In what ways do teachers make learning explicit so that students are able to articulate the what, how and why of their learning?

Background:

- My school has been involved in a number of professional development opportunities over recent years that have heightened my awareness of the importance of students being able to set their learning goals, reflect on their learning, and to identify next learning steps to achieve their goals.

- The two most recent professional development programmes undertaken in our school have alerted me to the fact that, although teachers are setting learning intentions and success criteria, students struggle to talk about the what, how and why of their learning.

- A discovery made, as part of an AToL PD programme operating in the school, has been that most students interviewed during classroom observations experienced difficulty in articulating what they were learning, and how they would know they were successful as learners. This despite the learning intentions being clear to the AToL observers, since they had been stated for the students by the teachers, and recorded for student reference.

- This finding resurfaced when we began some study around ‘walk throughs’ in classrooms. Even though the learning intentions were clearly visible, the students talked about what they were ‘doing’ rather than what they were ‘learning’.

- Consequently my focus has been to discover how teachers work with students to co-construct learning, so enabling students to talk about the purpose and direction of their learning.

Sabbatical Study Components:

1. My sabbatical has enabled me to do some further reading about how students learn, how teachers can stimulate learning, and to observe what some schools and teachers are doing to enhance students’ ownership and articulation of their learning.

2. I visited 13 schools around New Zealand where had been identified teachers whose students’ ownership and articulation of their learning is strong, to observe and discover school and teacher practices which underpin this achievement. I spent a day in each, talking with the principal, staff, and students about these matters, including observing in classrooms.
3. I took a number of photographs as evidence of the good practices I observed, and have compiled these into A3 size folders for my own staff to view and discuss.

4. As a result of my learning, I have developed some approaches for my staff to explore ways to further develop learning environments where students’ confidence and ability to manage their learning is enhanced, and they can be more independent in understanding and articulating their learning development.

So what did I find out?

My report on the above four components of my study follows.

1. Reading from some relevant literature

‘Its About Learning (and Its About Time)’ by Louise Stoll, Dean Fink and Lorna Earl.
Revisiting this excellent book, referred to me by one of the principals visited, has highlighted for me a number of important points about learning, how it occurs, and how it can be facilitated:

• Learning is a constructive process that occurs best when what is being learned is relevant and meaningful to the learner, and when the learner is actively engaged in creating his or her own knowledge and understanding, by connecting what is being learned with their prior knowledge and experience.

• Although for many, learning feels like a random activity, it can be controlled and enhanced by focusing attempts to make sense of information, to relate it to prior knowledge, and to master the skills involved

• Motivation is key to effective learning; ‘what’s in it for me?’
  o Dweck defines the characteristics of performance and learning motivational styles. The former gives emphasis to ability and extrinsic rewards being the motivators of success, while the latter emphasises effort and belief in one’s ability to improve and learn.
  o Csikszentmihalyi says that learning is optimized when both a learner’s appropriate skill level and the challenge of the learning task or activity are high, and describes such a state as being ‘in flow’. When people believe they are able to succeed, they are willing to try new and challenging tasks even when they are difficult.
  o For a long time, reinforcement and rewards have been considered as important motivators. When initial interest in a task is low, rewards can increase the likelihood of academic engagement and performance of tasks. However, there is a paradox about the nature and power of rewards when the task is intrinsically interesting. Extrinsic rewards have the potential to undermine performance, especially with tasks that people are likely to do in the absence of any reward because they are inherently interested. There is a danger that when people who are highly intrinsically
motivated are faced with a heavy accountability system of extrinsic
rewards, they lose some of the intrinsic motivation and replace it with
reinforcement from the reward. It is very hard to then return to
intrinsically motivated behaviour.

- Biggs and Moore defined four broad categories of motivation: extrinsic
  (surface learning carried out for positive or negative reinforcing
  consequences), social (relating to the person forming the motive or nature
  of the process), achievement (learning for passing a test or exam,
  ‘surface’ motivation), and intrinsic (deep learning for its own sake, with
  personal commitment)

- In the 21st century, with its ever-accelerating rate of change, human survival and
  adaptation necessitates more sophisticated learning on the part of all. The days
  of schools being sorting institutions for the marketplace with students being
  compelled to go, with learning being only optional, are over. Learning must be
  the central issue for all in schools. Never before, according to Darling-
  Hammond, has the success, perhaps even the survival of nations and people,
  been so tightly tied to their ability to learn.

- Young people not only need competence and confidence in a broad range of
  areas; Guy Claxton and others have identified that students need also to learn
  some essential tools to adapt to new knowledge, which he has termed learning
  power, or ‘learnacy’.

- The following factors are noted by the authors as critical to creating a supportive
  context for student learning: ensure a safe physical and emotional environment,
  nurture positive relationships, be fair and respectful, maintain high expectations
  for all, and promote positive school behaviour.

- The authors highlight the importance of teaching for understanding, which needs
  to recognise many kinds of knowledge, intelligences and learning styles. They
  outline a number of ways in which teachers can enhance student learning under
  the headings of: start with what they believe to be true, make connections, keep
  them engaged and motivated, foster independent learning, make learning social,
  capitalise on students’ diversity, use technology as a learning tool, foster
  thinking, assess for learning, involve students in their own learning, and extend
  opportunities and locations for learning.

Towards Successful Learning’ by Diana Pardoe (UK)
Of particular interest in this book was chapter 5, ‘Exploring the Learning Process’ in
which the importance of motivation in learning was stressed. Motivation concerns
‘willingness to devote time to learning’ which the author says requires commitment,
openness and purpose, if there is to be real subsequent learning. Pardoe reports the
UK Assessment Reform Group finding of the significance of learner self esteem on
achievement, and of the largely negative impact of testing on pupil motivation for
learning. I found it particularly encouraging to see that most of the reform group’s
suggestions for teachers to ‘Do more of.’ below are being followed in those schools I
observed. None of the “Do less of this…” list of teachers’ suggestions was observed.
<table>
<thead>
<tr>
<th>Do more of this . . .</th>
<th>And do less of this . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide choice and help students take responsibility for their learning</td>
<td>Define the curriculum in terms of what is in the tests to the detriment of what is not tested</td>
</tr>
<tr>
<td>Discuss with students the purpose of their learning and provide feedback that will support the learning process</td>
<td>Teach how to answer specific test questions</td>
</tr>
<tr>
<td>Encourage students to judge their work by how much they have learned and by the progress they have made</td>
<td>Allow students to judge their work in terms of scores or grades</td>
</tr>
<tr>
<td>Help students understand the criteria by which their learning is assessed and to assess their own work</td>
<td>Allow test anxiety to impair some students’ performance (particularly girls and lower-performing students)</td>
</tr>
<tr>
<td>Develop students’ understanding of the goals of their work in terms of what they are learning; provide feedback to students in relation to these goals</td>
<td>Compare students’ grades and allow students to compare their grades, giving status on the basis of test achievement</td>
</tr>
<tr>
<td>Help students to understand where they are in relation to learning goals and how to make further progress</td>
<td>Use tests and assessment to tell students where they are in relation to others</td>
</tr>
<tr>
<td>Give feedback that enables students to know the next steps and how to succeed in taking them</td>
<td>Give frequent drill and practice for tests</td>
</tr>
<tr>
<td>Encourage students to value effort and a wide range of achievements</td>
<td>Give feedback relating to students’ capabilities, implying a fixed view of each students’ potential</td>
</tr>
<tr>
<td>Encourage collaboration among students and a positive view of each others’ attainments</td>
<td>Emphasise competition for marks or grades among students</td>
</tr>
</tbody>
</table>

‘The Hidden Lives of Learners’ by Graham Nuthall
Graham Nuthall’s research out of Canterbury University gives emphasis to those comments already made about the nature of learning by the authors quoted above.

Nuthall’s research identifies the following characteristics of learning:

- **Learning is highly individual**, more so than we previously believed, Nuthall says. Most students already know 40 to 50% of what the teacher is going to teach them, though this prior knowledge differs significantly from one student to the next. Consequently, each student will experience classroom learning differently, with about a third of what a student learns being unique to them, not learned by other students.

- **Learning usually involves a progressive change in what a student knows or can do**. However this relies on a sequence of learning events or experiences being
Nuthall says at least three different sets of information about a concept are required to enable it to connect and integrate with the previous knowledge of the learner.

- **Learning involves extracting information from, and making sense of, experiences.** Students make sense of classroom learning activities by trying to connect them to their prior knowledge and beliefs, and to other related experiences temporarily stored in their working memory.

- **Learning frequently comes from student self-selected or self-generated experiences**, rather than directly from learning activities provided by the teacher. This is to do with the thoughts and activities generated by the students themselves and by conversations with fellow students.

- **Learning of curriculum content inextricably interweaves with the experiences and activities in which the content is encountered, and with the pervasive peer culture.** During class activities, what students learn and how they learn it depends on the way the learning event or activity is presented, and the way they interact with other students during the learning.

The implications for teaching these characteristics of learning are outlined by Nuthall. The following suggestions are made for teachers seeking to create and adapt teaching methods and classroom management procedures in ways that help students learn:

- **Design learning activities with students’ memories in mind.** Making information for learning memorable is key, and Nuthall suggests one way of doing this is to embed the information in a range of different activities. Encouraging them to make connections between new ideas and prior knowledge might help students to make connections in other related activities.

- **Engage students in activities that enable them to revisit concepts.** Because students need to experience at least three different sets of complete information about a concept before it is imbedded in their network of knowledge, teachers need to give them opportunities to revisit concepts.

- **Monitor individual students’ evolving understanding of concepts.** This requires some form of individual assessment prior, during and after learning experiences, since teachers need to know what their students have acquired, are still in the process of acquiring, and have not yet acquired. Only by assessing what each of their students knows and understands can teachers decide what to do next.

- **Focus on ‘big questions’.** Learning takes time, so it’s better to study less in depth, rather than cover every aspect of the curriculum at a surface level of understanding. Teachers need to focus on major questions or problems that provide the most pay-off for students.

- **Capitalise on the peer culture to foster learning.** Teachers need to know about the lives of their students in order to manage their learning effectively.
• **Over time, encourage students to manage their own learning activities.** Students need to learn how to learn. Teaching’s dual goal is to both teach the curriculum content as well effective procedures for learning the content.

2. **School Visits.**

I am very grateful to the principals and teachers of the 13 schools I visited, for the time and energy they put into hosting me and demonstrating their learning environments. Hearing some of their students talk about their learning with such understanding and clarity was exciting.

I was fortunate to observe a number of learning and teaching philosophies and practices that facilitate and promote students as independent and articulate learners. In summary these are:

**• Students are provided with clear learning expectation steps in literacy and numeracy**

  - Many schools have developed achievement expectation statements for year groups
  - ‘Learning walls’ are used by some schools to show progressions of learning for writing, reading, and number development, with students’ names displayed alongside their current stage. Students track their own progress, moving their name after bringing evidence of their learning development to their teacher’s attention
  - Some schools have one of these for each student who then individually tracks their own learning, with each step and stage being ticked off as they progress. Students set their own literacy and numeracy learning goals, and track these too
  - I observed students being questioned about their learning, using a target questions sheet. These formed the basis of student led conferences in some schools
  - Opportunities are provided for students to self assess, then seek peer and teacher feedback. Some clever forms and formats for these were developed
  - Learning intentions and success criteria are made clear to students, with some co-construction of them by teachers with students.
  - One school looked closely at the expected literacy and numeracy standards, level by level, (as per the National Standards time frames), recording for each, under two headings: ‘Student Shift; What is important to learn?’ and ‘Required Knowledge and Action of Teachers; What do we need to know and do in our teaching to achieve shift?’

**• Some schools have also identified similar developmental steps, stages or matrices for the key competencies and values**, with several having linked these with the **habits of mind**. They provide clear guidelines for students to track their learning and development in these important areas as well.

**• Integrated inquiry studies are clearly structured and developed by schools**
Several schools use the simple Inquiry model: ‘Get it (or Find it), Sort it, Use it’. Another’s is ‘GEAR; Get into it, Explore, Act, Reflect’. Yet another variation observed was called ‘Stream of Inquiry’, with the stages: ‘Big Problem Question, Focus Questions, Find and Gather, Create and Communicate, and Evaluate’

The Kath Murdoch model was used by a number of schools too: ‘Tuning In, Finding Out, Sorting Out, Going Further, Reflecting and Making Conclusions, Taking Action, Sharing Discussion and Reflections’

Some schools have a year long Big Idea, an overarching theme, rich concept, issue or idea worthy of exploration. One example was ‘The Sky is the Limit’

Adopting the inquiry disposition of provoking new perspectives, considering alternatives, and communicating opinion with justification, others develop a Big Idea each term. From this deep understanding statements are developed into a rubric describing students’ expected performance. A schedule for two year / one curriculum level ‘coverage’ of the conceptual learning areas of the curriculum has been developed by some schools.

- **Teachers work together as a whole school team towards the achievement of school goals and purposes**
  - Staff work in school development teams which meet regularly to craft /shape development in their area, and feed back ideas for the whole staff’s consideration
  - One school took all their teachers on school visits to look for particular ideas. They took photos of the evidence of learning they saw, under the headings ‘what was innovative, interesting, and inspiring, how do they use their classroom environments, and what was the effect on students knowing and talking about their learning?’ On return to their own school they considered the student learning that each piece of evidence represented (ie had taken place), and the teachers knowledge required to bring this about, recording these on charts for future reference and analysis.
  - One school more aptly named Teacher meetings as ‘Professional Learning Time’

- **Students are given opportunities to work independently at their pace**
  - One school used learning centres as an integral part of the literacy and numeracy programme, with independent learning activities being developed
  - Teaching approaches espoused in The Learning in Science Project were followed in another school
  - Some schools displayed best examples of students learning on Quality Work tables

3. **Photographic Evidence.**
I have assembled large (A3) photos of the classroom and school practices reported in 2 above, for ease of reference and clarification of my descriptions. These are not able to
be included with this report, though could be supplied on a memory stick to anyone interested.

4. Some approaches for my staff to explore ways to further develop learning environments where students’ confidence and ability to manage their learning is enhanced, and they can be more independent in understanding and articulating their learning development.

I have reflected on how I can use my sabbatical learning for the benefit of my school, and undertaken the following:

- During term 4, the photographic evidence has been available for staff to browse. These will be used in a more focussed way as we examine our practices and explore ideas.

- Because the ownership and commitment of all staff is important, rather than further developments being dictated by me, for 2012 teachers have been formed into school development teams with one teacher from each syndicate. The five teams are: Literacy, Numeracy, Inquiry/Key Competencies/Values, Pedagogy/Feedback/Appraisal, and Digital Learning. Teams will start in 2012 and are timetabled to meet regularly to each address a range of matters in relation to these findings from my sabbatical observations, and from our internal self review processes.

- Firstly, each team will review current school practices in its area of responsibility, looking at questions such as:
  - Are all teachers on the same page?
  - Are teaching practices, expectations similar across the school?
  - Are all students clear of our learning expectations of them?
  - Do teachers have a clear idea of achievement expectations?
  - Are our teaching practices as effective as they could be to achieve ultimate results?
  - What is working well, and so should stay?
  - What needs to change and how?
  - What will we read to ‘expand our horizons’ on these matters?

- Based on the responses to these questions, plans of action within the areas of responsibility identified (elsewhere) for each team, will be developed and followed. Closer scrutiny of the photographic evidence, of my reading and observation notes (above) and of the ideas in other reading which committee members will undertake, will be made, as plans are developed.

In Conclusion.
Thanks to everyone involved in making my sabbatical a very worthwhile learning experience for me, with the potential for some expected benefits for learners in my school:

- my Board of Trustees who supported my application,
- ‘Teach NZ’ who granted the sabbatical leave,
- the schools and teachers who hosted my visits, and
- my own school staff for ‘holding the fort’ during my time away.

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