

1) What is meant by 'learning skills'

'Learning Skills' are simply the skills that the best learners have that differentiate them from poor learners. When a child is seen at school to be a good learner that ability to learn well is often attributed to a higher natural intelligence than another child who has more difficulty learning, and whilst that may actually be true, the way in which the higher intelligence manifests itself is in the application of specific skills. These skills, once isolated, are skills that can be taught to every child. Once any child has learned the specific 'learning skills' needed to process, understand, remember and apply the knowledge, skills and information given to them at school their learning ability improves. They then gain more confidence in their own abilities, their success in all school subjects improves, they achieve higher results in tests and exams and their manifested intelligence increases.

Just think for a moment, what are some of the simple things that good students do that differentiates them most from poor students?

Do they:

- concentrate better in class?
- take better notes?
- review those notes regularly?
- find areas they do not yet understand and ask questions of teachers or parents or find other resources to help them understand?
- know where the best resources are for each subject?
- do all their homework and keep up to date with all assignments?

For tests and exams do they:

- create a good study timetable well in advance and stick to it?
- manage their time well?
- make effective study notes?
- try different learning strategies for different subjects?
- practice working through old exam questions?
- get extra help when they need it?
- have good exam room techniques

At a higher cognitive level, do they:

- know how to develop self-motivation and persistence?
- understand how to develop resilience to overcome difficulties?
- know how to organise information to suit their own individual processing style?
- monitor the effectiveness of their own learning strategies and make changes where necessary?
- know how to handle pressure and stress?

These are some of the skills that you might call 'learning skills', and there are many more. They can all be taught, they can all be learned. Having all these skills is a huge advantage for any student.

2) How does teaching 'learning skills' differ from teaching specific subjects?

Learning skills are not subject specific, they are generic. They are the skills that underlie all learning but the application of specific strategies may be particular to specific subjects. For example mathematical competence, in most people, relies on visual/ spatial thinking and the recognition of pattern while language competence usually relies on linguistic memory and the ability to make auditory distinctions. These are all skill sets that can be trained and could be taught either within related subjects or in a generic learning skills training programme.

To teach learning skills within a particular subject requires a subject teacher to identify the key skills needed for the processing, understanding and retention of the coursework s/he is teaching and to focus on teaching those skills through the content of the subject. For example a Modern History teacher whose task is to help students understand the causes and effects of terrorism for example might:

- first teach internet research skills and then get the students to find, cross reference and verify the 10 most significant acts of terrorism in the last 20 years, then
- teach a memory technique to enable students to remember the dates and locations of those 10 events, then
- teach an information mapping technique and then get them to map out all the links, causes and effects of those 10 incidences of terrorism, and then
- teach a summarising technique and get them to decide on the 5 main causes and effects of terrorism.

The advantage of this technique is that it develops within the student a dual focus on the subject matter and the methods they are using to process it thus improves both their process skills and their content knowledge.

The other way to teach learning skills is through specific 'learning skills' lessons which may be included in the timetable every week to help students to process the information received in every subject or may be developed around particular tasks in the school calendar. For example two months before a major exam, all students might be taught an "Exam Skills' unit which might include a curriculum of skills like:

- developing purpose and self-motivation
- creating a study timetable

- organising their home study environment
- understanding their learning style strengths and weaknesses
- finding subject specific internet resources
- memory techniques
- information summarising techniques
- overcoming exam nerves
- exam room techniques

All students can then practise applying these skills to the up-coming exam preparation task.

3) Are learning skills and meta-cognitive skills the same thing and if not what is the difference?

The words 'learning skills' are chosen to encompass all the process skills involved in effective learning. Learning skills can be subdivided into three sub-categories of skills:

- cognitive – information research, processing, storage, retrieval, analysis, synthesis and communication skills
- affective – the skills of self-motivation, regulation, resilience, collaboration, perseverance
- meta cognitive – planning, organisation and implementation of specific cognitive and affective skills, monitoring effectiveness and making changes where necessary.

Metacognition refers to the learners' awareness and knowledge of their own learning processes, as well as their abilities and tendencies to control those processes during learning. Metacognitive activities for regulating and overseeing learning include planning (goal setting, choosing strategies, scheduling time and resources), monitoring (checking progress, reviewing, rescheduling), and evaluating outcomes (both process and content). Metacognitive skills are the umbrella skills which drive the whole learning improvement process and through which the greatest improvements in academic performance can be achieved. Metacognition simply means the executive function of thinking. That is, that part of our thinking that is always reflecting on the success or otherwise of our strategy use, looking to make changes and try out new ideas where necessary, implementing changes and reflecting on results.

The implementation of metacognitive skills training helps build self regulated learning. Once a student has built up a 'library' of specific cognitive and affective learning strategies and skills they can then learn the skills necessary to employ, monitor, check and evaluate the success of the strategies they employ.

Cognitive skills have the purpose of teaching learner-initiated use and practice of active information processing and retrieval strategies as well as study habits and learning skills. Some of the specific cognitive skills which have been shown in the literature to bring about significant improvements in learning are:

- Making effective notes – in class and for studying
- Organising, transforming and summarising information – mind mapping, spider diagrams, graphic organisers
- Using structural writing planners – for different types of essays, scientific reports, academic papers, research reports - organizing, writing, editing, and revising
- Timetabling – general task mapping and specific use for assignments, assessment preparation, goal setting
- Memory techniques – mnemonics, multi-sensory techniques, visualisation, review
- Questioning
- Calibrating own learning preferences – mental representation, environmental and experiential preferences
- Self assessment

Research shows that possessing a good repertoire of cognitive learning strategies and applying metacognitive awareness to the selection and use of those strategies correlates well with higher academic achievement.

Affective skills - in addition to the cognitive skills mentioned above it is also advantageous for students to learn the skills that enable them to gain some control over mood, motivation and what we tend to call *attitude*. These are the skills needed for students to build resilience in learning, to learn to deal effectively with any setbacks and difficulties, to learn how to bounce back, make changes and persevere – the skills of the self-regulated learner.

The self-regulated learner is the one who is using the metacognitive process, as described above, to not only monitor effective cognitive strategies for learning but also to regulate their emotional or *affective* responses in learning situations. These students, whether through training or natural ability have learned how to monitor their own emotional state and its effect on their learning and how to cope well with the emotional highs and lows of academic endeavour.

Students who employ self-regulated, self-determined approaches to learning not only achieve higher levels of academic achievement than those that don't, they also experience a sense of personal satisfaction in their work and are more inclined to make adaptive changes to enhance future performance.

Affective skills are teachable and they can make a huge difference to a child’s motivation and resilience. Affective skills training has within it the potential to address some of the most critical influences on a student’s learning which lie at the heart of helping students to achieve the characteristics of the learner profile.

Affective Skill development involves a focus on the development of:

- persistence and perseverance
- focus and concentration
- mental quiet
- overcoming distractions
- reducing anxiety
- practising delayed gratification
- managing self talk

4) Do our schools currently equip our children with the right learning skills?

Every school is different but in my experience of working in over 200 high schools world-wide I have yet to find one school that has a fully integrated learning skills programme in place. Most schools that want to place an emphasis on the direct teaching of learning skills do so by bringing in outside experts to run courses of ‘study skills’ for their students. This is an approach which usually has a short term benefit for most students and a long term benefit for some students but the most effective way to make sure that every student learns how to learn to the best of their ability is to have a fully integrated programme of learning skills incorporated within the curriculum.

Across the world there is a growing recognition of the importance of teaching what I am calling ‘learning skills’ within the standard curriculum:

Singapore MOE	International Baccalaureate - 3500 schools world-wide	USA – accepted to date by 46 states
Competencies for the 21 st Century	Approaches to Learning	Elementary Integrated Curriculum Framework
Civic literacy, global awareness and cross cultural skills	Thinking Skills	Critical Thinking Skills
Critical and inventive thinking	Social Skills	Creative Thinking Skills

skills	Communication Skills	Academic Success Skills
Information and communication skills	Self Management Skills	
Resilience	Research Skills	
Self-Awareness		
Self-Management		
Social Awareness		
Relationship Management		
Responsible Decision-Making		

Singapore is also a founder member of the Assessment and Teaching of 21st-Century Skills (ATC21S) project hosted by the University of Melbourne and sponsored by Cisco, Microsoft and Intel which is looking at the teaching and assessing of 21st-century skills in the classroom. ATC21S has defined the essential skills of a knowledge-based economy as those that promote collaboration with others and connection through technology and has categorized 21st-century skills internationally into four broad categories:

- **Ways of thinking** - creativity, critical thinking, problem-solving, decision-making and learning
- **Ways of working** - communication and collaboration
- **Tools for working** - information and communications technology (ICT) and information literacy
- **Skills for living in the world** - citizenship, life and career, and personal and social responsibility

ATC21S is now in Phase Four with wide-scale fieldwork trials being conducted in Australia, Finland, Singapore and the U.S., with associate countries joining in to help test how language and culture affect the 21st-century teaching and assessments. This stage will lead to Phase Five where resources will be placed in the public domain. Government policy-makers, teachers, school systems and assessment institutions will be able to use and modify the existing research and materials to bring the two 21st-century skills into the classroom and utilize the model to build out the remaining skills.

Once all these current projects are complete and implemented there will be curricula based approaches to the development of learning skills available across the world for millions of our

children to access but until then it will come down to enthusiastic teachers and parents and forward looking schools to design and implement their own approaches.

5) The ATC21S recommendations will come too late for the current generation of secondary school students as they will take several more years to implement; so what can parents do to help their children in secondary school?

There are many things parents can do to help their children succeed well at the secondary school level.

First there are two key principles parents need to understand and adopt in order to put their focus in the areas which will yield the best results:

- 1) **Successful learning requires the application of good learning skills** - successful learning in any subject depends on the use of the most effective learning processes - skills, strategies and techniques
- 2) **Failure is feedback** - any failure to achieve an academic goal, to learn well, or do well in a test or exam is simply giving you valuable information on which processes are *not* working and which processes need to change, any failure needs to be seen as a failure of process not a failure of the individual.

The remedy to ineffective learning is *not* to do more of it! The remedy is to change.

All too often I see parents whose children are not performing well in a particular subject who get extra tutoring in that subject for their children which does not improve their child's performance and they just don't know what to do. The problem in that case is most likely that the child has a learning skill problem rather than a lack of the correct information to study from. Giving them extra tutoring in that subject will just perpetuate the problem unless the learning process problem is addressed first.

A learning skill problem is not the same as a learning disability. In my experience, having worked with over 150,000 students around the world, I have found that every student can improve the efficiency and effectiveness of their learning. That does not mean they had a disability to begin with it just means that they had not previously been exposed to or taught the most effective learning skills. When they practise the best learning skills their learning always improves.

Some subject tutors will of course be addressing the correct problem by first exploring the child's present thinking and learning strategies with regards the subject matter and then providing training in more effective methods before exposing the child to the subject matter

again. Other tutors may address the problem more subtly by exposing the student to the subject matter through a range of different activities and experiences, different media, different sensory processing modes and helping the student to assess the effectiveness of each processing technique or strategy in order to work out the processes that work best for them.

Other, more process focused tutors will have in place a specific learning skills programme which teaches the most effective cognitive learning skills eg:

- Making effective notes – in class and for studying
- Organising ,transforming and summarising information – mind mapping, spider diagrams, graphic organisers
- Using structural writing planners – for different types of essays, scientific reports, academic papers, research reports - organizing, writing, editing, and revising
- Timetabling – general task mapping and specific use for assignments, assessment preparation, goal setting
- Memory techniques – mnemonics, multi-sensory techniques, visualisation, review
- Questioning
- Calibrating own learning preferences – mental representation, environmental and experiential preferences
- Self assessment

If it is a thorough programme it will also address some of the affective learning skill areas like:

- Self-motivation
- Developing focus, concentration, persistence and perseverance
- Overcoming distractions
- Reducing anxiety
- Practising delayed gratification
- Managing self talk
- Developing resilience

Sometimes process focused training is provided by external tutors around specific learning tasks for a student during the school year, eg. preparing for exams. In which case a specific course which teaches your child the most essential skills for exam preparation can be very helpful. See <http://www.taolearn.com/events.php?id=9> for such a course to be held in Singapore in May 2012.

There are also blogs available which give process tips to parents throughout the year – see <http://lancegking.wordpress.com/>

And also books available which focus on the processes of effective learning – see <http://www.taolearn.com/books.php>

In terms of practical tips for parents the key is developing meta-cognitive awareness. To do this I suggest parents need to:

- focus your praise for their achievement on observed effort rather than ability, focus on the work they did to achieve the grade they got rather than the score or the grade itself
- if your children have difficulty understanding or learning something new, help them to focus on the process - the strategies they are using - as the best source of improvement
- if they are having difficulties encourage them to try new ways of learning, to find the information they need to learn represented in a new way, a different style or sensory mode from their teachers methods of delivery and see if they can learn it better that way. There are many good websites for every school subject where subject matter is represented in different ways – see <http://www.taolearn.com/students.php> for a list of good websites
- help them to learn from their mistakes
- encourage them to take on new challenges and to use failure as feedback
- use role models, biographies and your own stories to show them that failure, resilience and perseverance are the keystones of success
- make sure they get good training in effective learning skills

6) Whether they admit it or not many children are nervous about the move to secondary school; what can parents do to reassure them and prepare them for the new environment?

Very little.

Moving from the security and more family nature of primary school to the more formal and less personal nature of secondary school is a big step up but that's life. It is all part of growing up which requires us always to be handling bigger and bigger challenges until one day we are ready to venture out into the world and handle any challenge the world may throw at us.

All we can really do as parents is to tell our children how we handled similar situations in our own life, what worked and what didn't work and reassure them that it was all worthwhile. Help them to see the purpose of secondary education, the goals that are worth achieving and why. Children need to understand the relevance of their education to their personal future so they can take ownership of it and overcome any difficulties.

What parents can do is:

- 1) make sure their children know that they will support them no matter what
- 2) make sure they have all the information they need to make good decisions
- 3) put in place the best possible home study strategies they can.

Getting Involved:

The biggest difficulty I have always had is simply getting involved. Like you I am sure, I find my own life to be very busy and there is not much time available to get involved in my children's schooling and it is so much easier just to leave it all up to the school. Also my children do not want me to be involved, they do not want to be picked out as having an interfering parent and would much sooner I just kept out of it! And of course I have chosen the school they attend because I believe it will do a good job for them so my tendency is to just let them get on with it.

And I have found that schools often encourage that approach. They want parents involved if there are performances to attend, sports teams that need coaches or extra transport, fund raising for specific projects or discipline matters to attend to but involvement in the processes of learning? Generally not encouraged in my experience.

But this is the area that pays the biggest dividends.

The right information;

Beginning a new year the information you need to obtain from the school is:

1) All your child's subjects details

- teachers names for each subject and contact phone numbers or email addresses if you can get them

- subject assessment structure – % internal assessment, % exams for every subject

- assessment schedule for the year – especially timing of major exams

- website and parents access to subject information

2) Most schools do some kind of pre-enrollment assessment of students and form an idea of what academic results they can expect from your child. You need to know what those expectations are, stated as clearly as possible, that the school holds for your child for their major assessments – IGCSE, GCSE, O-Level, A-Level, IB Diploma etc

3) The names (and email addresses if possible) of other important people at school – the Head, the year Dean, any specialist teacher your child will be with, etc...

And the information you need to supply to your child's teachers or pastoral supervisor is:

4) Based on your own past experience and records the subjects s/he is likely to excel in and the subjects s/he may struggle in

Obviously textbooks, pens, books and other resources will need to be taken care of too.

Study at home:

What we are always seeking is to get our children into a rhythm, a habit of homework, review and study, which needs to start as soon as possible.

- 1) encourage your children to get their homework done as soon as possible after coming home from school
 - this enables focused work to be completed while the brain is still functioning well and not fatigued by the lateness of the hour
 - they will often need to get their blood-sugar levels up by eating first but homework should be next.
 - of course this won't suit everyone but if you make things like TV, video games, the internet etc contingent on completion of homework then this process can become self rewarding
- 2) make sure they have a place to do school work which suits them physically – desk or table and chair at the right height with good light
- 3) as a vital part of homework, each night all notes completed during the day need to be reviewed – read through again.
 - this will enable the connections made in the brain during the day to be reinforced within 24 hours and facilitates the process of shifting information into long term memory
- 4) as part of the review process, on a regular basis, maybe once a week, key-point summaries need to be made in each subject to consolidate the main ideas and act as the basis of study notes for the next exam

7) Children are expected to take on a lot more responsibility for themselves at secondary school; what advice and tips can parents offer them to help them cope?

Once again the only thing parents can really do for the child is to connect taking more responsibility to growing up and becoming more adult. All children want to grow up but we should be very careful about trying to accelerate that process. It is very useful for children to take on board the idea of a good education being important for a successful future but the message needs to be portrayed from the point of view of giving them more choices rather than less. I have seen many parents over the years pressuring children to make career choices at a young age and defining their subsequent subject choices in one direction on the basis of that immature uninformed choice. A sound, broad based education provides a child with a range of options, possibilities and choices for their future within which they may find the field that interests them most. Narrowing the range of possible choices down at a young age greatly reduces any child's chances of finding the field they could excel in.

Taking responsibility at school is partly about good time management (see next heading) and partly about the values of community like respect, integrity, care, leadership and facilitating harmony. These are also family values which are best taught by imitation.

The best lesson parents can ever give is to demonstrate all the values listed above through taking responsibility for all their own actions and working within their community to lead by example.

One idea that can help children to cope with the rigours of secondary school is to allow them to form study groups with friends to share experiences and resources and to help each other with study and homework. These study groups need to be occasionally monitored by parents though to make sure your children are using the time together to get work done rather than engaging in other less appropriate activities.

8) There are a lot more demands on children's time once they start secondary school, longer school days, more homework and CCAs for a start, how can parents help their children to become good at time management?

Procrastination:

One problem parents often complain about is their children's procrastination. Leaving everything to the last moment before starting and consequently not doing their best work and not achieving the results they want.

The solution to procrastination is organisation.

Students at high school often find that they either don't get all the information they need to plan well for assessments or they get so much information that they forget half of it. Parents can help with this.

I think it is every teacher's responsibility to provide every student with all the assessment information they need at least a semester or term ahead or preferably a year ahead. This information needs to include:

- assessment structure for the year – what % marks are awarded by internal assessment and what % by external assessment, what % of internal assessment marks come from assignments and what % from tests etc.

- dates for all tests and exams, all assignment due dates

- assessment criteria for all assessments – what marks will be given for and taken away for

- teacher availability outside of classroom time

- whether teachers will accept a draft assignment ahead of time for comment before the submission of a final copy

Parents can help by making sure that their school and their children's teachers provide this information and making sure their children record it all accurately.

Then they need to get hold of a large year planner, pin it up in a prominent place in the household and make sure all that data is entered in correctly:

- exam dates
- test dates
- assignment due dates

When this is done, then as soon as the student receives notice of the next assessment or assignment s/he can break the task down into manageable segments and put them on the timetable eg:

- completing any assignment can be broken down into a series of steps like:
 - a) Finding the information – research
 - b) Processing the information – reading
 - c) Planning the piece of work – sequencing ideas
 - d) Doing the writing
 - e) Proof reading, making corrections and handing it in

And each step takes a certain amount of time – decided on by the student involved. Then they need to decide roughly when they will need to have the assignment 25% completed, 50% completed, 75% completed, and mark the dates on their calendar/year planner and aim to always finish all assignments with one day to spare.

Resources:

The best students know where all the good resources are. Your child needs to be very familiar with the school library, any local library, the school's on-line resources and all the websites that relate to their school subjects see <http://www.taolearn.com/students.php> for a list of good websites

Exam Timetabling:

One of the most important times for students to get themselves organised is in the lead-up to exams. Creating a study timetable is a very important pre-exam task and is a great help to organising study. One method for doing so can be found at <http://lancegking.wordpress.com/2010/07/10/the-run-up-to-exams/> or in my book available at <http://www.taolearn.com/books.php>

9) Another big change at secondary school level is the increased independence students have that requires them to make more decisions for themselves; how can parents encourage independent thinking and make their children more confident of their decision-making?

To encourage independent thinking all we have to do is to encourage our children to think independently. *Which means differently from us!* This is the hardest part for parents because we want to encourage our children to think for themselves but we don't want them to disagree with what we know to be true. Unfortunately, every time we as parents insist that we are 'right', that we know 'the truth' we are limiting independent thinking. The trick to developing independent thinking is in *not* supplying the answers to questions but in helping children to find the answers for themselves. This is where the internet is vital. There does not need to ever be anything that is 'unknown' again. If a child wants to understand something or find something out, as long as they have an internet connection they have the world of information at their fingertips. But this doesn't mean that there is no longer a need for parents' help it just means that a parent's role needs to be that of helping a child to formulate the right question to ask to get the information s/he needs and to develop a line of inquiry to reach the answer they need.

Similarly with decision making, children only learn how to make good decisions by having practice in doing so. We need to allow our children to make decisions for themselves – even when we know those decisions are not the ones we would have taken - and to take responsibility for all consequences. Decision making needs to be a learning process and every decision can be reflected on later and analysed for whether it was a good decision or not and if not what the child can learn from that experience.

It is when we provide the answers to our children and when we make decisions for them that we rob them of the opportunity to practice being adults.