We have provided below a brief explanation of numerous Teaching, Leadership and Professional Practice Strategies. To simplify their use in everyday classrooms, we have grouped many of the current models and practices into ten main categories.

Multiple Intelligences

Howard Gardner questions the traditional notion of intelligence based on I.Q. testing, suggesting it is far too limited. Instead, he identifies the eight different intelligences below, which teachers can use to cater for different learning styles in the classroom.

- **Linguistic–Verbal Intelligence:** well-developed verbal skills and sensitivity to the sounds, meanings, rhythms and order of words.
- **Logical–Mathematical Intelligence:** the ability to think conceptually and abstractly, and the capacity to discern logical or numerical patterns and other complex logical systems.
- **Musical–Rhythmical Intelligence:** the ability to understand, produce and appreciate rhythm, pitch and tone in music.
- **Spatial–Visual Intelligence:** the ability to "think in pictures", to perceive the visual world accurately or to recreate (or alter) it abstractly in the mind or on paper through images and pictures.
- **Bodily–Kinesthetic Intelligence:** the ability to control one's body movements in a skilled way, for self-expression or toward a goal. This type of intelligence involves the ability to handle objects skilfully.
- **Interpersonal Intelligence:** the ability to detect and interpret other individuals (their moods, desires, motivations) and respond appropriately.
- **Intrapersonal Intelligence:** an understanding of one's own emotions. To be self-aware and in tune with inner feelings, values, beliefs and thinking processes.
- **Naturalistic Intelligence:** refers to the ability to recognise and categorise plants, animals, flora and fauna, minerals and other objects in nature. This intelligence can also include the ability to recognise cultural artefacts like cars or sneakers.

Thinking Skills

Thinking Skills represent a set of skills that can be used in today's society where students must be able to cope with rapid change, choose between many alternative courses of action and make numerous individual and group decisions. The strategies and practices below can be used to develop thinking skills.

- **Habits of Mind:** is a critical thinking approach which aims to help students behave intelligently when confronted with problems that they don't know the answer to. The focus of this approach is the development of 16 habits that will allow learners to perform under challenging conditions that demand strategic reasoning, insightfulness, perseverance, creativity and craftsmanship. A core belief is that students should not only be able to access or interpret information, but they should also know how to act on it.
- **Predict, Explain, Observe:** is a strategy that allows students to record a prediction about what is going to happen or not happen (Predict, Explain, Observe) in a particular situation. It builds students' capacity to make predictions and observations along with a justification for their prediction.
- **De Bono's Direct Attention Thinking Tools (DATT):** is a framework which seeks to improve a student's ability to consider consequences before taking action. The following 10 tools create a framework for defining a situation:
  - Tool 1 – Consequences and Sequels, looking ahead to see the consequences of an action.
  - Tool 2 – Plus, Minus, Interesting, ensuring that all sides of a matter are considered before a decision is made.
  - Tool 3 – Recognise, Analyse, Divide, breaking a larger concept into smaller parts.
  - Tool 4 – Consider All Factors, exploring all factors related to a decision.
  - Tool 5 – Aims, Goals, Objectives, focusing directly on the intentions behind actions.
  - Tool 6 – Alternatives, Possibilities, Choices, trying to find other ways.
  - Tool 7 – Other People's Views, understanding the other person's perspective.
  - Tool 8 – Key Values Involved, checking the alignment between your thinking and your values.
  - Tool 9 – First Important Priorities, prioritising ideas, factors, etc.
  - Tool 10 – Design/Decision, Outcome, Channels, Action, directing attention to the outcome.
- **4-MAT Planning:** is an approach to curriculum planning that is built around the idea that different students perceive and process experience in different preferred ways known as learning styles. The four learning styles accommodated by this type of planning are:
  - Type 1: Innovative Learners, primarily interested in personal meaning.
  - Type 2: Analytical Learners, interested in acquiring facts so they can better understand concepts and processes.
  - Type 3: Common Sense Learners, interested in how things work.
  - Type 4: Dynamic Learners, interested in self-directed discovery.
- **AGO (Aims, Goals, Objectives):** is an Edward de Bono strategy to help students deliberately focus on the intention or reasons behind actions. This type of strategy helps students with making effective decisions and setting realistic goals.

- **Bloom's Revised Taxonomy:** provides a means of planning for six different levels of thinking in a classroom and allows teachers to ensure that higher order thinking tasks are included in lesson planning. Revised by Anderson in 1999, this model encompasses: *Remembering*, recalling information; *Understanding*, explaining ideas or concepts; *Applying*, using new information; *Analysing*, distinguishing between components; *Evaluating*, justifying a decision and *Creating*, generating something new.
- **Play Based Curriculum:** is a child-centred approach which is normally used in the early years to create a carefully planned environment that is a fun place to play, where children can learn without knowing learning is taking place. This approach recognises that children learn best when they are allowed to discover what they want to learn.
- **The Thinking Curriculum:** approach seeks to integrate content and process. The intended outcome of this approach is that students develop *Habits of Mind* with respect to learning, that serve them well both in school and in the real world. The characteristics of this type of curriculum are its scope promoting in-depth learning, its content being situated in real-world tasks which are holistic and challenging, and its experiences actively connecting content and processes to students' backgrounds.
- **Productive Pedagogies:** describes a common framework under which teachers can choose and develop strategies in relation to what they are teaching as well as the variable styles, approaches and backgrounds of their students. There are 20 Productive Pedagogies, and teachers should consider an array of teaching strategies and select and apply the most appropriate one for the given learning experience required by their students.

Problem Solving

Problem Solving is an important tool, skill or process that assists students to solve immediate problems or achieve goals. Once the skill of problem solving is learnt, students can use it repeatedly. We have included below a number of common problem solving tools which usually require a process involving a number of steps, such as identifying an issue, searching for options and putting a possible solution into action.

- **Send/Pass-A-Problem:** involves a team selecting a different problem and brainstorming and writing effective solutions for their problems. The ideas are placed in a large envelope and forwarded to another team. The members of the second team, without looking at the ideas already generated, compile their own list. This second set of ideas is forwarded to a third team, who look at the suggestions provided from the other teams, add their own and then decide on the two most effective solutions.
- **De Bono's Six Hats:** are used to look at decisions from different perspectives. This approach forces students to move outside their habitual thinking style to get a more rounded view of a situation. The White Hat focus is on the data available. The Red Hat focus involves intuition, gut reaction and emotion. The Black Hat looks at all the bad points of the decision. The Yellow Hat focuses on the positives. The Green Hat seeks creativity and the Blue Hat examines a decision from the view of process control.
- **Case Studies:** provide opportunities for students who have limited perspectives when solving problems by supplementing their life experiences with the experiences of others. Case studies can teach students the importance of extending the review of data beyond personal experience, before expressing their opinion on an issue.
- **Problem-Based Learning:** is an inductive teaching method with no direct instruction. The teacher usually poses real-world problems and students learn the specific content and skills as they work cooperatively to solve a problem. It is an excellent technique to encourage student creativity and promote thinking without limitations.
- **Concept Maps:** are graphic organisers which allow students to perceive relationships between concepts by using diagrams of keywords representing those concepts. They are an excellent tool for exploring knowledge, gathering information and solving problems and were originally developed by Joseph Novak in the 1960s.
- **SWOT Analysis:** is a graphic organiser that allows students to make an analysis of strengths, weaknesses, opportunities and threats (SWOT) in a situation or a particular issue. A SWOT Analysis is a high order problem solving and thinking tool that can be used in many subjects.

Graphic Organisers

Graphic Organisers are visual tools used by students to illustrate a variety of concepts including: prior knowledge about a topic, to describe a central idea, to show similarities and differences, to represent a problem, attempted solutions, show the nature of an interaction between persons or groups or to show how a series of events interact to produce a set of results. Some popular graphic organisers are listed below.

- **Mind Maps:** are used for exploring knowledge and gathering and sharing information. Mind mapping is the strategy employed to develop a concept map where links explain the relationship between the key concepts. When using a Mind Map it is important for students to identify the central word, concept, research question or problem around which to build the map. Once they have done this they must then develop a map highlighting associations between the concepts, items and descriptive words and the concept, topic, research question or problem.
- **Venn Diagrams:** are used to describe and compare attributes and characteristics of items (things, people, places, etc.). In order to use Venn Diagrams, students must be able to identify the items they wish to compare, list the characteristics the items have in common and describe how these items are different based on their characteristics.
- **Analogy Charts:** are used to illustrate the thinking and organising process that involves comparing one thing to another thing that initially seems unrelated. In order to use these charts students need to explore the connections and the critical elements of the process before they can illustrate these connections in a diagram.

- **The 5 Ws:** graphic organiser lets students think about and list the Who, When, Where, What and Why of a story or event in a simple visual way. When using this graphic organiser students need to be able to identify the key points of a story or event, including why an event happened and why that event was important.
- **The Fishbone:** graphic organiser is used to help students think of important components of a problem they need to solve or an issue to explore. The head of the fish represents a problem or issue. And the "ribs" of the fish represent component parts of the problem and the related elements of each part.
- **Start/Middle/End:** is used to create story maps that help students analyse or write a story. When using this tool, students will need to identify the beginning, middle and end of a story, the title, setting, characters, problem, solution and moral or theme of the story as well as the chronology of the major events within the story.
- **PMI Charts:** help students examine the Positives, Minuses and Interesting things (or Implications) associated with a topic, decision, or idea.
- **Decision Charts:** force students to think about a problem, list the possible alternatives, outline the pros and cons of the alternatives and compare the consequences of each alternative before stating the decision that needs to be made.

Cooperative Learning

Cooperative Learning involves the use of small groups so that students work together to maximise their own and each other's learning. The concept that dominates this approach is that no one in the group is successful until all group members successfully understand and complete the task. The following tasks can be used to promote this approach in your classroom.

- **Think-Pair-Share:** is a strategy where the teacher poses a question and gives students time to think through an appropriate response (Think). After this time students turn to partners and share their responses (Pair) and during the third and last stage student responses are shared within learning teams, with larger groups or with the entire class during a follow-up discussion (Share).
- **Round Table:** is useful for brainstorming, reviewing, or practising a skill within a cooperative learning group. Students in the group respond in turn to a question or problem by stating their ideas aloud as they write them on paper. The different answers encourage creativity and deeper thinking and this approach is most effective when used in a carefully sequenced series of linked activities.
- **Jigsaw:** is an approach where a member of a team assumes responsibility for a specific part of a problem. They are responsible not just for mastering or knowing their part, but they must also be able to teach the material to their fellow team-mates and work together to solve the "puzzle" from the various puzzle portions.
- **Round Robin:** is a strategy where each student verbally contributes an idea in a systematic, around-the-group manner. The class is usually divided into small groups of four to six, with one student appointed as the scribe and a question with many potential answers is posed. Students then share responses with one another in a Round-Robin style. The scribe writes down the answers which are then rotated to the adjacent group as new answers are added to the sheet.
- **Information Gap:** is an approach that requires small groups made up of students with information other students do not have but need to know in order to complete a task. As each group works through the challenge or problem, the members swap what they know to assist the group achieve success.
- **Student Teams-Achievement Division (STAD):** is an approach where the teacher initially presents a lesson and students in heterogeneous groups work together to ensure that they learn the new material presented. After preparing as a group, students are quizzed individually and receive points based on the extent to which each exceeds his or her previous performance. Individual points are then totalled to form a team score and students are rewarded for both their individual score and their team score.
- **Tribes:** uses long-term small membership groups (tribes) to teach students essential cooperative skills while integrating academic concepts into cooperative learning strategies. In these groups students learn, practice and remind each other to honour the four Tribes Agreements: *Attentive Listening*, *Appreciation/No Put Downs, The Right to Pass and Mutual Respect*.

Questioning Techniques

Questioning Techniques involve choosing the most appropriate type of question to meet your intended outcome. You can use questions in your classroom to explore a new concept, think more deeply about something being discussed in the current lesson or check students' understanding of what you have covered the previous lesson. While the questions you ask can be just as important as the activities you plan, not all teachers spend time identifying the most appropriate types of questions they will ask in a lesson. A list of the types of questions is shown below to help you plan to ask the key questions in your lessons.

- **Open Questions:** are useful when you want your students to talk. A good way to introduce open questions is to start with *Who…, What…, Where…, When…, Why… or How…*? Using open questions in class takes the emphasis off you and allows your students to provide you with the required information.
- **Closed Questions:** can be used to quickly check the facts about what you have taught or are about to teach. The key consideration when asking closed questions is to structure the question in a way that requires a yes or no answer. Closed questions allow you to quickly diagnose misconceptions as well as check that your students can recall the facts of a lesson.

- **Specific Questions:** are similar to closed questions, however in this instance, they are used to learn facts or details from your students. A good way to get the most information from your students is to focus on asking 'How' questions in order to learn about the process used by your students. Specific questions are a great way for you to learn more about your students and provide an opportunity for them to share with you details about the way they have approached an issue both inside and outside of the classroom.
- **Probing Questions:** are often used to explore the depth of understanding a learner has about a particular topic. Try using probing questions from different levels of *Bloom's Taxonomy*, however, make sure you don't ask too many of these questions to avoid interrogating the student. Using an appropriate number of probing questions can help you check if a student can provide more details or clarify something linked to a previous response.
- **Hypothetical Questions:** are a useful strategy for testing how a student might apply recently acquired knowledge or skills in a new situation. A good way to introduce this type of question is to begin with the words "*What if…?*" Asking your students to make predictions in this fashion is a great way to find out in the safety of the classroom environment, how they would cope in new or unfamiliar real-world situations.
- **Reflective Questions:** are an excellent strategy for learning about how your students are feeling about a particular lesson or event. Useful stems for these types of questions include: "*How did you feel about …?*" "*Why did you like …?*" These types of questions can help your students identify their concerns about a topic or diffuse a situation involving other class mates.
- **Leading Questions:** can be used to persuade or put forward a particular point of view. If you use this type of questioning, you will need to carefully plan a series of questions where the answers add support to the point you are trying to make. If leading questions are used in this way, they can allow you to model to your students how to use a well constructed argument to persuade others.
- **Conceptual Questions:** are concerned with the ideas, definitions or reasoning of an area or discipline. Using these types of questions involves asking students about classifications, principles or models that apply to the information or skills being discussed in a lesson. Using conceptual questions in your class allows your students to demonstrate their understanding of the functioning and interrelationships of the basic elements of a subject or theme.
- **Evaluative Questions:** allow students to answer questions at multiple levels and from different perspectives before they arrive at a conclusion. By attempting to answer evaluative questions, students apply multiple logical and affective thinking processes usually requiring students to display sophisticated levels of cognitive or emotional judgment. An example of an evaluative question might be, "What are the similarities and differences between modern day football and Roman gladiatorial games?"

Professional Knowledge

Professional Knowledge represents the technical and subject knowledge as well as the classroom practices that teachers draw on when planning learning experiences for their students. This includes knowing about: learning and child development, selecting appropriate content and teaching strategies, assessing and reporting practices, emerging technologies and catering for additional needs learners.

- **Learning and Development:** With an increasing pressure for teachers to raise standards and promote success for all, it is important that teachers understand something about the ways students learn and how they develop as learners, both cognitively and socially.
- **Effective Pedagogies:** Teachers need to be able to identify the key concepts of their discipline at each particular stage of schooling. They need to develop a plan for what needs to be learnt and select appropriate activities that allow their students to learn.
- **Assessment and Reporting:** Teachers need to be able to effectively measure how much a student knows, communicate this information to parents, as well as use this information to inform their future teaching.
- **Emerging Technologies:** The rapid growth of multimedia learning technologies has presented a formidable challenge for teachers who are often challenged by learners who are sometimes more skilled in their use than their teachers. Spend some time learning about what technology is available to address some of the pedagogical issues that may be present in your classroom.
- **Additional Needs:** The emphasis on inclusive classrooms has meant that teachers need to become more familiar with a wider range of learning needs in their classrooms.

Professional Practice

Professional Practice represents what a teacher does prior to, during and after classes to help their students achieve quality learning outcomes. These practices include: managing a classroom, creating challenging learning environments, planning to include all learners, providing feedback to students and communicating with parents.

- **Classroom Management:** Learning cannot occur in a classroom where students are disengaged. Classroom Management encompasses managing student behaviour, group work, classroom transitions and classroom learning materials to ensure that learning remains the key focus of their classroom.
- **Building Effective Relationships:** It is important to share the responsibility of learning between your students, their school community and their family. This can be achieved by promoting effective relationships with students, between students as well as connect with key adults in the students' home situation.

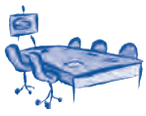
- **Challenging Environments:** Finding the balance between a challenging classroom and important learning skills is essential if teachers are to motivate students to participate.
- **Feedback and Communication:** As class sizes grow, there is an increasing need for teachers to use a range of strategies for communicating with their students.

Self Leadership

Self Leadership in today's school means that every teacher has the potential to be a leader. However, before some can lead a school, they must first learn to lead themselves. Self leaders tend to generally cope with change, participate in peer review, join professional discussions, work at developing their confidence and focus on developing their resilience.

- **Managing Change:** One thing a teacher can be certain of is that change will be a constant in their classroom and therefore teachers must employ strategies that will accommodate these changes.
- **Peer Review:** While most teachers probably experienced being observed during their pre-service training, not all teachers have continued this practice after graduating from their University. It is important to include this valuable practice as part of your development plan.
- **Professional Discussions:** Sharing successful practices is a useful strategy for learning 'what works' at a specific school or with a specific learner.
- **Developing Confidence:** There are periods in your career when things happen that can erode your confidence. Build your confidence so that you can be prepared when it is tested.
- **Developing Resilience:** Change and challenge are constantly found in a classroom, so it is important to build your capacity to cope with these constants.

Leading Learning



Leading Learning is commonly misunderstood in schools. The misconception is that teachers need a title to lead in order to be a leader in a school. Learning leaders should be present among all levels of school staff. These leaders typically: promote care and respect among the school community, set high expectations, manage professional growth for themselves as well as others, build staff capacity and empower parents.

- **Building Staff Capacity:** Leadership of learning does not have to be limited to leading those who are in your classroom or school. Build staff capacity through engagement with your students, colleagues, professional associations and community groups.
- **Setting High Expectations:** Setting high expectations for your students is only half the challenge in a school environment. It is also important for teachers to set high expectations for themselves as well. Improve learning outcomes in your classroom by setting high expectations for your learners and modelling the high expectations you have set for yourself.
- **Managing Professional Growth:** Professional learning should not cease as soon as you begin employment. While this sounds obvious, trying to balance competing time demands from your personal and professional life can cause this to occur.
- **Empowering Parents:** It is often said that educating a child is a partnership between the school and the home. However if parents are unaware of the opportunities or unclear of the role they are expected to play once children are at school, then the partnership may not be productive. Provide meaningful classroom roles for parents and keep them informed about how they can become more involved with the school.
- **Promoting Care and Respect:** As the leader of learning in your classroom, how much time do you devote to developing the social dimensions of your students? Encourage your students to create a learning environment in the classroom based on care and respect.