The Natural Flow of Learning

Conditions which enhance and maximise learning

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Preface

This paper intentionally mixes genres. It is autobiographical; it is anecdotal; and in its attempts to synthesis and conceptualise, it is theoretical. In its departure from 'academic' form, some readers may regard it as 'heretical' rather than theoretical.

My purpose is to share my learning journey of the past twenty years to an audience of teachers who are continually seeking to understand and perfect the art and craft of their profession. The most significant thing I've learned on my travels throughout both the research and practice domains of education is that ***significant learning for any individual integrates personal, experiential knowledge, imagination, information and action.*** *True to what I have learned, this paper is presented in that form.*

I have not attempted to draw out the parallels between the ideas I have synthesised from my discussions with learners and teachers and the work of other educators and researchers, but no doubt many readers will find connections between the ideas contained here and the works of others such as Abraham Maslow, Lawrence Kohlberg, Carl Rogers, Martin Buber, A S Neill, John Holt , and Brian Cambourne among others.

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Introduction

This is the second of two papers on how we learn. Together the two papers develop a framework for effective learning and teaching. The first paper, *Thinking - Critical for Learning*, concentrated on developing the aspect of the framework that explicitly describes the nature of thinking processes essential to learning with meaning. The focus of the first paper was on thinking to learn. In this paper I wish to develop elements of the framework that describe the *conditions which enhance and maximise learning*. Where appropriate, I will again draw out the connections between the principles being proposed and the themes that are emerging from research into the functioning of the human brain. However, in contrast to the first paper in which I used brain research and models of learning to explain and describe the process of learning, this paper is weighted more towards the synthesis of ideas and responses gathered from more than six thousand practising teachers, other adults and students ranging in age from twelve years upwards.

The elements of effective teaching

The development of this theory from the 'chalkface' began many years ago. Having spent several years formally researching the process of learning and having had considerable success in the practical application of my ideas both in university settings and in science classrooms in what might be termed a middle class school, I found myself facing a class of year ten students who were disengaged, reluctant learners. Despite applying all manner of methods with which I had previously been guaranteed success in engaging students in learning meaningfully, I got nowhere with the majority of this particular group. This was a turning point in my study of learning and teaching. It was the stimulus I needed to widen my gaze beyond a focus on the thinking processes critical for meaningful learning to include a study of the influence of the *relationship* between the student and the teacher on learning and to consider the *conditions* that ensure quality learning.

So that you might enter the thinking along with the many thousands of others who have contributed to the framework, take a moment to reflect on someone who was an effective 'teacher' for you. The person may not have been a teacher by profession but no doubt he or she will have been a 'significant other' in your life. What was it that made that person an effective teacher for you?
Characteristics of an effective teacher?

It's often stated that teaching is an art. It is a complex art. I view teaching as the art of facilitating the growth of individuals. The teacher's role may include facilitating any one, or all of: ***growth in knowledge and understanding; growth in skill; growth in sense of self; growth in self expression, and development of values and beliefs.*** What are the elements of the artistry of teaching? It appears to me that the two main elements of teaching are developing relationships and designing learning experiences - Figure 1. These two elements are for me the warp and the weft of teaching. As in weaving, however, they are simply the threads. They are not the cloth. Nor do the threads alone tell you anything about the nature of the design. The nature of the design is shaped by the teacher's philosophy of education, by the teacher's moral philosophy

and by the context. The act of weaving the elements to produce the desired educational design represents the craft of teaching.

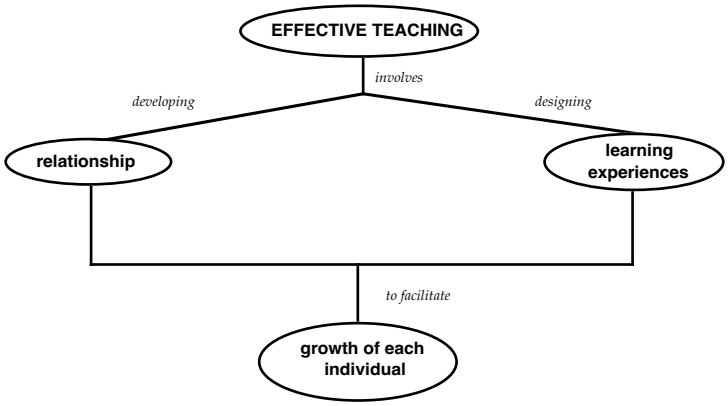


Figure 1 **The elements of effective teaching**

When you reflected on the person who was an effective teacher for you, did you find that you focussed on the relationship aspect? Did you focus on the teacher's ability to engage and assist the learning process? Or did you identify elements of both of these aspects?

Relationship

What is the nature of the teacher-learner relationship which is influential in enhancing learning? Having listened to thousands of people discuss those who were effective teachers for them, the theme which emerges is remarkably clear. I have summed up my synthesis of the responses in the concept map in Figure 2. The discussion which follows elaborates on the main points.

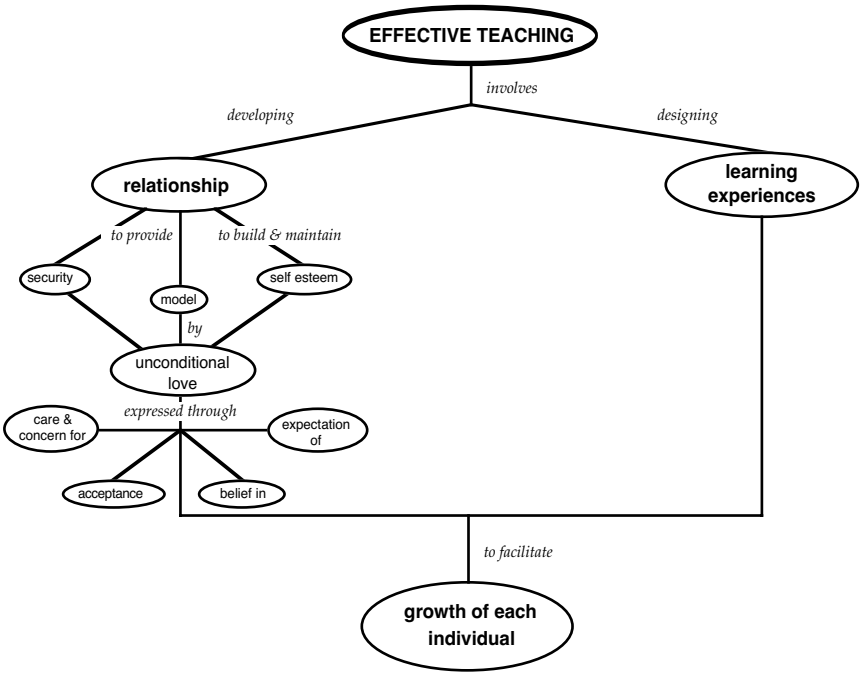


Figure 2 **The nature of the teacher-learner relationship which enhances learning**

The relationship has the potential to provide *security*. We don't learn unless we take risks and we won't take risks unless we have a secure base to fall back on. The teacher also serves as a *model*. Any of us who have young children don't need to be reminded of how powerful a teaching strategy modelling is. How many times have you heard your words come out their mouths? Similarly, how many times have you heard your mother (or father) come out of your mouth?

When a person develops *trust* and *respect* for the teacher, the teacher has the ability to have a significant impact on the development and the maintenance of the person's *self esteem* - the teacher becomes a 'significant other'. The essence of the relationship is 'unconditional love' expressed through *care* and *concern* for the learner, *acceptance* of the learner for who they are and where they might be in their development, *belief in* the learner's capacity to learn and an *expectation* that s/he will learn.

In his paper *What Makes a Good Teacher?*, Phil Hughes (Hughes 1991) expresses his thoughts about this dimension of teaching.

> *A third aspect appears through Alison Smith: she knew and cared for the people she taught. But that caring was never entirely comfortable - it set demands on us to stretch ourselves, demands we might have preferred to avoid.*
>
> *(Hughes 1991, p6)*

It appears when someone you respect and trust - a 'significant other' person for you - believes in you *and expects 'that you will'*, it has the potential to inspire and encourage you. Stories abound on the positive effect on people's lives of such a relationship.

In 1992 on a visit to the United States I met an elderly lady, Mrs Sanders, who sat in front of Walt Disney in her middle school years. A transcript of our conversation about her time at school with Walt Disney is reproduced below.

Mrs Sanders: *He bought little notebooks and he drew girls dancing and they would be in different positions each time on each page and when he finished the notebook he'd punch me in the back for me to turn around and watch. He'd flip it and as the pages turned over it looked like the girls were dancing. That's how he got the idea for his movies of Mickey Mouse and Donald Duck.*

Julia: *Do you think the other students recognised how talented he was?*

Mrs Sanders: *I don't think so. It wasn't of big importance to them then. But that teacher did and she kept his morale up by writing to him and encouraging him. He felt that he was dumb and didn't know anything in school. He was not a moron by any means. He had common sense but he just wasn't interested in learning arithmetic and history and verbs and adverbs.*

This teacher, never reprimanded him for "off task" behaviour nor for poor performance on tests. Rather she encouraged him to develop his great talent. Apparently for years after he had left her class, and after he left school she wrote to him annually. At the class's twenty five year reunion Walt Disney brought an enormous cake bedecked with all his characters. He cut the first piece and presented it to this teacher and declared that without her constant encouragement he would not have achieved what he had.

Stories of less famous people mirror the same effect. People speak of the power of just one comment, made at the right time, to stick with them and inspire and encourage them. One person spoke of such a situation when she was in Year 9. She was struggling with expressing herself in writing. She received a piece of work back from her English teacher. It had written across it *"Flashes of brilliance"* followed by constructive criticism of various aspects of her work. This one comment has continued to encourage that person, now in her forties, whenever she sits down to write. The story is illustrative of the thousands of stories I have now heard which attest to the potentially positive effect of the human spirit dimension of teaching and learning.

Not all of the stories are positive. In fact it is as a result of hearing of the negative and damaging effect of some relationships that I have come to appreciate just how vital the relationship dimension of teaching really is. Stories range from negative expectations of parents to individuals being asked to stand along the stage and take turns to sing while the teacher walked along behind and 'touched' those who were not suitable for the choir. For those whose self esteem and self image was not tied up with being a good singer, this may not be as damaging as for those who believe they can sing. Apart from the embarrassment of having to display the fact that I can't hold a note, such an incident wouldn't actually dint my self esteem. I already know I can't sing well. I don't need to be told. For others, whose self image included being reasonable, if not good at singing, such a judgement can be devastating. In either case the treatment does not exactly encourage one to want to improve one's performance. One person who reported such a story was so devastated that he didn't sing for fifteen years. It turns out that he has a good voice and now leads the choir in the school in which he teaches!

Other stories of the damaging effect on people's self esteem and subsequent self image as a learner include experiences in primary school in which children sat in rows in class in order from first in the class to last in the class. After the weekly test the seating order would be rearranged according to positions in the test - possibly motivating for those near the top of the class but what of the effect on those in the second half?

When I relate some of the stories people have shared with me I often get gasps of *"Oh no!"* from the audience. However, many of these potentially damaging practices are alive and well in schools today in the form of ability streaming and in the persistent assessment practices which measure and report one child's performance against the performance of other children rather than against criteria or in terms of progression with regard to planned learning outcomes.

Of course it's not just the relationship between teacher and student which is powerful in influencing learning. Children come to school with a self concept which has been formed by the people they relate to outside school. Many parents are known to inflict: "Well I was no good at Maths so don't worry, you've probably inherited it." And within school the relationships between students can be very potent in establishing a learning environment that either supports or ridicules the learner.

When I've asked people to reflect on a person who was an effective teacher for them I've noticed that people with different thinking styles emphasise different aspects. People with strong left mode thinking preferences tend to comment on teachers who broke things down into steps and were well organised. While people with stronger right mode thinking preferences tend to focus on teachers who showed that they cared about them as an individual and thus inspired them to do their best.

In recent years the term 'adult learning principles' has received a lot of press in education circles. As I pondered on whether there is a difference between how children and adults learn, for a while I entertained the idea that perhaps the differences had to do with the fact that adults would be less dependant on the relationship with a teacher. I've been howled down by adults who have recently

immersed themselves in learning experiences in which they feel inadequate or insecure. It seems, then, that a supportive relationship is vital to a learner when the learner feels insecure or has low self-expectancy. For self confident and secure learners the relationship may not be so critical. However, I believe that the nature of the teacher-learner relationship outlined in Figure 2 has the potential to inspire, enthuse and encourage all learners to strive for their best. This human spirit dimension of teaching has sometimes been mistakenly labelled as 'soft'. As Phil Hughes points out there is nothing soft about a relationship which 'sets demands on us to stretch ourselves, demands we might have preferred to avoid'.

The nature of the teacher-learner relationship being espoused here by me and by the thousands of people who have shared their thoughts with me is close to Malcolm Knowles notion of creative leadership.

> *It gradually came to me that the highest function of leadership is releasing the energy of the people in the system and managing the processes for giving that energy direction toward mutually beneficial goals.*
> *Perhaps a better way of saying this is that creative leadership is that form of leadership which releases the creative energy of the people being led.*
> *(Knowles 1983 p.183)*

Such a notion of leadership, whether it be as teacher or other leader, holds essentially positive assumptions about human nature. The controlling and rule by threat notion of leadership and teaching which many of us experienced at school holds essentially negative assumptions about human nature. There is no doubt that there is a side to human nature which will get away with as little as possible. But it is also true that our greatest source of pride in self generally comes from achievements inspired from within and encouraged and supported by others who expect and demand that we would give our best.

The ***practical challenge for schools***, is to design classrooms, working environments for the students *and* the teachers, teaching practices and learning experiences in such a way that each individual's learning needs are individually recognised and catered for. In the traditional structure of secondary schools, in which a teacher may be teaching anywhere from 150 - 250 different students in one week, and students may be facing anywhere from 6 - 15 teachers in one week, how possible is it for the relationship dimension of teaching-learning to be maximised? Moves in some secondary schools to explore structures in which smaller teams of teachers work with smaller groups of students, and in which there is greater continuity in relationships, are moves in the right direction.

Designing Learning Experiences

Prior to my being faced with the reluctant learners in the year ten class I mentioned, I had prided myself on being able to guide meaningful learning for students. With these students, as with those that had come before them, I worked to establish a relationship of mutual trust and respect. I had shown them I cared and I held high expectations of them. And yet they didn't learn - at least not what I wanted them to learn. What was missing?

With these disengaged year ten students my key question became "How can I get them to want to learn; how can I stimulate a need to know?" There was obviously more to designing learning experiences than simply ensuring that different processing modes were engaged and integrated. As well as guiding the process of learning, designing effective learning experiences needs to take into account the learning environment. This led me to examine another dimension of learning. What are the conditions which characterise effective learning experiences?- Figure 3.

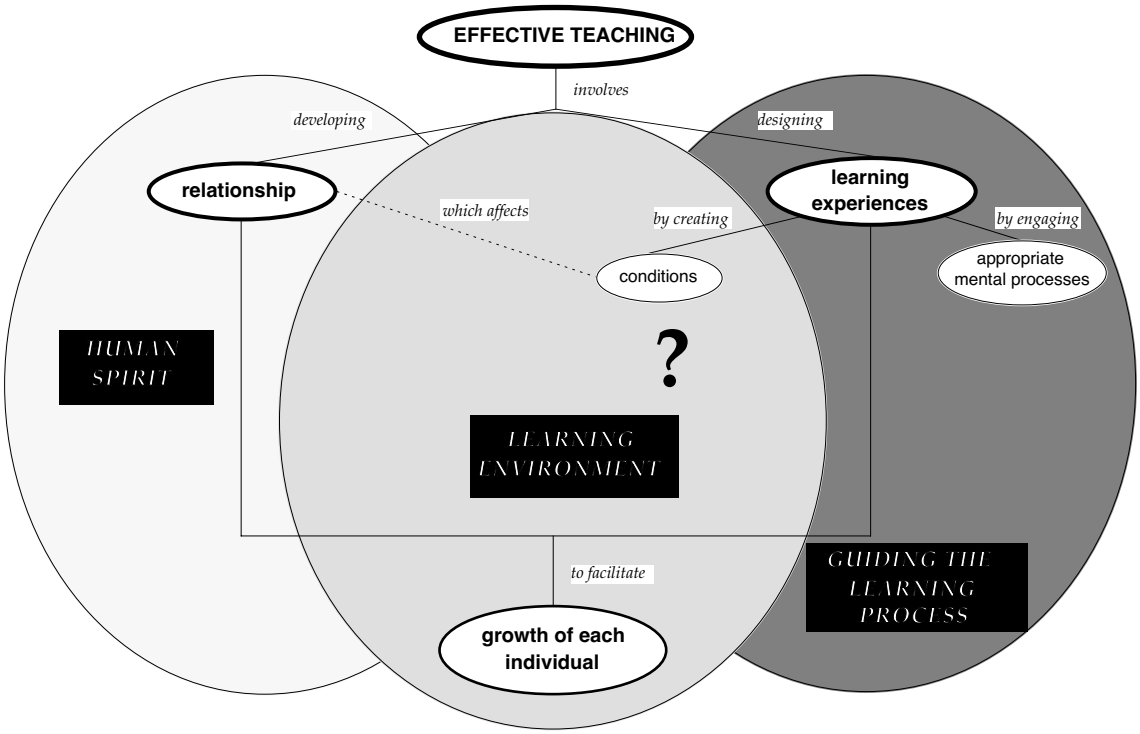


Figure 3 **What role does the learning environment play in creating the conditions for effective learning?**

The detail of my relatively successful quest with these students is written up elsewhere (Atkin 1984). The essence of my learning from the experience was that I learned to tap their intrinsic motivation for learning by asking *"What do these students want to learn about life and how can science knowledge enrich their understanding and skill?"*, instead of "What in science is it important to teach these students and how can I relate it to their world through 'real-life' examples?". The locus of control over the learning moved from being dominated by the teacher towards a partnership in which the student experienced a far greater sense of ownership of the learning. Partnership is the key word here. Tapping the students' intrinsic motivation did not mean abdication from exposing them to the powerful ideas, models and skills which science has developed over the years.

The ***challenge for educators*** is to develop *a connected curriculum*: a curriculum which connects the powerful ideas, models and processes within and across traditional disciplines; a curriculum which connects with, and then extends, the learners' personal, experiential knowledge.

Psychological conditions characteristic of effective learning

Since that time I have asked thousands of people to reflect on a learning experience which was particularly effective for them and to identify the psychological conditions which characterised the experience. You might take moment to do the same so that you can compare your responses with theirs.

Again the theme which emerges is remarkably clear. Figure 4 represents a summary of the responses. People say that *motivation* is critical for effective learning to occur. The source and type of the motivation varies. It may be *trauma* induced such as in an accident situation or an experience of emotional trauma. In those instances the

learning is survival oriented, it is generally indelible and one incident can be life changing.

Motivation may also arise out of a personal need or purpose. The personal need may be *external reward* of some form, for example a salary raise. The motivation may be purely *intrinsic* - a drive from within to learn. And, as discussed earlier, significant others can provide a source of inspiration through encouragement, expectation, modelling and also through their ability to enthuse.

Fear of failure can also serve to motivate. Most of my university learning as an undergraduate was motivated by fear of failure! Once motivated the learning was quite effective. Fear of failure can serve to motivate if you believe you can achieve. It has exactly the opposite effect if you believe you can't. Many people refuse to try in order to avoid failure. If they don't try, then they don't fail.

Regardless of the source of motivation people speak in terms of effective learning being characterised by a sense of *challenge*, not threat. What is a challenge to one person may well be a threat to someone else. Invariably people speak of *emotional involvement* which has a balance of what might be called the *stressors* (application, determination, struggle) and the *meliors* (excitement, enjoyment, fun, engagement and involvement). The *sense of achievement* which accompanies effective learning comes through feedback and needs to be relatively immediate especially if motivation is low or waning. Often people speak in terms of a *readiness* to learn. They may have had an experience at one point in their life which was not an effective learning experience. At another time, given different emotional and cognitive readiness a similar experience can be a very powerful learning experience.

The factor which regularly shows up in discussions of effective learning experiences is a sense of a *degree of freedom which fosters ownership.* This ownership develops through being able to choose what is learned and to experiment and discover for themselves and not to feel confined to replicating the one perfect way which is demonstrated by the expert. A climate in which mistakes are seen to be part of the learning process and not as failure seems to essential for many to take the risks involved in learning. Ownership is further promoted by *self direction* through setting one's own goals and working at one's own pace in one's own time.

Although not all of these conditions are present in each of the effective learning experiences people have reflected upon, what I now find is that all of the factors described above, and mapped in Figure 4, seem to encompass the psychological conditions characteristic of effective learning experiences.

What does this mean? Firstly, I recognise that my experiences with learners can be predicted from the model of the conditions for effective learning which has emerged from the discussions of thousands. Originally I taught students who were motivated to 'do well'. The majority of them were motivated to learn only in terms of being motivated to achieve or avoid failure. As a teacher said to me recently, they were 'students who were easy to teach badly'. My recalcitrant learners in the year ten class were not motivated to 'do well'. Their image of 'doing well' did not generally include succeeding at school. It was only by tapping a genuine desire to learn for learning's sake that I was able to re-engage them in learning in a school setting.

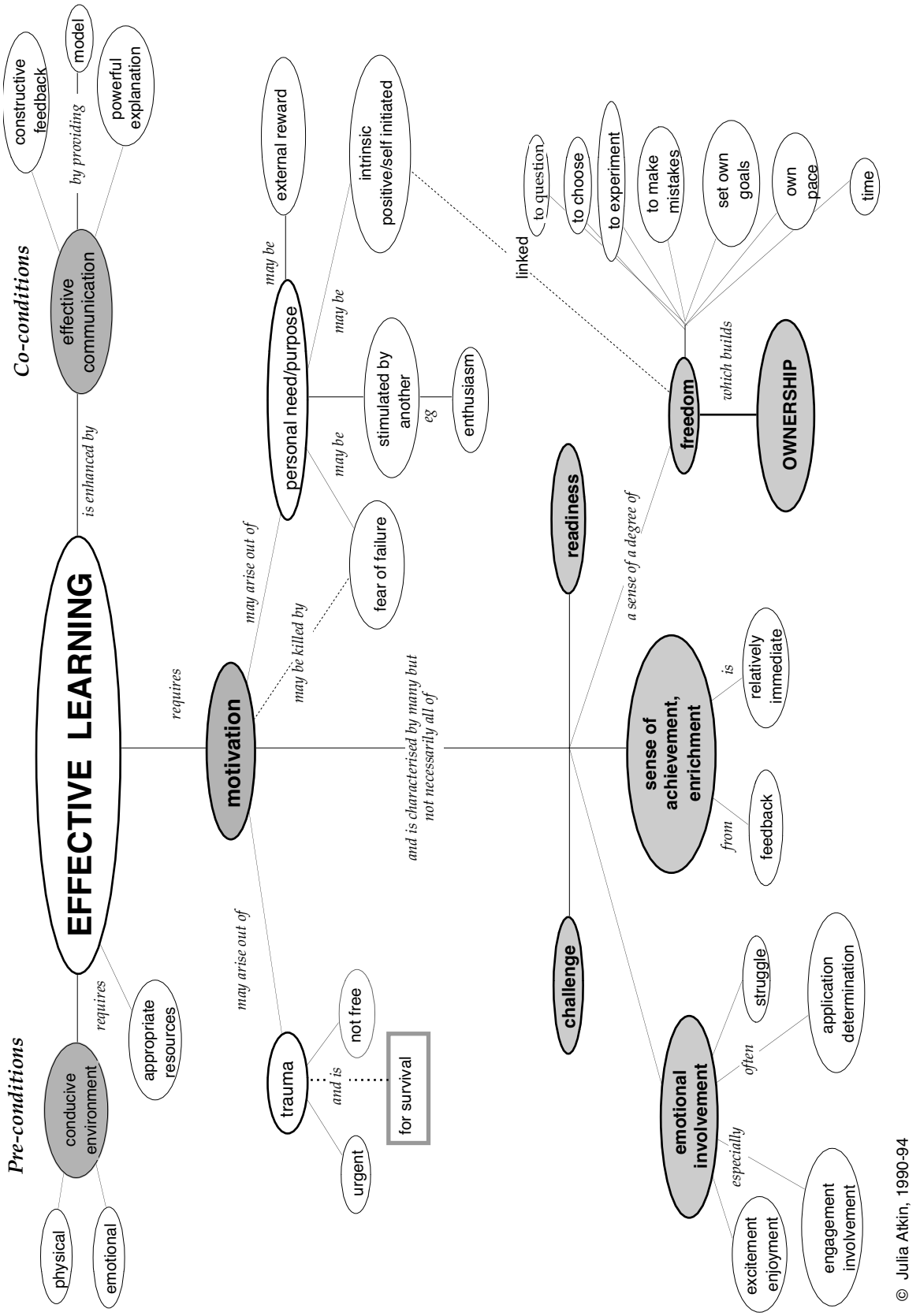


Figure 4 **Psychological conditions characteristic of effective learning**

What the model of the conditions for effective learning means to me is, that if over six thousand human beings identify with these conditions for effective learning, the factors represented must be close to the ***natural laws of learning*** for human beings. If this is the case it gives teachers a strong mandate, and set of design principles to operate with when designing learning environments for students. Working with rather than against the laws of learning must enhance the learning process. As educators we should be working to maximise the conditions which enhance learning and we should be working to minimise the conditions which hinder learning.

There are many classroom practices still prevalent in schools which are a legacy of a bygone era. Many classroom practices, especially in secondary schools, operate on the assumption that humans needed to be controlled and forced to learn. I am not of that persuasion. My experiences working with students and talking to thousands of people, confirms for me that humans have an innate desire to learn and that natural learning, although not without struggle, is rewarding and enjoyable and motivates one to further learning and growth.

As individuals, we may not have the confidence, nor the vision of what's possible, to achieve and grow to our potential. Significant others in our lives have the capacity to inspire, enthuse, encourage and support us.

The challenge for teachers, who may have modelled their own teaching practice on teachers who motivated students by 'fear of failure' and who used win-lose assessment practices, is to re-examine all elements of their classroom conditions in the light of the conditions depicted in Figure 4. As someone else said: our challenge is to become the *guide by the side* rather than the *sage on the stage*.

What do models of the functioning of the human brain have to say about conditions for effective learning?

Much of what has become apparent to me from discussions with thousands of learners also finds expression in models of the how the human brain functions. In drawing together the threads of my argument, it is worth repeating here some of the comments from *Thinking: Critical for Learning*.

Paul Maclean's triune brain theory (MacLean 1978) proposes that the human brain has three main evolutionary levels. It is as if it is three brains in one:

1. The first brain, the reptilian brain, is driven by instinct.

2. The second brain, the limbic system surrounds the more primitive reptilian brain. The limbic system is the emotional centre of the brain. It registers rewards and punishments and controls the body's autonomic nervous system.

3. The last part of the human brain to evolve is the neocortex or cerebral cortex which is the abstract thinking centre of the brain. It is believed the neocortex is most adept at learning new ways of adapting and coping. (See Figure 5, below)

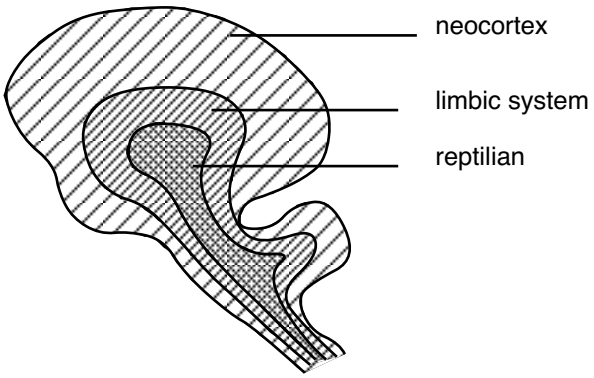


Figure 5 **MacLean's Triune Brain (MacLean 1978)**

Information reaching the neocortex essentially travels through the limbic system - our emotional centre. For us to learn effectively we must be emotionally open to learning - we must be motivated to learn. For those who have developed a mental block to learning in a particular area it's as if the 'limbic gates' are closed. What is known from models of the brain is echoed in the summary of the reflections of thousands on their effective learning experiences - ***motivation,*** *being open to learning,* ***is a necessary condition*** *for effective learning* (See Figure 4).

'Downshifting': Negating the conditions for effective learning

Trauma induced learning is learning at the emotional (limbic) and instinctive (reptilian) levels and is survival oriented. When we are under threat it is as if we 'downshift' towards relying on our more primitive brains - we resort to more instinctive behaviour. To illustrate this phenomenon to yourself, think of a time when you have felt quite insecure, vulnerable or threatened - perhaps arriving at your workplace to take up a new position. Did you seek out those you knew there and spend time with them- 'flocking'? Or, not knowing anyone there, did you feel a degree of security when you established your space - 'nesting' and 'territoriality'? And in other situations, do you find yourself resorting to authoritarian behaviour with children when reason seems to break down - 'pecking order'? Or perhaps in an emotionally charged meeting do you find yourself 'signalling' to a like mind across the room.

Under threat we become less flexible and are able to call on only part of our brain for learning. For optimal learning we need to be **challenged but not threatened**. Depending on past experiences and self perception, what is a threat to one person may well be a challenge to another. The relationship with the teacher, in some cases, is esential to establishing a supportive environment in which the learner is challenged to strive for their best without the threat of failure.

Understandings of human learning behaviour arising from our knowledge of the functioning of the brain, reinforces and reiterates that motivation is vital for effective learning and that a learning environment which builds motivation through intrinsic interest, through a sense of achievement, through ownership, through honouring readiness, through encouraging continual improvement will enhance and maximise learning - Figure 6.

Techniques and strategies falling under the banner of *Accelerated Learning* largely address themselves to these principles of effective learning. Personal and peer affirmations help build a positive self-image; slogans and quotes such as 'There is no failure, only feedback' remind the learner that learning is about approximations and continual improvement ; music is known to have a powerful effect on our emotions -

the limbic system - and selected music is thought to enhance the absorption and memory of information; and, the use of colour and images heightens the sensory information received by the brain and activates more modes of memory. These techniques definitely have a place in improving the conditions for learning and enhancing memory. However, they should not be construed to be the last word on techniques for improving *learning*. Accelerated learning techniques help develop the right conditions for learning but, used alone, tend to emphasise memory rather than learning. **Strategies for engaging thinking and effective collaboration** are necessary if we are to ensure that classrooms develop effective learners rather than 'sponges'.

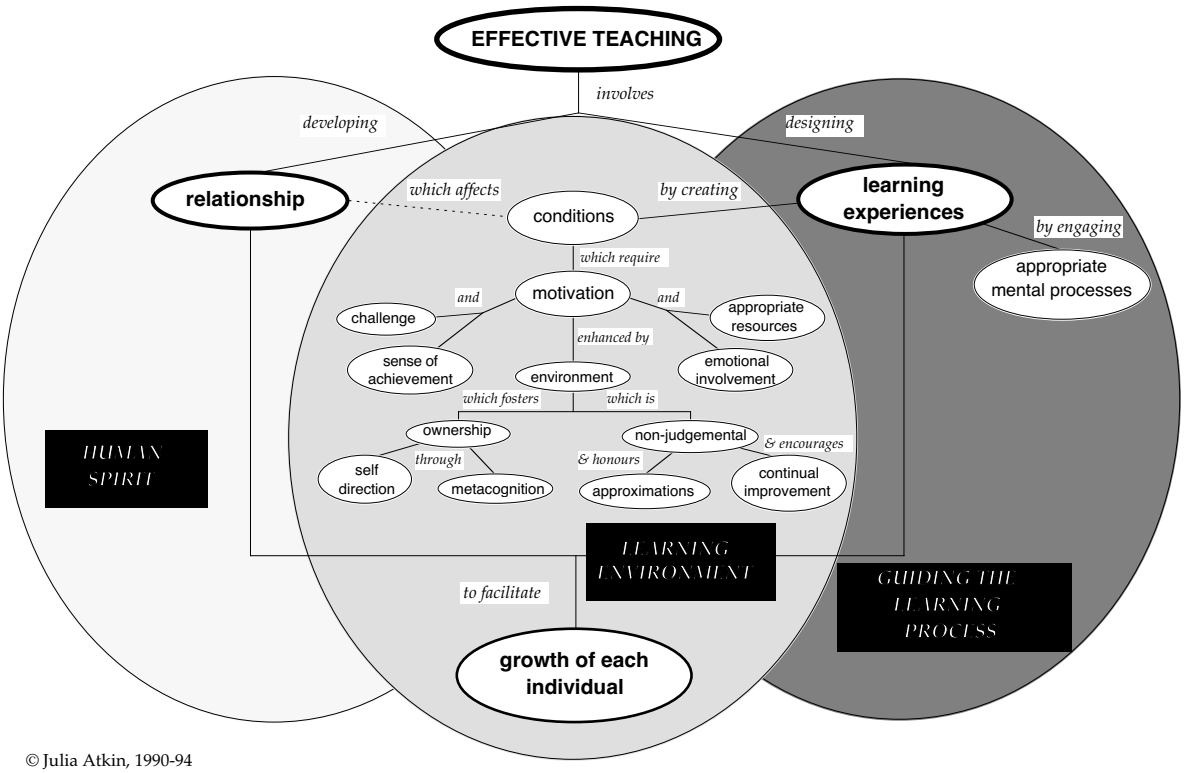


Figure 6 **Summary of the conditions for effective learning**

Appropriate Mental Processes: The third dimension for effective learning

To recap, in this paper I have explored two dimensions of my framework for effective teaching:

- the **human spirit dimension**, and
- the **psychological conditions** which characterise effective learning and thus provide the basis for **designing learning environments**

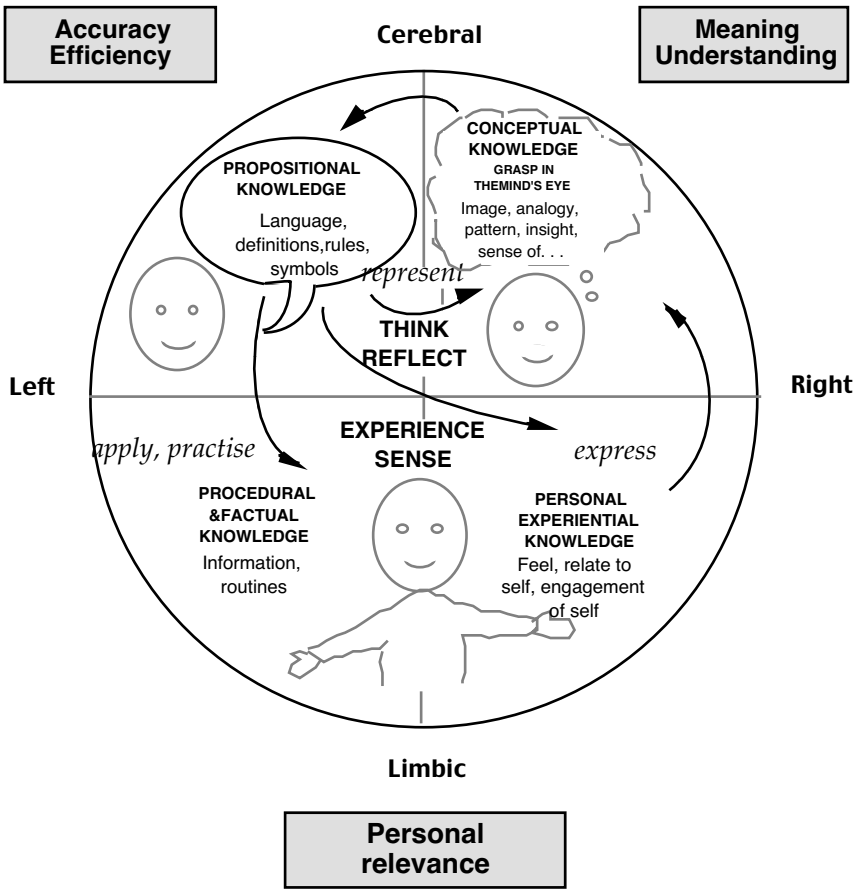
This brings us full circle to the third dimension of the framework:

- the dimension which makes explicit **appropriate mental processes** for learning and serves to identify what it means to **guide the process of learning** effectively.

This dimension which was the subject of the first paper, *Thinking: Critical for Learning*. The essential elements of each of the three dimensions are encapsulated in Figures 2, 6 and 7.respectively.

The *Integral Learning* model developed in that paper essentially proposes that effective, meaningful learning involves integration of our many ways of knowing - it involves integration of our right mode and left mode ways of knowing and it involves integration of our cerebral/intellectual ways of knowing with our emotional/ sensory ways of knowing- Figure 7.

The integral learning model is a constructivist model of learning. My claim is that learners construct and reconstruct their own meaning in the world, that this meaning making can be 'nudged' and facilitated by teachers.



Human learning is deepened and amplified by integrating our multiple ways of knowing.

Teach to ENGAGE and INTEGRATE all modes of processing regardless of personal thinking style.

Figure 7 **Integral Learning - integration of our many ways of knowing**

What would schools and classrooms be like if they were deliberately designed to maximise learning?

Consider for a moment the following scenario. An enthusiastic gardener living in an area of severely cold winters - frost, sub zero temperatures - and hot dry summers decides that she is going to grow tropical plants in her garden. Ludicrous, you might reply, thinking of all the conditions she would have to battle against. Imagine the extra

energy required to provide tropical temperatures in the frosty cold winters; imagine battling against the hot dry summers to provide a humid environment. Imagine the effects of the 'hothouse' environment on the plants and fruit. At a surface level things might 'look good' but consider the dependency of the plants, their vulnerability should they be exposed to the *real* environment, and the tasteless fruit they would produce. If, in contrast, this gardener designed her garden **according to natural laws of growth and conditions for growth** it would be entirely different scenario.

My point is that for too long in education we have not worked from, or taken into account, the natural laws for learning. We haven't even been guided by metaphors of growth and transformation. We've been dominated by metaphors of mass production and economic efficiency. We have focussed on 'culling' students from the education process rather than on nurturing and aiding their growth.

You may well recognise many of the principles proposed in my framework as long having been reflected in the philosophy and practices of Maria Montessori and Rudolph Steiner. They are also in keeping with the evolving trends in mainstream educational practice. Over the past twenty years, firstly in primary schools and more recently in secondary schools, there have been approaches to learning emerging which are consistent with the natural laws for learning outlined in *Thinking: Critical for Learning* and this paper.

Teachers are increasingly recognising the power of student centred, active learning. Teachers are grappling with notions of learning and teaching styles. Many teachers have intuitively developed a whole brained or integral learning approach. Teachers are attempting to develop learners who know how to learn both independently and interdependently. Teachers are challenged to develop their role as facilitators of learning rather than the expert knower. Teachers are searching and trialing methods which constitute authentic assessment.

This kind of change in teaching practice needs to be encouraged and developed further if we are to achieve those national aims which have been discussed so much over the last few years: the need to develop a generation of learners who will be flexible, multi-skilled, with a range of competencies, and prepared for a life-long learning process. Too many of our old teaching practices, if continued, would actually impede the development of such a group of learners.

I am not so sure that this welcome wave of change has washed over tertiary institutions which are still inclined to use schools as sorting, filtering apparatus for their student selection - rather than allowing schools to exist as places which foster learning - and whose faculty members still seem, predominantly, to see their role to be the experts imparting knowledge rather than as facilitators of the learning of their students.

If we are to enter the 21st century as a clever country the challenge for us as educators and educational administrators is a common one, regardless of the sector in which we teach, or the age level or backgrounds of the students for whom we are responsible - it is to learn more about how students learn, and to draw upon that increasing knowledge and understanding in our ongoing redesign of our educational practice and educational institutions.

Particularly in a time of limited resources, it is crucial that our efforts be concentrated in these areas. I hope I have shown how research and experience demonstrate clearly that more effective and efficient learning can be achieved, for all students, if we ensure through our practice that recognition of **the nature of learning** replaces the nature of teaching at the core of the educational experience.

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