

Finding out what students already know and can do

There are a lot of good reasons for spending some time finding out the prior learning of your students before commencing to teach a new topic. Not only will you be better able to plan your teaching, but the students will feel that what they already know and can do is useful and valued. It will obviously be useful if you can consult with some of the previous teachers of your students or refer to the students' assessments and reports. New reporting technologies will increasingly provide opportunities to efficiently track progress in relation to syllabus outcomes.

Below are some successful classroom strategies to assist you to determine the prior knowledge and skills of students. Many of the strategies provide opportunities for students to speak with other students and this helps them to clarify and explore their own thinking in a non-threatening environment. Most of the strategies allow the teacher to identify prior learning of individual and group while the students are participating in the strategies. It is therefore important to plan the content used carefully so that information is collected in relation to the content of the target outcomes along with the outcomes of the previous stage.

Classroom strategy	Uses and limitations
<p>Teacher questioning Can be general class questioning by a teacher before a topic or before a section of work. Can be individual student questioning during student activities.</p>	<ul style="list-style-type: none"> • Whole class questioning is quick and allows the teacher to probe the understanding of many of the students. May not draw responses from all students and may not allow you to determine levels of understanding. • Individual questioning can provide rich information. It is time consuming. It can be threatening to some students, but this can be reduced after good rapport is established and if questioning is equitable and purposeful.
<p>Diagnostic pretesting The use of a short test or quiz that can be designed to determine prior skill or prior knowledge and understanding, or both. Could be marked to assess individuals or marked anonymously to assess a group.</p>	<ul style="list-style-type: none"> • Provides reliable information about all students. • Time consuming. • Deeper understanding can be explored and a range of learning styles addressed if students are required to write to pictures or headlines or asked to draw from a written or oral description.
<p>The letter box strategy The teacher distributes a series of questions relevant to the topic around the room. Individually, students go around, read and write answers to the questions on a slip of paper and put them in the "letter box".</p>	<ul style="list-style-type: none"> • The strategy is non-threatening for students. • Open questions allow students to answer at their level of understanding. • The answers can be analysed later by the teacher or students in groups can take the answers to a specific question and develop a report of common responses or of questions raised.
<p>Knowledge and skills audit A group activity where individual students reflect on and articulate their prior learning in relation to a task.</p>	<ul style="list-style-type: none"> • Encourages students to value their knowledge as <i>intellectual capital</i>, something that can be as valuable in modern society as financial and material assets.

<p>Brainstorming The technique that stimulates students to quickly recall ideas, and develop creative ones, about a given situation.</p>	<ul style="list-style-type: none"> • Can be whole class, small group or individual. • It is important to initially accept all contributions offered without comment, judgement or opinions. A second phase can be used to categorise or evaluate contributions
<p>Floor storming When individuals or groups of students are presented with stimulus pictures on a topic (on the floor), they record, on A3 paper, words and phrases that describe the pictures. Teachers can challenge students to collate and classify ideas.</p>	<ul style="list-style-type: none"> • Provides a free flow of ideas. Key terms and concepts can be identified. If groups are given a variety of pictures, a broader range of responses is often elicited. • Can be used to assess social interaction and teamwork skills.
<p>Categorising (Classifying) Organising information by grouping or linking according to attributes theme or common features.</p>	<ul style="list-style-type: none"> • Effective with the use of post-it notes or cards from a brainstorming session. Levels of understanding can be elicited if students are asked to give grouped items a heading and descriptor.
<p>Mind mapping This is when students construct a visual-verbal or structured overview of a concept or topic.</p> <p>Concept mapping This is when students show the links between ideas. Ideas (nouns and noun groups) are written inside boxes and are linked with arrows and verbs to show the connections.</p>	<ul style="list-style-type: none"> • The information may be in the form of words or drawings. Valuable to collect and record a lot of information in a summary and visual form. Can assist with classifying. • Best used by individuals. They allow a student to activate their background knowledge and link it to new information. • Their construction should be demonstrated for students. <p>(Mind and concept maps can be posted as a visual reference through a topic and can be modified as needed through the topic.)</p>
<p>Think/pair/share Students consider an issue, a problem, or a question individually and then share their ideas with one other person. Each pair then shares their ideas with another pair.</p>	<ul style="list-style-type: none"> • An effective strategy to initiate dialogues between students and encourages all students to participate in a discussion. • A teacher could facilitate the formation of a class summary by asking for feedback from each group.
<p>Prior knowledge chart A group activity where students use a simple table (with headings: <i>What we know, What we would like to know</i>) to organise group thinking for a task or problem to solve.</p>	<ul style="list-style-type: none"> • An effective way to record information so that students are encouraged to project into a task or topic. • Assists student to purposefully link their knowledge to a task.

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