

Smarter Study means Higher Grades

I think I have the best job in the world - I teach learning skills at the high school level. I get to work with teenagers, who I think are amazing people, and I get to teach them how to generate more success for themselves, if that is what they want, and I've found that all of them do. All over the world, in every educational system, I have found that students at the high school level all need exactly the same skills in order to do well, in order to succeed academically - they all need learning skills. From my experience of working with over 150,000 students in the last 16 years, I can say that virtually every high school student can improve their learning skills, they can all learn how learn more effectively, more powerfully and more successfully. And yet most high schools world-wide do not teach learning skills, most curricula do not have a mandatory skills section on learning to learn, why is that do you think?

The need is clear - up to 73% of university students report difficulties preparing for an exam and most have been found to have weak or ineffective strategies for processing information both in the classroom and in their own study.

Good note making has been shown to be positively correlated with academic achievement and yet when making notes from lectures or from text most students miss around 70% of the key points. Material omitted from notes has only a 5% chance of being recalled.

Even when they have good notes many students still have great difficulty organising the information they have collected. Fifty-two percent admit that their notes are disorganised and 61% report having trouble sequencing the ideas to make coherent sense.

Even given well organised, well structured notes with summaries provided and most of the hard work done, many students still employ ineffective or redundant study strategies to process those notes like rereading and recopying. Two thirds of students at the secondary level have been found to study for tests purely by rereading their notes with more than half of them doing that reading the day before the test or exam. Around 12% of students do nothing more than recopy their notes verbatim and 50% use passive repetition of key points as their single study technique.

The best students in the world, those whose study is most effective in producing the understanding, recall, transfer and application they need to pass their examinations, all have one characteristic in common - they deliberately use effective learning strategies. In other words they treat learning as a process requiring many techniques and strategies. They actively

seek out options for every stage of the learning process, they try out different things and they notice what works and what doesn't. To do this the best students are continuously engaged with both the subject matter they are learning and the processes they are using to learn that subject matter. They view any learning failure as a failure of process rather than that of the individual, they find better processes and apply them, they reflect on the results and they continually improve the success of their learning efforts.

The skills, techniques and strategies that the best students use can be learned and used by anyone. They can be taught!

“It's not what you know but what you can do with what you know that counts in this age of readily available information. Skills such as analysis, synthesis, evaluation and clear communication are essential for success. Educators today realize that young people aren't born with these skills, nor should they be expected to pick them up through some kind of osmosis in the classroom. These skills can and should be taught explicitly.”

Lori Fritz, Deputy Principal, Southbank School, London

Unfortunately the direct teaching of learning skills is still an uncommon topic in most school programmes. Only 20% of teachers believe that teaching students “study skills” is a priority and only 17% of students report that teachers actively help them learn or improve their study skills.

In some schools though there is a recognition that helping all students become excellent learners is a priority which will have significant payoffs in terms of students examination success.

“Learning how to learn is more important than memorising facts or even the acquisition of specific skills. ‘Learning skills’ are a life enhancing development of one's ability to become a free and independent thinker in control of one's destiny.”

Dr Iain Farrell, Director of Studies, Harrow School, London

At this top British private school, the incorporation of a learning skills programme for the most underachieving boys has been credited with helping boost the exam results at the GCSE level to record highs, every year for the last 7 years.

Learning skills are a combination of cognitive, metacognitive and affective *interventions* - techniques and strategies - the use of which positively influences a student's tendency to approach, engage with, expend effort on, and persist in learning tasks in an ongoing, self

directed manner. Exactly what everyone does when they are intensely interested in something - focus, concentration, perseverance and task completion.

Cognitive interventions are those which help develop the particular skills necessary to facilitate the acquisition of knowledge or skill. Affective interventions are those that focus on such non-cognitive aspects of learning as motivation, self concept and the skill of selective attribution. The most effective metacognitive interventions are those in the area of the self management of learning - planning, implementing and monitoring learning efforts – as well those that help students to gain the knowledge of when, where, why and how to use specific learning strategies in their appropriate contexts.

Cognitive skills:

These skills have the purpose of teaching learner-initiated use and practice of active information processing and retrieval strategies as well as study habits and study skills. The cognitive skills which have been shown world-wide to bring about the greatest improvements in learning and academic achievement in general are:

- Memory techniques – mnemonics, multi-sensory techniques, visualisation, review
- Organising ,transforming and summarising information – mind mapping, spider diagrams, graphic organisers
- 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, exam preparation
- Self assessment
- Note making – in class and for studying
- Goal setting
- Questioning
- Calibrating own learning preferences – mental representation, environmental and experiential preferences

Affective skills:

These skills are those that enable the student to gain some control over mood, motivation and what we tend to call *attitude*. Skills necessary to build resilience in learning, to learn to deal effectively with any setbacks and difficulties on the road to success, to learn how to bounce back, make changes and persevere. The affective skills most effective in improving learning and academic achievement have been found to be:

- Attribution re-training

- Self-motivation
- Reducing test anxiety
- Using delayed gratification
- Developing resilience

Metacognitive skills:

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 to build self regulated learning because 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 strategies they employ.

The key stages in the metacognitive process are:

- 1) Identifying learning goals
- 2) Choosing appropriate cognitive and affective strategies
- 3) Implementing chosen strategies
- 4) Gathering results in terms of both learning effectiveness and content achievement
- 5) Evaluating effectiveness of applied strategies
- 6) Continually upgrading the strategy *library* - reinforcing effective strategies and modifying or deleting ineffective ones

Over-training:

Programmes of learning skills training around the world are available to help give every student the advantages that the best students have. Exam success is not simply a matter of over-training every subject through after school school, weekend school and holiday school, it is more about learning every subject effectively and efficiently. The best students certainly do put considerable time into their study but they make sure that every moment is effective in helping them reach the goals they set for themselves. They maximise the utility of their study time by learning and using the most effective learning skills.