



Domain 3

Teaching for effective learning: Develop expert learners

A central role for teachers is helping students become aware of how they learn and develop alternative learning strategies, approaches and skills. It is important for teachers to promote metacognitive understanding by talking explicitly about thinking and by fostering discussion about the processes used to construct knowledge. Making learning about learning an explicit part of the curriculum increases the opportunities for students to consciously develop their capacities as expert learners.

Teachers foster students' identities as active learners when they show that knowledge is constructed in order to serve particular purposes and is open to question. Expert learners are aware that they are responsible for creating knowledge about the world and for critically engaging with the knowledge that others have created. Learning and the application of knowledge are largely social processes—teachers promote learning through modelling, promoting collaborative problem solving and establishing the conditions for respectful dialogue between students as learners and teachers as learners.

Deep knowledge and understanding are promoted when teachers help students to build knowledge around big ideas that give learning meaning and purpose. Opportunities for students to create and actively develop knowledge are increased when they are expected to draw rich connections across different fields and to apply their learning to a range of real-world problems. Teachers increase student direction and ownership of learning when students are expected to display their knowledge in authentic contexts with real work consequences.

Developing expert learners involves explicitly reflecting upon our role as active meaning-makers with the responsibility to create, critique and apply knowledge in local and global contexts.

Are learning and thinking central topics of talk and reflection in my classroom?



3.1 Develop expert learners: Teach students how to learn



Essence >

The teacher develops students' understanding of learning and expands their strategies for thinking, learning and working collaboratively.

Create space for many ways

A great way to get the minds 'ticking' in the morning is to have a 'problem of the day'. Maths problems, such as the Prisoner's Puzzle, provide an exciting challenge for students to work on individually or as a group. The process involves students in thinking about:

- How did I work this out?
- Were there other ways I could have done this?
- Which strategies work best for me?

The Prisoners' Puzzle¹:

*Fifty prisoners are locked in cells in a dungeon. The prison guard, not realising the doors are locked, passes each cell at bedtime and turns the key once. A second guard comes later and turns the locks on cells 2, 4, 6, 8 and so on, stopping only at multiples of 2. A third guard does the same, but stops at cells 3, 6, 9, 12 and so on, and a fourth guard turns the locks in cells 4, 8, 12, 16 and so on. This carries on until 50 guards have passed the cells and turned the locks, and then all the guards go to bed. **Which prisoners escape in the night?***

This problem aroused great excitement amongst my Year 6/7 students. Groups quickly galvanised to try and come up with a solution. The allocated 15 minute timeslot was soon up, and the students negotiated to spend more time on it later that day. We scheduled the last 20 minutes of the day for groups to share their strategies—both successful and unsuccessful—and to discuss how issues were dealt with and new discoveries made.

The strategies used by different groups were amazing:

- One group had negotiated with the class next door to join us for the last 20 minutes of the day as they needed the extra 'bodies' to act out the problem. What fun the neighbouring class had in being prisoners and keeping track of whether their cell was locked or unlocked as each guard passed!
- There were several interpretations through drawings and tables used by a number of groups—lots of versions were shown.
- One group meant business. They enlisted the aid of a teacher who was good at maths to help them work out a formula and they proceeded to explain how it worked.

Then there was the group who gave up. Having exhausted all the strategies they thought they could use, they couldn't decide which way to go next. For this group in particular, the sharing led to significant learning because it opened their minds to new ways of thinking. By listening to others describe how they'd persisted and finally come up with a strategy that worked, this group realised that they'd definitely given up too quickly.

Through this new learning challenge I gained valuable insights. I hadn't needed to enforce limitations on students. I hadn't restricted them to working within the classroom. The group who needed the extra 'prisoners' came up with the idea of using more students, and they successfully engaged the interest of that teacher and her class. The experience showed me that I must continue to actively support creative ways of thinking.

Upper primary teacher

¹ Dorling Kindersley & Ball J, Think of a number, 2005, p 44

Justice alert

Whose learning thrives and whose learning is stifled by classroom norms?

Key actions: Teachers

Develop students' learning dispositions

- Model curiosity, excitement and appropriate habits of mind as a learner
- Actively promote risk-taking and discovery, so that students learn to challenge themselves

Develop students' self-concept

- Affirm effort and committed approaches to learning
- Share personal stories of learning, and together reflect on the thinking and feelings involved in learning experiences

Develop students' understanding of how we learn

- Lead students to explore how the human brain functions, and how there are optimal conditions for learning

Develop students' metacognition

- Structure activities in a variety of learning modes, encourage learners to reflect on modes of choice and what they tend to avoid, to increase students' awareness of their strengths and areas for refining their skills
- Teach the language of and specific strategies for thinking, learning and working together

Extend students' learning potential

- Teach strategies, and design opportunities for creative and critical thinking and inquiry
- Deliberately plan for students to use different strategies to reflect on what they have learnt, how they learnt, why it had that outcome and where it might lead

Manage and direct learning

- Create a range of tasks where students can decide to work individually or in groups, and discuss how those decisions affected their subsequent learning outcomes
- Model, teach and reinforce goal setting, time management and organisation procedures and strategies
- Reassure students that learning can be hard and requires persistence and practice

Work collaboratively

- Explicitly teach and articulate strategies for effective collaboration: role taking, listening to and respecting others' points of view, appreciating different contributions and playing your part

Ways to teach students how to learn

Strategies to support learning:

Useful strategies include Gardner's Multiple Intelligences, Costa's Habits of Mind, Bloom's Taxonomy, and Thinker's Keys. Design tasks for students to experience how these specific approaches help them to learn more effectively.

Metacognitive learning journals:

Learners are capable of higher levels of critical thinking and learning when they are aware of their thought processes. In this style of journal, learners are encouraged and supported to think about their own thought processes after reading or other class activities.

When students discuss ways of thinking with the whole class or with other individual students, it helps them to know their strengths in, or heightens their awareness about, other strategies to try.

Metacognitive Journal	
What I learnt	How I learnt it

Thinking aloud: Provide dedicated time and opportunities for students to verbalise their emerging ideas. Thinking aloud helps students to talk their way into their learning by sorting and clarifying ideas, and putting words to their thinking. Listening to others think aloud provides models of a range of thinking strategies to try.

Reciprocal reading: This is a structured process where students read together and monitor their comprehension by stopping, asking questions and explaining to each other what the text means.

Future-based planning: Learners envisage what it will look like when they've achieved their learning goal. They write/draw it on a flip-chart with a target date; they then decide what they'd have to do the day/week before, then two days/weeks before, then three, moving back in time to the present. They can then ask the question: 'Now, what do I need to do first?'.

Key actions: Students

- Find out how I can use different strategies to help me concentrate
- Develop skills for learning in different ways—be creative and think 'How?', 'Why?' and 'What if?'
- Talk with others about how they learn best, and share tips that work well when we're facing a challenge
- Use time management and organisation skills to make the most of my learning time
- Value other people's help and advice, and keep reflecting on how I'm going
- Keep trying with my learning even when I find it hard

- Identify people such as other students, parents and teachers who have particular strengths, and learn from them and use them as models
- Be prepared to use my strengths to help others learn



*If you never
change your mind,
why have one?*

Edward de Bono

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3.1

Evidence of Learning folder:

This is all about valuing the process, not just the product. Ask students to set up a folder (hard copy and/or electronic) to keep all their ongoing work, photos, articles etc, as all of these are evidence of their learning process. Don't insist on 'good copies' of everything—tell students to keep even the examples of 'quick thinking'. Make time for them to look back through their folder and reflect on all those steps they take in their learning.

Break states: Change the mental and physical state of the class by using music, quick games, guided relaxation, change of lighting, breathing exercises, and snack breaks. Discuss their impact on concentration/focus. Invite students to devise ways to use these break states in other contexts to keep their learning on track.

Superheroes: Ask students to design superheroes to embody the things that the students think are most important for them as lifelong learners (eg skills, dispositions, learning capacities).

Desert Island Discs: Create a regular timeslot where students take turns to nominate four 'learning items' to take to their desert island. Which skills, capacities, approaches and techniques would they consider most useful to them when learning new things in a strange environment, and why?



Language that teachers can use to teach students how to learn

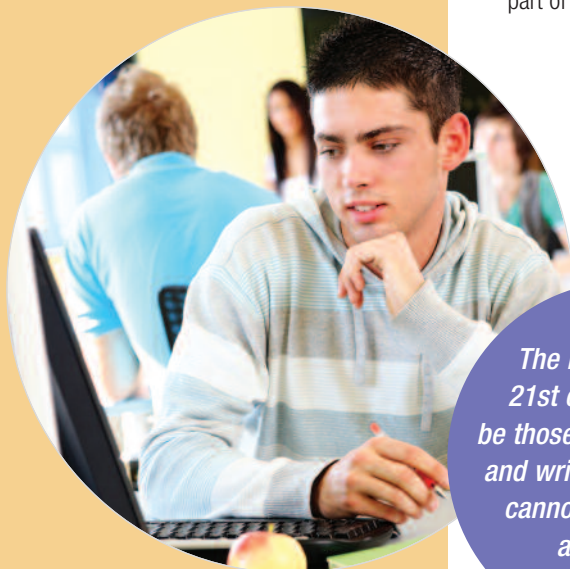
- When are you most excited about learning? What makes it exciting?
- How did you make connections from what you already know? Could you teach someone else?
- What's your first step in this task?
- Do you need time to talk it over?
- Have a go, move outside your comfort zone and see what happens
- What learning challenge are you prepared to take on?
- What strategies could help you learn—diagrams, self-testing, physical activity, talking it through with someone?
- What strategies could help you reinforce or master your learning—creating rhymes, memorising, imagining, experiencing, doing?
- What didn't work so well? Why? What would you do differently next time? Who could help you?
- Which tasks are more successful for you working alone? Which are better done as part of a group?

This element is not demonstrated if:

- The teacher assumes that all students can learn successfully in the same mode
- The teacher focuses on affirming ability only, rather than including process and commitment
- The teacher always sets the learning context, goals and strategies
- There is a lack of explicit teaching of the strategies for successful learning
- Feedback is teacher-dominated and fails to provide information about future direction
- Students are unable to articulate what they are learning and how this connects to prior learning
- Students are denied opportunity for critical thinking, creative thinking or inquiry
- Students' approaches and ideas are dismissed as inappropriate, incorrect or inferior

Practice check

- When teaching, do I tend to favour my own learning mode preference?
- Have I deliberately extended my teaching style?
- Am I creating an environment that encourages students to try new strategies for learning and helps them recognise that what feels comfortable is not necessarily best?
- How do I clarify and support the learning process, and get students to share how they learn and what works for them?
- How do I encourage students to be critically reflective thinkers?
- Do I teach in a way that encourages students to ask questions, rather than restate information?
- Am I giving opportunities for students to evaluate their learning outcomes from individual tasks and also group work?
- Are my students ever stuck? If not, are they challenged enough in their learning?
- Do I affirm curiosity, effort and challenge, or do I affirm compliance?
- Have I helped my students to experience greater success through using appropriate learning strategies.



The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.

Alvin Toffler

expand students'

3.1

Notes:

Metacognitive skills include taking conscious control of learning, planning and selecting strategies, monitoring the progress of learning, correcting errors, analysing the effectiveness of learning strategies and changing learning behaviours and strategies when necessary.

D Scott Ridley, Paul A Schutz,
Robert S Glanz & Claire E Weinstein

3.2 Develop expert learners: Foster deep understanding and skilful action



Essence >

The teacher helps students build rich conceptual knowledge and mastery of complex skills.

Earthquakes shake up a classroom

We had the Smartboard ready and the students were keen to explore our new Geographic Information System (GIS). They could add data to maps to change visual representations and investigate issues.

I used their latest interest. 'Look at the screensaver earthquake pictures. We must have some experts in our midst. Does every place in the world have earthquakes?' I asked.

This very first question had the students responding. They were diligent, curious and exuberant, all at the same time. I fed their momentum by thinking aloud: 'I wonder why some areas have more earthquakes than others?'. There were plenty of experts eager to share their knowledge in response.

'There are these tectonic plates,' said one student. 'I think they've got something to do with it.'

It was time for the interactive searches. We added 'tectonic plates' to our map and predicted where earthquakes might happen. The students came to the screen and pointed to particular parts of the map. Some added extra pieces of information that they thought might be useful to our quest.

We added the 'earthquake' data. Our predictions were very close. That was great feedback! Then the excitement changed to puzzlement. Suddenly, the students saw one area with a huge number of earthquakes, and they were worried. There was real concern that it wouldn't be safe to live there or even visit there. Discussion was intense. I posed the question, 'Do you think that all of the earthquakes happen at the same time?'.

Now the students were weighing up visual data with personal reasoning. They were seeing the whole concept growing by the minute. Their minds were in overload, yet turbo-charged. They didn't look like giving up.

I posed more questions: 'Would all earthquakes be the same size? How do they measure how big an earthquake is?'.

It was back to the students. One told us about seismographs. He'd seen one at the science centre; he drew a zigzagging earthquake graph on the board. I showed the class how to organise the data to see when earthquakes occurred and how big they might be.

The students devoured the avalanche of data. Their enthusiasm showed in the self-questioning, the sharing of knowledge and the new learning. They were pushing themselves. The GIS data and instant feedback had resulted in deep learning, building on what they knew and wanted to know, generating questions, predictions, explorations and hypotheses, and enabling the students to use data to inform their next steps.

The use of raw data led the students to identify patterns and it supported and demanded scientific thinking. Students were pushed into complex thinking and new understandings that could be harnessed next time we used data.

There was a time that I would have just told them the 'answer'. But I've learnt the power of tapping into their questions and how 'interest' takes them deeper and deeper into the learning.

Primary teacher

Justice alert

Have I made sure *every student* has developed the important understandings and mastery of the skills?

Key actions: Teachers

- Develop my own deep understanding of the concepts I teach
- Design activities that lead students to grasp concepts and deepen their understanding
- Devote time and effort to helping my students grapple with the concepts, and get them to explain concepts to each other to ensure deep understanding
- Pose open questions with no right or wrong answers, to evoke students' emotions, imagination, reflection, action and research from a range of sources and perspectives
- Teach students explicit strategies for higher order thinking, and structure tasks where they choose strategies to investigate issues, develop their understanding, refine their skills and communicate what they've learnt
- Encourage self-testing
- Ask students to determine what level of practice they need to develop mastery and automaticity
- Model self-reflection, critical thinking, creative imagination and questioning of my own assumptions
- Guide students in searching for patterns and relationships to interpret information and experience
- Emphasise the power of precision in language
- Incorporate reflection and targeted formative assessment to ensure rigorous learning
- Use strategies to help learners connect new knowledge to their own prior experience, other disciplines and the world beyond the classroom
- Value students' input and commit quality time for them to discuss, share knowledge, explain their thinking, question assumptions and refine their understanding
- Guide and support learners to achieve a level of mastery that enables them to experience empowerment and intrinsic satisfaction
- Use models and illustrative stories to engage the imagination of students
- Engage students in working with authentic problems and issues

Key actions: Students

- Use thinking strategies that I've been taught, to help me understand better
- Talk about learning with others, share feedback, explain things and help solve problems
- Work together to fire questions and challenge our thinking, without being right or wrong
- Make the most of all the technologies I can use for learning
- Ask myself: 'Where am I heading?', 'What else might I need to know?', and 'How could I do it in another way?'
- Never give up, be proud of my efforts, and know for myself when I've really 'got it'
- Ask questions when I don't understand
- Seek feedback on how I could improve my skills
- Ask myself: 'Do I need to practise this more to feel really sure I can do it?'



The role of the educator is not to put knowledge where knowledge does not exist but rather to lead the mind's eye that it might see for itself.

Plato

Ways to foster deep understanding and skilful action

Use learning and teaching models: Use learning and teaching models to design learning for deep understanding and skilful action (eg Integral Learning Model, 5Es, Format, ESL Teaching Cycle).

Develop higher order thinking skills: Explicitly coach students in the use of question frameworks such as Bloom's Taxonomy, Question Matrix, 3 Storey Intellect, and SOLO. Record students' questions and teach them how to identify links.

Question wall: Students display questions that they think might be answered during a topic. Discuss the types with students—open, closed, speculative, divergent, clarifying, essential—and how they will need different strategies and lead to different reactions/forms of information. Draw up lists of generic questions to use for certain types of tasks (eg scientific investigation). Refer to and extend these question groups regularly.

Use precise language: Model and teach the language constructs for specific disciplines of learning, so that students are skilled in using language most appropriate for specific tasks (eg a film review needs different language from a data analysis report).

Exposition writing: Students use exposition writing to analyse differing perspectives and extract their own deep meaning.

Mu dictionary: Using this technique, students can express meaning in four different 'ways of knowing':

Propositional—'How can I describe/define this?'

Factual—'Some examples are ...'

Personal—'What's this got to do with my life?'

Conceptual—'Can I express this as an image or illustration?'

Deepest understanding emerges from the integration of these four 'ways of knowing'.

The teacher can develop a mu dictionary of definitions of concepts to clarify what he/she wants the students to know and be able to do.

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3.2

Learning logs/reflective journals:

By documenting their progress, students can stop and think about what they are learning and how they are developing it within the 'big picture'.

Learning log	
Try these for sentence starters	
1 I now feel confident about ...	
2 I felt confused when ...	
3 What I would most like to know is ...	
4 I'm having problems with ...	

Reflective journal	
What happened?	
How do I feel about it?	
What did I learn?	

Strengthen connections in the brain:

Use practice, repetition and instructional supports such as demonstration, video clips and pre and post quizzes for skill mastery. Use processes like think-pair-share and graphic organisers for students to sort knowledge, represent their thinking visually and clarify meaning.

Mind space:

The mind sifts information with time. Use drawing, music, colour and silence to create space for reflection. Give students time for wandering in their minds to access their imagination, memories and images.

Goal setting: Ask students to set specific individual goals for master. Help them develop habits of goal setting and self-assessment.

Concept attainment: Use these steps to encourage concept attainment:

- Select a concept with clear critical attributes (eg evergreen plants, carnivores, mammals, fish).
- Provide students with 'yes' examples which fit the concept and some 'no' examples that have some of the attributes needed but not all.
- Ask students to hypothesise about what the 'yes' examples have in common.
- Provide more 'yes' and 'no' examples for students to test and refine their original thinking.
- As a whole group, make a list of critical/necessary attributes.

Students apply their knowledge of the concept in multiple contexts to demonstrate understanding.

Language that teachers can use to foster deep understanding and skilful action

- What are you wondering? Why? What if ...?
- What is the meaning of ...? How does it connect to what you already know?
- If you really believe that ... then how will it shape your thinking from here?
- Each of you has your own way of seeing it, so let's explore all the perspectives.
- Can you clarify your point of view? Can you justify your conclusions?
- Try brainstorming lots of possible questions on the issue.
- Which thinking strategies would work best?
- Looking at the information, can you see common elements emerging?
- Could you represent this concept in another way—visual, musical, mathematical, technological, movement?
- How are you feeling? Are you getting closer to really understanding?
- How has this learning changed how you see things?
- What goals do you have for your learning in this activity?



The basic goal of education is understanding. You have to take enough time to get kids deeply involved in something they can think about in lots of different ways.

Howard Gardner

This element is not demonstrated if:

- Teachers focus on 'covering' rather than 'discovery', 'telling' rather than 'asking'
- Lessons are presented in isolation rather than linked in sequence within the 'big picture'
- Students are presented with topics to learn about, but few important issues to explore or research
- Priority is given to mastering recall of facts only
- Short timelines restrict students' opportunities for meaningful interaction and critical feedback
- A student is always expected to publicise her/his achievements
- Learners' questions are dismissed or seen as irrelevant
- Time and opportunities are not provided for individuals to develop mastery of skills

Practice check

- Do I develop a deep understanding myself in order to guide students to their deep understanding?
- Am I walking the talk by analysing my own thinking?
- What big ideas/concepts do I believe my students need to understand in relation to the Curriculum Standards?
- How will I scaffold students' ongoing efforts in learning?
- Does the class culture support each student to persevere towards deeper understanding?
- Do I value student inquiry and adapt my teaching to respond to individual questions at pivotal stages?
- Am I connecting with each student to assess mastery of complex skills?

get below the

3.2

Notes:

Knowledge construction is best accomplished through collaboration. There is a good deal of evidence that learning is enhanced when teachers pay attention to the knowledge as a starting point for new instruction and monitor students' changing conceptions as instruction proceeds.

John Bransford, Ann Brown &
Rodney Cocking

3.3 Develop expert learners: Explore the construction of knowledge



Essence >

The teacher shows that knowledge is open to question, serves particular purposes and is shaped by culture and experience.

Aboriginal learners connecting to country

I couldn't believe it—we had won! We didn't win just the state competition but the national one as well! What had started as an idea to help our Kurna students reconnect to their country had blossomed into a full-on community project. Without a shadow of doubt, the learning outcomes and social benefits surpassed all our expectations.

It all started in 2003 when we began to develop a wetland area on the Kurna Plains school site, with the intention of increasing students' cultural pride and understanding. Over the next two years, as the students worked and talked together, their shared cultural knowledge grew. They watched their wetlands become a living environment, and their questions flowed.

Like our Kurna Plains students, most Aboriginal learners live in urban areas and, whilst many still retain a cultural connection to their country, many children and students find it difficult to experience and maintain cultural practices and develop a sense of identity. They live in cultural dislocation, and often 'learning about' that identity is the nearest they come to understanding.

Connection to country is evident in the more remote areas of Australia where traditional practices live on, but still there are challenges to face. Even though cultural knowledge and understandings are stronger in these areas, Aboriginal learners are required to move between two cultural worlds.

The secondary students were going to bring their two cultural worlds together. They started on the reconnection project. To grow cultural identity and understandings we developed a strategy which would bring together the wisdom and knowledge of Kurna elders in the community with that of the students. By listening to and discussing the community stories and elders' oral histories, students could build on their existing understandings and compare with each other. For many students this was the first time they'd heard and made personal connections with things they'd 'learnt about'.

The students worked with a strong shared sense of purpose to produce a DVD entitled *Cooking Kangaroo Tail*. They learned how to dig an earth pit which became the cooking oven. To explain its cultural significance, they wrote a script, acted, filmed and then edited the footage. Watching their final product, there was a tangible sense of moving freely between two worlds. The students submitted their DVD to Panasonic in a nation-wide competition. Being chosen as winners of that national competition was powerful acknowledgment of their identity.

Having the wetlands on the school site has breathed life into learning. There is new knowledge, wellbeing, cultural understanding and connection to country. For me it is no longer just a 'head connection'—it is a 'heart connection'.

Senior secondary teacher

explore the construction

Justice alert

What cultural constructs are dominant? Whose assumptions and core beliefs are affirmed and whose are threatened?

Key actions: Teachers

- Guide my students to understand that all individuals and groups have their own unique perspective on the world, and that their core beliefs and experiences influence the way they construct and value knowledge
- Compare and contrast cultural understandings (eg creation stories), attitudes and conceptual understandings from different time periods (eg belief in a flat earth) to demonstrate that knowledge is a cultural, social and political construct that can change with time and circumstance
- Stimulate rethinking by introducing contentious issues for students to question their own underlying assumptions and to have the opportunity to change their minds
- Structure investigations that enable students to identify bias and racist/sexist/class conscious attitudes in the community and the media
- Explore how each discipline has its own focus and constructs knowledge through its own processes and methods (eg compare the way scientists explore and express knowledge of forces with the way an artist would explore and express forces)
- Challenge my students to consider what they don't know by exposing them to new ideas or perspectives
- Elicit students' responses to 'Why is this worth knowing?'
- Target discussions where students share perspectives and give and receive feedback on their ideas
- Explicitly teach skills and create opportunities for students to disagree with ideas and/or each other in appropriate ways
- Teach students to critically analyse information and primary sources of data from a range of sources and for specific purposes
- Actively seek out online opportunities for students to compare beliefs and perspectives with other learners, wider society and experts
- Deepen students' understandings of the past and present as a means of influencing the future
- Design activities that encourage and actively support students to be 'apprentice' historians, scientists, writers, artists etc

Key actions: Students

- Listen carefully to others' ideas and try to see them from their point of view
- Ask questions: 'Why would they think this way?', 'Who might say this?' and 'Is there another way that someone might see this?'
- Use a variety of different research skills and ask myself: 'How reliable is this information?', 'Whose interests are being served?', 'What was the author's purpose here?' and 'Is there any bias?'
- Use graphic organisers such as mind maps to work out the links between ideas
- Challenge people's ideas in ways that are not threatening
- Express ideas in different ways by asking myself 'How would I communicate this idea in science?' and 'What if this was creative writing?'



Knowledge is a story that works.

Yoram Harpaz

Ways to explore the construction of knowledge

Human graph: Each student considers the issue in question, then stands on a spot along a continuum that moves from 'strongly agree' through to 'strongly disagree'. When asked, students justify their position. After hearing others' views, they may wish to change position.

Thinking scaffolds: Students use strategies such as Venn diagrams to compare and contrast knowledge from different perspectives, times and places.

For more thinking scaffolds, go to www.eduplace.com/graphicorganizer/.

Fact or opinion: This is one way to support students to consider whether things they say are facts, opinions or a combination.

Fact or opinion		
Write your topic and the information you know. Add the details to the columns.		
Talk with others to check your ideas.		
Topic:		
Fact	Opinion	Not sure

3 2 1 Strategy: Students can follow these steps to clarify their thinking:

- 3 ideas I want to discuss
- 2 questions I want to ask
- 1 action I want/need to take

Knowledge interrogation: Provide opportunities for students to explore assumptions underpinning different perspectives, search for problems, generate ideas, and develop a critical attitude.

Debates: Pose a question for debate and allow students a class session for research or discussion before the debate. Split this preparation time so that they spend the first half gathering information about only the affirmative arguments, and then the same amount of time on only the negative arguments. The debate is conducted the next session/day. A topic might be 'Human nature: Good or evil?'

Continued page 56

3.3

Exploration of cultural and contextual influences:

Students could explore cultural and contextual influences by:

- studying visual art works to gain insights into social changes, beliefs, values or perspectives
- researching medical practices through the ages to find how they reflected people's current levels of knowledge or their superstitions
- analysing languages of various countries to find links and develop hypotheses about the reasons for the links which can then be researched and tested.

Contrasting news reports:

Challenge students to consider events from different perspectives by using a topical current event (eg a natural disaster, a discovery, a great invention, a war). Different perspectives could come from different countries/organisations, or news reports on the same event but from different media sources.

Viewing card: Use a viewing card (ie a small cardboard frame) on a montage of photos to help students get 'inside' characters from a period of time, or a country, which is distant from their own experience. Students scan the photos through the viewing window, identifying emotions or other features of interest. Discuss why they have picked out these examples and possible reasons for the emotions. What are the similarities with how they view things? (This activity is based on work by Gornal, Chambers & Claxton 2008, p 47.)

Big feet: Make two enormous feet out of different coloured card or material. Choose two volunteers: each stands on one of the feet. The first talks about a situation or problem from his/her point of view. The second talks about the same situation from her/his point of view. Then they each move to stand on the other foot and talk about the same situation from the other person's point of view. (This activity is based on work by Gornal, Chambers & Claxton 2008, p 47.)



Language that teachers can use to explore the construction of knowledge

- Imagine yourself as a person from another culture or time. How might you view this issue differently?
- Now that you've worked with Jane and Lyn, do you have another way of looking at it?
- This text is written through the eyes of ... How would it look through ... eyes? Can you explain your idea?
- Can you see where these theories connect or disconnect?
- Now you've thought it through, what questions do you have?
- This TV program is targeting ... What are you noticing? Can you detect a bias?
- Why might people think that? What is another view?
- Whose voices are being heard and whose are not?
- How reliable is the source of this information?
- Why have these people reported the information differently?
- Here is a bee. What knowledge would be most important to a beekeeper, a gardener, a scientist, a doctor, an artist, a historian, a geographer or a mathematician?

This element is not demonstrated if:

- Knowledge is presented as fact or the 'truth' and open to only one interpretation
- Teachers impart knowledge and students listen
- Students play 'Guess what's in the teacher's head?'—questions are always asked by the teacher with a predetermined answer in mind
- Students are discouraged from discussing or questioning
- Students who raise contentious issues or disagree are considered difficult, are discouraged, or are 'shut down'
- The views of the dominant culture strongly influence planning, programming and implementing learning tasks

Practice check

- Am I modelling open mindedness, willingness to listen and consideration of other points of view?
- How do I respond to students' misconceptions about the world and what strategies do I use to challenge their conceptions?
- Do I give opportunities for students to discuss and question new ideas vigorously?
- In what ways do I help students construct accurate and useful knowledge about new concepts?
- Am I respecting different ways of learning for students with diverse backgrounds and needs?
- How do I let students know its okay to ask me questions and challenge what is being said? Does my language encourage critical feedback?

knowledge

3.3

Notes:

Understanding is developed when key ideas and skills are reiterated, explored and rethought. These key ideas and skills need to have value beyond the classroom and to be linked to real world issues, so that students are engaged in processes of inquiry and problem solving that have some meaning to their own lives and to the issues facing contemporary society.

Grant Wiggins & Jay McTighe

is not neutral

3.4 Develop expert learners: Promote dialogue as a means of learning



Essence >

The teacher provides opportunities for students to learn through interaction and learning conversation with others.

Ordered sharing—bringing out the learning

My Year 10 group was dominated by strong cliques. There was no active listening or acknowledgment of others' ideas, and a lack of mutual respect. They related well to me as the teacher, but the same did not apply to interactions between class members. Individual learning tasks were my main mode of teaching, and I focused on written work and teacher-directed assessment. I was so consumed by the intensity of the day that we didn't step back and reflect on the learning, the teaching or the class dynamic. Looking back, I realised that the lack of dialogue was stopping students from making the most of their learning.

Involvement in the school's professional learning program made me confront my assumptions with questions such as, 'What do I know about teen social connections and how do teenagers learn most effectively?' and then, 'How do all children learn best?'.

My students' learning outcomes were being compromised because they weren't being taught the language of learning with real space for this to happen through learning conversations. I decided that we needed a new approach to take learning to a new level.

To build relationships and familiarity with dialogue, I introduced 'ordered sharing' so that every voice would be heard. Initially, I displayed poster collages of contemporary arts images and gave

the students 30 seconds to develop a personal response. We then took turns speaking for 20–30 seconds without affirming or negating others' responses. We repeated the process at least once each week, using different pictures, phrases and questions. The feedback from students was, 'We have never expressed how we felt about issues before and we now know how people in the class feel about other things'.

Our next step was to identify and then challenge, not criticise, each other's assumptions through carefully worded statements and images. This was one small step in opening up dialogue. Students started to break out of their cliques and interact openly and meaningfully with peers. Over time, rich questioning became part of our class culture and it deepened the learning significantly.

Students now work with critical friends to discuss the core questions within the curriculum. I teach strategies for developing an argument and sharing constructive feedback. There is real conversation, real listening, and students have made new meanings that didn't exist before.

Secondary teacher

Justice alert

Do all students experience genuine dialogue and learning conversation to develop their thinking and understandings?

Ways to promote dialogue as a means of learning

Appointments: An appointment system is helpful for students getting to know each other, discussing issues and so on. Students have a diary page with eight common 'appointment times'. Give the class ten minutes to mingle and make one-on-one appointments, filling the eight timeslots with no double-ups. State a topic and an appointment time. Students find their partner for that appointment time in their diary, and chat for two minutes on that topic. Then, give another time and topic and the process continues.

Focused learning conversations: These conversations about a specific topic generate rich questions that are:

- open and may have several answers
- challenge assumptions and require critical thinking
- complex and necessitate grappling with big ideas
- relevant to learners
- electric with emotional or social implications
- practical and can be researched within available resources.

Buzz groups: Students discuss a given topic in groups of three, then share their ideas/responses with the class to create new understandings.

Concentric circles: Students form two concentric circles. The inner circle has a discussion and the outer circle listens. When someone in the outer group wishes to contribute to the discussion, he/she taps the shoulder of someone in the inner circle and swaps places.

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Key actions: Teachers

- Develop a culture of mutual respect by modelling nonjudgmental listening and actively seeking divergent views
- Establish agreed routines for think/wait time, to enhance the class dialogue (eg pause to reflect on what has been said before asking questions or responding)
- Teach and model strategies for dialogue and paraphrasing, and encourage students to articulate what they heard, 'piggyback' on others' comments and ask clarifying questions
- Pose thought-provoking questions that challenge students' analytical thinking and encourage them to develop and substantiate a point of view
- Support students to gain clarity by thinking out loud
- Encourage students to engage in rich questioning through the use of sentence stems (eg 'When ... happened, why did ...?')
- Build students' confidence by explicitly teaching skills for public speaking, and encourage them to rehearse with others before the event
- Incorporate dialogue and discussion about my learning, as integral to all stages of all learning tasks

Key actions: Students

- Talk with others—in pairs, small groups, large groups and with the whole class
- Use strategies to improve my participation in learning conversations
- Think 'out loud' to organise my thoughts
- Ask questions to clarify topics and hear others' explanations
- Give feedback to others and suggest ideas for improvement
- Check if I've understood what others meant



*Free human
dialogue ... lies
at the heart
of education.*

Neil Postman

3.4

of learning

3.4

Walk and talk: Students of opposing views work in pairs. One person speaks for an agreed time and the other person listens; then they swap roles.

Three cards for shared airtime: Give every student three cards: two labelled 'comment' and one labelled 'question'. During class discussion, when a student wishes to contribute, he/she raises one card to make either a comment or pose a question, speaks, then hands in that card. This encourages them to think before jumping in. When a person has used all his/her cards, he/she cannot participate again until all students have used their own three cards.

Circular response: This activity is similar to 'Hearing all voices' on page 28 with the exception that the speaker must summarise the comments of the previous speaker, checking with that person about the accuracy of the summation, before giving an opinion. The speaker must build on the idea of the previous speaker. After everyone has had his/her set time (two to three minutes) to speak about the topic, a general discussion may occur. (This activity is adapted with permission from Preskill, Vermilya & Otero 2000.)

*Dialogue ...
to create a situation
where we suspend our
opinions and judgments
in order to be able to listen
to each other.*

David Bohm



Language that teachers can use to promote dialogue as a means of learning

- Find a space where you can talk it through.
- Have you talked this through with your partner? Maybe he/she has further ideas.
- So, what you're saying is ... Have I got it right?
- What do you think about this point of view: ...? What's another point of view?
- I'm not sure I understand fully. Tell me more.
- Why is ... challenging for you?
- If you choose to solve it that way, what might be some of the advantages and disadvantages?
- Now that you're talking through the issue, are new ideas emerging?
- Are we ready to discuss our ideas as a class? Have a quick chat with the person next to you and we'll start.
- Remember our learning supports. For example, when you're stuck try three other people to help you think it through before coming to me.

This element is not demonstrated if:

- The teacher's voice is the dominant one
- The usual form of classroom interaction is 'teacher question, student response, teacher evaluation comment'
- Classroom procedure lacks 'wait time' before responses
- Students feel unsafe about questioning why or how
- Dialogue skills are assumed and there is little opportunity for students to be actively involved and develop expertise
- Silence is enforced in the classroom and written work is valued over verbal contribution
- Dialogue is seen as a strategy for only eliciting answers

Practice check

- Do I provide explicit time for dialogue?
- What is the ratio of teacher questions to student questions in any given learning session?
- Do I teach the students how to share their opinions effectively?
- How do I promote active listening and speaking?
- Are there students who do not contribute to discussions? How can I structure situations to encourage and support their involvement?
- Do I give students 'thinking time' before a discussion?
- Do I provide explicit time for classroom dialogue so that students can clarify ideas and concepts?

talking our

3.4

Notes:

Dialogue is about what we value and how we define it. It is about discovering what our true values are, about looking beyond the superficial and automatic answers to our questions. Dialogue is about expanding our capacity for attention, awareness and learning with and from each other. It is about exploring the frontiers of what it means to be human, in relationship to each other and our world.

Glenna Gerard

way into understanding