

## 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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