‘Look for the Hero inside the Child’

‘Schools are still modelled on a curious mix of the factory, the asylum and the prison.’

(David Hargreaves 1994).

This arresting, but familiar description is, and always has been, more true of secondary than primary schools. Nevertheless, the omnipresent bells, the hubbub at break times, mass movements of people, the sense of it being isolated from the surrounding community - all bring echoes of those unfriendly institutions. Historically, schools in urban areas were surrounded by high walls bedecked by broken glass with notices and lines in the playground, which said: *‘No parents beyond this point’*. In rural and suburban areas, the long drive and the moat of grass would signify a place not unlike a remote island where stranded unworldly people called teachers - a bit like witch doctors - did their stuff and, as parents, we simply hoped that when our children emerged from whatever rituals happened there, they would be reasonably healthy and competent adults.

Recently, the physical and day-to-day images and practices have changed. There are carpets; the bells have gone in some places and pupils are trusted to come in during the lunch break and before and after school. And in a more participative age, when everyone knows their rights - but are perhaps not so certain about their responsibilities - the notion of parents being so trusting is perhaps a little far-fetched
In a world of continuous change where creativity, personal responsibility and innovation are in ever greater demand, the ability of individuals to plan and implement their own learning without external directions has to be the key to success. Eric Hoffer was right when he said “*in times of change learners inherit the Earth while the learned find themselves beautifully equipped for a world that no longer exists”*.

Learners in this sense are basically inquisitive people. We are anxious to make sense of whatever is going on around us, feeling truly, madly deeply committed to solving problems for ourselves. Learning is the consequence of thinking. That reminds me of the story that Michael Barber once told of his own school days at the Quaker Bootham School in York when in a lesson he was idly looking out of the window and his teacher catching young Barber apparently in a state of inattention exclaimed barber what are you doing? The reply was “I was thinking sir.” Witheringly the teacher retorted “Well stop doing that and get on with your work!” Learning is active demanding work and is utterly essential to deal with the contradictions and ambiguities of everyday life in a changing world. It is this kind of learning that results in the development of transferable skills. I don’t know anything about this subject but I know a strategy to find out.

For years the issue of transferable skills has been the hoary conundrum of psychology and learning theory or in my Norfolk background had been “a bit of rum bugger that.” Some children appear to be able to move from one set of problems to another effortlessly and some like Robin over there were about 30 minutes off the pace in finding out who the murderer really was – or did Oscar really exist! New understandings from meta cognition or the ability to consider how well one is thinking as well as what one is thinking about, is giving us some very good insights into the nature of transferable skills. Is this the hero within every child? Can we find

the met cognitive centres and as teachers sort them out? The problem that I have found is that someone external to me exhorting me to “Think Peters Think!” doesn’t really help me improve the quality of my thinking, it reinforces my ineptitude and more importantly gives me a headache.

What does a good thinker do when they address problems that leave me with a headache? Howard Gardner helps here when he describes expert as person in that circumstance thinks about a concept or problem by drawing upon insights from several forms of intelligence. They are doing what so called primitive peoples living in the sophisticated wilds do all the time, they count the problem, they express it in language, the sing to it, smell it taste it, walk around it, they internalise it they talk with others about it

You develop 50% of your ability to learn by the time you are four. You develop a further 30% before you are 8. This is not half of your knowledge or half of your wisdom it means the neurological pathways. Everything you learn throughout your life is built on that base. For us, as educators, knowing and understanding this helps us in our task of bringing the best out in children.

Tony Buzan says that at by birth every child is already brilliant. At the age of three months how do we learn with this piece of paper …..just look at it. No! Tear, crumple, rattle, and eat it! Yes the child is already like Newton! The perfect scientist. ‘What kind of musical instrument is it (rattle), What social and economic value does it have (putting it into the mouth), anybody want some (offer around), what tensile strength does it have? (pull it apart), put it in the chemical lab (chew it)? Does it make good breakfast? Is it in the intelligences that we find our heroes?

Let’s get back to basics…the stone age. The discovery of the Chauvet Cave paintings in 1994 ignited the world’s curiosity about our early ancestors’ capabilities. The Lunar Calendar inscribed on a bone dating back 30,000 years is staggering to the modern mind. Someone living that long ago must be dumber than we are today. In fact my son believes that I am dumber than him because I was born in a time when TV was small screen black and white with one channel and the most popular programme was the test-card followed by Andy Pandy and the Flower Pot Men, no girls only Joyce Grenfell.

Philosophers have speculated about the nature of the mind for a long time but it’s only in the last 15 years that scientific technology has enabled us to study living brains at work. My quest with you today is to find where or what is the hero in every child through reference to the brain. Once we do that bring out the hero in every child is no problem at all!!

Humans are born to learn. What that means we have inherited from way back modes of learning which if we develop help us to make sense of the world around us. During the long span of human history we have got by without schools and despite the fact that the majority of audiences who enjoyed Shakespeare in the 1600s could neither read or write and the 50% of the population which gave birth to the industrial revolution has less than three years schooling we remain preoccupied with the significance of schools, so preoccupied that by the 1950s we were in danger of assuming the only valid learning was that which was formally taught. When academics studied learning they looked at practices of the classroom and lecture halls not the learning of ordinary people shaped by the realities of making a living. ‘Natural’ learning systems – deeply encased in the architecture of the brain where the concern is about apprenticeship type of learning was largely ignored.

The dominant assumptions were

- Intelligence was regarded as being largely innate, as was creativity
- The older the child became the more significant would become their learning
- Learning was seen as dependent upon instruction
- Learning was seen as logical, objective and linear
- Valid learning was seen as that which enabled people to become literate

- Valid learning was seen as formal and measurable
- Basic skills are reading, writing, calculation and acceptance of discipline and control
- Most people did not need higher order skills or show any form of personal creativity
- Learning is dependent upon the technology of the time: talk, paper, pencils, books and now computers

Is this where we find the heroes? Our educational system today has this legacy. This makes it a little more difficult to locate those met cognition centres I talked about earlier.

Transforming Learning

For a more effective model of learning we need to address five issues

- The biological nature of learning
- The science of learning
- Culture and nurture; how our ideas shape our thinking
- The implications of newer and newer technologies that support learning
- Spontaneous, informal and apprenticeship learning: the significance of 'out there'

For the purpose of today I am only going to focus on the biological nature of learning. For some reason, not sure why, the human brain started grow very rapidly through successive generations about 100,00 years ago. As the brain grew so did the skull. This produced a biological problem. A big head means difficult birth, a really big head means no birth – so we die out. The solution was humans are born with the brain incompletely formed and so brain development which in other species takes place inside has to happen outside the womb. Human young are extremely vulnerable. Nature compensates for this by equipping newborn children with an amazing set of predispositions to learn if put into the right environment, as we saw earlier with the piece of paper.

The more we understand about these predispositions to learn the nearer we might get to the mythical hero. Amongst these has to be the recognition of the significance of *emotions in providing a short circuit* in the way in which the brain responds to those things of high emotional interest – a vastly different set of innate responses to those of a more logical and abstract significance. The role of the amygdala, that little almond shaped section within the brain that regulates our aggressions, emotions, sex drive which intentionally bypasses the carefully constructed logical functions that enable us to carry out an array of activities every day. These processes take time, the learned person weighs the evidence and becomes indecisive. I see tiger in the wild, I run from tiger PDQ. Here is an important clue in the workings of the brain and the nature of learning. In many ways emotion is more significant than logic in driving attention spans, shaping action and in memory retention.

In the 2003 Reith lectures Professor Ramachandran described some of the work Niko Tinbergen at Oxford more than fifty years ago. he was doing some very elegant experiments on seagull chicks.

As soon as the herring-gull chick hatches, it looks at its mother. The mother has a long yellow beak with a red spot on it. And the chick starts pecking at the red spot, begging for food. The mother then regurgitates half-digested food into the chick's gaping mouth, the chick swallows the food and is happy. Then Tinbergen asked himself: "How does the chick know as soon as it's hatched who's mother? Why doesn't it beg for food from a person who is passing by or a pig?"

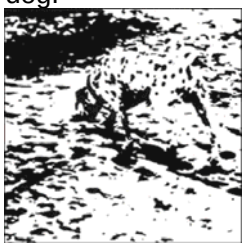
And he found that you don't need a mother.

You can take a dead seagull, pluck its beak away and wave the disembodied beak in

front of the chick and the chick will beg just as much for food, pecking at this disembodied beak. And you say: "Well that's kind of stupid - why does the chick confuse the scientist waving a beak for a mother seagull?"

Well the answer again is it's not stupid at all. Actually if you think about it, the goal of vision is to do as little processing or computation as you need to do for the job on hand, in this case for recognizing mother. And through millions of years of evolution, the chick has acquired the wisdom that the only time it will see this long thing with a red spot is when there's a mother attached to it. After all it is never going to see in nature a mutant pig with a beak or a malicious ethologist waving a beak in front of it. So it can take advantage of the statistical redundancy in nature and say: "Long yellow thing with a red spot IS mother. Let me forget about everything else and I'll simplify the processing and save a lot of computational labour by just looking for that."

In other words the rapidity of learning it directly related to the emotions which somehow save computational time and labour. Ramachandran calls this - peak shift and the idea of ultra-normal stimuli which helps to cut straight to the chase no messing.
His second idea is called Grouping. Many of you may have seen those famous puzzle pictures, like Richard Gregory's Dalmatian dog. You just see a bunch of splotches when you first look at it, but you sense you visual brain trying to solve a perceptual problem, trying to make sense of this chaos. And then after a few seconds, or maybe actually several seconds - 30 or 40 seconds - suddenly everything clicks in place and you group all the correct fragments together, and lo and behold you see a Dalmatian dog.



Richard Gregory's Dalmatian

You can almost sense your brain groping for a solution to the perceptual riddle and as soon as you successfully group the correct fragments together to see the dog, what I suggest is a message gets sent from the visual centres of the brain to the limbic-emotional brain centres of the brain giving it a jolt and saying: "AHA, there is a dog" or "AHA, there is a face".

The Dalmatian dog example is very important because it reminds us that vision is an extraordinarily complex and sophisticated process. And even looking at a simple scene involves a complex hierarchy, a stage by stage processing. At each stage in the hierarchy of processing, when a partial solution is achieved - "Hey it looks a bit dog-like right here" - there is a reward signal "AHA", a partial "AHA", and a small bias is sent back to earlier stages to facilitate the further binding of the features of the dog. And through such progressive bootstrapping the final dog clicks in place to create the final big "AHA!" Vision has much more in common with problem solving - more like a twenty questions game - than we usually realize.

So much so for the very young but what about adolescence? First it is seen as a problem, all those hormones, new strengths, the ability to suck all the food out the fridge at the mere opening of the door and all that anger.
A study in Massachusetts has found that found that adolescent brains show definitively "age related physiological changes" According to the scientists these may help to explain the emotionally turbulent teenage years and their tendency to react on gut instinct. I must remember to tell my 13 year old son when we are in the middle of some blazing row about his bedroom. “Its OK Robin you are just going through age related physiological changes which mean that you are acting on gut instinct”. I fear it would be his instinct and my gut. Somehow I don’t think that I have reached the hero in him but I might be getting closer to understanding.
In the west we have lost something if adults see adolescence as a problem and adolescents see this time as a time of boredom, isolation and disillusion. By contrast there is nothing more inspiring than an adolescent with a vision which is both mentally and physically demanding. Adolescents have energy to spare and a predisposition to apply this usefully. Are we getting nearer to the hero. I will return to this with the Harry Potter lessons of life a little later
In his efforts to find the hero in every child in a mass education world Tim Brighouse suggests a template for reviewing the curricular activities of schools might be one that used the following matrix:

Curriculum

Pupils

- Homework
- E-tutors
- Residentials
- Work Experience
- Day Visits
- Work Shadowing
- Community Service
- Visiting Lecturers from beyond school
- Extensive ICT learning from other countries

Staff

- Secondments to Industry
- In-Service Experiences
- Shared appointments with other schools
- E-tutoring

Parents

- Family Learning
- Adult Education courses
- Parents’ Association
- Parents as educators

Governors

- Use of Community Governors
- Governors from Business/Churches/Local Schools
- Governors of the Month

The items included are illustrative and not an exhaustive list. The key curriculum factor is to bear in mind that its design should always be ‘boundary spanning’.
Too frequently, we still hear colleagues in schools remark: *‘Do you know, them children have never been to the city centre, or London, or whatever?’*. Before we start our task as teachers and as Heads we should recognise it is our role to expand horizons and provide experiences which will literally and metaphorically enable boundaries to be spanned.
So the school that bases its ‘house system’ on the five or six continents of the world and adjusts some of its curriculum focus accordingly is doing just that. When the

school goes further, and uses ICT connections in order to facilitate international curriculum development, debate among pupils and reciprocal visits, it is clearly taking ‘boundary spanning’ seriously. Indeed, the whole development of ICT provides a catalyst to expand horizons. The use of the Internet in teaching allows real time viewing and interaction with foreign countries and we teach languages, geography, history and literature. The use of video-link will shortly add to the e-tutoring from distant places, which some schools are pioneering.

Can the different styles and approaches Time Brighouse offers reach into that heroic figure in every child, the disposition to learn

What Can Harry Potter Teach Us?

Millions of children and parents are reading the high-fantasy stories of hero Harry Potter. The popularity of the Harry Potter books is both disturbing and exciting for us parents. It is disturbing because it shows us how little encouragement our children receive to develop their dreams and vision

Children live in at least two worlds. The first world is their inner experience, feelings, pictures and dreams that make up who they are. The second world is their communities of their most influential people – family, especially parents, and friends, teachers, or church members.

The busier children become in their communities, the less time they have to explore the richness of their own inner life. We want out children to be successful, but not at the expense of their imagination and inner dreams. To be healthy and balanced, to remain emotionally and mentally stable in our high tech world, children must be encouraged to dream about how they are going to be and what they want to do.

The most important point for us to remember is that children never lose their visions and pictures of who they are. Indeed, our joy is to help children's dreams become real!

LESSON 1: Where are our children's dreams?

The four million children and their parents are reading the Harry Potter adventures of magic and friendship in the wizardry school demonstrate just how mundane and boring life has become for most of us. What does that tell us apart from JK Rowling is officially richer than the Queen and still manages to look depressed.

When I taught school, children were always asking me, "Why do I have to do this?" "Why do you think I was born?" "What can I do when I grow up?" They were striving to connect with their inner image of themselves

Today, with our emphasis on outwardly-focused achievement and performance, we rarely give children the time or space to explore their inner world or to discover their dreams for their lives. The children without dreams feel angry and hurt. They seem to go through each day without purpose and direction. They seek their adventure in negative attention-getting behaviours because they have no inner joy. IT DOESN"T HAVE TO BE THIS WAY!

We can bring our imaginations alive again through imagery, breathing, music, storytelling and affirmations. Somewhere in our stretch for success and good grades, sports experiences and science experiments, children may forget their personal vision. The question is how we are part of them remembering

LESSON 2: Help children try on new roles.

When Harry Potter goes to school, he gets to don a wizard's robe, a symbol of his new role and esteem. At Halloween a child tries on different Halloween costumes to get a feel for the different roles. In this process, our children have to imagine themselves as new characters, seeing and sensing how they would fit into situations, and imagine what it might be like to do this or to do that.

In one of those moments, children will latch onto a dream, a picture of themselves that feels great. The question is, how can we help them hold onto it? Somehow, this dream is their connection to the outer world. It is through their comfort in new roles and characters that they will feel their way to success in the outer world. The fact that the devastatingly intelligent and focused PC plod managed to steer an unwilling

audience towards JJ what did some of it, his uniform bestowed on him an authority that made it easy for the massed intelligence of headteachers, officers and advisers to be put down and for the director of education to be told that he is working towards level one in reading!

LESSON 3: Champion your children.

In wizardry school, Harry Potter has a mysterious champion who isn't known to him, at least not until a later time. Every child needs a champion.

LESSON 4: Help your child become a hero.

Harry Potter is a hero. He is loyal to his friends. In his misadventures, he always has the intention to do good and to save the day. Children TODAY identify with Harry's intentions – to do well, to solve the problem, to explore and satisfy their curiosity.

In a moment of self-reflection, ask yourself if you really understand your children's intentions. Or, do you only judge the results of their actions?

Harry exhibits kindness, courage, and friendship. Harry is a hero in his story. All children would like to be a hero in their life story. But they need us to be their heroes and heroines first so they will have a model to emulate. Be a hero for their success, a champion for their dream. Give their vision the breathing space and time to unfold.

Appendix. Thinking School – Tim Brighouse

- Have the teachers, including the Head, analysed their preferred ‘learning style’? Are pupils invited to self-assess their own preferred ‘learning style’ as a matter of course and to understand the implications?
- Is this supplemented by an assessment of their ‘balance’ of intelligence?
- Have all the departments’ co-ordinators in school contributed to a shared ‘Thesaurus’ of ‘Language for Learning’ which acts as a reminder and reinforcer to all learners - staff and pupils alike -of the words and tasks that are essential to learning and improving learning?
- How does the school promote the musical, the visual, the kinaesthetic and the emotional (inter-personal/intra-personal) in opportunities for staff and pupils?
- How is the non-metronomic timetable used for these areas? And the time before and after school?
- How are the ‘beyond school’ experiences in these fields recognised and celebrated in schools?
- Do teachers have a ‘visual, auditory, kinaesthetic’ element to their lesson plans? Are assemblies a similar auditory kaleidoscope?
- How is the literacy hour and the numeracy hour adapted to promote the use of the visual, auditory and kinaesthetic and the use of accelerated learning techniques in Key Stages Two and Three?
- Is the Head Teacher’s learning plan for the year known to all staff, governors and pupils?
- Is her performance management contract too? How does it affect the agreed aims of the school?
- Is that also true of and reflected in, the plans and performance management contracts of departments/co-ordinators?
- How are ‘learning technologies’ harnessed to extend learning and research?
- Is the assessment of pupils’ work "formative" and does it include specific and different targets for improvement? Have the pupils the tools (including target setting techniques and knowledge of learning styles, of accelerated learning techniques and of the next stage in their map of learning) to make progress? Are these included in the targets?
- What is the ‘self-belief’ programme for the pupils? How is it reinforced?
- Does each member of staff have a chance to observe another teach? Is at least part of that observation proposal based on a commonly agreed ‘core’ observation schedule to promote their own ‘thinking skills’ approach to teaching, e.g., using four orders of questions? ‘pause’, ‘prompt’ and ‘cue’ techniques? assessment/marking approach? beginnings of lessons? ends of lessons? VAK approach?
- Is part of the performance contract devoted to extension of the teacher’s learning targets for the year? Is this a combination of ‘outputs’ (e.g., revision of scheme of work) or ‘outcomes’ (e.g., measurable learning/behaviour gain of a specific group of pupils, say, attendance of tutor group/class - scores or tests at end of year).
- Who is the Research and Statistics manager of the school and is that person the leader of the ‘evidence-based’ element of the school’s judgement on progress?
- What is the ‘control group’ experiment going on this year in the school. What is the research element of the school?
- Is at least one department in four devoted to comparative performance of other schools in like circumstances doing better than or as well as the school?
- Does the school adopt stages 3, 4 and 5 in its preview cycle.
    1. Practice
    2. Policy
    3. Monitor

    4. Evaluate
    5. Adjust Practice and Policy?
- Does this inform the thinking of:
    1. staff meetings?
    2. school improvement team meetings?
    3. governor meetings?
- Does stage 3 include both measured data and survey material?
- How do other colleagues perceive ‘boundary spanning’