflective meta-learners.

In essence that is the message of Learning to Learn!

But experiential learning, as has already been suggested, is but one of a number of different ways of learning. The next step in our meta-learning excursion is to explore the nature of other forms or modes of learning, and how these can be integrated into what we might refer to as ‘learning system’.

The picture in Figure 3 might be a useful starting point here.

Figure 3  Me as an integrated learner or as a component of a learning system.

The model depicts me the learner, trying to make sense out of an experience that I have identified from the total world around me as being of some interest/significance to me in some manner or another. In the process of the now familiar ‘finding out’ and ‘taking action’ process of experiential learning, I recognize the merits of calling upon knowledge that others have already generated upon which I can call upon as propositions that might
help in my task of ‘finding out’. I can also call upon practices that others have shown to be useful as the basis for effective actions in similar situations.

The capabilities that I now need in addition to effective experiential learning processes are (a) to access these forms of propositional and practical knowledge (to be effective in propositional and practical learning), and (b) to integrate all of these together into a ‘system of learning’.

Let me invite you to return to your previous experiential exercise and now add to it whatever propositional and practical knowledge that you might have drawn upon, to help you in your process of inquiry.

Propositional knowledge (theories, concepts etc) that you might have drawn upon:

Practical knowledge that you might have drawn upon:
You might even like to estimate the relative time and effort that you applied to each activity – observing, thinking, planning and acting – in the form of a pie chart. You might even like to add a fifth category for ‘gut feeling’ or intuition.

And then along a time line, you might like to enter key moments of emotional change, and what they were.
Once again may I invite you to share your reflections on all of this with a neighbour before joining in a round table discussion about the nature of prepositional, practical and inspirational learning. You might like to record the highlights of that discussion as bullet dot-points in the box below as *critical reflections*.

Some critical reflections on meta-learning:
What we have been doing here is exploring both Level 1 and Level 2 learning at the same time – reflecting on learning about the matter-to-hand as well as how we went about dealing with the matter to hand.

We now need to amend Figure 3 accordingly to accommodate these two levels of learning – as shown in Figure 4 below.

Just as there was propositional and practical knowledge that was relevant at “level 1” learning, so too is there at this meta-learning level too: Theoretical and practical knowledge about learning to learn.

![Figure 4](image_url)

**Figure 4.** A learning system that includes a meta-learning ‘level’ or dimension.

But we cannot stop here. These reflections on meta-learning now bring us to the somewhat trickier notion of Level 3 learning – the epistemic dimension. To do this I need to further expand upon the notion of **worldview** that I mentioned very briefly in the Prologue. And to explore this dimension let me introduce a further icon into our developing model of learning – a ‘window on the world’ through which we ‘peer’ as we attempt to find out about that world (Figure 5).

![Figure 5](image_url)

**Figure 5:** The window on the world ‘through which’ we perceive it!
As mentioned earlier, nothing about learning, is neutral. All sorts of influences and interactions are at work as we go about our learning not the least of which are represented by a complex notion of our “window on the world” which might be referred to as our philosophical ‘perspective’, or more powerfully perhaps, our paradigm.

Everything that we do, every thought that we have, every value judgment that we make, is grounded in a set of profound assumptions and beliefs that we hold about:

- Reality or the nature of nature (so called *ontology*),
- Knowledge or the nature of how we come to know the nature of nature (so called *epistemology*), and
- Human nature (so called *axiology*).

Sadly, these are such neglected dimensions in conventional educational systems that the vast majority of us don’t even know that we hold ontological, epistemological and axiological beliefs and assumptions, let alone the characteristics of the particular beliefs and assumptions that we do hold. And yet these are vital to our very identity, as well as to the ways by which we relate to other people and to nature at large.

Wars occur as a result of differences in worldviews/paradigms. The person who is a terrorist to some people, is a freedom fighter to others. Prison is a place for punishing miscreants to some, while to others it is an institution where such ‘miscreants’ can learn the ills of their ways – and have their behaviour ‘corrected’. Nature is a resource to be exploited to some, while to others it has its own integrity and ‘right to exist’ in as pristine a state as possible. And so on.

These are not petty differences in opinion but profoundly different value/belief systems that prejudice our views about truth, and honour, and beauty, and virtue, and most significantly, meaning. And indeed contribute in a major way to our identity.

The most profound changes that we can make in our learning system, is to change the perspectives through which we create meaning from and of the world about us (and others within it).

In this workshop we are going to briefly explore the matter of worldview perspectives from a relatively straightforward (but nonetheless somewhat complex and difficult) position. Essentially ignoring axiology for the purpose of simplicity, we will concentrate our attention only on ontological and epistemological dimensions, and on only two expressions of each. In life, matters are much more complex than this – but the simple distinctions that we will use will suffice to make the point and give us a focus for practical activities.
Let me go back to the worldview icon that I introduced a little earlier, and re-present it as a dynamic matrix that includes two opposing ontological positions on the vertical axis (holism and reductionism) and two opposing epistemological positions (contextualism and objectivism) on the horizontal (Figure 6).

![Figure 6](image1.png)

**Figure 6:** The elements of a worldview perspective matrix.

The distinctions in ontology selected reflect the idea that one either assumes the irreducible wholeness of nature and other systems (holism), or one does not (reductionism). With respect to the epistemological distinctions one either accepts that there is “a permanent, ahistoric matrix or framework to which we can ultimately appeal in determining the nature of rationality, knowledge, truth, goodness or rightness” (objectivism) - as Bernstein (1983) put it - or we do not (contextualism).

When created as a matrix (Figure 7) we can identify four distinctly different perspectives or ‘centricities’ each of which is perfectly legitimate in reflecting legitimate assumptions/beliefs about the nature of reality and the nature of knowledge.

![Figure 7](image2.png)

**Figure 7.** Four Worldviews as Functions of Differing Ontological/Epistemological Positions
A *technocentric* view of the world, which can be taken as representing the prevailing paradigm of modernisation, is as far removed from the *holocentric* view as it is conceivable to imagine. From a technocentric perspective, the world is objectively ‘knowable’ through rigorous analysis of its components in isolation from each other. The nature of whole entities (such as ‘ecosystems’ or ‘organizations’ for instance) can be known through studies of their parts in isolation (a) from each other, and (b) from the ‘system’ at large. From a holocentric position, the opposite pertains. All whole entities have properties that are associated with their very wholeness and these are impossible to ascertain through a study of parts in isolation. Furthermore, any knowledge that is generated about these entities can only ever be contextual - never the objective truth.

And so on.

It is not at all surprising that the discourse about what constitutes responsible and sustainable development of our natural resources or our communities, for instance, is so filled with conflict, given the tensions that exist between these different belief positions and thus worldview perspectives. Yet these differences must be addressed if ‘progress’ is to be made beyond mere agreements to disagree!

A critical learning process must therefore include ‘epistemic discourse’ about the nature and influence of worldviews on the process of learning - and ultimately, on development itself. In learning to learn we must learn how to engage with the world in a cognitive manner, in a meta-cognitive manner, and now as we have seen, in an epistemic manner.

Given that our worldviews, as represented here at least, reflect our most fundamental belief positions, it is not at all surprising that we hold to them with such conviction. It is equally understandable that communication between people with different worldviews is typically so distorted.

Let’s end ACT 1 of our drama with two exercises that illustrate the nature of epistemic discourse for epistemic learning with the second including an explicit focus on values (axiologies).

**Case:** Salinity in Australia’s waterways is an increasingly widespread and serious problem – as anyone drinking Adelaide water would firmly appreciate! Please nominate and rank five major activities that you believe should be taken with respect to the way the matter should be handled.

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Once you have completed your list, turn to the other members of your table and discuss the various responses in open forum, with particular respect to worldview perspectives. Record some of your key reflections.
The details of the final exercise will be given on the day. Record your ‘results’ below.
And with that ever so brief exposure to the logic and essence of the epistemic, we can illustrate the glorious ‘three dimensionality’ of experiential learning (Figure 8). While the nature of the epistemological/ontological/axiology perspective is known through epistemic cognition, it has a very strong influence at the other two levels of learning – and is shown at Level in the model below to reinforce its significance there.

And as before, there are propositions and practices that are useful at the epistemic level of cognitive processing too.

![Figure 8: The three dimensions of experiential learning.](image)

**EPILOGUE TO ACT 1**

In Act 1 of our ‘participative play’ we started with a number of propositions to do with *learning* and connected them to the notion of *identity* as a central ‘essential’ focus for learning: The basic hypothesis was that we learn in order to make meaning out of the world about us (including others within it) as the basis for taking meaningful action in it. And all that related to who we were, how we thought and how we acted, how we felt, and how all that was integrated into who we thought we were!

We end this act, with the actors typically exhausted, somewhat overwhelmed, more than a tad confused, but enriched by the challenges of the day.

EXIT STAGE LEFT
PROLOGUE TO ACT II

It always helps to have a brief recapitulation of what went before as an indicator of where we were and where we are, and where we might go to from here. Learning, it was argued yesterday, was an adaptive process involving the generation and use of knowledge that resulted in transformations in (a) the bio-physical world, (b) the socio-cultural world, and (c) the self!

As the action unfolded experientially, we developed a ‘three dimensional model’ of learning that embraced (a) three different (but highly inter-connected) modes of learning – experiential, propositional and practical, with (b) three different (but highly inter-connected) levels of cognition – cognition, meta-cognition, and epistemic cognition – each of which we related also to different levels of learning.

As the end of the day drew nigh, we placed a special emphasis on the nature and significance of what we referred to as worldview perspectives and the particular role of epistemic cognition in clarifying this. All of the experiences and inputs were far too brief for anything more than a cursory taste of the ideas behind them, but such is the nature of workshops such as these. Like any drama, a workshop can only raise issues and ideas and dilemmas of interpretations, for later, deeper, more substantial development.

We could have chosen to use the second part of the workshop – the second act of our little drama – to allow for such substantial development by going over the material of the first day in greater depth. We have chosen not to do that however, but to push on with even more material, more ideas, more concepts, and more practical exercises that take us even further into the wonderful world of learning.

Where yesterday the special emphasis was on the individual learner – on the identity of me – today the focus will be much more on we and on the nature and significance of collective or social learning.

Yesterday special (albeit still very slight) mention was made of thinking as one of the four essential learnings that could be seen as crucial to the development of identity. Today we will explore thinking a little more (with a new ‘systemic’ twist), while also engaging more explicitly with the other three essential learnings of communication, interdependence and futures.

And let me start by returning to Immanuel Kant the German philosopher who, more than two hundred years ago, was much taken by the notion of happiness as the central theme of living: “happiness is the satisfaction of all of our desires, extensively, in respect of their manifoldness, intensively, in respect of their degree, and protensively, in respect of their duration”. In this context he posed (and addressed) three key questions:

What can I know?
What ought I to do? And [for]
What may I hope?
As I interpret these three questions in turn, they represent what can be seen as (i) an epistemological question, (ii) a practical ethical question, and (iii) an aesthetic question, and as such I submit, provide a wonderful philosophical framework for the design of curriculum and educational policy alike.

And as it happens, I think that the four essential learnings beyond identity, map wonderfully onto this schema as illustrated in Figure 9 below.

![Figure 9: A Philosophical framework for the essential learnings](image)

Given that the central aim of the grand educational project in South Australia can be held to be the *Search for Identity in an Ever-Changing World* (as argued yesterday) and the generation of meaning about the nature of the world and its peoples through such a perspective, then we can relate the remaining essential learnings to sound philosophical foundations:

- **Thinking** fits logically into the epistemological domain (*knowing* would be even better!!).
- **Inter-dependency** and **communication** are vital practical competencies aimed essentially towards ethical ends, and
- **Future**, especially as a context for hope, is an aesthetic matter.

*Identity* (an ontological issue) is an emergent property of thinking/knowing (an epistemological issue) human beings who are communicating with others and with other things with whom they are inter-dependent (both practical ethical issues) and where a focus on the **future** is vital as a prevailing context for understanding and action in fulfilling personal and socially virtuous visions (an aesthetic issue).

So the agenda for today will be to explore some of the implications of the above in what will essentially be an exercise in social learning. There will thus be strong need for interdependency and communication as well as thinking, while there will also be a deliberate emphasis on the future and how we learn to learn from it as a foundation for
how we might deal better with it! Essentially the work of today will be a single (rolling) exercise in which the focus will change from time to time, but the central piece of work will continue throughout the day.

And just to get us back in the mood, let me invite you to pause for second or two, reflect on yesterday, identify three things that you think you learned from all that we did together and record them below. Then capture, in one word, how you felt at the end of the day.

Three significant things that I learned yesterday:

And one word for how I felt at the end of the day!
ACT TWO

SCENE ONE
But Wait, there is More to Me than Pure Reason

With talk of hope, and aesthetics, and the rights and wrong, and goods and bads of ethics, we are introducing a gamut of notions for which the model of learning that we have constructed so far – with its strong reliance on logic and reason - is less than adequate. And so before we plunge into a social learning exercise about the future and the process of ‘learning from the future’, we need to revisit our 3D model, and add yet further to it.

Let me invite you to pause for a few moments and disconnect from this place and even this time. I would like you to think of the most beautiful special place that you have ever been in the world and to build a picture of that place in your ‘mind’. After a few moments I would like you to express that place in words or pictures, and then share the outcome with a neighbour.

My special place:
I want to suggest that what you have just done draws significantly on ‘parts of your mind’ that extend beyond the rational – beyond conceptual reason – and that embrace what we might refer to as spirituality. Yes it is true that the central request was grounded in reflection on some form of experience, and yet the way you made sense out of it, was not solely conceptual (through thought) but involved innate notions about what is beautiful and aesthetically pleasing and induces happiness. I am not alone in submitting that there are processes beyond the experiential, propositional, and practical, through which each of us can learn aspects about ourselves and the world about us that truly are beyond ‘pure reason’!

I believe that to capture a truly inclusive model of cognition, we need to add what I term an ‘inspirational’ process to our model of learning.

Where experiential learning involves observing, thinking, planning and acting, inspirational learning somehow involves disengaging, focusing, accepting, and applying. Where experience is the source of learning for experiential learning, innate insight is the equivalent source for inspirational learning.

I want to further suggest that experiential and inspirational learning, although profoundly different in process, work in harmony with each other – as a kind of ying and yang of learning – with meaning as the outcome of the interaction between of the two.

Imagine this as two inter-connected, inter-dependent sub-systems within an integrated learning system (Figure 10). For the purpose of clarity I have omitted from this diagram the propositional and the practical processes that we included yesterday. But take them as given – for they are vital. Also omitted, for the same reason, are the three ‘levels’ of cognitive processing that were emphasized so strongly yesterday.

It is possible to imagine three levels of processing being appropriate to inspirational learning too, although as I personally am not convinced by the case, I do not include them in the model that I use to inform my own work in curriculum

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**Figure 10: Inspirational and Experiential Learning as two Subsystems of a Learning System.**
With this model we now have a way of connecting what we might express as the three domains or worlds of the *sensual* (which engages our senses), the *conceptual* (that which engages our thinking), and the *spiritual* (that which engages spirit or ‘soul’) (Figure 11 overleaf).

Figure 12: Three Domains of ‘Human-ness’ Inter-connected through Learning

In the important and significant exercise that follows, there will be opportunities to use all of the aspects of learning that we have explored to date in this workshop - the different modes, the different levels, and the different processes.

In an ideal world, you would now be so aware of all of these dimensions of learning and so conscious and appreciative of the utility of their outcomes, that the methods that you would use for dealing with any episode in your life (within or without the classroom) would be characterized by conscious application of all of them. Rarely if ever however, do any of us achieve such a height of learning appreciation in our everyday lives.

What is perfectly attainable however, is the notion of criticality that was raised yesterday: With a conceptual framework in mind, such as the integrated (inclusive) model of learning that we have been developing, we can develop the capability of reflecting critically on our practices as learners/transformers/adaptors as we go about our business, and as a consequence, improve our effectiveness as learners and thus teachers, very considerably. That is the whole point of learning to learn, after all! Critical meta-learning is a key competency for humanity if ever there was one – witness the state of the world as we speak!

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1 These ideas of the *spiritual*, the *conceptual* and the *concrete* are not that far removed from those mooted by Bonaventura, who, as Ken Wilber (1990) records, distinguished between an *eye of contemplation* (“by which we rise to a knowledge of transcendent realities”), an *eye of reason* (“by which we obtain a knowledge of philosophy, logic and the mind itself”), and an *eye of flesh* (“by which we perceive the external world of space, time, and objects”). Wilber himself distinguishes between *transcendelia, intelligibilia* and *sensibilia* (Wilber 1990).
Before we move on, let’s pause for a brief ‘reality check’ and for a moment of one-on-one communication – before it all gets much more complicated!

With a neighbour, have a brief conversation about what you understand collectively as a ‘sense of spirituality’.

And now a leap back to the future. Futures is one of the essential learnings recognized in the SACSA Framework and it provides a very useful focus for social learning as well as a number of other aspects of learning that we have been keen to promote under the rubric of learning to learn. Not the least of these, as will be evident from comments above, is that associated with the notion of hope and the assertion that we can indeed learn to hope! We can also learn from the future in order to better prepare for it when it comes!
“Curriculum developed from this [SACSA] framework provides opportunities and skills for learners to critically examine future possibilities and challenges commonly held assumptions about the past, present, and future. Through such an analysis, learners understand that the future has connections with the present and the past, and that social, political, economic and physical environments are constantly changing and can be improved”

To many, I am sure, a focus on Futures will seem out of place in a school curriculum yet as the above quote suggests, those who developed the SACSA Framework see Futures as one the Essential Learnings. The purpose for such an emphasis, it is argued, is:

- to make current educational practice relevant to learners, and provide them with the skills and capabilities to thrive in a fast changing world
- to develop optimistic active learners who will take part in the shaping of their own futures.

And this means, it is suggested:

- Learners developing an understanding of patterns and connections within systems
- Learners understanding worldviews when analyzing future challenges
- Learners building scenarios of preferred futures
- Learners acquiring skills that will enable them to thrive in a fast changing world rather than becoming casualties of such change.

Given the importance of all of this, it is clearly an area that would merit our attention in this workshop. The twist that I want to give to the rhetoric above is to suggest that rather than seeking to develop preferred futures, we focus on learning from the range of plausible futures that we might have to face – and for which we should be ready to adapt.

Forewarned is forearmed, as they say.

Actually, to be more positive about it, learning from the future (or futures) will indeed potentially allow us to influence the way it does unfold, and this in turn permits us to talk about learning as the basis for proactive co-adaptation rather than the more reactive stance of adaptation stressed to this point.

Of significance in the statements above, in addition to the focus on the future, is the mention of systems. Before we do indeed leap back into the future, it is important for us to take a brief excursion into this matter of systems for as intimated in the SACSA statement above, it pays to think in systems terms when one is thinking about and exploring the future.
Some mention of systems was made yesterday and earlier today with respect to the notion of learning systems, but we did not pursue it very far. A brief further look is thus warranted. The twist that I want to give to the rhetoric above is to suggest that rather than seeking to develop preferred futures, we focus on learning from the range of plausible futures that we might have to face – and for which we should be ready to adapt.

Forewarned is forearmed, as they say.

Actually, to be more positive about it, learning from the future (or futures) will indeed potentially allow us to influence the way it does unfold, and this in turn permits us to talk about learning as the basis for proactive *co-adaptation* rather than the more reactive stance of *adaptation* stressed to this point.

As a way in, please write down or draw in the box below, what you think of when you think about ‘systems’ or a ‘system’ or ‘systemic’. What image springs to mind? What attributes would you say a system possesses, that a non-system does not?

| My image of a system: | And its attributes. |
Once you have briefly answered these questions, share with the other members of your group and collectively establish FIVE basic system principles or attributes.

Five basic systems principles:
For our purposes here, I want to argue that thinking in terms of systems is to think in terms of interconnections, wholeness, embeddedness and emergence. And I will say more on the day about each of these which you might like to capture here.
The image of importance to our work today is one that recognizes that:

- All systems are composed of interacting sub-systems
- All systems are themselves subsystems within larger order systems (suprasystems) which are often/usually called the environment
- All systems have properties that are unique to them as whole entities which arise from the interactions between their subsystems and between themselves and their subsystems.
- These properties are said to be emergent.

From this we can develop another 3D model of a system of systems (or holon as it sometimes called) (Figure 13).

![Figure 13: The Structure of a Holon.](image)

The relevance of this model to the future is that the shape of the system and what it does will be very much affected by the nature and dynamics of the environmental suprasystem in which it is embedded. The activities of the system can also often affect the nature of that suprasystem. The potential for co-adaptation almost always exists. For this to happen however, the system itself must have some control over its own subsystems - it must be able to self-organize and ‘steer’ its parts to some extent. For it to this, it must have information about circumstances within itself and beyond itself.
The study of the future is essentially the study by subsystems within a system of the suprasystem(s) in which that system might have to exist in the future.

And again for the present purposes, let us assume that you represent the sub-systems of an educational system that will need to co-adapt with an environmental suprasystem that threatens to be complex and dynamic over the coming years.

This logic provides us with the task that will occupy us essentially for the rest of this workshop. Our approach will be to act as learning subsystems (as a groups of interacting individuals) that are as conscious about themselves and their own integrity, as they are about the task to hand. We will therefore pause from time to time, to check out how we are doing as learning sub systems exploring the future.

As experience indicates that it is much easier to think about the future with a particular purpose or issue in mind, the first task of each of our learning systems is to select, as quickly as possible, a strategic issue that is of considerable significance to the SA educational system and that will have implications over the next twenty years or so.

The technique of conversation mapping will be introduced as an aid to this exercise.

The emergent key strategic issue:
ACT TWO

SCENE THREE
Inspecting the Suprasystem

The task now is to explore the environmental suprasystems in which the educational system in SA might well have to operate in the future. And note the use of the plural here. As mentioned earlier, the notion is not to design and develop a preferred future, but to investigate the range of futures that are plausible and to which the system might well have to adapt – or more positively may be able to co-adapt to some extent.

To give us some structure to work with, we will explore the suprasystem from a number of different dimensions: intellectual, natural, social, political, economic, cultural, and technological – INSPECT (hence inspecting the future!).

In the first instance you are encouraged to think about the world in these terms, just to provide an orientation, and the pages that follow provide some triggers for such a task.

The first exercise is for each individual in the group (each subsystem within the learning subsystem) to describe the elements of the suprasystem in which he or she believes characterizes Australia or South Australia at the current time.

You might choose to allocate one person to each of these categories below, or again, to work through the list collectively. As we are not going to do much with the picture of the past that emerges, except to share our perceptions, we can simply use the boxes below to record our group observations.

When we explore the future, we will record our observations in a much more interconnected (systemic) manner ways. But for now, we can stick with ‘lists’ generated through investigation of the INSPECT categories below, with the ‘I’ being taken to refer to the worldview that prevails as the most dominant paradigm within the nation at the moment. And indeed we might start with that.

How would you briefly characterize the dominant paradigm in the nation at the moment.
Natural (biophysical) – examples include the prevailing climatic and weather patterns, population trends and demographics, the sizes of the ‘pools’ of natural resources and their dynamics, the occurrence of ‘natural disasters’ including disease epidemics and pandemics, pestilence, famine, as well as droughts, floods, volcanic eruptions, earthquakes, fires, etc the ‘state’ of the environment with respect to its integrity (state of degradation, pollution etc), biodiversity, landscape etc
Social – examples here include the prevailing social mores of the day, particular social issues as they relate to matters such as levels of social stability/instability, war and peace, civil unrest, crime, immigration and refugee patterns, working conditions and patterns of work, levels of unemployment and social welfare, the nature and accessibility of organisations such as shops, businesses, and government and non-government agencies including those institutions concerned with health, education, justice, maintenance of law and order etc, the extent of the ‘social capital’ within communities, and their relative stabilities and foci, the collective commitments and enthusiasms etc
**Political** - examples here include the prevailing political and geopolitical climates and paradigms, the essential ‘hot’ political issues of the day, new laws and legislation, especially controversial ones in any of the main economic sectors such as health, welfare, the military, education, finance, and the treasury itself, the very nature of politics at all levels of society, and the nature of governance etc
**Economic** - examples here include the state of economies at local, national, and international levels, the strength of the currency, the situation with respect to the balance of payments, prevailing rates and trends of inflation, interest, and other vital econometrics, the very nature of political economics, the ‘flavour’ of current economic policy, and the economic theories and philosophies that prevail etc.
Cultural – examples here include the prevailing cultural climate with respect to attitudes, beliefs and values (including ethics) and how these are being expressed collectively through religion, through science and technology, the visual and performing arts, philosophy, sport, the media etc, matters to do with racial, ethnic, gender, disabilities, language and other distinctions, tastes and fashions in clothes, food, and other consumables, architectural styles, design in general, music, art, lifestyles etc prevailing paradigms.
Technological - examples here include the prevailing technologies of the day and emerging technological innovations in transport and construction, military defense, medicine, agriculture and food, manufacturing, commerce in general, with special reference to materials, information and genetic technologies etc.
Just pause for a moment and think about your group from the perspective of a learning subsubsystem, and briefly and respond briefly to each of the questions below as an individual:

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does it have a coherence about it?</td>
</tr>
<tr>
<td>Do you feel a sense of wholeness, and interconnectedness?</td>
</tr>
<tr>
<td>Do you feel connected to the task? And to the others doing the task with you?</td>
</tr>
<tr>
<td>Does the group (the perceiving subsystem) respect, indeed seek and celebrate a diversity of opinion? Have any differences of opinion arisen yet?</td>
</tr>
<tr>
<td>Is it self-conscious of its form and function?</td>
</tr>
<tr>
<td>Is it self-critical, self-developmental, self-transformational?</td>
</tr>
<tr>
<td>Is it self-organisational? What style of leadership characterizes it (if any)?</td>
</tr>
</tbody>
</table>

What, if anything in your opinion, needs to done to improve the systemicity of the group?
As you engaged with the previous task of looking at the current Australian environmental suprasystem, you may have had considerable difficulties in using the six categories of environment as if they were independent of each other. Many of the issues that you identified fitted across the categories rather than within one. Finally, you may have observed only your perceptions and not the actual ‘truth of the matter’. This may have been particularly noticeable whenever values were involved, or judgements being made as the essence of perception is idiosyncrasy.

As we noted yesterday, we each have our own perceptual frameworks through which we make sense of the world – and such ways of ‘seeing’ or worldview perspectives, tend to remain tacit and unexplored. In conventional explorations of the world around us, and our inquiries into how it was, how it is, and how it might be in the future, we are bound by the constraints of these perceptual frameworks, worldview perspectives or Weltanschauungen (as the Germans might call them). In systemic explorations, we have to learn how to appreciate these phenomena and be prepared to challenge and change our perspectives if we are to really to exploit our creativity and take advantages of the systemic approach to strategic development.

Let’s take another look at the environmental dimensions mentioned above. We need to convert the linear lists of aspects into a more systemic representation, capturing the systemic ‘networked’ nature of the environment (as suprasystem) (Figure 14).
This highly complex holon can be converted into a stylised hexagraph which can then be used for practical purposes as a framework for the development of narratives of various future scenarios that reflect interconnections between the various ‘domains’ (Figure 15).

A significant change in one set of circumstances within one domain, for instance, will typically have significant, and often unpredictable impacts on domains, that lead altogether in very significant changes in the whole environmental suprasystem.

Just think about the changes that would be wrought to the entire world if a nuclear war were to break out!

![Figure 15: A Framework for Guiding the Development of Narratives of the Future.](image)

And it is to the development of futures narratives that we now turn with each learning subsystem being charged with the development of one scenario of the future which reflects the sorts of circumstances that are envisaged across the domains.

The aim is to present a view of the world as it might be in the year 2020, with explanations from each of the domains with respect to the incidences, events or whatever, that led to them! A number of different groups will be asked at the conclusion of this particular exercise, to present their scenarios for 2020, and how they came about!
Time for another systemicity check of your learning subsystem!

Does it have a coherence about it?

Do you feel a sense of wholeness, and interconnectedness?

Do you feel connected to the task? And to the others doing the task with you?

Does the group (the perceiving subsystem) respect, indeed seek and celebrate a diversity of opinion? Have any differences of opinion arisen yet?

Is it self-conscious of its form and function?

Is it self-critical, self-developmental, self-transformational?

Is it self-organisational? What style of leadership characterizes it (if any)?

What, if anything in your opinion, needs to done to improve the systemicity of the group?
The nub of the scenario that we developed.
EPILOGUE TO ACT II

There you have it. An incredibly ‘dense’ workshop in which a territory of very complex ideas about learning and learning to learn and adaptation and identity and essential learnings, were all traversed in double quick time.

This has not been an attempt to provide you with a comprehensive set of meta-learning tools that you would be able to use at the conclusion in your learning to learn activities. But then neither has it been a long two-day lecture on educational theories and philosophies. It has tried to illustrate the nature of walking the talk of ‘inclusive cognition’ as it relates to the essential learnings.

Together we have deliberately exploited different modes of learning to illustrate the power and utility of different modes of learning!

We have developed a model of a learning system that deserves much fuller explanation and development. And we have investigated what we mean by systems as well as by learning. We have explored the future a little, and told each other stories about it. We have learned a little (more) about being systemic and about what it means to think and act systemically.

We have communicated well with each other and developed a sense of inter-dependence through the various collective tasks that we done together.

We have essentially explored the essential learnings and investigated a systemic logic of their inter-connectedness.

It is my hope that, above all, that you learned and thoroughly enjoyed doing just that!

The future of SA education is indeed in good hands.