Assessment and Learning Partnerships

Short Course for School Leaders

Using Data for Decision-Making

Unit 2

Data is essential in monitoring the learning progress a student is making. It is integral in identifying where on a developmental continuum the student is at, and so to identify what the student is ready to learn next. However, assessment data is just the beginning. Assessments may be inadequate if the information obtained from them is not used appropriately. In this project the focus is on data and its usefulness to create learning opportunities for students. Often teachers know of developmental continua but have not had the opportunity to link assessment data to a student's level on a continuum. As a consequence, there may be some difficulty in matching teaching interventions to the learning strategies and goals for the students. This unit examines the role of the Professional Learning Team (PLT) in promoting and monitoring the developmental progress of students under its care. It matches and aligns with a module that teachers undertake.

The functions of a PLT

A PLT functions as a collegial group to foster team responsibility for student learning whilst supporting teachers in their own learning. This is achieved by focusing on data indicating student abilities or skills, by sharing and reflecting on teaching practices, by applying research and best practices, and by developing teamwork and collaboration skills. The professional learning team works within Griffin's (2007) framework of the five-step 'assessment to policy cycle' introduced in Unit 1.
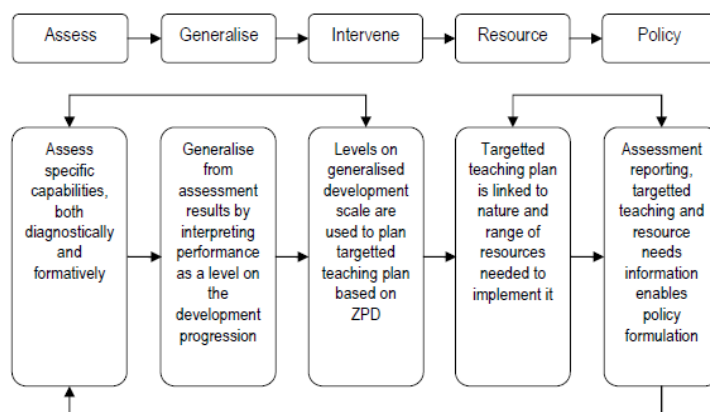

Figure 1. Five steps from assessment to policy, Griffin (2007)

The first two steps in this process are:

1. To assess a student's specific capabilities both formatively, and

2. To use the assessment results to determine the student's level on the selected developmental progression.

When this has been done, the teacher's decision making shifts to how the student can best learn at their current level of proficiency or within their ZPD. This third step involves decisions about what intervention strategy is best for the student in relation to where they are ready to learn.

At the completion of data collection which characterises steps 1 and 2, there will most likely be a range of students at differing levels of development and with differing learning needs and styles. However, this does not mean that a teacher has to manage 25 individual learning plans. It is usually found that in any class the majority of students can be grouped into just a few (4 or 5) ability groups.

The PLT takes collective responsibility for determining the teaching intervention for each developmental level, with the classroom teacher implementing the intervention. This has several potential benefits which can be realised if the PLT learns to operate effectively. These include:

a) the pooling of expertise of a group of teachers;

b) discussion and agreement about what strategies, resources etc should be used, and a subsequent evaluation of their effectiveness;

c) enabling the generalising of teaching intervention strategies across classes where they are appropriate. An example of this is four members in a PLT meet, and each member brings reports and assessments of one of their students working at an agreed level of reading from the reading progression. As a group, they share their differing expertise to work on teaching, learning and intervention plans for these four students. They then discuss the generalisation of this plan for other students in their classes who are also working at the same level, with minor adjustments made for individual student learning needs and styles. The next time the PLT meets, they work on learning programs for students from a different reading level, gradually and over time cycling through students at different developmental levels at subsequent meetings. This process is known as the PLT Action Research Cycle which appears in Figure 2, on page 3;

d) being part of a responsible, accountable team, which empowers and adds value to student learning and teacher self-efficacy.

PLT Meeting

Each meeting of the PLT is organised by an agenda that leads team members through a cycle of examination of student assessment results, setting objectives for student learning, planning a learning program targeted to the student's current level of learning, implementation and review of the learning program and use of resources (see Figure 1). The following five questions are central to this discussion:

1. What is the student ready to learn in literacy, numeracy and/or problem solving and what is the evidence for this?
2. What are the possible interventions and what is the associated scaffolding process for each?
3. What is the preferred process and why is it preferred?
4. What is the expected impact and how will it be checked?
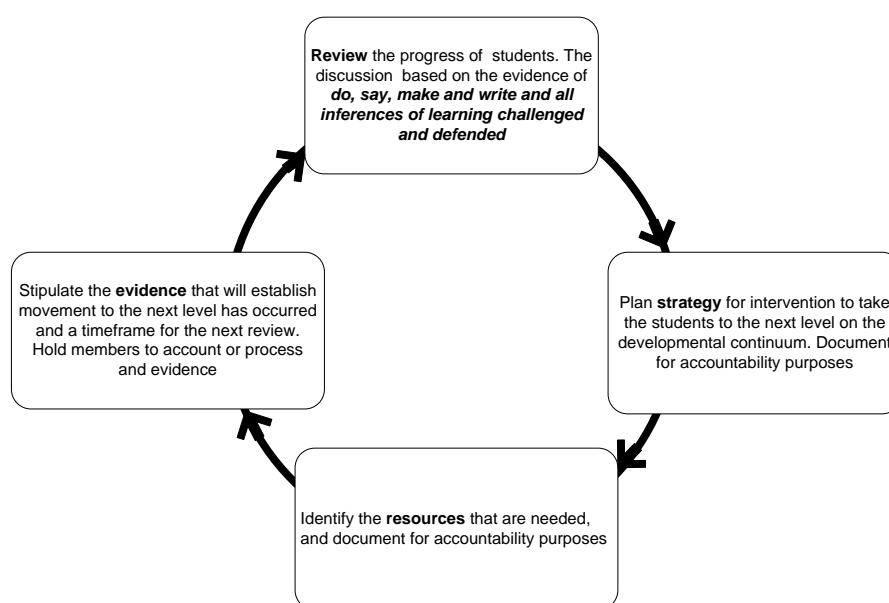5. What did happen, and what resultant decision was made?

Review the progress of students. The discussion based on the evidence of *do, say, make and write and all inferences of learning challenged and defended*

Plan **strategy** for intervention to take the students to the next level on the developmental continuum. Document for accountability purposes

Identify the **resources** that are needed, and document for accountability purposes

Stipulate the **evidence** that will establish movement to the next level has occurred and a timeframe for the next review. Hold members to account or process and evidence

Figure 2. The PLT action research cycle

Each stage of this PLT action research cycle is outlined as follows:

Review Student Progress

Given that there are six teachers in a PLT, it is not plausible that every student would be discussed. We encourage teachers to take to the PLT graphs and charts of the reports of three students each. These three students represent students had lower middle and high levels on the developmental progression. The teachers then would discuss what to do with the students at the different levels on the progression. It is

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important that the students selected to represent a wide variation on the progression. This underlines the importance of differentiated instruction.

The purpose of reviewing student progress is to identify the student's zone of proximal development. The teacher nominating each student for discussion should assemble as much current evidence as possible to identify the student's ZPD. This should include a variety of assessments from student reports to work samples and behavioural observations. This discussion should use the language of evidence (what the students do, say, make and write) and infer student knowledge based on the evidence. However, all inferences should be challenged by the team on the basis of change in student observable behaviours. The language of evidence is addressed in more detail later in this session.

The evidence gathered about a student then needs to be examined by asking questions such as:

- What can the student do independently?
- What is the student ready to learn?
- What evidence makes this a reasonable assessment of the student's readiness to learn?

Plan Strategy for Intervention

It is important to consider both long and short term targets for students. Developmental learning progressions or pathways are critical in this step as they can be used to describe the skills and abilities at both the student's current readiness level and the next level. PLTs are encouraged to use the learning progressions to make decisions about consolidating a student's skills within a level, or moving them to the next level. Where a student is experiencing illness or disruption, it may be appropriate to set learning intentions to retain a student's current skills. Given that the assessment is identifying where the student is ready to learn, sometimes it makes sense to allow the student to be assessed at a different time to the rest of the students if the teacher judges that student factors will interfere with the result.

Once student learning intentions have been set, it is important for the group to work together as a team to devise a program of **learning activities**. Only at this point should the focus of this discussion broaden from the student to include the teachers. A key question to ask at this point is:

What **teaching strategies** can we use to help these students reach the learning targets we have set? This may sound artificial but if it is couched in terms of the levels of a developmental progression it takes on a sense of reality. This is the generalisation and strategy steps (2 and 3) of the five step model depicted in Figure 1. The whole team needs to be involved in this discussion. Over time, the PLT will build up a bank of successful teaching strategies for a range of students within each

developmental level. These can be drawn upon, reviewed and discussed to set learning programs.

Identify Resources

The next step in the action research cycle is consistent with step 4 in the five step model. In this step **resources** that are required to support the planned teaching program for the students are identified. Resources can include people (teachers, professional support staff, aides) and training or professional development programs for teachers, as well as time, space, equipment, materials, technology and so on. Some examples of the questions that can be focused on are:

- What resources and materials are needed?
- Are these resources available?
- Do the planned teaching strategies need to be adjusted due to availability?
- What resources proved successful in the past with students at this level?
- Do the teachers have the skills (pedagogical and content) to deliver these strategies and activities? If not, what professional development is needed for the teachers?

The teacher is a particularly important learning resource for the student, and as such additional questions are required for discussion about what the teacher needs. Does the teacher need?

- More assistance?
- More professional development?
- More support in class?
- Mentoring from more experienced colleagues?
- Additional resources and materials?

Stipulate Evidence of Progress

To complete the discussion, the team members should agree on and document the anticipated evidence of impact on student learning that they expect to observe, and set a timeframe to review their decisions. These notes will be needed at the next PLT meeting when students at this level are discussed again. The clearer the decisions and documentation are, the better prepared teachers can be when they arrive at the review meeting.

PLT Log

The main points of discussion in each of the steps of the action research cycle must be documented. This is referred to as a Professional Learning Team Log. Documentation is important for checking procedures and use of resources in

subsequent meetings. Professional Learning Team logs address the questions as stated previously:

1. What is the student ready to learn in literacy, numeracy and/or problem solving and what is the evidence for this?
2. What are the possible interventions and what is the associated scaffolding process for each?
3. What is the preferred process and why is it preferred?
4. What is the expected impact and how will you check?
5. What did happen and what resultant decision was made?

They can be kept in manual or electronic form (saved on the school server). An example of the layout of a PLT log is provided below.

This PLT log is designed to assist PLT thinking for planning teaching interventions for a specific level on a developmental progression. It is deliberately detailed to allow for every conceivable thought that could go into planning. In practical terms however, teachers may need to go with a reduced version capturing the essential elements for planning purposes.

Sample PLT Log - Literacy

Student(s) Name(s)/ ARCOTS Code:					
Date :					
Developmental Domain	Progression of Reading Development				
Developmental Level & Nutshell Statement	Level E: Make predictions based on understanding of ideas, sequence of events and characters. Identify purpose of text.				
Evidence (What makes you say this?	ARCOTS testing student ZPD was Level E. Analysis of work samples against the progression confirmed this.				
What is the student ready to learn?	*What interventions has the teacher planned?*				*What are the expected outcomes and evidence?*
Learning Intention/s (Specific skill or concept or part thereof to be learned)	**Learning Activity** (Describes what the students are actually going to do)	**Teaching Strategy** (What the *teacher* says, does, makes or writes)		**Resources** (People, place or things used in the learning strategy)	**Evidence** (What the students will be able to do, say, make or write):
1 (a). Students will understand the concept of 'prediction'. 1(b). Students will make plausible predictions from an illustrated text about what will happen next. 1(c). Students will be able to recognise and justify the evidence on which their predictions are based.	The students will engage with illustrated text in the form of a series of comic strips to explore 'prediction' and identifying the clues that assist in the making of predictions. The activity will involve students looking for clues in a series of comic strip sequences and then deciding what should go in the next 'blank' frame of the sequence. Students will explain their reasons for making their prediction.	Backwards design process - student reading of complete comic strip sequence. Convergent questioning on final frame: How did we reach this point? What, who, when, why, and how. Collation of student responses for subsequent reference Prediction - introduce concept using incomplete comic strip sequence Model for students the search for clues in preceding frames on which to make a prediction Use think/pair/share for students to predict what happens. Facilitate whole group discussion and consideration of predictions based on clues that can be identified in the illustrated text. Identification of possibility of multiple plausible outcomes – search for best fit based on evidence. Iteration - Repetition of Exercise using different types of text emphasizing prediction and evidence (clues).		Ms Jones Mr Brown Rooms 12 & 13 Three comic strip sequences, one complete, two incomplete. Data projector Paper copies of incomplete comic strips for each student.	The student will be able to explain what is meant by 'prediction'. The student will be able to make, write/illustrate or tell a plausible next instalment of the story The student will incorporate ideas, events and/or characters to justify the prediction being made
2. Students will be able to identify different sorts of clues in a text and make a prediction based on those clues.					
3. Students will draw on understanding of ideas, sequence of events and characters to identify overall purpose of text.					
Rationale	*Introductory activity on prediction therefore emphasis placed on accessible, familiar and uncomplicated content – hence the use of cartoons with progressive steps to use of written text.*				
	What worked? What next?				
Review Date	*How long will this teaching sequence take? When will you need to meet to consider the evidence?*				
Reflection	*Was the teaching intervention successful? If yes, what, if anything, would the PLT do differently? If not, why not? What next?*				

Callout notes:
- Keep it simple! Order your strategies in terms of how you intend to roll out the lesson.
- Develop activity description, strategies and resources to address this learning intention
- Consider student interest, background, learning styles etc
- Consider, for example, delivery, student response, task complexity or appropriateness, student engagement, suggested changes, content, resources, etc.

Student(s) Name(s)/ ARCOTS Code:	
Date :	

Developmental Domain	
Developmental Level & Nutshell Statement	
Evidence for this level? (What makes you say this?	

What is the student ready to learn?	*What are the expected outcomes and evidence?*	*What interventions has the teacher planned?*	*What worked? What next?*

Learning Intention/s (Specific **skill** or concept or part thereof to be learned)	Evidence (What the students will be able to do, say, make or write):	Teaching Strategy (What the *teacher* says, does, makes or writes)	Learning Activity (Describes what the students are actually going to do)	Resources (People, place or things used in the activity to realise the learning strategy)	Review & Reflection
1.					Review Date: Reflection:
2.					Review Date: Reflection:
Rationale:					

Maximising the Usefulness of PLT Meeting Time

If each teacher comes to the PLT meeting prepared with examples of student work at the different developmental levels, remains focussed on the PLT tasks, and follows a strict timeline, much can be accomplished in a one hour meeting. This focus on selected levels allows teachers to then generalise to other students in their class who are working at that level, with adjustments made for individual learning styles. We recommend that each teacher brings examples of student work and ARCOTS reports for three students at different levels on the developmental progression.

Generalising Interventions

Often the same learning intentions can be used for groups of students at the same or similar developmental levels. One way to visually determine groups of students operating at the same level is to use the ARCOTS class report. The example below shows how groups of students can be planned for within the PLT meetings.
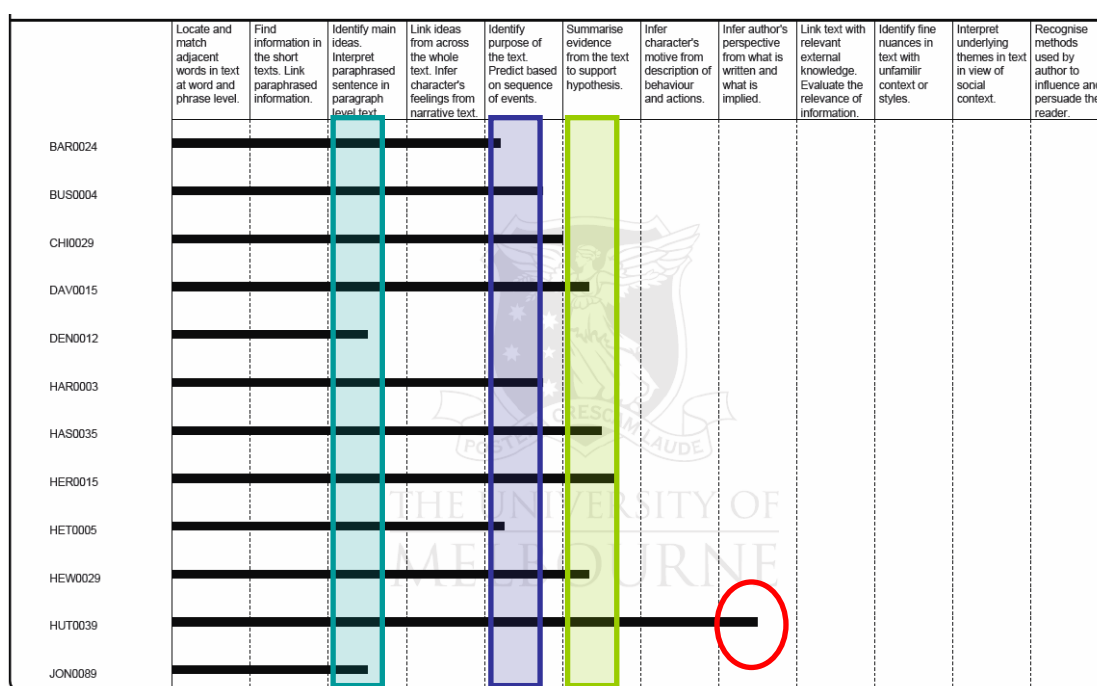

Figure 3. Class report used for grouping students

The class report above shows a number of instructional groups within this set of students (Class 1). Of course, this is not a full class. It is a segment of the class that is used to illustrate the subgroups within such a class. We usually find a maximum of four to five ZPD groups with any one class regardless of whether they are tracked (streamed). Three groups contain several students each. The final student (indicated with by the red oval) does not belong to a group with common learning intentions

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within *that* class. If the PLT examines each class covered by the PLT in the same way, commonalities between classes can be found, and synergies identified.

Language of Evidence

In order to implement the successful elements of a PLT, teachers need to draw on a language of evidence in order to make inferences about student development. What a student understands, thinks or believes is not directly observable. We observe students' overt behaviours or actions; that is what students do, say, make or write. It is from these that we infer student achievement or skills and it is these actions that should be the focus of discussions in PLT.

Examination of each form of evidence should focus on what a student can do and what the student is ready to learn.   The language is important. It reinforces the developmental framework that underpins learning. Discussions that focus on what the student is not able to do encourage the PLT to operate within a deficit framework, and leads to 'fixing' gaps in students' learning rather than focusing on moving them forward by scaffolding based on adjacent levels of direct intervention by a teacher or a better informed student.

Student behaviours or observable evidence (things the student may 'do, say, make and write') can be organised into layers of increasing proficiency. Bloom's Taxonomy offers a way in which teachers can frame the discussions in their PLT. For example, in the table below the use of the words on the right side of the table allows us to describe the student behaviours we observe. This in turn helps us to infer the actions and responses in the left-hand column.

Know	defines; describes; enumerates; identifies; labels; lists; matches; names; reads; records; reproduces; selects; states; views
Understand	classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces; understands
Apply	acts; administers; articulates; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalises; participates; predicts; prepares; preserves; produces; projects; provides; relates; reports; shows; solves; teaches; transfers; uses; utilizes
Analyse	breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides
Evaluate	appraises; compares & contrasts; concludes; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports
Create	**Do**: adapts; anticipates; categorizes; collaborates; combines; compiles; compares **Say**: communicates; expresses; contrasts; **Make**: creates; composes designs; devises; facilitates; **Write**: formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates.

Figure 4. PLT and Bloom's Taxonomy

The purpose of these verbs is to help teachers focus their discussions on student actions and responses rather than on their own activities. While it sounds like a simple task, when teachers discuss student results the discussions often turn to teachers' opinions about students, and what the teacher has implemented rather than a clear description of the student achievement and how this can be interpreted. This shift in language requires the conscious effort of every team member and the team leader to keep the focus of attention firmly on students and the impact of all decisions in terms of observable evidence of change for students.

Language of Challenge

In successful PLTs, teachers also need a language of challenge. Team members should support their statements about student learning by providing evidence of the things they have observed the student 'do, say, make or write'. PLT team members should also be encouraged to challenge themselves and each other to ensure any inferences are based on sound evidence. Some examples of the questions that can be asked to challenge are:

- If I implement this strategy with my students, what am I likely to see them do? How will it change their observable behaviour- what they do, say, make or write?

- When you say that this strategy was successful with your students, what specific changes did you observe? Would you recommend its use?

It is important to note that the emphasis is to challenge the evidence or inferences rather than criticise or judge. That is, challenge should never be personal. Attention should also be paid to vocal tone and body language. It is important that all members of the team work collaboratively and in support of one another. The team leader acts as a facilitator to establish clear ground rules for participation, and helps to draw out concerns of all the PLT members. This is achieved through establishing a norm of listening, reflecting, and challenging, but not criticising.

Establishing protocols

Using formal protocols when discussing student work can be an effective way to help PLT members develop the language of evidence. Protocols structure the discussion and give all PLT members a chance to talk and a chance to listen. They can focus the attention of the PLT to the task at hand and assist teachers to use language appropriate for the task.

Elements of Effective Professional Learning Teams

PLTs, like the individual students they are responsible for, are 'works in progress' and the current level of success at which a PLT uses developmental continua to inform teaching and learning plans relies on a number of conditions. Experience with PLTs across a range of contexts suggests that, ideally, they are made up of between four and six members. This permits the support of a team of colleagues while making sure that everybody in the team has an opportunity to contribute to the discussion. Important elements of successful teams are:

- The engagement and interest of all team members

- A willingness to collaborate and support each other

- Acceptance of shared responsibility for all students

- A shift from thinking in terms of 'my class' to 'our students'

- A commitment to the belief that every child can learn

- The practice of challenging rather than merely sharing ideas

- An understanding of the use of student assessment outcomes to inform decision-making, with an emphasis on evidence rather than teacher inference

On the following page you will find a developmental progression that appears as an exercise in the teacher modules based on Dreyfus Model of Skill Acquisition to which you were introduced in Unit 1. The progression sets out the ALP mantras in order of increasing complexity in line with Dreyfus' levels of Novice, Advanced Beginner, Competent, Proficient, and Expert. Think about your school in terms of this progression in relation to each of these mantras. What is the most common level of skill on display? What do your teachers do, say, make or write that makes you say this? What will you, as a school leader, do about consolidating the skills that they have and scaffolding them into the next level? How might participation in ALP help with this?

The chart on the following page illustrates how the mantras and the developmental progressions come together. It's worth copying this and putting it on your office wall. The teachers will work through these developmental progressions and will have or should have an understanding of how they come together. The language of the mantras should also be part of the discourse of teachers in school.

Table 1: ALP Mantras Theoretical Developmental Progression

Level 5 **Expert**	A developmental approach to teaching and learning characterizes all student teacher interactions. The teacher makes subtle and refined discriminations about student learning needs and teaching responses. Professional practice is common, responsive and transparent. It is characterized by the sophisticated use of evidence-based decision-making. Collective responsibility is taken, and Individuals and teams hold each other accountable for student learning.						
Level 4 **Proficient**	The teacher operates from a developmental paradigm and considers a range of options when targeting instruction.		Interpretation of multiple and varied sources of evidence to identify student ZPD based on deep understanding. Evidence is collaboratively interrogated to validate conclusions about student learning. This process clarifies understandings and fosters common practice. Accountability is shared.				
Level 3 **Competent**	Teaching focus is on underlying skills and teaching approaches are adjusted to meet the range of student learning needs in the classroom using a developmental continuum. Structures and procedures are used to support differentiation.		A routine is established to support the collection of multiple sources of evidence to identify student achievement Evidence of student learning outcomes examined and used in decision-making			Teachers engage in procedures and routines to support a team approach to professional practice (e.g. joint planning, team teaching and classroom visits). Formal discussions between or across year levels or disciplines used to investigate student achievement. Accountability is tangible.	Teachers formally engage in regular conversations about student learning supported by structures and procedures.
Level 2 **Advanced Beginner**	The teacher recognizes a range of student learning needs in terms of additional assistance or stimulus, and makes some adjustments to address those needs.	Increased awareness of underlying skills with some targeted teaching.	Teachers distinguish between evidence and inference about student learning and a range of sources of evidence is sought.		Teachers share instructional activities, strategies and resources based on their perceived effectiveness.	Informal comparisons made by teachers about their students/classes Teachers share aspects of their work. Informal feedback about outcomes. Accountability is inferred.	Teachers informally discuss individual students in terms of actions they need to take.
Level 1 **Novice**	Teaching is typically directed to the 'expected' level of performance, even though the teacher may recognise that some students need additional assistance	Teaching is focused on rehearsing responses to a set of defined tasks to maximize scores.	Summative assessment usually in the form of tests and out of a hypothetical perfect score.	Learning is inferred based on teaching of subject content.	Top down communication. Basic information sharing. Avoidance of contentious issues.	Teachers work and prepare individually. Teaching is a private activity. "My class…" Accountability is personal	Teachers only talk about their own teaching focusing on management, control and content.
MANTRAS	ALL STUDENTS CAN LEARN DEVELOPMENT NOT DEFICIT	TEACH TO THE CONSTRUCT, NOT TO THE TEST SKILLS NOT SCORES	DO, SAY, MAKE, WRITE USE MORE THAN TESTS	EVIDENCE NOT INFERENCE	CHALLENGE, NOT SHARE	PEER ACCOUNTABILITY OUR STUDENTS, NOT MINE	TALK ABOUT STUDENTS, NOT TEACHERS
	Developmental Learning		**Evidence**		**Collaboration**		
	BELIEFS AND VALUES	**KNOWLEDGE, SKILLS AND PRACTICES**					

References

Griffin, P. (2007). *The comfort of competence and the uncertainty of assessment.* Studies in Educational Evaluation. 33 : 87-99.

Notes: