Introduction

Sir Isaac Newton is quoted as saying "I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble and a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me." (Shapley et al (eds), 1943, p147 and Kemmis (Ed), 1985, p12)

Sir Isaac Newton knew that his discoveries were only a small part of the p-cture

To me, it seems that knowledge exists in dark rooms illuminated by a few candles. No matter how much we now know, there is a vast amount still to be discovered and a multitude of inter-relationships to be understood. In this thesis, I aim to shine a small torch around the huge room of cognitive science and educational principles. Many of my observations agree with those of other observers, but some differ significantly. It is not my intention to prove all of the observations I make here. I will be delighted if this work inspires others to thoroughly investigate the conclusions I have reached through qualitative observation.

In this thesis I aim to shine a small torch around on the huge, only partially understood, topic of cognitive science

The Problem

By 1989, I had been a teacher for 17 years and had outstanding success in assisting individuals with educational difficulties. Over that time, I had spent at least 3 years working on a one-to-one basis as well as in the classroom. Despite my personal success, I had difficulties identifying the essential features of my expertise that were the basis of that success. Therefore, I found it difficult to transfer my expertise to other staff members. I was so successful in assisting children with difficulties that I made the decision to pursue one-to-one tuition as my full time work. Again, I was unable to train others to duplicate the work I was doing, therefore it had the effect of limiting the scope of offering this service to a wider audience.

My Clinic is successful, I need to train others to do what I do, but previous efforts to train have had little success

People are heard to marvel about the talents of a "born teacher". The qualities of such an individual appear to be illusive. Educationalists claim that the qualities of a "born teacher" cannot be taught. No-one seems to know how such teachers come to be but all marvel at the apparently innate

"Born teachers"

talent of such an individual.

As a teacher, I have experienced a great deal more success in teaching students who face learning difficulties than many in the teaching profession. This success has been a mystery to me as my academic beginnings were far from indicating that I was destined to become a highly successful teacher. This incongruence has puzzled me as many refer to me as a "born teacher", when, I know that I was certainly not born with the talents that I now possess. This puzzle has caused me to ponder the problem of understanding what makes some teachers more successful than others. It has pervaded my thoughts for many years. Until reading Donald Cunningham's philosophy of semiotic learning, I had made little progress in discovering the factors that make a very successful teacher. The concept of semiotics kindled a small spark of understanding. It has led me to a belief that it is the relevance of a person's thinking models, influenced by past personal experiences, that prepares one person to be a better teacher than the other.

"Born teacher" not a born teacher

Cunningham explains the development of a person's knowledge or thinking models as being a little like a can of worms. Each time you look into the can the pattern made by the worms is significantly different from the time before. It is this continuous modification of thought models by significant stimuli in one's environment that produces one's knowledge. The resultant knowledge, in Cunningham's view, is a little like a rhizome in that it is in a constant state of change. He points out that the structure of a rhizome is limitless and indescribable. Cunningham then asks the question "How then does one construct knowledge?" He believes that the answer is given in the imagery of a rhizome because, like a rhizome, the structure of knowledge is limitless.

Semiosis and theory loading as the basis of my understanding myself

Consider the following scenario that might illustrate this concept. A young girl might begin to learn about dogs. As a very small girl, her first sight of a dog might be at the back door, panting, tail wagging waiting to be fed. Her parents might call the dog "Butch". Her knowledge, at this stage, is that things called Butch stand, pant and wag. When Butch runs, that fact is added to her "knowledge". Then it barks. Another fact is noted. A second dog is seen and our little learner realises that there is more than one "Butch".

First stages in learning about dogs

Introduction

Colours are different, sizes are different and eventually she sees that there are many "Butches". In fact, Butch is only one amongst many and the thing she thought was a "Butch" is really a dog whose name is Butch.

Each new fact forced her to revise the "facts" she already "knew", each new fact increased her total knowledge and at any given time she thought that each snippet of knowledge, the worms, had assumed their final configuration, she thought she knew all there was to know about dogs. By the time she is 10 years old, she will really know quite a lot about dogs.

Knowledge revised many times, each time she thinks she knows it all

If, later in life, when she becomes a dog fancier and enters dogs into shows, she will learn a multitude of new facts related to breeding and the finer points of dogs. Once again, her knowledge expands as she looks at new facts. If she then becomes a veterinarian, she will learn a multitude of facts related to the health of the dog. Again she might think "Now I know everything about dogs" but again she would be wrong. By becoming a research scientist working in the field of dogs, she will gather new knowledge that will again make her see old knowledge in a new light. The can of worms will have assumed a new position once again.

As an adult still has things to learn

Cunningham says "We construct personal structures ... The concept also alerts us to the constructed nature of our personal thoughts and the possibilities of different meaning, different truths, different worlds. ... It allows us to constrain potential meanings in particularised ways through the operation of culture. Knowledge¹ then is not out there waiting to be discovered. The world, as we know it, is culturally coded. What we experience as reality is really prior cultural and personal codings, prior structures invented (not discovered) both collectively by our culture and individually by us." (Cunningham, 1992, Volume 4, p170 to 171) This metaphor has led me to consider the possibility that the qualities required for successfully teaching students generally, and particularly those facing academic difficulties, may be found in the experiences that the individual teacher has been exposed to over a lifetime. These experiences, according to Cunningham's model, in my view, can be

Semiotics and theory loading as the basis of my understanding myself

¹ Information is waiting to be discovered, not knowledge.

paralleled to a person's theory loading that each of us brings to our daily work and research. It is for this reason that a major part of this thesis is devoted to an account of outstanding stimuli that stand in the forefront of my memory as a child and have undoubtedly influenced the way that I presently construct my world as an educator and teacher.

Methods Used to Solve the Problem

I have not used what might be considered traditional scientific methods of research. Alan Mixon (1986, p99) stated that much of psychology has failed, in its research, to follow subjects of intellectual passion because the researcher could not make traditional, so called scientific, research designs to fit the subject of the research. Mixon points out that the natural sciences, which have invented what is known as scientific method, in the beginning started with the problem and worked out the most appropriate way to solve it. Thus, appropriate scientific method for the problem type was created. While I research as an educationalist, psychology and cognitive science are undoubtedly the subjects with which one is dealing. Therefore, I am first dealing with the problem and have personally constructed what I consider the most appropriate way to deal with it as I presently view the situation.

I have started with the problem and personally constructed what I consider the most appropriate way to deal with it

Since all other educators are trained in similar teachereducation courses, the difference was suspected to lie in my past experiences and developed beliefs which constitutes an individual's theory loading. Therefore, the research required an investigation of the key features of my early development and teaching experiences that caused me to develop specific networks of thinking. (Cunningham, 1992, p171) Then literature research was required to identify current thought on key features related to educational improvement that could be paralleled to my experiences and the procedures which I use

I investigated key elements in the events that helped me overcome my own educational deficits

After clarifying what I consider to be the key elements of my remediation processes, I have consciously applied the more structured processes, perceived to be the processes I have used in the past, to my present clients in order to determine whether in fact these identified features are indeed those I

I have used those key elements to remediate over 400 clients who have had serious educational deficits have traditionally used.

In light of the research approach explained above, this thesis is therefore based on four foundations:

Thesis has four foundations

- 1 My life experiences
- 2. The writings of eminent psychologists and cognitive scientists
- 3. Qualitative observations of the cognitive development of over 400 clients
- 4. Evaluation of the first three

• My Life Experiences.

As a child, the school system failed miserably to teach me the things that most children learn easily. The teachers were as well qualified and experienced as could reasonably be expected yet, with me, their failure was almost total. Activities outside school taught me the cognitive skills which led me to be a successful teacher and successful businessman. More importantly those events inspired me to think carefully about cognition. They also gave me an insider's view of cognitive theories and practice as they apply to people who have deficits in those skills. To my knowledge, no other writer on cognitive science had such deficits. Even though these experiences are anecdotal they are mine and the details are emblazoned in my mind. In some cases these experiences show me that some researchers, looking at the problems of cognition entirely from the "outside", have reached conclusions that require modification

To my knowledge no other researcher has had educational deficits like mine

The Importance of Theory Loading as a Rationale for Life's Experiences

Every decision we make is strongly influenced by our theory loading. I stop my car at red traffic lights because I subscribe to the common knowledge theory loading that failing to stop is extremely dangerous. When a driver fails to stop and claims to be immune from collision, he is expressing his personal theory loading. My theory loading

Power of theory loading

makes me dismiss his claim. I conclude that the driver is either mentally unbalanced or under the influence of drugs. In this case I close my mind to the possibility of his claim being correct.

In 1982 both England and Argentina claimed sovereignty over the Faulkland Islands. The facts were the same for both countries but the conclusions were different because of different theory loadings. The countries went to war, lives were lost. In England, prior to the war, the ruling political party was losing popularity and was expected to lose government at the next election. After the war that party was re-elected, with a large majority, largely as a result of the popularity engendered by England declaring, and winning, the war. The re-election is evidence that the theory loading of the English government was widely held by the electors. In Argentina huge crowds demonstrated their support for the interpretation made by the Argentina rulers. No matter which country you lived in at that time you would have been surrounded by millions who strongly believed in the local theory loading

Different theory loadings lead to different conclusions from same facts

When, in 1543, Copernicus argued that the earth moves around the sun, his conclusions were ridiculed because they offended the commonly held theory loading of the day. Eventually his model was accepted for our solar system and the rejection of that early theory loading made it easier to accept a more complicated model for the movement of galaxies.

Theory loadings are not necessarily correct just because they are commonly accepted

Researchers who subscribe to a popular philosophical school of thought, i.e. a popular theory loading, take it for granted that others believe the same way. Because it is a popular theory loading many other researches do, in fact, come to the same conclusions from the evidence. Questions that might arise from different theory loading are seldom asked. People who subscribe to alternative theory loadings often accept the results as fact because few have the time, resources or expertise to investigate the research from their own theory loading background. Researchers have not completed their task unless they express their own personal theory loadings and identify the common knowledge theory loadings which might have influenced the conclusions reached. Failure to do so inhibits the development of a multiple range of alternative views, some of which might

Failure to identify theory loadings inhibits development of alternative views prove superior to those currently being proposed.

The theory of evolution is a common knowledge theory loading that underpins much of today's research. Alternative theory loadings are often dismissed as fringe philosophies. (Kemmis (Ed), 1985, p12, para 5) Pavlov's notion of stimulus-response was a well structured scientific observation which can be replicated from one experimental situation to another. However, believing that man evolved from animals, Pavlov believed that the conclusions could be extrapolated to mankind as a model of learning. It has been found, over time, that his model explains only a very small part of the physiology of learning in human beings. Had Pavlov been a Special Creationist he would have come up with quite different conclusions for the learning model of humans because Special Creationists believe the independent thought of human beings was specifically created. Thus a greater framework of activity would intervene between the stimulus and the eventual response. Vygotsky, in the 1930s, a contemporary of Pavlov, refuted Pavlov's ideas but Pavlov was accepted over Vygotsky because it seemed to fit in with the theory of evolution. Paylov's conclusions became the basis of much western thought.

Example of alternative conclusions from same scientific experiment

If it were the normal practice to apply a number of theory loadings to each scientific experiment a much wider range of conclusions would be reached. Each of these models would then be open to further testing.

Conclusions for any experiment should be sought from many theory loadings

The Writings of Eminent Psychologists and Cognitive Scientists.

The thesis contains significant references to the works of eminent psychologists and cognitive scientists. I have identified those thinkers whose work supports my own proposals as well as those who have drawn some conclusions that are at odds with mine. Thesis contains references to works of eminent psychologists and cognitive scientists

Qualitative Observations of the Cognitive Development of Over 400 Clients.

In 1989, I set up a business to help people of all ages learn cognitive skills—Since then I have helped over 400 clients.

I have helped over 400 people

Introduction

Some have been as young as 6 years and some as old as 70 years.

Most of the school and pre-school age clients had demonstrated such lack of progress as to cause parents deep concern. In almost every case these parents had consulted teachers, school authorities, counsellors and "coaches" before coming to me. Many had also consulted with psychologists and even psychiatrists. My clients had received little satisfaction from any of these services.

Most of those people have had serious educational deficits

Not all clients had demonstrated such worrying problems. A small, but significant, number of parents use my services to enhance the capabilities of students whose progress has been better than average.

Some, not in deficit, wanted to improve already good skills

Clients beyond school years have been very varied. Some are business people who could not read, some are university students who realised they were not making the progress they wished, some people who finally decided to learn to read and some are victims of crime (usually assault) unable to think through the situation in which they now find themselves.

Wide range of deficits seen in clients beyond school age

Evaluation

In action research, evaluation can often be the weakest point if definitional statistics are attempted to be used in such observations. Statistical results are too narrow in scope considering the inability for the action researcher to attend to the elusive variables that exist in all research designs. Even with so called statistically validated research involving collection of large quantities of data have problems when it comes to observing behaviour. Don Mixon, in his article "The Place of Behaviour in Psychological Experiments", (Mixon, 1992, pp123, 124) states that in psychological experiments the subjects often skew their responses to meet their own psychological needs and the researchers have difficulty avoiding purely matching the results in a way that would suit and uphold their own particular framework of thinking. Therefore one must choose an indicator that is less likely to fudge the results. The indicator of outcomes that I have chosen is the willingness of the parents to pay an expensive fee. Such people are more likely to be critical of outcomes rather than falsify them. The work at my Clinic, at

As an indicator of success, I have chosen the willingness of clients, or their parents, to continue to pay high fees for me to work with them

which I put into practice the principles enunciated in this thesis, is under constant critical surveillance by such people. Appraisal is therefore based upon the chief objectives for which the experimentation has taken place and that is to verify that the sharpened features of my remediation produce satisfactory outcomes with the client and that with this new clarity in understanding of what I do, that consultants are able to be trained. The very need to train new consultants is an indicator of the success of the program. Therefore evaluation will revolve around describing outcomes as for the client as growth in happiness in the educational environment, greater motivation towards work and an ability to cope more adequately with the educational environment. For the consultant the ability to duplicate the remediation processes. (Overall research concepts come from reading Kemmis (Ed), 1985)

A high proportion of cients have had serious cognitive deficits. It is clear that their schools, public and private alike, had made no serious effort to address these deficits. It is my observation that schools usually dismiss the student's lack of progress as a result of lack of "ability" which, they believe, cannot be improved. Schools are seldom, if ever, are aware of cognitive skills and especially the need for them to be consciously developed.

Lack of progress usually blamed on lack of "ability" but real problem often is need for conscious development of cognitive skills

The average student does learn many cognitive skills as a result of good teaching practice, but when a student displays serious deficits, schools and parents alike lack remediation skills. It is also clear that many benefits would flow to all students if schools and parents systematically taught cognitive skills.

Many do learn cognitive skills at school but few teachers know how to remediate deficit skills

I now know that what happened to me at school happens to large numbers of students. One of my long term personal aims is to make the NSW Department of School Education aware of the need to consciously teach cognition. I suspect that educational authorities, in many other parts of the world, would benefit similarly

My school experiences are far more common than they need to be

Specific Aims of this Research

As a result of my investigation through action research, (Kemmis (Ed), 1985, pp 57 to 63) I have set out to identify and clarify key features that appear to be the essence of my procedures. As a result, the aims are now more specifically to:

- Contemplate my theory loading to determine how influential it has been on my remedial methods and whether a remediator needed to be one with a similar theory loading.
- Discover whether there is significant underpinning for the major features of my remedial approach.

Frequently withdrawing remedial subjects from the mainstream educational system.

The use of practical projects to improve the remedial subject's ability to think and develop strategies for both social and academic environments.

The significance of working on a personal basis with the person being remediated in the presence of a person with whom the subject closely associates.

Determine the significance of flow charting and teaching thinking processes.

Determine the significance of personal modelling of thinking activities as a remedial tool. Can we significantly change the thinking of other people by modelling thinking processes.

Discover the reason for improved languaging producing better thinking possibilities.

Demonstrate that apparently academically deficient individuals are not necessarily locked in to poor academic achievement

Determine whether my practice of ever modifying and developing new strategies for each subject is of remedial significance in regards to outcome efficiencies compared to following a set an accepted remedial method.

Introduction

Discover whether the health and environmental changes such as prescribing greater water intake and limiting TV had much to do with beneficial academic outcomes experienced

Cognitive Approach To This Thesis

This thesis is a cognitive journey into gaining insight towards discovering solutions to a stated problem. In any journey one assesses where one has been so far in order to monitor and set a direction for the ensuing journey. Therefore, this thesis is structured into a range of cognitive styles.

This thesis has been structured in six sections, each with a different cognitive style

First, I employ reflection and contemplation to summarise the highlights of my previous experiences. Contemplation is a process of visiting previous templates of the mind that are sign networks welded into long term memory. Reflection is a process of aligning those networked experiences with conceptual and academic landmarks as they come to mind. These academic landmarks have come for me from random past readings, conversations with significant people or ideas expressed in the media. These help to locate and make sense of concerns of the past. The randomness of this cognitive process lends itself to concept development with random supplementary evidence as it comes to light in my reflective mood. This cognitive pattern extends from chapters 1 to 5 inclusive.

Section 1 uses reflection and contemplation to summarise the highlights of my previous experiences

Secondly, brainstorming is the next cognitive style. This process of the mind assists me to delve further into uncharted territory in a random fashion but having broad parameters set by the templates of previous experience that cause me to become aware of the present social conditions that affect the process of learning and cognitive development. Therefore the text of this section will at times seem a little disjointed as it is virtually a list of concepts, however, these concepts do have some overlap and connections. The brainstorming process includes the juxtaposition of many concepts floated by other researchers in ways that are affected by my theory loading. Therefore this section is a new concept building process. This style extends from Chapter 6 to 8 inclusive.

Section 2 uses brainstorming as a method of building new concepts

The third cognitive style is that of monitoring, evaluating and partially validating the emerging new or clarified sign networks against the thoughts of other researchers. Not one researcher by him/her self derives the total answer to any question, therefore many elements of truth can emerge from

Section 3 uses monitoring. evaluating and partial validation to test and clarify my own ideas

the partial view of each person. Thus, in this section of the thesis I argue the point in the light of concepts developed through my own theory loading. This cognitive style is experienced in chapter 9. This stage of the cognitive process is for the purpose of testing and clarifying my concepts and ideas. This section of the thesis aims to establish supporting evidence for my perspective.

The fourth cognitive style is based on the concept of strategy development and then vision and visualisation of implementation and application. These strategies include educational strategies for the purposes of cognitive emphasis in education for all walks of life. Education strategy prerequisites together with student changes in attitude are addressed. Diagnostic strategies are also developed from investigating biological factors that affect learning and the function of developing cognition. This is just a glimpse of what the educationalist may be able to do with such tools. This cognitive style extends from Chapter 10 to 13

Section 4 uses strategy development then visualisation of implementation and application

The fifth cognitive approach is that of testing the strategies to the extent that my developed expertise allows me through an ever growing accumulative experience. Testing the process includes defining the design for each case study and then exposing the strategies to criticism of the receiver. This cognitive style includes listening and contemplating the outcomes. It is found in Chapter 14.

Section 5 tests strategies, using observed changes in clients

The conclusion, section 6, then reveals what I have learned from the entire journey. This thesis is not designed for definitive outcomes but to test possibilities.

Conclusion reveals what I have learned in the journey

It might be asked, "Why has this researcher written the processes of his thinking instead of reporting only the results?". The answer is that this thesis takes on a semiotic view of research, so that the reader is able to understand the rationale for end results. It also allow the reader to key into the thinking of my point and then extend that concept into more complex networks of thinking for him or herself. My intention for this thesis, while it is not definitive, is to invite further thinking and discussion.

The style of this thesis is to allow readers to understand my thinking and then extend it into more complex networks

Section 1

Contemplation

Chapter 1

Primary School Years from

Chapter Introduction

It was not until my first encounter with school that my educational problems began to emerge. From 1954 to 1957, I hardly made any headway in my education. The very first day at school was a new world I had not encountered before, a world of confusion and a realisation that I was different to many other children around me. I became anxious and avoided both teachers and children. I realised for the first time that other children had many skills that I had not mastered. For example I was unable to detect patterns and sequences, the concept of cause and effect was a difficulty for me. These patterns of behaviour led me, in later years, to investigate ADD² as a possible cause of my early difficulties.

Some of My Problems at School

Unable to Communicate

The first day of school was turmoil and confusion. Teachers and children were talking and buzzing around me. When a teacher came up to me and mentioned my name, I immediately felt comforted. However, she gave me a task, explaining it to me, but I could not remember what she had said beyond the first few words. I sat and looked at the piece of paper in fear not knowing what to do; fearing that I would get into trouble. With anguish, I looked at all the other children about me who were busily working. I noted how the teacher was encouraging them and congratulating them for their efforts. A strong sense of embarrassment dominated my emotions. I tried to hide the fact that I was not doing anything by crouching over my paper and copying other children's actions around me. Fear mounted as I watched the teacher move around the room, hoping that she would not come my way.3

Turmoil and confusion from first day at school

That was only the beginning.

Only the beginning

² ADD, Attention Deficit Disorder

³ Similar behaviour is described in Dykman et al, 1992, p10 3.1

Primary School Years From 1954 To 1957

For three years, anxiety was the basis of every school day. The teachers tried to help me with number. The symbols I could observe and understand but no matter how many times the teacher tried to show relationships between one number and another the concepts were just beyond my comprehension.⁴

Three years of anxiety

Reading was something I could never understand. I could see and understand individual letters but could never hold the sounds in my head to achieve a whole word. Sight reading was the buzz word of the day. To these teachers, it was a new concept. Each word was a new problem to me. The only difference between one and another was that some were long and others were short. All the letters merged into each other and all that could be seen was the beginning letter and sometimes the end and a few outstanding letters in the middle.⁵

Unable to read

I could not imagine how the other children were reading as I could never remember from one time to the next what the words were. Many play times were spent being punished for "laziness". The noise of the children outside was depressing. Not knowing what to put on the paper was terrifying.

Could not remember words

"Belligerent" was the first "big" word I learned beyond my "baby language". The word was repeated so often by teachers who would return after punishment exercises, based on the writing work I had not completed in class, which was never done. In exasperation, the teacher's face would come close to mine and she would yell "You belligerent little boy!!" The work would then be given to my mother and mother would say "Sit in your room until it is done".

Belligerent was my first big word

Feeling trapped, I would begin to emotionally panic as the beautiful day turned into long evening shadows. I love the outdoors, the freedom. the fresh air. To have that taken away from me was the end of the world. As a result, in my

Consequences of panic

⁴ Similar anxiety is referred to in A. A. Silver and R. A. Hagan, 1990, in A. A. Silver, 1992, p4 and p16), in Helga H Rowe, 1986, p101 as distinguishing features of cognitive skills deficit.) (A. A. Silver, 1992, p6, describes auditory deficits similar to those described above.)

⁵ Similar behaviour is described in Visual Attention Span (VAS) theory, Harrison and Winter, 1989, VAS Theory Test booklet

panic, I would begin to stamp and yell, throwing things around the room and crying so the neighbours could hear me up and down the street. At that point, mother would give me a warning and then inevitably, I would continue. I would receive the strap for my poor behaviour.⁶

After calming down, mother would sit beside me and guide me step by step through the punishment exercise. At the end she would say "You see, when you put your mind to it, you can do it." But still, I could not do it without her guidance.⁷

My mother encouraged me but still I could not do it

Eventually they gave up on me at school. My life in the classroom became a little more peaceful.

School gave up on me

In the classroom, I was very conscious of my own lack of ability. This led me to withdraw in class so that I would not be noticed, and therefore, never became part of discussions. Groups in class never chose me to join them in class activities and I never imposed myself on them because I knew my limitations would adversely affect the group. The teacher would notice me sitting alone and would sarcastically say, with a question in her voice, "No one has chosen you, Jenkins". This would mortify me. Then, with protest from the group she had chosen, the teacher would force me to join. By those within the group activity, I would be ostracised and maligned. I would then sit on the outside of the group, alone; confused and hurt.8

Conscious of my lack of ability

In the playground, the same attitudes prevailed amongst the children. I would never be asked to play and would stand alone in the playground to endure the comments of teachers. "Why don't you go and make friends, Jenkins?" At that point the teacher would call a group over and make them take me in. The remainder of playtime was hell as the children reacted against me. I could never seem to do anything like catch a ball or follow the rules of a game. Everyone spoke

I avoided, and was avoided by, other children

⁶ Similar behaviour is described in Dykman, 1992, p13 as distinguishing features of ADD.

⁷ Similar behaviour is described by Dykman et al, 1992, p10 as a distinguishing feature of ADD

⁸ Similar behaviour is described by Dykman et al, 1992, p13 as a distinguishing feature of ADD).

Primary School Years From 1954 To 1957

too quickly and I could never remember the rules other children could remember for a game.⁹

I gained a reputation amongst the children and would often endure the taunts about being dumb. Bullies would take advantage of me and would want to fight me. At least there was one thing I had in the school, I had a high profile. I learned to stand alone ¹⁰

Taunted for being a "dumbo"

Each day, mum would ask me what had happened at school. I could never remember. The confusion welded itself into one lump of emotional activity and I could never explain it. My reply would be "nothing". Even today my mother does not fully understand the turmoil I endured. With my own children, and my clients' children, I recognise the response "nothing" as a signal that there is a larger emotional problem. Approximately 90% of the time, I am right.

True meaning of "Nothing happened at school today"

Unable to Detect Patterns and Sequences

At that stage of my life, everything around me appeared to be in a fog. Other people would talk about patterns they could see in things such as table games, but I could never understand what they were talking about. In playing draughts, I could never understand how I lost and other people could gain advantage over me. When I put a piece forward, I never foresaw that it would be taken. Worse than that, I could never perceive the chain of moves that would arise out of the move I was making.

Unable to foresee

I could neither perceive sequences and patterns, nor could I remember or develop them. Therefore, I was a young boy who was totally disorganised and lived in a continual muddle. I was always being scolded for leaving things around and for cupboards which, when opened, would eject all contents. Tidiness has a direct relationship to sequencing, classification and pattern; cognitive skills that I obviously lacked.

Lacked skills of sequencing. classification, pattern

⁹ Failure to follow the rules of a game is described by Dykman et al, 1992, p12 as an indicator of ADD.

¹⁰ Academic underachievement is characteristic of most children with ADD. Dykman et al, 1992, p13

through to the consequences of that behaviour. For example, the sweet aroma of fresh bread recently delivered in the street was so compelling that I decided to eat the middle from all our neighbours' bread.¹²

On receiving punishment, I would become resentful of it. Anxiety would build and I had much less chance of reasoning things through. For me, punishment would generate anger and aggression. Being a sensitive child, shame and guilt were much more of a deterrent than outright outside confrontation. My mother eventually found it was much better to talk me through the situation in order to realise the social shame of my actions. However, this did not occur until I was about 9 or 10 years of age.

Became resentful of punishment

In my role as education consultant, I have observed that many children with learning problems participate in aggressive behaviour. They use this a means of "solving" problems in that they cannot foresee the real outcome of their actions. Such children are easily recognised and are often identified as "belligerent" children. They might receive continual punishment and yet will not endeavour to change the course of their actions. Barkley, (1990, p65–75), supports the idea that ADD can also be considered a rule based deficit. This concept arises from the observation that such individuals seem to have impairment regarding behavioural consequences such as in reinforcement or punishment. Similar ideas have been put forward by Beninger, 1989; Quay, 1988; Sergeant, 1988. From personal experience, I know that no matter how severe the punishment, within reason of course, the emotional issue of the moment obliterates all other thought patterns. The child, at the point of punishment, is unable to recognise the punishment as a natural outcome of his/her earlier behaviour due to insufficient short term cognitive capacity to handle both emotional and reasoning data. Therefore the nervous system employs semi-autonomic defence systems such as "fight and flight". I have observed children in this position, when cornered, to physically fight a teacher.

I have seen many children use aggression to "solve" problems

¹² Similar behaviour is described by Barkley, 1990, Little awareness of consequences of behaviour as an indicator of ADD.

Primary School Years From 1954 To 1957

From observing clients, children and even adults with attention deficit difficulties, when facing negative emotional involvement, tend to avoid the problem by a range of activities such as physical attack, feigned illness, withdrawal and escape strategies.

Other defence mechanisms

In my own particular case, I resorted to bad temper, being incorrigible and stubborn. Frequently, I spent weekends confined to my bedroom not willing to give in on behaviour issues.

My bad temper

Relating to other people was another problem. My school experience led me to believe that I had no chance of being accepted unless I proved myself first. Even when I had been accepted I had to constantly reaffirm that acceptance.

Inability to relate to people

Conversation was another problem. I could never think of what to talk about. I believed nothing that interested me would interest others. If I wished to comment on something someone else had said, by the time I had worked out my reply, the subject would have passed over. As a result I felt ill at ease in company.

Unable to converse

Did I Suffer From Attention Deficit Disorder?

Brief History of ADD and Similar Disorders

The symptoms of the problem we now know as Attention Deficit Deficiency (ADD) have drawn the interest of writers since at least 1902. In that year, Still, in his neurological papers, described children who exhibited violent outbursts, wanton mischievousness, destructiveness, lack of response to punishment and an abnormal incapacity for sustained attention. Some of Still's cases would now be diagnosed as having conduct disorder. (Dykman et al, 1992, p3)

Symptoms like ADD have been described since at least 1902

The minimal brain dysfunction (MBD) label first became popular in 1962 when Clements and Peters published a paper describing children who were hyperactive, as being learning disabled or both. For Clements and Peters, the signs were one or more of: specific learning deficits,

Minimal brain dysfunction became a popular diagnosis

perceptual motor deficits, general coordination deficits, hyperkinesis (extreme overactivity), impulsivity, emotional liability, short attention span and/or distractibility, "equivocal" neurological signs and borderline abnormal or abnormal EEG. (Dykman et al, 1992, p4)

"It is important to emphasise that a given child may not have symptoms in all, or even many, of these areas; each child has his own particular cluster of symptoms. The level of his intelligence and the nature of his underlying temperament determine the form and the excellence of his manoeuvres to compensate for the deficits or deviations." (Clements and Peters, in Dykman et al, 1992, p4)

Symptoms of MBD varied greatly from patient to patient

It is clear that Clements and Peters were writing about issues which later became translated into ADD or ADHD¹³. (Dykman et al, 1992, p4)

Dykman says the issues of MBD were the symptoms of ADD

In 1972, Virginia Douglas, then president of the Canadian Psychological Association, did much to change the MBD concept to the ADD concept. The paper, "Stop, Look and Listen", which followed her presidential speech, caught the fancy of American psychologists who agreed with her that inattention and impulsivity were more important defining characteristics than hyperactivity. (Dykman et al, 1992, p8)

The MBD diagnosis fell out of favour

The diagnosis of ADD is complicated by the fact that not all sufferers have the same symptoms. The intensity of symptoms varies from sufferer to sufferer and other disorders share the symptoms. In 1990, the Council for Exceptional Children in the USA opposed adding ADD to the list of handicaps under Part B of the Individuals with Disabilities Education Act (IDEA), USA, saying that by doing so "would be counterproductive because of a lack of professional consensus regarding definition and diagnostic criteria". One question that was asked was "Is ADD/ADHD really a separate disorder" (Dykman et al, 1992, p1–2)

In 1990 there was lack of professional consensus regarding definition and diagnostic criteria for ADD/ADHD

That controversy was a factor in leading Congress to require the US Department of Education to establish four centres to obtain input from the field and disseminate information. The paper, which reviews assessment literature, by Dykman US Congress initiated research into ADD/ADHD

¹³ Attention Deficit Hyperactivity Disorder, a subgroup of ADD.

Primary School Years From 1954 To 1957

et al, is in response to that requirement. It is clear that Dykman's investigations establish the fact that ADD is a separate disorder.

ADD was separated from Learning Disabled (LD) in the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM–III) and in the subsequent revision DSM–III–R. The two versions of DSM–III give different ways of diagnosing ADD and describe a number of subtypes. The committee that decides the content of these manuals was considering further changes for DSM–IV (Dykman et al, 1992, p8) One thing that is clear about ADD is that there still is argument about its diagnosis.

Varying diagnostic criteria listed in Diagnostic and Statistical Manual of the American Psychiatric Association

So Did I Suffer from ADD?

I have described my symptoms and feelings "from the heart", as I saw them from within my own being. For an outsider, even one committed to compassion and love and/or with a deep knowledge of the symptoms, these symptoms were of short attention span, great difficulty in learning and impulsiveness. These are the perceived symptoms at the heart of ADD.

An outsider would have seen me as lacking attention and being impulsive, key elements in diagnosing ADD

In my own mind, I have no doubt that I suffered from ADD Mine was the subtype that was not associated with hyperactivity. Indeed I had a type described by Dykman as hypoactive and still have, to this day, another type identified by Dykman, residual ADD. But the label does not matter. No matter whether I have, or had, ADD it is clear that my cognitive functions were far from ordinary and that the school system was unable to provide me or my parents with any advice or help other than to prescribe "more of the same". The teachers, the school and the education department and my parents persevered with methods that worked reasonably well with most children but which failed miserably with a significant number. Dykman estimates that about 3% of the US population suffers from ADD, (Dykman et al, 1992, p13)

The label for my problem does not matter, all schools could do was "more of the same" even though it proved just as unsuccessful as the normal dose

What Should Schools Do For ADD Children, and Others?

It is also clear that it was possible to remediate my cognitive functions. My experience with life outside school did wonders for me in ways that are difficult, perhaps impractical, for the classroom with say 30 pupils. Although I was far from the ordinary student in those early days in infants and primary school, nevertheless, I was not so extraordinary that I was beyond recognition as a member of a type. Many other students have, over the years, had similar difficulties.

Although I was not ordinary, neither was I so extraordinary that schools should fail to recognise my type

In the NSW education system some students with disabilities like mine have had the benefit of having had teachers trained in "Special Education". Those students have benefited to varying degrees but it is interesting to note that 3 of the clients at my Centre have been children of such teachers 14. Each of those trained "Special Education" teachers has expressed surprise and delight at the improvement I have been able to elicit in their children. Discussion with those special education teachers makes it clear that their training does not include many of the principles that I will outline later in this thesis. It is equally clear that those special education teachers have made some impact on their pupils but insufficient to consider the students have been adequately remediated.

Special education teachers make some but insufficient, progress with similar children

The problem for schools everywhere is to adequately provide for the needs of all their students, whether they have ADD or not. The methods¹⁵ I use at my Centre work well both with students who have, as well as for those who do not have, something akin to ADD. I do not label students, rather I investigate factors that might cause the educational problem then I remediate that problem in the light of cognitive scientific approaches. Later in this thesis I will outline how

Later In this thesis I will outline for schools methods that will be more satisfactory for all students, ADD or not

Not counted in this group of 3 is one whose father is a practising senior lecturer and director of government centre for families with psychologically disturbed children and the children of several doctors.

¹⁵ Dr Mark Swanson (paediatrician Arkansas Children's Hospital, USA) says ADD requires input and assessment from non–medical professionals (Dykman et al, 1992, p6)

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methods such as mine could be implemented in schools.

Chapter Conclusion

The almost identical symptoms that I experienced, as a child, to ADD sufferers has provided me with the insight into the feelings and frustrations of those who have been diagnosed with ADD. This experience that I have had in life, I believe, has provided me with both the empathy for the sufferer and the insight into strategies, both cognitive and social, that can help alleviate the problem.

Chapter 2

Escape to the Pacific Islands

Chapter Introduction

My release from the school system, I believe, saved me from a life of failure and self deprecation. This release, in my view, not only saved me from building negative cognitive models of self perception but also provided me a freedom over an extended period to learn cognitive skills that I had missed out on in early childhood. Most children who suffer from short term memory difficulties, in my view, are not given the appropriate time for them to learn the cognitive skills that are necessary for them to cope at school. School then gets in the way of that development. The Education system itself then takes over causing the child educational problems by ruling out more active outdoor and practical activities that the child needs for developing basic cognitive function and to build on in the educational process. My escape to the islands helped me to escape both of these problems.

Parental Fears Proved Unfounded

Schooling Postponed for a Year

As a child living in the Pacific islands, I found it a great relief. My father's posting provided me with a sense of freedom and enjoyment in living and learning "island style" Freedom

Neither Blackfriars, the Sydney Correspondence School, nor the New Zealand Correspondence School would supply services to us in Samoa. This meant that I had freedom twelve hours a day for all of 1956. I was 7 years of age.

No schooling

Swimming, snorkelling, canoeing and building cubby houses in the bush was a part of my daily program. Swimming provided physical, muscular development and sequential kinaesthetic movement. Snorkelling taught me rhythm in breathing and diving sequences. The tropical underwater environment kindled my need to know and learn. Therefore books became an important part of my life even though I couldn't read. In the islands, mother had plenty of time to sit down to read to me about the things I wanted to learn. Cubby houses provided me with active problem solving. The very first tree house I ever built would not hold my weight and the entire project fell to the ground, me included. The physical demonstration of gravity drove me to seek a solution to the problem.

Practical activities kindled a desire to learn

Learning to ride a bicycle was another project that I pursued

I learned balance and co-ordinat on

in that year. This taught me balance along with coordinating my activities in order to steer towards a desired target rather than the hedge, which was my first prickly destination.

Catching Up on Cognitive Skills

Stoning wasps' nests was my first lesson in natural law. Having succeeded on many occasions to stone a nest and escape their anger by lying still and flat on the ground, I watched the wasps swarm in a rage of stinging anger. Eventually, I discovered that I must co-operate with my environment when, one day, I flexed a muscle and drew myself to the wasps' attention. During the resulting two weeks in bed recuperating, I had plenty of time to consider the concept of cause and effect.

A harsh lesson in cause and effect

My mother sat by my bedside drawing lessons from the experience. She emphasised the idea that I was suffering the consequences of my actions. In previous punishment, the discipline was only of a short duration and the results of my actions were quickly forgotten. This experience punished me over time. During this time, I was able to, for the first time calmly, consider the concept of cause and effect as it related to my behaviour. Whether my introspection was caused entirely by the experience or by some unknown chemical involvement in my system derived from the wasps' stings is a matter that might be investigated by others.

First experience of introspection

After that experience, I became more aware of how my behaviour was creating problems for myself. For the first time, I began to consider possible results of behaving in particular ways for more desirable outcomes

For first time I considered the possible results of different behaviours

My improved behaviour began reaping rewards. My parents, and others, began to comment on it. The positive emotional experience caused me to think up ways I could receive more of the positive feed-back that I was beginning to enjoy. People outside the family began to appreciate me.

Benefits of thinking reinforced its value

Reduced Anxiety Levels

Being removed from the failure scene at school, allowed others to see the other dynamics of my life that portrayed me as a successful person. This built self esteem and reduced anxiety thus allowing me to positively seek solutions for my academic difficulties.

Removal from failure scene at school led to success

Servants to run the house allowed my mother considerable free time. We spent many hours together doing projects. Reading together was a highlight of my association with her each day. I could not read but she would read to me as I sat beside her in the comfortable cane furniture on our large verandah. This close bonded relationship made me ready to learn, listen and to imagine the things that were being read. I believe that on-going experiences such as these were responsible for assisting development of sign networks.

Bonded learning worked for me

Samoa being the home of Robert Louis Stevenson inspired me. My mother read Treasure Island from the very place that Stevenson sat as he wrote the book. Sitting on the top of Mt Vilema, we cast our eyes over the bay that inspired the story. The tropical rainforest around the base of the mountain was the inspiration for the description of the island itself. This inspired me. I spent many hours in Stevenson's home imagining him living there.

Influenced by being where great stories were written

I developed a strong desire to read and write. I wanted to write stories like Stevenson. A great deal of our time was spent combing the library for Stevenson's books and other books that told the stories of treachery and treasure in the South Pacific. My mother and I would spend afternoons discussing the stories; musing about what we would do if we found a treasure map on the island. In our minds, we would make up all sorts of stories and my mother would help me write them.

Improved self esteem soon made me strongly desire to learn to read and write

A great deal of my capacity to think and imagine came from those bonded experiences with my mother. Even today, when I anticipate a time to read and think, I feel the same emotional pleasure I experienced when looking forward to the times my mother and I would spend together. Many of the books and stories my mother read to me contained vocabulary beyond my reading ability. However, she would explain the meanings to me. Thus, my verbal vocabulary grew and my general knowledge increased so that I was able to then converse with people about things that I could never have discussed before.

Thinking, imagining and vocabulary greatly improved

From my professional experience, I have observed that students who find difficulty reading and writing at school are often discarded as being educational failures. Therefore, the student's verbal languaging is neglected along with their thinking processes. One importance of improving the verbal vocabulary is that it expands the ability to anticipate words

Importance of developing verbal vocabulary for non-readers

they will be taught to read.

Observing Patterns in My Environment

My father's position demanded that he entertain many prominent educationalists from around the world. They would stay at our home. One of my favourite pastimes was to sit and listen to inspiring stories they would tell about their lives, their achievements and the places they had seen. These experiences also expanded my general knowledge and verbal vocabulary.

Inspired by adults who were achievers

Listening to the visitors and comprehending the stories my mother read to me helped me, to see and understand patterns of human behaviour. One of the pastimes my mother and I participated in was to sit on a park seat in the town watching people go by and describing to each other the kinds of people they were. For me, this was exciting. At other times, we often talked about the kind of people we saw From time to time, we eventually had the opportunity of meeting some of the people. We could then compare our perceptions with actuality. Many of our characters would become part of the stories and imaginings we indulged in during our reading and writing sessions. These experiences led to developing processes of analysis and synthesis in a way seldom experienced in schools.

I observed, imagined, wrote and compared with actuality

The way of life in the islands is closely related to the elements. It is necessary to be able to interpret the signs in nature. Weather is an important element that, in those days, had to be read from nature for survival. Setting out in small inter-island boats or planes, or even a simple thing like canoeing around a lagoon, or walking from one village to another 12 hours away, all required us to know whether a hurricane or some other violent weather condition was imminent Pattern and sequence became a familiar skill one needed for survival. A yellowish appearance in the sky would be followed by heavy seas. The direction of the waves would tell us the direction from which the hurricane would come. The speed at which the waves increased in size would tell us how quickly the hurricane was coming. This would šet up a sequence of activity. Putting up hurricane shutters, tying down roofs, placing books and valuables in waterproof trunks, putting tarpaulins over the furniture.

The weather an important sequence to learn

Reading patterns became part of my life and the resulting sequential activity taught me how to apply myself to the activities of life. Reading the tides provided another pattern

Sequence important to life activities

that determined paddling on the beach, fishing, canoeing and allowed us to predict imminent tidal waves.

Being a VIP in a foreign country, taught me the importance of rules in the society. Even as a child, I had to learn and follow protocol. All European positions in the islands had a close link to official government occasions and security requirements. For example, as the mission president's son, I was expected to officiate in an official march-past on flagraising day. This kind of activity imposed discipline on me from a public point of view. This might be considered proactive discipline rather than reactive discipline. This imprinted in my mind the pattern of social order and the need for it.

Pattern of social order important

Developed Self-Direction

My life became more directed as a result of being inspired. I began to develop patterns of thinking and doing. Personal strategies were applied in establishing a large garden on the mission compound. Corn was my first major project. This taught me more about pattern and sequence in nature. When the corn should be planted, watching for nutrient deficiencies, recognising pests and then recognising when the corn was mature. My first attempt at planting corn during a wet season resulted in it germinating and growing in a few days, then withering. Planted during the dry season the corn grew strong and healthy.

Turned natural sequence to profit

Selling corn was my first business venture. It ended up in my being outwitted by the retailer and making a complete loss. From this experience, I realised the need for a business plan. I found that I needed to know my costs and the expected profits in order to negotiate with the retailer. It was another development in thinking through a strategy.

Business needs a plan

Through these experiences, I now to understand the importance of the cognitive skills related to procedure, sequence and logical progression.

Began to understand the importance of cognitive skills

Achievements In The Islands

After the first year in Samoa, Blackfriars, Sydney, provided a correspondence course. Lessons were done early in the morning. By midday, school was out and I had freedom again.

Some schooling by correspondence

Each afternoon, I became increasingly involved in mission activities. I assisted in pulling down an old car and restoring it. I also assisted in building a small school house for the mission. At eleven years of age, I became involved in a successful fund raising project by helping to organise mission school students to make genuine island curios.

Real life provided incentives to learn

Bill Miller, a teacher in the mission school, befriended me. He was restoring a Morris 1000 as a hobby. He invited me to work with him since I had no other directed hobby activities. One of Bill's advanced skills was problem solving. His major principle was, that to be able to discover the cause of malfunction one must thoroughly understand the fully functional object, its subsystems and their relationships. He taught me, for this project, the essential steps; first collect your data, then look for non functional subsystems.

Principle of problem solving

Helping to build the school room with Neil Hughes, provided me with both gross and fine motor skills. Everything from carrying cement bags, sawing timber and shovelling to setting tools and gauges. Reading plans assisted in recognition skills, transformation of shapes which included visualisation. Perhaps the most important thing I derived from reading plans was to realise the benefits of planning, for here was I doing a task that could not have been done without planning.

Motor skills, visualisation and planning

Watching old coconut trees being felled for safety reasons, I observed the timber as it was being sawn and thought that its fibrous structure looked like thatch. Taking a lump of the timber, I used the electric sander to fashion it into the shape of a Samoan house roof. I then drilled holes into it and inserted dowels as supporting posts, as is common in native Samoan houses, to separate roof from the floor. I then attached it to a bookend. Neil, noticing the creation, immediately saw commercial potential. We made the first twenty together. They were a roaring success at the first tourist boat. From this beginning, a mission school industry emerged of which I was part of the planning.

I initiated a new industry for me and the mission school

Involvement in another small commercial project, opened my eyes to the fact that language is not absolute in meaning. Through this variation of meaning, latitude in honesty exists among people. As a child, I was brought up, despite my behaviour, to face all things in honesty. I expected that this was a uniform community standard. At this time of my life, I discovered that people could be dishonest either because of their nature, or because of differences in language meaning.

Discovered that people think differently

An egg run was one of my enterprise projects. I would call to each house to make sales. Since this took a lot of effort to sell, wholesale to shops was a new concept that I expected to create efficiency. My wholesale price was sixpence per dozen. A shop manager agreed with me that he would pay sixpence. Assuming that he was referring to the dozen rate that I had previously mentioned, I left him 5 dozen eggs and he paid me sixpence at the end of the week. In this case, the shop manager used language in the technical sense rather than in the intended meaning. Such an experience is not normally learned at such a tender age even though it is a very important aspect of languaging which gives rise to a sophisticated thinking style.

Importance of precise languaging

After the egg experience, I became preoccupied with comparing individuals' pattern of speech with the outcomes of what they spoke about. Unknown to me, I was beginning to critically analyse mind patterns of people. An individual's thinking is revealed through speech. Questioning became a part of my personality.

Thinking is revealed through speech

Living in the islands as a VIP, isolated me from many of the local children, not by my choice, but governed by local custom. This meant that most of my friends were European adults. The adults tended to be more patient with me than children at school in Australia. My deficits were never mentioned, I was continually encouraged to achieve. Patterns of conversation were learned and verbal languaging skills extended. Vocabulary increased.

Adults played key roles in my learning

On returning to Australia for a holiday, adults generally marvelled at both my conversational and public speaking skills. Few, however, realised that I could not successfully read or write. In western schools reading and writing is considered the means for expanding language. In recent times this concept has started to change. For me, these verbal skills were to prove, later in my life, invaluable for speeding reading remediation.

Yet still unable to read or write

Chapter Conclusion

I believe that my development and improvement in the Islands was aided by a number of changing circumstances. First, I was released from the anxiety of not coping at school. Secondly, I was not cooped up in a school room learning in a passive sense but I was allowed freedom to pursue motivating practical activities that were to teach me those cognitive skills in which I was in deficit. Then, adult modelling of thinking processes assisted me in duplicating those thinking models. Of course added adult interaction extended my understanding of the world through an advanced verbal vocabulary even before I could read. In the end, my extended vocabulary was to assist me in reading as I understood the words that I was learning. Once the cognitive skills had been achieved, the desire to learn came from me. It was not forced on me by the school.

Chapter 3

High School and Teachers'

College

Chapter Introduction

On returning to Australia, it was a huge social and educational change for me. Not being able to read well caused me to educationally exist on the edge of failure. In the islands, I had considered myself as being successful. This experience motivated me to seek help and improve. Before going to the islands, a confronting revelation that I was socially lacking would have caused me to avoid the learning situation. After returning from the islands and having improved my cognitive skills, my reaction to this confronting situation was to meet the challenge. It is my belief that two circumstances had changed. First, I had become a very tall and physically strong individual. Most peers would not tempt my anger. Secondly, having developed cognitive efficiencies I had become expert in problem solving. I had become used to successful outcomes to my problem solving. Thus, my self esteem allowed me to believe that I could overcome this problem also. Finally, the existence of a teacher who was prepared to closely bond with me provided scaffolding that I so much needed. This teacher was also a very precise model of good teaching practices. He also provided a very solid foundation for development that was needed to prepare me for my tertiary training.

Benefits of An Exceptional Teacher

Not until I reached high school, six months later, was I significantly helped to improve reading and writing. The first step in improvement was getting on very well with my teacher, who was prepared to spend a great deal of time out of class helping me. We developed a very strong bonded relationship, to the extent, that I looked upon him as my personal friend.

Formed bond with teacher

The teacher used techniques that were presented in clear steps and patterns. His use of phonics provided me with both sequence and then eventual sense of pattern that exists in words. To my amazement, I found that different letters could make the same sound and that some sounds needed several letters. This solved a great deal of my problem in accessing many words.

I responded to clear steps, patterns and phonics

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Maths was now presented as clear steps rather than fuzzy concepts, as presented by many teachers. Before this, I had never realised that there were regular and accepted patterns to be found in order to solve mathematical problems. Prior to this knowledge, I used to try to invent a way of viewing the problem, in its entirety from the resources of my own original thinking. Children who were experts in mathematical problem solving used to amaze me. This led me to believe that they had enormous brain capacity. Understanding the existence of patterns and steps was a thrilling experience for me. Even though I was not always able to see the end from the beginning, following the steps revealed to me concepts as I went along.

Also improved in mathematics

Not every teacher at school taught in this manner, but I became enthused by the adventure of discovering patterns that exist in all disciplines of learning. As a result, I began to improve in Science and eventually became the top Science student in the year. In History and Geography, I became expert in that I studied the course in terms of the patterns that appeared in them. In History, there seemed to be patterns of thought that recurred and which governed society's actions and reactions. Geography was made up of systems, either natural or social. Such patterns and systems provided logic and sequence which enhanced my ability to learn and remember.

Becoming aware of patterns, a new adventure

As my language skills developed, I also began to see patterns in language use. Learning to read and write at an older age caused me to learn rule inductive concepts consciously. Text ceased to be a mass of words but became words grouped to make meaning. Sentences began to be broken up into things, events and circumstances. Other words, such as "and" and "but" joined sentences. There are nouns or names of things surrounded by adjectives and adjectival phrases and clauses. These form a group of words to describe a thing. Action verbs are surrounded by finite verbs, adverbs and adverbial phrases to fully provide meaning for action.

Discovering patterns in language

The structure of language was more obvious to me at an older age as I had developed a highly sophisticated verbal language. Through the extension of my verbal vocabulary and verbal sentence structure, my understanding of how text was structured made sense to me.

My sophisticated verbal language assisted me to understand languaging generally

Contemplation

Section 1

High School and Teachers' College

Unconsciously I began to dissect my environment into its logical parts. Whereas previously, I had to be emotionally supported by the constancy of my environment, now I lost my fear of change once armed with analytical tools that would help me make sense of it. I could now look back and see the cause of changes that had occurred. At other times, I could see a change and foresee some likely consequences.

Personal Outcome: Lost fear of change

Differences in viewpoints previously terrified me. At school, I attended Religious Education. It was a compulsory subject. Each of the local ministers taught it in rotation. The differences in viewpoints were so marked that I began to feel insecure emotionally. Frequently, I would try to absent myself from this compulsory exercise for fear of being confronted with different models of thinking, strongly held and strongly expressed. Once I had learned to view a single event from many perspectives, I could then accept differing viewpoints on a single concept.

Personal Outcome:
Accepted differing views on single concept

Clinical Observations

Children with a history of reading and writing competency are able to contemplate concepts outside their immediate environment. Children who do not read and write are dependent on their environment for interpreting their concepts of life. It could appear that television, today, could provide the outside link for a non-reader. However, my experience with non readers who come to my Clinic is that the lack of languaging beyond the sophistication of their peers leaves those who depend on television more frequently confused than informed.

Television fails to provide adequate languaging skills for non-readers

TV flows at such a rate that the viewer cannot stop, contemplate, ask questions, refer to earlier section of the program or ask another to compare interpretations. These are all cognitive skills required for a deep understanding that leads to development of knowledge through application.

Television also hinders development of cognitive skills needed for deep understanding

Flying High at Teachers' College

By the time I had entered Teacher's College, I had learned to comply with all the requirements of the college and my surrounding learning environment. While I had learned to accept different models in viewing a concept, this development was largely academic. However, I continued to accept outside influences in regulating my life.

Academically and socially accepted

By my second year of Teachers' College, I began to see that decisions made by authorities did not always serve one's personal interest and needs. The concept of accepting one's lot in this competitive environment often left me in a disadvantaged situation. This led me, as a student, to challenge the system. This could have been interpreted as less than favourable adult behaviour. It was only after many encounters with the authorities that I began to understand the futility of trying to persuade those outside one's self to alter the rules to legislate against personal disadvantage.

I learned to think for myself but found that challenging authorities proved futile

Frequent futile clashes with those in authority led me to understand that we are all accountable for our advantage or disadvantage in life. Up to that point, I had always looked to outside authorities to make changes on my behalf but now I came to terms for the need for personal authorship in seeking solutions to my problems.

Accepted personal responsibility for self

I began to apply my problem solving techniques to all aspects of my life. This included finding solutions for my own educational problems. With this perspective in mind, I completed my teacher training which led me, in a personal commitment, to research the elements of lifestyle experiences that either enhance or hinder the learning process.

Personal commitment to research the learning process

Chapter Conclusion

Having observed other children who faced similar circumstances to myself, that is having been released from school anxiety and then achieving high levels of cognitive performance, most if not scaffolded use these newfound skills of problem solving in quite inappropriate and immature ways. Instead of helping such a person, the individual may just become a smarter recalcitrant. From my own experience, I value the modelling and guidance that was given by the most important adults in my life. Adult bonding provided by those other than my parents convinced me of my global worth. Patience that authorities had

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with me as I was developing my independence in thought helped me develop more appropriate models social development.

Many students less fortunate than I, due to the confrontationist approach to problem solving by adults other than parents, have formed anti-social methods of social interaction.

A major lesson I have learned from my experience is that one must be able to make changes from one's own point of view as it is hard to change others. For example, if a lecturer is particularly lacking in teaching skills it is no use trying to change the lecturer; rather one must develop the skills must develop the skills to overcome the lack. One way of achieving this is to obtain a mentor who is able to scaffold one until the skills of self of self sufficiency have been internalised. Therefore, in my capacity as an educational consultant, I see more value in equipping people to cope rather than helping them directly with the coping process.

Chapter 4

Observing Success and Failure in the School System

Chapter Introduction

Before entering the teaching "profession", I believed that success and failure rested with the student. Even though I had experienced poorly designed teaching techniques as a young child, my removal from the system for the remainder of my primary school education and the acquisition of an extremely caring mentor at high school masked many of the inherent problems within the school system itself.

My very first day as a teacher in a high school was a rude awakening to the inadequacies of a socially enveloping system. As my association with the school system became more familiar to me over the period of 17 years, I began to perceive the possibility that many of the educational problems experienced by students could be partially caused by the education system itself. Many teachers discredited the effectiveness of their training, therefore, developed their own style despite what they had learned at University. Most teaching styles, as a result, appeared to revolve about disseminating information in the easiest possible way for the teacher. Little consideration, from my observation of many teachers, seemed to incorporate the needs of the students. Many decisions I experienced seemed to also place the needs of the school organisation as being much more important than facing the real issues of individual children's education. In many cases, the examination process was more often used to validate the school rather than deal with the issues related to the student. Schools also promote academic pursuits as being more honourable than practical activities. This, I believe, tended to inhibit much cognitive development for many and became a cause of self esteem destruction for those not coping academically. For many, the school does not provide the time allocation that some students need for cognitive development. Schools tend to place more emphasis on information processing than on cognitive development whereas cognitive development needs to have priority in order for the student to cope with the information. I believe that, from observing the school system over 17 years, that while many other social conditions contribute to failure in the school system, the school system itself contributes a great deal to that failure equation for many students.

Establishing a Benchmark for Failure and Success

Entering the staff room of a private school for the first time as a teacher, my initiation began. Ushered to my desk and thumping a box of books onto it caused an avalanche of papers and books from the next desk onto the floor. A disgruntled elderly teacher cursed me for doing it. He was one I eventually discovered who hated the job, hated the children and could not possibly do anything else in life. My ideals of a typical teacher were shaken especially when the group of teachers crowded around to welcome me, all laughing about my enthusiasm and betting with one another about how long it would take for me to lose my enthusiasm.

Discovered the disillusionment of teachers

At that point, I was called into the Deputy Principal's office and introduced to the Director of Studies, who, without as much as an introduction, emphatically stated "Now, young fellow, forget everything you have learned at University and welcome to learning how to teach." This chain of events shattered my idealistic image of the teaching profession. There seemed to be little correlation between education training and practice. In fact, very few teachers at that school seemed to enjoy the teaching profession.

Told to "forget everything learned at University"

When I entered the school as a young teacher, I was immediately popular among the students. This created quite a deal of ill feeling amongst older staff members. They would continuously discourage me from energetic and innovative teaching styles. Many would say that when I came to my senses the reality of teaching would change my attitudes. I was dismayed at how the teachers accepted being directed by the environment rather than being the creators of the environment. Walking the corridor one day, I even overheard an older teacher greeting the class by saying "I bet none of you little buggers have done the work I asked you to do" which I felt was rather negative and lacked an attitude of expectation of positive results.

Older teachers tried to discourage me from innovative teaching styles

The first school exams were an eye opener to me. I was called into Director of Studies' office and reprimanded for having marks ranging from 90% to 5%, it was stated that no-one could possibly obtain only 5% as it called into question the school's credibility. At that point, the bell curve was introduced to me as a means of adjusting my marks. I was provided with the school's middle score. No middle was to be below 60% and I was to scale the lower marks up so the bottom mark was to be 30%. This had the effect of making all the lower scores look very reasonable. Some who would have scored below 50% received marks in the middle 50's. Those previously in the 50's were now in the respectable 60's. Thus, all the students were led to believe that they had achieved better results. This was acceptable when there was a reasonable spread of effort and achievement, however, as the years passed, raw marks declined generally and the scaling effect school wide was becoming more unbelievable. Staff meetings were held where heated debate raged over outright non-performers achieving respectable looking marks. At times, up to 75% of students would score below 50% but the scaling provided above 50% results for all but 10% of the candidates. Parents believed that their child's efforts were sufficient and students believed that they were doing reasonably well despite little effort.

Scaling exam marks hid non-performance

Considering that this phenomenon existed in my own school, I enquired amongst friends who were teachers in other schools. They revealed that it was also happening in their schools too; a mix of private and government schools.

Other schools also scaling exam marks

Examination Success Not Always Applied Success

Recognising that examination marks reveal only a scale of relative ability and that they might not be adequate indicators of success, I looked for other signs by which students might demonstrate that they have learned satisfactorily in the class room. I found that the majority of them were unable to carry out skills that should have been learned. In actual practice, while the exam marks looked reasonable, from a performance point of view taking into account what should have been learned, students appeared to be outrightly failing. This was also the view of others within the teaching ranks represented at in-service conferences over the years. Therefore, it appeared to me that the majority of people within the school system were struggling to achieve. This is a view that few have disputed when I have aired this view to a great number of teachers and educationalists on many occasions.

Other indicators confirmed that many students were struggling

This concept is supported by employers and universities receiving students from the school system. Their most constant complaint is that many students entering university and employment cannot effectively read and write. This includes those in medicine and law. (Smith, 1991; Kleu, 1992; Maslen, 1994) Thus, it can be deduced that examination success at school is not always followed by success in everyday applications even by those who appear to be coping well in the high school system.

University entrants criticised as unable to read and write effectively

These anomalies, together with noting how that those who failed at school were often eminently more successful in the business world than those who succeeded, led me to question the existing benchmarks of failure and success. What concerned me was that it appeared that no-one was addressing the question of why so many students were failing to perform.

It appeared nobody was addressing the problem

Although scaling of exam marks does have legitimate uses it has some serious adverse effects in schools. It was my observation that, as the years went by, fewer students scored relatively high raw marks reflecting less serious attempts to learn. I attribute that, partly, to a loss of fear of failure. ¹⁶

Scaling exam marks has some serious adverse effects in schools

Marks are interpreted by almost everyone, in NSW at least, as being absolute. People think that whatever mark is awarded by one teacher would be awarded by any other. Few realise the relative nature of marks and that a raw mark of 70% in one subject might represent a worse result than 50% in another.

Few people understand what exam marks mean

There is a long history in Australia that 50% is a "pass"; the lowest satisfactory result for any exam. When scaling was introduced to the NSW school system, the Department of School Education emphasised that marks were a relative measure of success and the pass-fail dichotomy should be abandoned They reported results of public exams in a number of ways one of which was as a scaled and moderated percentage whose mean, over many thousands of students, was 50%. The public, however, still believed that less than 50% was a "failure" and half the population received marks less than 50%. Later the NSW Department of School Education reported marks using a mean of 60 and a standard deviation of 12.5 (HSC Scaling, An Explanation of the Facts and Procedures, Board of Studies, NSW, Second Edition, 1993, p31) thus saving a large body of students the ignominy of having "failed" when their marks were somewhat below average. Individual schools often used a much modified form of scaling even though the sample size was often insufficient to justify the statistical process. Schools also arbitrarily set a high mean to ensure that few students scored less than 50%.

Popular opinion that 50% is a "pass"

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¹⁶ Fear, not anxiety, can be a healthy motivator. Please refer to the index for further discussion.

Examination papers began including more and more one word "Cloze" exercises and multiple choice. This was both a cost-cutting exercise and an attempt to help students cope with examinations despite their poor literacy skills. Teachers, perceiving the advantage of this type of paper for the speed of marking, fell into the habit of setting exams in this way. Even with this help it is my experience that students' raw marks tended to decline over the years. This view is supported by the many debates, formal and informal, at schools and in many in-service training courses. A statistic that would be difficult to formally investigate due to sensitive emotions that surround marking systems.

Types of questions used in exams led to further decline in raw marks

There were several consequences of using scaling in the schools. For students, it disguised poor effort. The system protected them from the consequences of their actions, or lack of action. The student who scored 20% and was scaled to 50% appeared to be "passing". The teacher who was less effective than (s)he should be could hide behind the scaled marks

Hiding behind the scaled marks

Because scaling almost invariably raises the raw scores students and parents are misled into believing that their children are achieving reasonably well in preparation for the wider world of life and work when in actual fact many of the students are making virtually no progress. A significant number cannot not read or write effectively or efficiently yet receive "good" marks

Scaled marks can hide inability to read and write effectively

Students Gravitate to Theoretical Academic Subjects

Public perceptions and attitudes have been skewed towards more theoretical academic pursuits. Parents and teachers appear to encourage and outwardly acknowledge the superior value of those achieving in this way. This kind of success encourages greater family and social support. (Connell et al, 1982, pp 22, 40)

Theoretical subjects have more prestige than practical subjects

Notwithstanding that there have been numerous attempts to widen the scope of learning to include more courses with practical orientation, most have "withered on the vine" while some have been incorporated as options within theoretical courses. The former Industrial Arts courses in New South Wales have also reverted to a more theoretical approach in the new Design and Technology courses. Not only have they become more theoretical, but the expectations set by many teachers are also illogical when considering the students' level of practical expertise. Computing is another example. Few schools have the resources to give adequate "hands on" experience and therefore courses reverted to theoretical presentations.

Practical subjects have become more and more theoretical

Further evidence that this attitude exists, is revealed by families whose historical tradition has been in practical pursuits, but discredit their own expertise by overtly encouraging their children to aim for theoretical learning. (Connell et al, 1983, p40)

Even families whose economic welfare depends on practical pursuits guide their children to theoretical subjects

Some students who are coping well in theoretical subjects may have some serious social inabilities to apply their understanding of academic subjects to the real life situations. However, these students have the option of avoiding what they find difficult. From a cognitive perspective, theoretical education is only a part of the full scope of cognition. Kinaesthetic activity is a vital factor in improving the quality of a person's thinking. The lack of it is a serious impediment. Hence the saying, when anything impractical is done, "It must have been thought up by an academic".

From cognitive perspective kinaesthetic activity is a vital factor in thinking

Technologically talented students are often given second place in the system. It is often heard in our social context when an alert and bright student chooses a practical pursuit. The comment often goes "Why are you doing that? You could have been a doctor". The school system also perpetuates this concept. If a student finds school work hard, practical subjects are recommended as an inferior second choice. Some school principals, despite directions to the contrary, programmed to favour the more gifted academic student. Thus the privileges would usually go to the theoretical academic student.

Talented students specialising in technological subjects often queried

While the comparison has been made between theoretical academic students choosing not to pursue practical academic subjects, I am not recommending that students who do poorly in academic subjects should be able to make a choice to exclude such subjects. I am recommending that all students should do both for a holistic approach to cognitive development. The current trend is to make this happen.

I do not advocate that students who are weak in theoretical subjects should do only practical subjects

Relationship Between Time and "Failure"

By observing others, I have noticed that "failure" is often attributable to time. Many a student has been labelled "slow learner" and has been given work that is easier, or perhaps even inferior. It is my experience, however, that many such students can master difficult work if given sufficient time. This concept is the basis for mastery learning. Many potentially deep thinkers could have been lost by neglecting the concept of time as a necessary component for efficient learning. For example, Einstein was a slow learner. If it had not been for his mother, the world would have lost the advantage of this genius. (Clark, 1973, p25, 26)

Students fed intellectual pap when all they needed was more time

Gifted children can also be beaten by time. Melissa, a gifted young person from North Sydney Girls' High School was achieving poorly at school. She began to truant and to display uncontrollable behaviour. The school recommended her to my centre to discover her difficulty. Presented with a physics research assignment on machines, identical to the work she had been required to do at school, she easily and creatively carried out the task. When marked, it was found to be of first year university standard. One of the main differences between the school environment and the Centre was continuous time for her thinking processes to occur.

Gifted students can also need more time than most

Melissa, after completing the assignment, discovered for the first time what her problem was. The 40 minute time allocation for her class lessons was too short for her thinking cycles¹⁷. But her thinking became very efficient over longer time periods. Once we discovered this fact, the school provided her with additional use of the library, for independent study, instead of attending all of her ordinary lessons.

Melissa's thinking became very efficient when allowed additional

Melissa is now at university where independent learning is part of the normal program. When she came to the Centre, it looked as though she could very easily been lost to the education system.

Melissa now going to University

Apparently physiologically disadvantaged children are also beaten by time. Those with attention deficit disorder are often treated as though they are intellectually incapable. Daniel was considered by his school to have a learning disability and was placed in a special class where the subject matter was of simple and inferior quality. Daniel could not read well. Given time at the centre Daniel learned to read and now participates in a regular classroom setting. The school has accepted that Daniel requires more time, both in class and for examinations. He is in the top mathematics class and the middle English class. Daniel aims to become a civil engineer.

Daniel incorrectly classified as intellectually incapable

This could not have been possible if the element of time had not been considered for Daniel's education. It is interesting to note that the school system does not usually cater for this component until the HSC¹⁸ examination. For Daniel the denial of time earlier in his education would have precluded him from ever reaching HSC.

ADD students can perform well when additional time allowed

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¹⁷ 40 minute lessons are common in New South Wales schools

¹⁸ Higher School Certificate (HSC) is the final public exam of high school, taken at age 18, also used as entrance qualification for university courses.

However it must be noted that there are negative elements of extended time. An individual who has an open ended amount of time will develop poor self-disciplinary habits which are counter productive to organised and the connected thought processes so necessary for learning. This negative discourages many teachers from allowing students additional time but for most teachers the organisational difficulties weigh even more heavily on their minds. How does one allow extra time when the class must start a new topic next lesson? If you do find class time for the slower ones the teacher must find appropriate things for the ones who work quickly. Where else can extra time come from? Can it come from outside normal school time? Can student be allowed to miss some lessons, or even miss some subjects altogether? Could some students be required to stay at school years longer than others so they can reach a "minimum" standard?

Extended time can have adverse effects

There are more general educational problems too. What is a reasonable time to allow for lessons on each topic? Has there ever been a serious investigation? In my experience a syllabus committee decides the content of the course over a period of years, at each school someone decides how much time teachers will have per week for that subject, class room teachers then select work appropriate for his/her class. The time allowed at each stage is decided, in New South Wales at least, from "experience" and practical considerations such as availability of teaching staff, availability of specialist rooms and the degree of competition for time from other subjects and objectives of the school. It is the student who is then considered "slow" if (s)he is unable to learn in the time finally decided. Is it any wonder that many students are unable to achieve the desired skills before the class moves on to a new topic?

No wonder many students unable to learn in the time allocated

The combination of syllabus, time, social pressures and organisation of teaching, as found in schools at present, make it inevitable that some students do badly. It is humane and understandable that the pressure on teachers and students be relieved in some fashion. Currently we do that by declaring some students unable to learn the more difficult work. The evidence of the clients I have worked with is that we grossly overestimate the number of students who are truly unable to cope with the more difficult aspects of learning. The loss of self respect and the loss to the world are both huge and unnecessary. I suggest that society must change its expectations of schools by requiring more emphasis on raising all students to a higher level through the use of cognitive approaches to teaching and by school organisation that removes the adverse effects of the time factor.

Education systems grossly overestimate the number of students who are incapable of coping with the more difficult aspects of learning

Instead of class grading being based upon course difficulty it appears that a more appropriate grading approach could be considering grouping people together who learn at comparable speeds. Thus the difficulty of work would remain the same, however the time element would differ. One solution might be that some might have a longer school day, others shorter.

Grading students differently might be part of the solution

Schools Should Teach Information Only As Needed in Teaching Cognitive Skills

In our present form of education all students are somewhat disadvantaged by time. Information learned today is outmoded tomorrow. Since it is mainly information the students are learning, school then must seem to many of them a waste of time. This disadvantage is created by the school system's approach to learning. Information dissemination is considered to be the most important aspect of learning. This is evidenced by the importance attached to teachers being trained in the content of specific disciplines rather than in the methods of teaching those disciplines. This is even more evident at university than it is at high school.

Current emphasis in schools of teaching information which will soon be out of date

At school a new emphasis is also needed. Cognitive development should be treated as the primary reason for a person's schooling. Information should only be the vehicle on which cognitive activity is practised. This approach

Cognition should be the primary reason for schooling

maintains continuous relevance even though information can be outdated.

Most teachers do not consider cognitive development at all in their lesson preparation. Many teachers may have not achieved essential cognitive skills themselves. Without the conscious understanding and use of cognitive tools individuals are not prepared for social change. Information does not help with social change, but cognitive skills equip individuals for social change.

Cognitive skills provide lasting benefits not matched by mere information

Social change includes changes in:emotion, ideology, sociological constraints and technology. Emotional change occurs constantly throughout the many phases of an individuals life. Ideological changes must constantly occur as an individual frequently reassesses his/her life in the context of a swiftly changing world. Sociological changes constantly occur as governments become more and more involved in controlling individuals lives through legislation. This places constraints around which an individual must be able work. In this century, technological change has been vast and the rate of change is increasing. Well developed cognition is essential for individuals to be able to handle such ever increasing change.

Cognitive skills needed for people to adapt to constant social change

A change in emphasis from information dissemination to cognitive development will have some beneficial effects in a currently confused education system. Until recently the current information focus led the NSW system to a proliferation of hundreds of courses in trying to keep school relevant to the times. Maintaining these courses became unmanageable in the school system as a wide range of courses requires a wide range of expertise. Thus, courses could often founder when a teacher moved on and the new teacher did not have that particular talent. Another difficulty in the government's current trend of favouring a vocational emphasis is the choice of what vocations out of hundreds should be chosen? The favoured vocations will then encourage students towards them when choosing a career. A skew will be imposed on the work place because of an oversupply of the favoured vocations. This may not be economically expedient for the economic future of the state or country.

Teaching cognition:advantages for school and the workplace

An emphasis in cognitive teaching will feature the value of collecting information continuously through life. Information gathering is a personal task that depends on personal interests. The problem with current government

Cognitive skills will allow individuals to master the information that individual wants

educational policy is that there is a tendency to become preoccupied with teaching a vast and expanding body of information yet failing to emphasise the tools which will enable people to research knowledge for personal individual needs.

The school system should encourage students to develop a wide range of cognitive skills and therefore to be generalists first and specialists second.

Schools should train students to be generalists first, specialists second

Chapter Conclusion

On the part of teacher trainers, I believe that teachers need greater emphasis in applying teaching research findings. I believe that each teacher trainee needs to have developed a philosophy of practical method and to be able to demonstrate the effectiveness of it. New teachers also need to demonstrate their expertise in educational diagnostic practices and the ability to provide solutions for findings. While the education system requires overall operational rules, they should not stand in the way of teachers' professional interaction. If at least some of these changes occur, teachers may be approaching professional status.

Chapter 5

Contemplating and Reflecting on My Remedial Approach

Chapter Introduction

Learning what has been achieved by having traversed the theory loading of my previous experiences is best served by outlining the experience of remediation with one of my first students. In this chapter, I will outline my remedial approach with this student in abbreviated form. The features of this remediation are then linked back to some of the highlights of my own experience in personal remediation. I then outline the direction of further investigation that has been perceived by having contemplated the remedial process as it relates to those past experiences.

Inventing Strategies for Each Client

As a consultant I generate techniques that are invented for specific client needs, as they are required. While some techniques form the basis of dealing with many clients, they are adapted for the individual's specific needs and also combined with new strategies devised for that individual. These strategies are devised from either past experience, ideas generated from previous study or readings from journal articles. One does all this in a particular way believing that the strategies developed are the best route to take that is known at that point of time. Each client is an individual case therefore the strategies used for one may or may not be used for others.

As an Education Consultant I know every client needs to be treated in the way that best suits that client, therefore I constantly devise new methods and adapt old ones

Reflecting on my First Success

I believe the best way of reflecting and contemplating my approach is to analyse what I did with my first, most outstanding, remedial subject.

Mark K was a thirteen year old boy on whom the various remedial groups had given up. They had worked with him for four or five years without any success at all. Mark was considered a chronic dyslexic case who could not concentrate or retain anything he was taught from one lesson to another. Mark could not read or write. Special schools and help organisations did not want to deal with his case as they believed nothing could be done for him.

St Andrews Cathedral School was approached as it was famous for its caring environment along with its outstanding

I will reflect and contemplate on what I did with my first remedial subject

Nobody had been able to help Mark

The staff of the school I was working in did not think that they could

personal development programs. Mark's parents considered that a socially prepared person was better than no preparation at all for life. They were prepared to forgo ever expecting any academic success from their boy. St Andrews had not dealt with such a chronic dyslexic case before. I was called to the Principal's office, along with the remedial teachers of the school, to make a decision as to whether the school should accept or reject this application. It was thought by the majority in the meeting that Mark would not even cope with the remedial class. In view of this problem the Principal was in favour of rejecting the application.

help Mark

My heart reached out for this boy as I was struck by a brainwave. I needed a workshop assistant on a full time basis. At the time since I was Industrial Arts Master. I believed that I could make him feel useful and at the same time I remembered how being removed from the classroom scene had benefited me in my early years. The Principal agreed to accept Mark so long as he was exclusively attached to me and no other school assistance would be required. As far as Mark was concerned he was not going to school as a student but it fulfilled the requirements of attendance at a school for the authorities.

I saw myself in Mark. I knew I had overcome. I argued for Mark until the school agreed to put him entirely in my charge

The first job I gave Mark was to sort out the scrap wood pile that was out of hand. Mark was so uncoordinated and awkward that his efforts to tackle the scrap file were ineffective and futile. He froze due to embarrassment and refused to continue. I then gave him the job of sweeping the woodwork room floor but found, to my horror, that he was only capable of redistributing the dust around the room. Mark again became agitated and embarrassed.

Success was not immediate

Allocating some time with him, I outlined a plan, on the board, for sweeping the room. He still could not do it as he kept getting mixed up with the direction he should be sweeping compared to the plan. I then marked with chalk arrows on the floor to indicate the direction on the plan. Little by little Mark learned how to sweep in an organised and directed way. Mark wanted to do nothing else but sweep and dust once he had mastered this skill. I could see that he was immensely proud with himself after he completed each assignment.

Careful explanations of matters others considered too simple to need explanation. even for such a boy, led to success in a simple. practical task

Mark had also become friendly towards me. His parents had never heard him express preference for someone outside his own family. Before this he had never specifically related to Mark's reaction showed he appreciated the relationship we had

anyone other than his parents.

Most of his time was taken sweeping, at first. Eventually he became efficient and quick at the job. It was not long before he was standing around waiting for the next sweeping job. Now it was time to attack the scrap wood pile problem again. This time I demonstrated how we first pulled the scrap wood pile apart, sorting it out into approximate lengths.

With the first task mastered it was time to start a new task

The scrap wood pile took Mark a long time to sort out as he had to take each length and measure it against all the piles, then deciding what pile it would need to be placed on. Little by little he became faster at the job. Once he had the wood organised into groups according to size, Mark and I worked out how to stack the piles in order to easily use the pieces at a later time. Some very short pieces, we realised, were destined for throw away scrap.

Again Mark needed skills that were so simple that few people considered they should need to be taught

I had a brainwave again. To occupy Mark I had him measure each piece of these small throw away lengths into 50 mm segments. At first, he had trouble marking out a 50 mm length. After a while, he became practised at judging measurement, repeating this many times. Incidentally Mark learned to add and subtract, for the first time, through his measuring practice. Then, I had him square his 50 mm marks across the timber. Again he faced this task with difficulty. When it came time to cut the timber he had difficulty with this also. I had thought to use these pieces for wedges and for chocking sash cramps when assembling jobs. It was important to Mark that he knew that cutting these pieces of timber had a legitimate purpose. Soon Mark became proficient in marking and cutting timber, sweeping, sorting and categorising. Therefore sorting the scrap pile extended to keeping my tool room in order. I soon had the neatest and cleanest department in the school. Mark was always there to make sure that the floors were spotless and all facilities were in their place. He became so proficient at these jobs that he had time on his hands.

Measurement led to mathematical processes of adding. subtracting

One day, I saw him at the chock timber box sorting lengths into width and thickness groupings. He then fetched some glue and, of his own accord, began to glue a spiralled stairway on a square base of timber. Eventually, this glued structure took on the form of a DNA molecule model. Once finished, Mark and I sprayed the structure with red, yellow and orange iridescent paint. The end result looked stunning. Due to the success of its appearance I decided to drill a hole in the centre and fit it with a brass pipe, lamp fitting and

Mark showed some initiative

Contemplation

Contemplating and Reflecting on my Remedial Approach

shade. This made an attractive looking lamp stand. Mark was both thrilled and proud of his efforts. Not only had Mark now achieved many operational functions but now had demonstrated his flair in design.

Mark was now eager to make things. I had him, at first, make a stack of good looking bench hooks from scrap timber. By doing this Mark learned to plan, processes and procedures for manufacturing multiple parts of a product. As Mark became more proficient I ended up with the most elaborate bench hooks in the state.

Mark was now eager to make things

The second job I had Mark do was making student tool carry boxes from scrap chipboard and plywood. Soon we had more boxes than we needed. Of his own accord Mark decided to sell some of these boxes to the hardware store below the school. In a short time there were so many orders from the hardware store that it became a regular manufacturing job. The money, approximately \$10000 over a period of two years, raised from the sale of the boxes bought new electrical tools. This caused Mark to gain a sense of worth and usefulness, recognised by even those in the highest levels of school administration. In no time at all Mark was attempting to make tables and other items of furniture.

Mark made things that were sold, thereby giving him more sense of self-worth

Mark's only limitation now was waiting for me to read instructions and plans for him. Finally the frustration level became so great that he asked me to teach him to read. I then did a crash course in Lindamood techniques

The need to read instructions led to Mark learning to read

Reading and writing were, within a short time, a reasonably well mastered skill. He began to make furniture by the truck load. Students from other grades in the school expressed envy at Mark's ability to do what he was doing all day. They also expressed their wonder and appreciation of the degree of his expertise in making things. Mark often helped other, more academically able, students to solve technical problems that they could not solve for themselves. Many of the students befriended him and invited him to play sport with them both in and out of school. He actually became quite a hero in the school.

Other students made Mark a hero and they began to envy him

Of his own accord Mark investigated cabinet making as a trade at Technical College. He found out the qualifications required therefore requested that he join regular classes to improve his academic proficiency. Even though he was 15 years of age at the time he chose Year 8 as his entry point. By the time he had finished Year 10 he was nearly 18. He

Mark became "apprentice of the year", now a wealthy businessman

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entered cabinet making at Technical College to become the "apprentice of the year". Today Mark owns and manages a cabinet making firm. Personally he is a wealthy, prosperous businessman.

Common Elements of My Early Remedial Approach

After Mark's experience, many more students having severe learning difficulties came my way. The common elements of my remedial approach for them was to:

Key elements I used in remediating Mark

- Remove them from the regular school program
- Become involved in simple tasks where the individual could succeed and enjoy the thrill of success
- Provide the student with simple, uncluttered projects so that the thinking processes related to the project could be adequately practised and become obvious to the student as being the main feature of the task
- Making the tasks of real value rather than just "exercises"
- Providing visual flow charted methods of perceiving thought processes that are pinned up on a noticeboard and can be consulted by the individual as tasks are thought through. This actually provided processes of sequential logic
- Making the eventual aim of task choice to revolve around the interests and needs of the student, once the individual had become more proficient in thinking and doing. These could include reading, writing, arithmetic and such like. Thus everyone else's first aim was my last, but important, aim. Rather than subject the child to embarrassment of continually facing failure before the child had an understanding that (s)he could succeed in something and be recognised for it, I gave them success and let them ask for the tasks that had previously beaten them.
- Bond with the student causing the individual to feel secure in the scaffolded and confidential environment
- Protect the child from being bombarded by environmental

stimuli that they cannot, at present, handle. This requires the skill of recognising the signs of when the student ceases to cope

- Read to the student in order to expand the individual's verbal vocabulary and general knowledge. This was better than labouring over simple texts that would be an embarrassment to a child of that particular age. I found that, for a non reader, it is essential that general knowledge be continually expanded so the child can converse at their own particular age level thus elevating self esteem
- Avoid targeting the particular academic problem that was
 troubling them and also to avoid using that task that they
 cannot do as the central structure of the remediation.
 For example if a person finds it difficult to read I would
 not face them with masses of reading practice but would
 establish a need for them to read so they would be
 motivated towards it
- Avoiding allowing the student to be humiliated in any
 way. Some students react to humiliation by withdrawing
 and crumbling under its weight but others become
 aggressive and cease to listen and therefore will not
 accept help

This, I noticed, caused students to become more coordinated and confident as they were able to attend to the functional skills in which they were in deficit to be able to cope with academic pursuits. Many of these students took on skilful outward signs of logical planning. They almost became like an art form to watch as they moved from one well directed task to another. Many students remediated in this way became more capable planners in future school years than those who were always considered academic successes. My methods worked and the students remediated enjoyed long term benefits

Having reflected, as a practitioner, on the important features of my remediation process as a practitioner, I believe that that the link with my own remediation is quite outstanding. The links were as follows:

Processes of remediation that had benefited me also benefited others with severe learning problems

- I was released from the school system by a quirk of fate due to my fathers work appointment. I am now orchestrating the environment for many needy children.
- · My release from the school system was also associated

with bonding with other significant adults in my life other than parents

- In my Pacific island experience, I was made to feel successful by other adults in my life.
- The islands experience was a sweat release from anxiety and shame that I continually experienced in the classroom.
- I avoided emotional and social punishment of being sent to remedial classrooms and this is what I try to help others avoid by placing the individual in an enviable situation by others around. In Mark's case it was working in the Industrial Arts room, all day. The move becomes a privilege rather than a punishment or loss of face.
- In the islands I was given jobs that had a purpose, for example helping to build schools and making curios, to earn money for the mission. This made me feel important and therefore I seek to help those that I help to feel important.
- While doing the jobs in the islands there were always
 adults there helping me practise procedural thinking
 processes and workplace efficiencies. Since I was able to
 work at my own pace and the tasks were simple, mind
 organisation became a very important aspect of my
 learning.
- In the islands I built my own vision and goals after tasting the results of success. This I provided for Mark K and others I have helped. This comes about by the combination of time to think and time to develop skills that lead to strategy development.
- My experience in early high school made me appreciate
 how important clear procedural pathways of thinking are.
 Mr Harvey, my mentor in early high school, used to make
 mental procedure the most prominent part of my
 learning.
- My own experience as a teacher has made me realise how hostile some teachers can be when students do not understand. I saw first hand, students who had difficulties, wither in ability under the sarcasm of a teacher who could not understand the emotional turmoil produced by not being able to succeed.

- I had been completely remediated from an educational situation where my parents were once told that I had no hope of improvement and that I wouldn't even make a process line. This helped me to believe that a person's ability can be improved where a great majority of professional remediators that a child, who is learning disabled, is disabled for life. They do not aim for complete remediation of cognitive skills but endeavour to teach a watered down academic version of what others are learning. They try to remediate the individual by selecting strategies that involve the same cognitive skills that the student already cannot perform. Such remediators believe that the individual's ability is fixed therefore they must use whatever ability is evident at their first encounter with the student.
- From my own experience with time outside a hostile and demeaning environment I know that a person's ability can change. My Christian theory loading has taught me that our minds can change from a sinful perspective to a Christ-like perspective.
- From my past teaching experience I have become painfully aware that other educators seem to be fixated on their regular school methods of teaching and become insecure, and at times abusive, of those who step outside this model. Many of my early attempts to train consultants, I can see now, foundered on the basis that the consultant would only follow my strategies partially and felt that they had to quickly move back to the generally accepted methods of teaching in order to feel comfortable.

I can now see why I was confident to argue against the remedial teachers and others who believed that taking Mark outside of the traditional remedial model would do him untold harm. From my own theory loading I personally knew that this was not true and that I knew the emotional pressures that Mark was facing and realised that by releasing them I would improve his ability to learn. I can remember that day and the depressed feeling I had while discussing the boy's future. I still remember to this day how I stood out on a limb and pleaded Mark's case in order to free him of the oppression that he was subject to caused by other's ignorance of his feelings.

My personal life experiences gave me answers that worked. whereas other teachers who had been trained in textbook methods. had virtually no success with Mark

In discussing this remedial scenario with one of the academic staff at University, I shared with him my problem

Reading showed me that, quite unwittingly. I had been using a

of trying to explain how my actions have led to so much success. In order to successfully teach other consultants, I needed to provide logical underpinning for those actions. To gain permission, from school authorities, to release students from school, I again needed to be able to explain the theoretical rationale. He sat me down in his office and handed me "Halpern" and said "Read this". For the first time I began to understand the possibility of unwittingly following a cognitive model of remediation. Soon after, I began to read Helga Rowe's work on cognitive development. After further discussing this scenario with another member of the academic staff, I became convinced that both the concept of cognitive development and understanding the process of semiosis would go a great deal towards answering many of my questions.

cognitive model of remediation

Since the information on cognitive development and semiosis is so wide-spread, and offering many pathways of related thinking to my remedial processes, my mind began to brainstorm regarding many ways that each of us could adequately develop cognitive functions throughout our lives in order to cope with our environment adequately. I also began to perceive social changes that were militating against efficient cognitive development

I began devising ways to help people develop cognitive skills. simultaneously I became aware of many social changes that hinder cognitive development

Chapter Conclusion

The insight into cognitive development and the semiotic processes of learning are two promising possible avenues for explaining what individuals are achieving while following the simple practical activities of my remediation approach. A second important insight is a possible reason for trainee consultants experiencing difficulty in attaining results from the remedial approach that I endeavour to teach them. Few teachers realise the tremendous flexibility of strategy that a consultant has while assisting a student on a one-to-one. So many want to revert to the mass education strategies that they are so used to. Unless the concepts of basic cognitive development are well understood the abstract manipulation of mind strategies are difficult to perceive. The emotional experience of being a person unable to cope is another insight that many teachers have never experienced and therefore they underestimate the trauma experienced by such people who, while they have difficulty in learning, are also considered to have difficulties comprehending the implications for their future life. The truth of the matter is that they do understand the implications and the patronising way in which many teachers approach the remediation process offends such people.