Aspirations that teachers can help students find what makes them tick as learners, and that both become progressively smarter at using this knowledge underpins the Learning Made Easy (LME) System used at Ipswich Grammar School, Queensland. LME, now a model for others in Australia and the United States, is a metacognitive program. The program aims to assist students and teachers better understand and plan what is required if students are to learn effectively and to see a future for themselves as learners. This becomes the common intellectual thread to academic work across the subject areas. The intention is that students will achieve far consequences from opportunities of interacting with the curriculum. These include broad-based skills – such as confidence to handle challenge and change - as well as near ones – such as competence in tackling the tasks of being attentive, in being receptive to learning, in being systematic when selecting and processing information, and in being communicative. The intention for teachers is that they share a systematic basis when imagining what happens as their students build intellectual and operational schema about how a lesson works, and how they should work a lesson – this generalized to a school day, a semester, and a lifetime of learning. For both, it requires vision and revision, the basis of a progressive envisionment of life in and beyond compulsory schooling. This is a report on what 200 graduates from the school had to say about such intentions.

Introduction: The Power
Metacognition and its moderating power in the pursuit of effective learning have been increasingly visible in the research literature of our field over the past twenty years. We now know what it is (Flavell, 1979; Kearney, 1997) and are better informed about how it operates (Bartlett, 1978; Osman, & Hannafin, 1992; Ridley, Schutz, Glanz, & Weinstein, 1992; Schunk, & Zimmerman, 1994; Vermetten, Vermunt, Lodewijks, 1999). This is particularly the case in relation to learning strategies (Borkowski, Carr, & Pressley, 1987; Bulgren & Scanlon, 1997) where metacognition underlies much of the decision process. What we know and operationally manage of our knowledge base is at work. This working knowledge often is most obvious in the strategies we use to get things done. Not so obvious, but just as important, are the cognitive planning required if the strategies are to work optimally, and the attitudes and motivation that a strategist associates with such mind games.
Typically, metacognition is at work as we bring strategies to bear that are appropriate in a given task situation, or decide not to. For purists, it is also at work – albeit at zero level - when we don’t see that we could have used a known strategy, or forget that we have one that might have been helpful. Our cognitive and affective monitoring of the task at hand and of our own attitudes, motivation and capabilities to do the job is the stuff of metacognition. In its simplest form, it is a deterministic assembly of what we know about how to know more, and of how we feel about this. Characteristically, it includes a repertoire of strategies and of the know-how and conditional knowledge to match strategy to task.

Metacognition also includes operational procedures that determine whether the strategy chosen to motor our work operates with a Rolls-Royce purr or a Rent-a-Wreck prayer. Applying depths of processing theory to the metaphor, metacognition is a factor in the surface-deep level dichotomy (Craik & Lockhart, 1972), which describes whether our work is conducted at a superficial level (e.g. reading a text for its signs) or driven to deeper levels (e.g. reading the text for what its signs signify). It this sense, it underpins my own work on top-level structuring (Bartlett, 1978; Bartlett, Fletcher & Kearney, 2002; Meyer, Middlemiss, Theodorou, Brezinski, McDougall, & Bartlett, 2002) and on the Ipswich Grammar project, much of which is reported here.

Results and Discussion: The Point
Because of its power, we have reason to be more confident that metacognition is a low-problem factor with high pay-off potential for educators. When properly organised into systematic attempts to effect quality and lasting changes in what we do in schooling, metacognition is a winner for re-envisionment. Ipswich Grammar School’s (IGS) attempt to do this began in 1992. At the school’s request, a program was conceptualized that aimed at identifying applications of top-level structure theory. I wanted this program to assist teachers to read their theories and practices at Rolls-Royce levels, bringing to consciousness what they signified, and imagining the significance for their students. Additionally, learning rather than teaching was to be at the center of their attempts to adapt practice. As a critical friend to individuals, department-level groups and whole-of-staff in an ongoing program of reform, I assisted in this goal setting and for 11 years provided a conduit to literature and discussion as teachers developed and shared their knowledge of teaching practice at IGS.

Teachers of the school generally approached opportunities of the program in a scholarly way. There was variation. However, in my period of active engagement (1991-2001), their written and verbal accounts of participation generally presented a mind-sense of their work that included reflectivity, openness to scrutiny, and a positive inquiry approach to whether strategic learning would result from strategic teaching. This view is reflected in graduates’ reports that are shown in Table 1. A majority felt that teachers had helped them to know how to learn with a trimodal clustering of scores at the higher end of the scale. However, there were mixed results in relation to how they were assisted to better understand themselves as learners. The distribution groups around descriptions of always, frequently, sometimes and almost never to never. There is an important difference in the two sets of data. The more variable response on the second issue may
have been an outcome of patchy exposure across subjects in some years as two graduates reported: “I think my year, because we were the first to get it, it was really only prominent in a couple of subjects.” (TY, Bartlett & Kearney, 1998, p.25); “It wasn’t particularly integrated into the subjects (and was) every so often pulled out” (LM, p.26). For others, the practice involved in learning and applying strategies may well have outweighed in time and effort demanded of students and visibility in teachers’ work the personal reflection and insight required if students were to better know themselves as learners. Perhaps, it was simply more memorable. Alternatively, some of the 30 respondents who volunteered to participate in focus group discussion may have found in their reflection some cause to reconcile the improvements many claimed to have made as they moved beyond IGS and its teachers. One commented about his university work, “I make a mind map first, then I write an essay plan, and then I will write notes and then I will write. The whole sort of process was one that I made when I was at school, but now I can really apply it”. (LB, Bartlett & Kearney, 1998, p.31);

Table 1. IGS graduates’ reflections on their teachers.

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Score</th>
<th>...to know how to learn. n</th>
<th>cum %</th>
<th>... to understand myself as a learner n</th>
<th>cum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>7</td>
<td>47</td>
<td>23.6</td>
<td>14</td>
<td>7.0</td>
</tr>
<tr>
<td>Always – Frequently</td>
<td>6</td>
<td>3</td>
<td>25.1</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Frequently</td>
<td>5</td>
<td>86</td>
<td>68.3</td>
<td>58</td>
<td>36.5</td>
</tr>
<tr>
<td>Frequently–Sometimes</td>
<td>4</td>
<td>2</td>
<td>69.3</td>
<td>3</td>
<td>38.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3</td>
<td>56</td>
<td>97.4</td>
<td>83</td>
<td>79.5</td>
</tr>
<tr>
<td>Sometimes-Almost never</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>80.5</td>
</tr>
<tr>
<td>Almost never- Never</td>
<td>1</td>
<td>5</td>
<td>99.5</td>
<td>39</td>
<td>100.0</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>100.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>Mean 4.81; s.d. 1.58</td>
<td>200</td>
<td>Mean 3.49; s.d. 1.70</td>
<td></td>
</tr>
</tbody>
</table>

Graduates had much to say about their strategic learning. Some indicated that their teachers had helped them build on what they had brought from their primary school:

“I remember a lot of times thinking, well I do that already” (TH, Bartlett & Kearney, 1998, p.24)
“High school just took it further… built on what I could do”. (AR, p.24)

Most spoke highly of LME and teachers of the school:
“LHTL (an early title) taught you... if you hadn’t been shown, how to actively learn material.”
“It was helping a lot of people.” (TH p.26)
“modifying it to make it suit... that made you a better learner.” (HB, p.26)
“They made me know I had to do something about it.” (TT, p.26).

Certainly, for purposes of unifying the school’s belief about what is important, teachers were depicted in such responses to be carrying the messages of LME. Typically, “There was a big impact on listening”; “You learnt how to write scientifically very well.” (p.30).

The respondent (LM) who made the negative comment above concerning integration by teachers, went on in interview to suggest his perception was such “because we don’t really know what was the Learning How To Learn program and what wasn’t. Because, I think it was integrated the whole way through and probably we didn’t realise it ... and it probably has influenced our learning without our realising.”

Graduates associated such messages with personal and skilful learning and usually with high levels of academic achievement: “There are always students who aren’t going to need any type of strategic learning because they have got their own. They have figured it out early in life.” (TH, p.29). They suggest that as students, many were assisted by their teachers to go beyond the superficial signs of strategic behaviour – like applying a mnemonic - to deeper levels of inquiry where they explored what the mnemonic signified about “being strategic”. The mind-sense that they make of using such things as top-level structuring was a special meaning of “sense”. It involved internal features such as cognitive coherence and metacognitive direction:

“Year, I sort of use compare and contrast especially, like if I use some information during the day, especially in Uni lectures. You immediately compare to the knowledge base already, like say accept, reject, modify what you are thinking” (HJ, p.32).

“Day to day, I always use lists and problem solution” (HP, p.32)

Additionally, they saw the strategic approaches learned at school had generalized beyond Ipswich Grammar’s classrooms:

“Planning conversations ... where you are in an argument or conversation with a friend or a girl. You never know, you have got these backup plans, the smart things you have to say to impress them.” (SS, p.32).

“If I look at my family in the way that we argue, the types of structures are there. I can see the difference in people. Mum is all of them, she uses everything. But Dad is just cause-effect.” (HJ, p.32)

“I think for me, looking for jobs. That’s how I used it best, sort of, ‘Do I want this job and why, and for what reason?’” (JM, p.32)

“It wasn’t until university that I decided to explore these ideas” (OF, p.32)

These positive perceptions are consistent with academic improvements measured for students while at school. Learning Made Easy (LME) has shifted outcomes across all levels of capability. The program was introduced in 1992 with an initial focus on Year 8 and Year 10. However, teachers for these classes were also teaching at other year levels and the approach extended informally to Year 12 where an associated improvement showed on the Year 12 external examination for the first time. Maintenance of the 1992 result across subsequent years and its further improvement from 1994 reflect the systematic rollout of LME technology from 1992-1994. Data for placement in tertiary
institutions shown in Table 2 also evidence positive changes across the years. More students were now doing better academically; more were qualifying for and taking up places in the tertiary sector.

**TABLE 2**

<table>
<thead>
<tr>
<th>Year</th>
<th>University %</th>
<th>TAFE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-93</td>
<td>65-77%</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>78%</td>
<td>16%</td>
</tr>
<tr>
<td>1995</td>
<td>82%</td>
<td>8%</td>
</tr>
<tr>
<td>1996</td>
<td>74%</td>
<td>12%</td>
</tr>
<tr>
<td>1997</td>
<td>70%</td>
<td>22%</td>
</tr>
<tr>
<td>1998</td>
<td>83%</td>
<td>4%</td>
</tr>
<tr>
<td>1999</td>
<td>73%</td>
<td>21%</td>
</tr>
<tr>
<td>2000</td>
<td>73%</td>
<td>20%</td>
</tr>
</tbody>
</table>


The immediate improvement in academic performances and subsequent reports from students after finishing their schooling provides a positive view on near and far outcomes of the school’s program. These data indicate that teachers of Ipswich Grammar had achieved their intentions.

**Discussion and Conclusion**

Teachers, students, parents, schools-as-systems – all of us know and love learning strategies. We realise that they are knowledge-based, knowledge-seeking weapons in a war against our own mediocrity and that those who have them are better off than those who do not. *Learning Made Easy* has been helpful for students and teachers to become purposeful strategists in school learning situations. The data from graduates are informing about the longevity in what they had learned as students about being strategic and about the ranging uses they had found for such abstracted learning. These are positive and supporting data when we consider whether teachers achieved the positive intentions they took into *Learning Made Easy*.

Getting a result is still important, as the Year 12 test results have shown. However, for many at Ipswich Grammar the thrill of doing something may well rest in being right about its planning and about the strategies learned, selected and used in an implementation. The scope of teaching and learning substantive content has included a deliberate and informed “tinkering” with the strategies to make them work better or in new and different settings and with this and other content. If this line of reasoning is correct, students and teachers are likely to experiment and play with the methods and thrust of the program.

However, others will have put their money on external features - things that they see, hear, taste, touch and smell in the world around them. Whether success with a maths problem or balancing a chemistry equation is constructed by a deliberate mind-set is not as great an issue as getting the maths right. The thrill of doing something well may not involve as much reflection and mental tinkering. We need further research to see
whether such differences exist and how they affect near and far outcomes of LME because it is important for educators to be aware of these differences, and what they mean as students and teachers discover metacognition in their work. Such analytic awareness may hold the key to better understanding why some teachers and teaching styles fit comfortably with some learners rather than with all learners – and what might be done as a result. As might be inferred from the reports of graduates from Ipswich Grammar, attempts to see such possibilities have obvious reward when students see learning for what it might be.

References


