

Dimensions of teaching and learning

As teachers we work hard to provide learning experiences that ensure that every day in every classroom, every student is achieving. Critically, in designing any learning, we seek to understand the readiness of all learners and set challenging but achievable learning goals. We know that improving levels of student achievement depends on all of us working together and striving for continual improvement — from classroom teachers, to school leaders, to regions and in central office.

We know that the quality of classroom teaching has a profound influence on student learning and achievement. School leaders greatly influence improved student outcomes by creating a school environment in which teachers are guided and supported to be effective teachers who systematically plan, use evidence to inform their practice and employ a range of teaching strategies and methods to improve student learning outcomes.

But how do teachers improve student learning outcomes?

More than four decades ago, the educational psychologist David Ausubel, said ' If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach [them] accordingly'.

(Ausubel, 1968 cited in Shulman, 2004, p.36)

The principle of starting from where the student is at remains as relevant and important today as it did four decades ago. Effective teachers place the student at the heart of their practice. Successful schools place the student at the heart of their learning environment. Learning involves students in making sense of the world. It is not simply about absorbing information but it is an active process of constructing meaning. Teaching is about supporting learning and helping students evaluate what they know, extend or renew their knowledge and deepen their understanding.

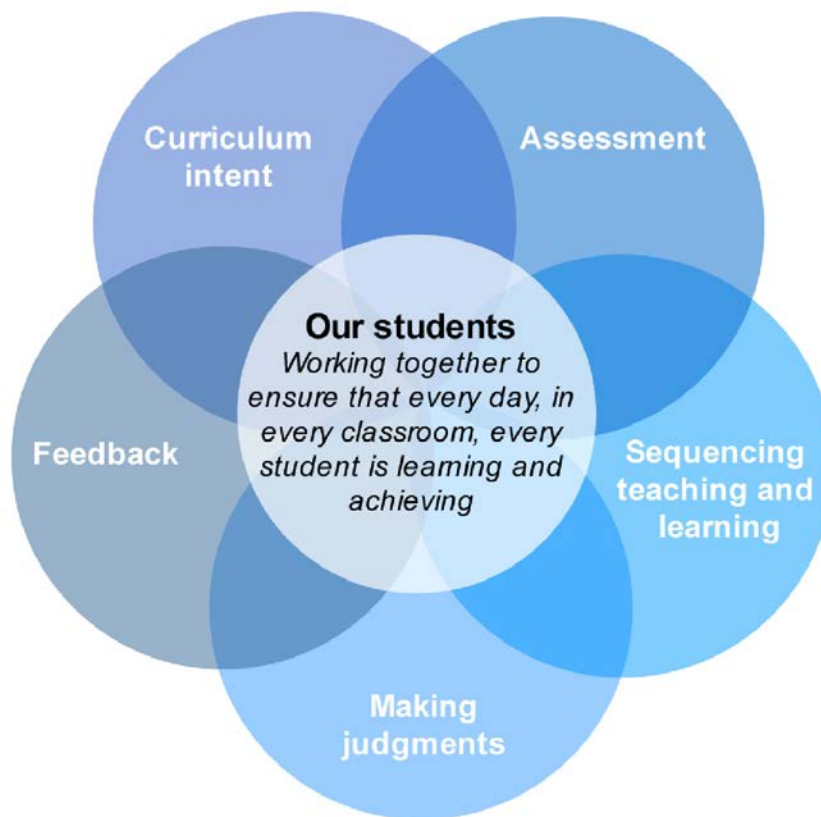
Teaching is a complex and challenging profession in which an effective teacher makes countless daily decisions. The most critical decisions focus on the student.

- What do my students already know?
- What do they need to learn?
- How do I teach it?
- How will they demonstrate their learning?
- How will I know how well my students have learned it?
- Where to next?

Whether planning for a single lesson or a year's program, these questions are fundamentally important.

Teachers can use the five *Dimensions of teaching and learning* to assist them to answer these questions.

Dimensions of teaching and learning



The five *Dimensions of teaching and learning* form the basis of every teacher's professional practice. At its centre are students. Each dimension links to and supports the others. No one dimension exists in isolation.

There is no fixed starting point — most teachers begin by considering the mandated curriculum while taking into account what students already know and the best teaching strategies to support learning.

Teaching not only involves selecting the curriculum for students but also entails assessing and evaluating students' understanding of what they have learned. Attending to these teaching and learning dimensions becomes an iterative process as teachers ask questions, evaluate the evidence and think about what, when and how to teach for effective learning for all students. Ultimately, working in the dimensions of teaching and learning becomes an organisational routine.

The following is an overview of the iterative process and what it looks like in teacher practice, remembering that there is no right or wrong starting point.

The relationship of the teacher and the student in the presence of content must be at the centre of all efforts to improve performance
(Elmore, 2007)

Curriculum intent

What do my students need to learn?

Curriculum is all the planned learning that a school offers and enacts. *Curriculum intent* is what we want students to learn from the mandated curriculum.

Teachers decide how best to plan and deliver the curriculum to ensure that all students have opportunities to engage in meaningful learning. However, curriculum planning is not a linear process. Effective teachers plan and enact curriculum that meets the learning needs of the diverse range of students in their classes.

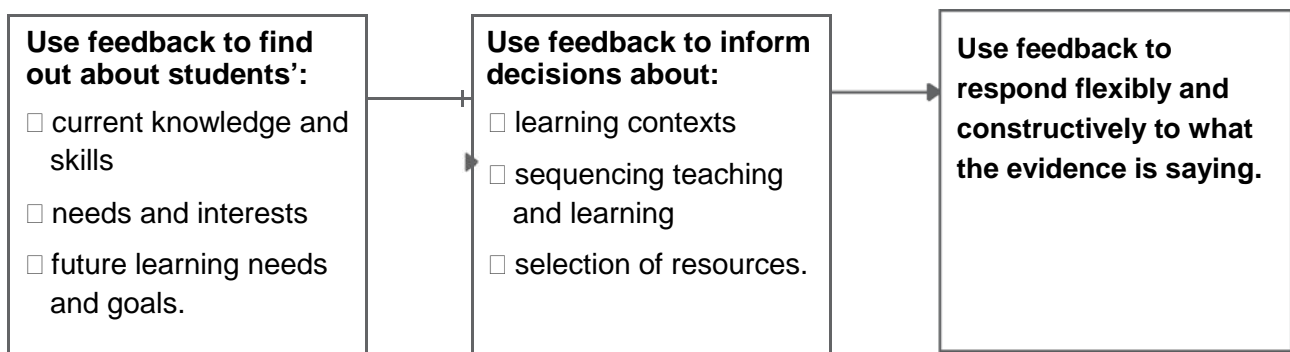
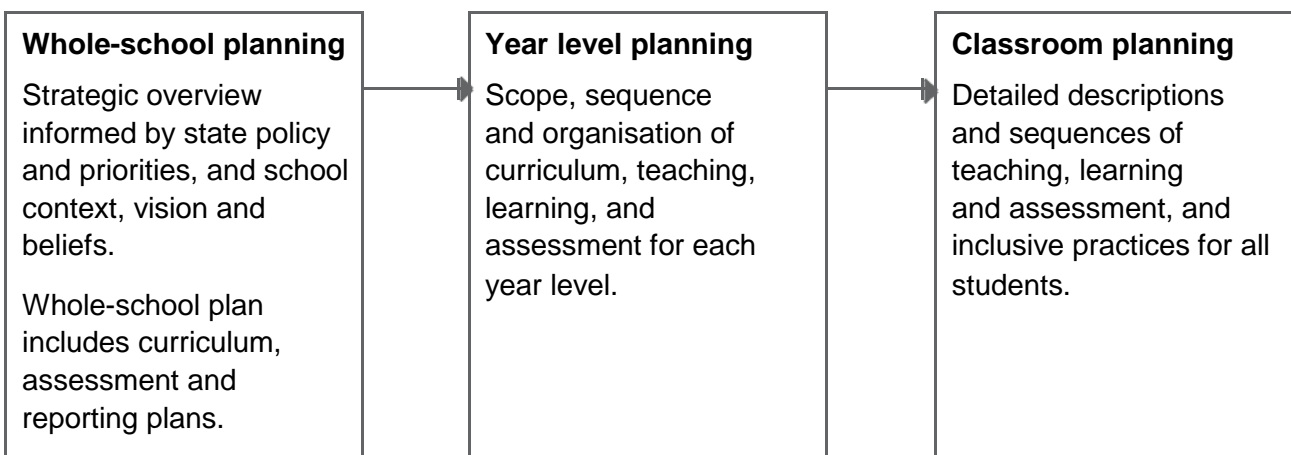
How do we do this?

By planning teaching and learning that aligns with the mandated curriculum:

- Prep – Early Years Curriculum Guidelines
- Years 1–9 – Essential Learnings
- Year 10 – Year 10 Guidelines
- Years 11–12 – Senior syllabuses and study area specifications (SASs)

From 2012, the Australian Curriculum in English, mathematics and science, and from 2013 in history, will replace the current curriculum for Prep to Year 10 in these respective learning areas.

By planning curriculum across three tiers — whole-school, year and classroom levels:



By starting from where students are at:

Teachers use research and other forms of professional inquiry to develop deep knowledge and a thorough understanding of the subject(s)/learning areas they teach. They appreciate how knowledge in their subject is created, organised, linked to other learning areas, and applied to real-world settings. Teachers draw upon this knowledge to set attainable and worthwhile learning goals for all students and select appropriate teaching strategies to achieve these learning goals.

Teachers consider the nature and development of learners and the nature of learning processes when making decisions about *What do my students need to learn?*

Feedback

What do my students already know? What do my students need to learn? How do I teach it?

Feedback underpins all teaching, learning and assessment processes. It can be defined as information and advice provided by a teacher, peer, parent or self about aspects of one's performance aimed at improving learning.

Teachers and students use feedback to *close the gap* between where students are and where they aim to be. It is this function combined with effective instruction that provides the power of feedback. Teachers use self-feedback to guide and improve their teaching practice.

So how do we do this?

By designing classroom activities and assessment to gather evidence about learning:

Teachers and students use assessment evidence to find out:

- Where am I going? (the goals)** What do students need to know and be able to do? What needs to change in the next teaching and learning process?
- How am I going?** What is the current level of performance?
- Where to next?** What are the next steps for learning?

Responses to these three questions help continuously guide and improve teaching practices and student learning.

By using active partnerships:

Feedback involves:

- partnerships between students, teachers and parents
- students engaging in self-feedback and peer-feedback, and providing feedback to the teacher
- teachers engaging in self-feedback and seeking feedback from colleagues, students and parents to strengthen the effectiveness of their teaching practice and inform the next steps for learning.

By giving quality feedback:

Productive feedback:

- is timely, ongoing, instructive and purposeful
- is given at the task, process and self-regulation levels
- is focused on the quality of student performance and not on the student
- gives specific information about what to do next
- challenges students
- requires students to take action and responsibility.

Feedback:

- can be written, spoken or gestured
- can be provided both informally and formally, according to context
- occurs throughout the teaching and learning process — during classroom activities, following a student response to a classroom activity or assessment.

Students advance their learning when teachers consciously use feedback to guide their practice and inform decisions about: *What do my students already know? What do my students need to learn? and How do I teach it?*

Assessment

What do my students already know? How well do they know it?

Assessment is the purposeful, systematic and ongoing collection of information as evidence for use in making judgments about student learning. Systems, principals, teachers and students use assessment information to support improvements in student learning.

What is assessment?

The Melbourne Declaration of Educational Goals for Young Australians defines three broad purposes for assessment.

- Assessment for learning** — enabling teachers to use information about student progress to inform their teaching.
- Assessment as learning** — enabling students to reflect on and monitor their own progress to inform their future learning goals.
- Assessment of learning** — assisting teachers, principals and systems to use evidence of student learning to assess student achievement against goals and standards.

(Melbourne Declaration on Educational Goals for Young Australians, December 2008 p.14).

Assessment is not an 'add on'. It is integral to the teaching and learning process. Assessment must be integrated meaningfully into the flow of planned lessons and serve the needs of diverse groups of students to productively inform teaching practice and the next steps for learning.

So how do we do this?

By taking a whole-school perspective on assessment:

Develop a shared understanding about how assessment information is used to monitor and inform learning.

Plan to collect evidence of student learning when developing whole-school, year-level and unit plans.

A whole-school assessment plan:

- incorporates all learning areas
- identifies types of assessments to ensure a range and balance of assessments throughout the school year
- identifies when assessments (both teacher-designed and external) will be implemented
- identifies processes for achieving consistency of teacher judgments.

Year-level plans add more detail about each assessment, including the purpose of each assessment and how, when and by whom the data will be evaluated.

Teachers identify how they will monitor student learning, including literacy and numeracy, in unit plans.

By planning and using assessment for learning:

Use assessment to continuously monitor progress of student learning in the classroom:

- Know where each student is at and what needs to come next for their learning.
- Use the information to make decisions about, or changes to, planned teaching and learning.

By planning and using assessment as learning:

Develop students' capacity to monitor the quality of their own learning:

- Share learning intentions and achievement goals with students.
- Support students in reflecting on and monitoring their progress.
- Support students in using feedback to plan the next steps for their learning.

By planning and using assessment of learning:

Collect evidence of student achievement against standards:

- Collect evidence of student achievement against standards for summative purposes.
- Use data to plan the next steps for teaching and learning.
- Use data to evaluate whether the standards are being achieved at a whole-school level.
- Use evidence in student responses to inform fair and valid judgments for purposes of twice-yearly reporting to parents/carers and the system.

Teachers also use data to inform teaching and learning collected through:

- Queensland Comparable Assessment Tasks (QCATs)
- Assessment Bank items
- National Assessment Program in Literacy and Numeracy (NAPLAN)
- Year 2 Diagnostic Net
- Year 1 Checkpoints (in trial)

By using productive assessments:

Assessments must provide valid and dependable information about student achievement. Productive assessment:

- is clearly aligned to curriculum and standards
- shares intentions, standards and descriptors of quality with students
- allows all students to demonstrate what they know and can do
- is fair and equitable to all students.

Teachers use assessment information to inform the sequencing of teaching and learning activities appropriate to the learning needs of each student in the class.

Taking a whole-school perspective on assessment develops a shared understanding of the use of assessment information to monitor and assess planned learning. Feedback from evaluating assessment data helps teachers and students to determine strengths and weaknesses in student understandings.

Teachers use this feedback as the starting point for sequencing the teaching and learning activities appropriate to the learning needs of each student in the class. They make informed decisions about how best to sequence teaching and learning based on: *What do my students already know? How well do they know it? What do my students need to learn? and How do I teach it?*

Sequencing teaching and learning

What do my students already know? What do my students need to learn? How do I teach it?

How do teachers ensure that every day, in every classroom, every student is learning and achieving? The relationship between what is taught and how it is taught is critical in order to maximise student learning.

Effective teachers do not teach one thing and then move on to another, and another. It is important to find out what students already know and to set goals for the next steps for learning. Teachers sequence learning that provides multiple opportunities for all students to explore and consolidate ideas, skills and concepts. Effective teachers challenge and support all students.

An important goal for all teachers is to move their students towards independent learning through a gradual move from the teacher directing learning to a point at which the students take responsibility for their own learning.

So how do we do this?

By considering how students learn best:

What type of information does each student find most accessible?

How does each student best receive information?

How does each student best process information?

How does each student best make progress?

How does each student best demonstrate learning?

(Adapted from Felder & Silverman, 1988, p.675).

Effective teachers have high expectations that all students can achieve and perform. They also have high expectations for their own teaching practice.

By using a variety of teaching strategies:

<p>Direct teaching</p> <ul style="list-style-type: none"><input type="checkbox"/> highly structured and explicit teaching	<p>Methods include:</p> <ul style="list-style-type: none"><input type="checkbox"/> explicit teaching<input type="checkbox"/> intensive teaching<input type="checkbox"/> structured overview<input type="checkbox"/> drill and practice
<p>Interactive teaching</p> <ul style="list-style-type: none"><input type="checkbox"/> supports students in working collaboratively and productively in active, hands-on and participatory learning	<p>Methods include:</p> <ul style="list-style-type: none"><input type="checkbox"/> whole-class discussion<input type="checkbox"/> cooperative learning<input type="checkbox"/> peer partner learning

<p>Indirect teaching</p> <ul style="list-style-type: none"><input type="checkbox"/> learner-centred and gives students opportunities to make decisions and choices about their learning	<p>Methods include:</p> <ul style="list-style-type: none"><input type="checkbox"/> inquiry-based learning<input type="checkbox"/> inductive teaching<input type="checkbox"/> problem-based learning<input type="checkbox"/> independent learning
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<p>Experiential teaching</p> <ul style="list-style-type: none"><input type="checkbox"/> enables student to learn and construct meaning through experiences	<p>Methods include:</p> <ul style="list-style-type: none"><input type="checkbox"/> field experience<input type="checkbox"/> simulation<input type="checkbox"/> role play<input type="checkbox"/> process drama
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By differentiating teaching and personalising learning:

Use feedback to find out how each student is going:

- What strengths are evident?
- What misconceptions or misunderstandings are evident?
- What are the next steps for learning?
- What are the next learning goals?
- How can learning be supported?

By starting from where students are at:

Draw upon students' prior knowledge and skills to:

- shape and sequence teaching and learning
- build upon each student's present knowledge and understanding
- move each student to more sophisticated and in-depth knowledge, concepts and skills
- develop students' higher-order thinking skills
- match resources and strategies to the variety of student knowledge and skills.

Teachers make decisions about how best to sequence teaching and learning based on feedback about: *What do my students already know? What do my students need to learn? and How do I teach it?*

Making judgments

How will I know how well my students have learned it?

While assessment is integral to the teaching and learning process, assessment alone will not progress learning. Teachers and students use standards to make judgments about the quality of learning based on the available evidence. It is the process of judging and evaluating the quality of performance and depth of learning that is important to promoting learning.

Teachers make judgments against specified standards on evidence from multiple sources. Assessment assists teachers to make judgments and to inform the next steps for learning.

So how do we do this?

By being transparent about the expected quality of student performance:

- Be clear and explicit with students about how they will be judged.
- Provide task-specific descriptors of quality for the elements being assessed.
- Develop exemplars of high-quality student work to share with students.

By being transparent about how judgments will be made:

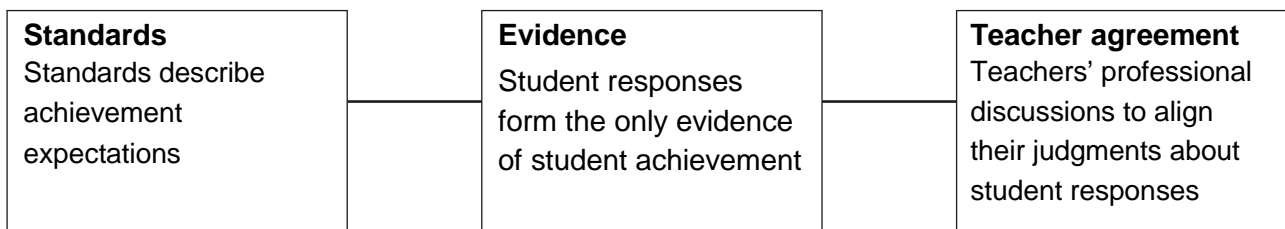
- Make judgments based on the evidence in student work.
- Match the evidence to the task-specific standards descriptors.
- Teach students how to use the task-specific standards descriptors and exemplars to plan and review their progress.

Judgments about student achievement are made using:

- Prep – the Learning statement rubrics of the Early Years Curriculum Guidelines
- Years 1–9 – the Standards of the Essential Learnings (QCAR)
- Year 10 – the Standards of the Year 10 Guidelines
- Years 11–12 – the dimensions and exit standards of the Senior syllabuses and study area specifications (SASs)

Use judgments to inform feedback for twice-yearly reporting to students, parents and carers

By using *standards, evidence* and *teacher agreement* to achieve consistency of teacher judgment:



Professional conversations about student responses against the standards descriptors assist teachers to develop a common understanding of what the standards look like in student work.

Judgments and feedback based on *standards, evidence* and *teacher agreement* enable parents and

... an inquiry habit of mind and a belief that improvements occur through engaging with the ideas of others and the evidence on which these ideas are based
(Earl & Katz, 2008)

students to be confident that the judgments teachers make about student achievement are fair and consistent, and that the process is transparent.

By monitoring and using feedback about student learning to inform teaching and learning:

- What do students know and understand?
- What strengths are evident?
- What misconceptions or misunderstandings are evident?
- What is the level of skill development?
- What are the next steps for learning?
- What are the next learning goals?
- How will teaching be differentiated to meet the individual learning needs of students?

Effective teachers use information from judgments to inform decisions about: *How well have my students learned it?* which in turn informs decisions about *What do my students already know?*, *What do my students need to learn?* and *How do I teach it?*

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