Good evening. It is both an honour and a pleasure to be invited to give this lecture. I do so with some trepidation. I know I am easily carried away with my own enthusiasm!

Some years ago my wife and I were on a Sunday afternoon walk with our three sons. Our youngest, Tom, who was all of 8 at the time, was holding my hand. Suddenly he looked up at me.

"Daddy, how do little children learn to talk?"

I was so fascinated by his question that I delayed a split second too long in my reply.

He looked at me reproachfully.

"I think that’s a pretty simple question but I bet you’ll give me a long and complicated answer!"

I will do my utmost to avoid that this evening.

My first sight of Dublin was from the deck of the Liverpool mailboat as it entered the Liffey way back in 1949. I was 10 years old, and highly impressionable. In the early morning mist the Sugar Loaf stood out like the magic island of Bali Hai, bidding me welcome to my first ‘foreign’ country. The horse-drawn cabs at the quayside seemed the perfect solution to an England of petrol rationing; little meat and fewer sweets! Five years in Trinity in the 1960s and nearly 20 years as part owner of a small farmhouse on the shores of Loch Derg in Co Galway, turned my fascination into a deep, and I hope mature, love of all things Celtic. While I don’t return to the land of my fathers, I delight in returning to the land of my intellectual and spiritual origins.

I wish to speak to the somewhat provocative title of “Over-schooled and Under-educated”.
Right at the start I must reassure you. This is not to be an attack on schools, nor will it in any way seek to diminish the role of teachers. You must understand that I, as a onetime teacher, believe, as did the Ancient Greeks, that the education of the young is so important that only the wisest members of a society should be entrusted with their nurture. Nevertheless, my belief in the importance of my profession has never prompted me to minimise the importance of parents. We teachers tend to see individual children for only a few of the dozen or so years they spend in school. Furthermore we see them, in the main, in the context of a classroom.

I need to share two thoughts with you. It has only been in the past 150 or so years that ‘school’ has figured largely in human experience. While it’s true that the human brain is the most complex organism in the universe, and that brains are all to do with learning, please remember that, for 99.9% of human history our brains have been shaped by learning-on-the-job, not by out-of-context instruction. Schools, even now, are not the only place where people learn, and many cognitive scientists see as many limitations in classroom-based instruction as they see opportunities.

Abraham Lincoln was an outstanding President of his country, yet he had only a year’s schooling. In the 1620s a million or so visits were made to the London theatre by people willing to stand for 3 or 4 hours to watch a Shakespeare drama but, and it’s a staggering thought, less than half of them could read or write. But they were intelligent and shrewd observers of the human condition. Never assume that learning and schooling are necessarily synonymous.

Now a simple statistic. However you do the calculation, there is no child in an OECD country who, between the ages of 5 and 18 spends more than 20% of its waking hours in a classroom. Once you have allowed for weekends, holidays and time before and after school each day, you can’t get that figure any higher. Fully three-quarters of a child’s waking hours are not under the direction of a teacher. To a greater or lesser extent, if they are under the direction of anyone at all, they are under the direction of parents.

I chose the title of this evening’s talk because, after 36 years as a teacher – and as a teacher who I hope always strove to do the very best he could for his pupils – I believe I should ultimately be judged not by how well I did as a teacher but how good I was at being a father of three sons.

I hope there is nothing priggish or self-congratulatory about that statement. As both a teacher and a father I have often made awful, embarrassing mistakes. Yet it is parents who are there before a child first encounters a teacher; it is they who are around in the
evening, at the weekends and during the holidays. It is we parents who need to be there at 3 o’clock in the morning when an anguished teenager comes face to face with a reality they can’t stick. Or we should be.

Tonight I want to examine a range of research into just how it is that we humans learn to develop our intellectual, practical and social skills. Only when we understand better how learning takes place can we see the appropriate balance needed between the home, the community and the school.

Children are born inquisitive. The more stimulating the environment the more questions a child can ask. The more diverse that environment, the more the young learner comes to appreciate the complexities and the ambiguities of life. Our brains are predisposed to look both at detail, and at the big picture. Peripheral perception is a survival mechanism. In times long past if any one of our ancestors became just too engrossed in chipping a flint to produce a perfect axe edge he would never have noticed the bear creeping up behind him. By and large it’s the genes of successful learners that are transmitted to the next generations. Ineffective learners – those who can’t see the wood for the trees – simply die out.

You had better be clear about what I mean by ‘education’. I take the Latin word ‘educare’, not only as the root of the word ‘education’, but also as defining its fullest meaning. ‘Educare’ meant “to lead out”, in the sense of a Roman general leading his troops from the security of the camp onto the open field of battle. Knowing that his soldiers had been well trained such a general was confident that they could apply such learning to the complex challenges of a tough life. They had been prepared both to stand on their own feet and to work as a team. They knew what was good about tradition, but they also knew how new traditions were made. That’s what I mean by ‘education’....preparing young people to become capable adults who can stand on their own feet, and can do better than their teachers.

Eric Hoffer expressed this brilliantly when he said “In times of change learners inherit the earth while the learned find themselves beautifully equipped to deal with a world that no longer exists”.

During the last 20 or 30 years research in cognitive sciences, neurobiology, evolutionary studies, genetics, and systems theory has started to explain just how it is that the brain makes up its mind. We are understanding better how our preferred ways of doing things have been shaped by what Henry Plotkin, Professor of Psychology at University College
London, calls “evolution in mind”. Psychology, he argues, has been slow to recognise that our brains are as much shaped by evolution as are other parts of our anatomy.

The easiest predisposition to understand is the young child’s ability to learn language, apparently spontaneously. By the age of 3 or 4 children have little difficulty in speaking their own language, while those who live in multi-ethnic environments can frequently speak 2 or 3 more languages by the age of 5. In comparison to the difficulty I had in learning Latin at the age of 16 the young child’s ability to learn language seems amazing. It is.

We now know some of the reasons why this is so. In the ancestral environment from which we came life was highly precarious. To increase the chances of survival people banded together into small groups and, in their search for new food sources, became of necessity nomadic and collaborative. We humans evolved as a “small group” species, happiest, it seems, when we work in teams and multi-task. It is no accident that cricket and soccer teams have 11 players or that there were 12 disciples, or that a jury comprises 12 people. Indeed, when more than 15 people make up a nation’s Cabinet they frequently split into warring factions. Add dependents – women, children and the old – and our ancestors frequently had to deal with no more than 60 people in a lifetime.

Latest research suggests that humans first developed the ability to speak about 130,000 to 150,000 years ago. It was something to do with the way the larynx – the voice box – moved just far enough down the throat that we were able both to breathe and control the sounds we made, all at the same time. Coincidentally, by that time our ancestors had learnt how to make fishhooks – so for the first time fish in significant quantities entered the human food chain. Fish are rich in amino acids and the brain desperately needs such fatty acids to create what is called “neural sheathing”. Very simply, this improved the insulation around the dendrites, which largely keeps ideas flowing in the preferred direction.

Once humans learned to talk we developed the most awesome new survival techniques. Let me explain. The person who can’t talk, and can’t understand what is said to them, is totally dependent on their own experiences to guide their actions. They know nothing they have not personally experienced. But the person who can talk can add enormously to their own experiences by adding the ideas told them by others. Language enable us to develop a kind of “group brain” – our thoughts are more than just our own experience.

Every child is born with this generic language predisposition. Just what they do with it depends on the culture into which they are born. Research four years ago carried out by
the Kellogg Foundation in Michigan into what are the best predictors of success after the age of 18 showed that it was the quality and quantity of dialogue in a child’s home before the age of 5 that was four times more significant than any other factor, far more significant than either the primary or secondary school. In reality our ancestors knew this long ago. St. Augustine was said to have remarked “I learnt most, not from those who taught me, but from those who talked with me.” That monk understood the proper balance between formal teaching and spontaneous learning. This is the balance we have to regain.

For the past six years I’ve been the President of an international research foundation, networking the findings of research in various disciplines. You can find it on our website www.21learn.org.

Marion Diamond is an eminent neurobiologist from Stamford. She was one of the team who carried out the autopsy on Einstein’s brain. As a young doctoral student she worked on rats’ brains (which, disconcertingly, have distinct similarities to the human brain). Not being rich she had to carry out a lot of her work at home where she was also bringing up a young family.

She did what is now a standard research procedure. She had two cages of rats, one containing toys and one without. Every week she took a rat from each cage and examined its brain. Week after week she weighed these brains. Consistently the brains from the rats in the enhanced environment (the ones with toys to play with) were 10% heavier than those of the other rats who had no playthings. This was the result she had expected. Not that brain weight is an exact measure of intellectual potential, but it’s a guide.

Unbeknown to Marion, her children thought the whole experiment was very unfair on the rats, so they started a rescue mission, releasing a number of rats over a period of several weeks and letting them have the run of their own bedrooms. When Marion discovered what was going on — good scientist that she was — she realized she now had a third colony of rats to study. Unbeknown to her children she then started to collect free-range rats from the children’s bedrooms. She carried out the same experiment. Much to her delight and to her scientific satisfaction — and, yes, you’ve guessed it – she found that these free range rats had brains more than 10% heavier again than the artificially stimulated rats, and, of course, more than 20% heavier than the rats in the sterile environment. Rats, if you like, need more than the simulated activity of the classroom, as do human youngsters. Early learning is as much to do with the emotions as it is with the intellect.
Let me give you a simple analogy. Many of you will remember, not so many years ago, that when you bought a new car you could never go more than 30mph for the first 500 miles. To your chagrin you had to display a warning “Running in – please pass”! Then for the next 500 miles you had to keep to 40mph and so on. When eventually the engine was run in you could drive as fast as you liked. But woe betide the well being of your engine if you tried to go too fast too soon. Those first 2000 miles of driving were, literally, a matter of testing and rounding off the edges.

The brain is just like that too. Very few of you will remember anything from your first three years of life (other than highly traumatic events). For long years academics and educators took this to mean that such years were not particularly important. That was a terrible mistake; these are the years in which the brain is running itself in, and it’s on the quality of this experience that future learning depends.

Very recently neurobiologists at San Diego have started to use non-invasive functional MRI scans to look at the way children’s brains develop below 18 months of age. Their initial findings are intriguing. Those youngsters who come from homes which, in terms of mental stimulation, could be thought of as largely sterile (too much unsupervised TV, few toys, virtually no reading) were found to have very linear dendrite structures with relatively few interconnections. However, those children coming from homes where there was a variety of stimulation and talk had an early dendrite structure that was full of bifurcation and interconnection. Einstein’s brain was not found to have been extraordinarily heavy; what it did have was an exceptionally large number of glial cells that facilitated multiple bifurcation of the dendrites. It’s the making of connections that is so important, and the earlier children start doing this the better brains they will build for themselves.

The work of Howard Gardner on Multiple Intelligences is well known, but not so well known is the vastly significant work of his colleague, David Perkins. In his 1995 book “Outsmarting IQ: the emerging science of learnable intelligence”, Perkins challenges even more profoundly our conventional beliefs about the innate, fixed notions of intelligence. Intelligence itself, Perkins and many other cognitive scientists are quick to admit, is hard to define but we are all quick to recognise someone who behaves in an intelligent manner.

Intelligent behaviour, Perkins argues, is due to three factors. Firstly, there’s no denying that some people are born with better brains than others; part of intelligence is unquestionably genetic. Part, however, is due to environment; we learn to act intelligently as we become even better attuned to our surroundings. Perkins attributes between 50 and
60% of what we mean by intelligence to genetic factors. He attributes up to 20% to experiential factors. That leaves between 20 and 30% for what Perkins calls Reflective Intelligence, or good “mindware”. In the development of Reflective Intelligence Perkins and others see great hope for our societies. People who learn to ‘think well’ develop skills that are not simply tied to a single context. Thoughtful people grow their intelligence; they think as well outside the box as inside it. “Nouse” – good old fashioned applied commonsense – is one description of Reflective Intelligence. So is the word gumption.

Gumption.....another good homely word, leads nicely into the issue of Creativity. Creative people fascinate me. I always looked for really creative people to appoint as teachers in my school. Usually, however, within a couple of weeks I was regretting this. You can probably guess why! “People with gumption,” says an American text, “are willing to break the rules, not because they are anarchists, but simply because they feel the old rules no longer work for them. This single-mindedness is difficult for parents and teachers to tolerate, but it’s the key to how children develop expertise and confidence.”

As a society we should treasure creativity. Creative solutions most frequently arise on the boundaries between order and chaos. Creative people have to have space to go off in unpredicted directions. Systems find this frightening; they can’t cope with things that don’t ‘fit in’.

Schools, whether we like it or not, are mighty complex systems.

The British Government, as with other nations, has laboured hard and long for many years to improve its schools. Millions upon millions of pounds later (and tons of examination papers) still left the Confederation of British Industry very uncertain, in 1998, as to whether the next generation of youngsters would really be able to stand on their own feet.

Tony Blair set up a National Commission on Creativity. It drew from the work of many good thinkers. Eventually the report went to the Prime Minister. For 8 months there was no response, and then it was released with the mutest of publicity. Why? “The traditional academic curriculum is not designed to promote creativity,” stated the report. “Complaining that the system does not produce creative people is like complaining that a car doesn’t fly.....it was never intended to. The stark message, nationally as well as internationally, is that the answer to the future is not simply to increase the amount of education, but to educate people differently.”
I learnt a lot about learning when I was young. My parents had an old man – MacFadgen was his name – who used to come in every Friday evening to do odd jobs. He was a great age – well over 80 - and I was only 8 or 9. He had served his apprenticeship, as a carpenter in the Portsmouth dockyards in the 1890s but by the time he qualified the Navy didn’t need carpenters. So, even though he had hands like a surgeon’s, he ended up as a stoker throwing coal into the boilers of battleships. To maintain his sanity, every cruise he ever went on he took his carving tools with him and bits of old oak, or ash, or holly. Every port he visited (or so he told me!) he looked for the most beautiful girl he could find and then spent the rest of the cruise carving her as a ship’s figurehead, some 6 or 7 inches long. By the time I met him he had several crates full of such carvings. Every Friday evening he brought several to show me. I was enthralled.

"Do you want to learn to carve?" he enquired one evening.

You can imagine my answer.

"Well, before you start," said old MacFadgen, "there are 2 lessons you have to learn. First of all you must learn how to sharpen your chisels; secondly you have to learn to understand the grain of a piece of wood."

For weeks I struggled with those chisels and for weeks my little hands sought to get the better of the grain. Then one day he smiled and said, “Now you’ve mastered those skills all you have to do is practice and by doing so develop your own style.” Like the Roman generals of old he understood education as a process of bringing me out of myself, and then getting me to prove my skill.

For the next three years I whittled away to my heart’s content. Then I went away to a very conventional English boarding school. The curriculum was traditional and formal. There was no carpentry. I largely drifted through those years but kept on whittling away in my spare time. I passed all my exams except Latin. I was bored, but I think the teacher was even more bored because he spent all his time telling us how he won the war, single-handed, in his silly little tank in the north African desert!

I failed Latin not just once but three times. I was coming up to what would be the fourth and final attempt when the school’s odd-job man took me to one side and told me I had been selected to represent the UK at an international woodcarving exhibition. I was the best schoolboy wood carver in the country. My self-esteem shot to the top of the scale.
Two hours later it crashed when I realised that the headmaster would take no notice. This was neither a Rugby result, nor an Oxbridge scholarship, nor a debating trophy. By the standards of the school, carving didn’t matter. But it mattered enormously to me. In my 17-year-old mind I easily rationalised the situation: the reason I wasn’t passing Latin was because I wasn’t in charge. That afternoon I did something very unexpected, the kind of thing I guess teachers across Ireland hope won’t happen to them. I went to see my Latin teacher. “Because I have to pass Latin in 6 weeks time,” I announced with uncharacteristic confidence, “I’m not coming to any more of your lessons. I’m going to teach myself.”

No one had ever rocked the boat like that before! No member of staff knew what to do (maybe that was partly because I was taller than any of them!), but I knew that my head was on the block if I didn’t pass! I worked as I’d never worked before.

It’s amazing what you can squeeze into 6 weeks! Into my short-term memory I put all of Caesar’s Gallic Wars Books 1 and 2, significant sections of the Aeneid and all my conjugations and declensions. I passed that Latin exam with flying colours.

Six months later I’d forgotten the lot and became highly sceptical of exams. But I still carve. And I learned an incredibly important lesson: learning and schooling are not necessarily synonymous. It was at that moment that I decided to become a schoolteacher. I was so excited about discovering my own expertise that I wanted to share this with other people.

On completing my degree at Trinity I applied to stay on for another year to do a Higher Diploma in Education. But when the course started, I wasn’t quite so sure. Teaching practice at Dublin High School, when it was still in Harcourt Street, was interesting enough but the lectures on educational theory seemed impossible to reconcile with my own learning experiences. Endless lectures on the work of the Russian psychologist, Ivan Pavlov, with his work on dogs’ salivation (and the theory of conditioned response that this led to) left me dismayed and I have to say, depressed. I almost decided to go off and find another career. I expressed my frustrations to Professor Crawford. “Stop,” he cried, as I prepared to flee the room. “It’s impatient people like you that education needs. We have a pretty rotten system for most young people and someone is going to have to do something about it. Educationalists don’t have the nerve to do it. It will need people who understand life as well as schools.”

I stopped in my tracks.
That the professor recognised that the system was faulty, intrigued me. With his experience he ought to know what was what. The fact that he thought I might do something about it both troubled and excited me. So I decided to give teaching a try. With the limited experience of teaching practice in Harcourt Street and having led three expeditions of teenagers to the Hebrides, I had the audacity to apply to teach geography at Manchester Grammar School.

It was a thrilling place in which to serve my apprenticeship. At the time MGS shared with Winchester the reputation of being the most academic school in England. Classrooms hummed with activity. At the end of the day numbers of youngsters would invariably stay behind just to talk – they, perched on the desktops, I lounging against the window. What might have started as a query about geography frequently led to questions of philosophy, politics, and religion. The syllabus was a guide, but in no sense was it carved in stone. To digress was not a sin, but an objective.

The longer I was at MGS, however, the more suspect I became of the way – quite unconsciously, I believe – a good school appropriated more and more of a youngster’s life. There was so much that could be done – school plays, debates, sporting fixtures, field trips, orchestra, clubs. The list was endless. The students, it seemed, went home simply to sleep.

My moment of truth came several years later, and in the most unexpected of places. For the third year running I was leading an expedition of 17-year-olds in the mountains of southern Iran. We had been moving with the nomads on their annual migration. One evening the tribal chief, a Bedouin, who closely resembled pictures of Abraham I remembered from Sunday School, asked through an interpreter for permission to put an awkward question to me. I assented readily. “Tell me,” he said, “we appreciate these fine young men you have brought from distant England. But we have a difficulty. Why aren’t they in their own homes, working alongside their parents, learning the wisdom of their elders as they work?”

He was right. It WAS an incredibly awkward question to answer – the culture gap was just too great.

I would have forgotten all this, however, had it not been for another conversation an hour or so later. One of the boys, a tough lad from Oldham in north Manchester, came to see me. He was distressed. Something was very obviously amiss. “I heard the question the chief asked you. It really hurt me. I’m sure my dad loves me but I hardly know him. You see, when I get home in the evening I’m too tired to talk much. And my dad gets so tired
in his job that he rests or sleeps most of the weekend. I know he loves me and my sister, that’s why he works so hard. But there’s an emptiness in my life; I just don’t seem to know my Dad. I feel like I’m incomplete.”

I’ve never forgotten the 30 seconds it took that 17-year-old to say that. The word ‘incomplete’ haunts me still. I’m convinced it’s a clue to all the uncertainties of adolescence. Adolescents feel, deep in their evolutionary conscience, that something essential is missing.

As a parent and a teacher there is no age group that fascinates me as much as adolescents; that restless, ever questioning, bombastic but extremely vulnerable energy that never stands still long enough for us to define! In years gone by every tribe or small community was ultra dependent on this bloody-minded energy for its survival. Adolescents played an essential role in those societies doing things that older, more sober-minded, adults would no longer do themselves. George Washington was appointed Surveyor general of the Dominion of Virginia on his 17th birthday; the average age of Spitfire and Hurricane pilots in the Battle of Britain was 19 and a half, and more than half of those killed in the American Civil War were below the age of 20.

Nowadays we tend to speak not about adolescents, but about teenagers. Teenagers as a group only became obvious enough for inclusion in the Oxford English Dictionary in 1954. It’s a recent concept. Let me explain. In 1900 the average girl started to menstruate at about the age of 19. Now, with better food and health care, menstruation frequently starts shortly after a girl’s 10th birthday. In 1900, most boys were sufficiently well established in a job by the age of 20 that they could afford to marry and start a family. The gap between childhood and becoming a fully responsible adult was measured in months rather than years.

But not now, not in the year 2001.

In an attempt to continuously ‘professionalise’ adult employment we often argue that a young person should not go into work until he or she has both a university degree and some form of post university experience. Full-time jobs for many don’t start until 22, 23 or 24. The gap between being a child and full adulthood has lengthened to nearly 15 years.

Teenagers are a by-product of contemporary society; a society so determined to get the most out of life now, that we no longer have the time or the inclination to provide
adolescents with apprenticeships that will fit them for a more distant future. We don’t quite know what to do with teenagers any more; their energy so often goes to waste.

Frequently their ostentatious confidence antagonises the older generations, and they bore themselves with self-indulgence. They don’t have a role in society that is in any sense useful. They really do feel incomplete. And so do we, as we realise that we are no longer part of that interconnected world that was our ancestors’ way of transmitting the wisdom of the ages.

At one point in my career at MGS I was invited to give up teaching for a year and to travel around the world raising money from old boys to rebuild the school. To a 24-year-old this was an amazing opportunity. In just over a year I met some 3000 ex-pupils of one of the most elite schools in England. I was amazed and disappointed, for many of these boys had not grown to be the men I had expected to meet. “At school, if we did as was expected of us, we shone,” explained one. “Somewhere or other it was different at university. There we were left largely to work things out for ourselves, and that we were not so good at doing. I guess we were over-taught at school. We were too dependent on the teachers. It would have been better for me if I’d learnt more about working things out for myself.”

I noticed something else. Few of these men held the top jobs in their organization. They were, in civil service terms, deputies or assistant secretaries, deputy chairmen not chairmen. Few were entrepreneurs, but many were professors.

“You know,” one such professor confided to me in Vancouver, “I wish I’d been more like my younger brother. He failed the MGS entry exam at 11. He was so annoyed, he resolved to go off and make his fortune on his own. He did, and he was very successful. I’d never have had the nerve to do what he did – I haven’t got that confidence. Now,” and he paused obviously holding back much that was deep within him, “he’s retired at the age of 50 and is living very well indeed. I’m nearly 10 years older and when I eventually retire I’ll have nothing like the living standard that he has achieved.”

Confidence. That ability to feel good about yourself. Where does it come from?

Several times in my teaching career I’ve had the opportunity of observing 2 or 3 youngsters who, in school terms, have level-pegged each other right through their school years. Then, years later, I’ve been able to see what has happened to them as adults.
Without divulging their names I must tell you that, in every instance where one of them
did really well, it was the one who came from a home that was stimulating, where
challenges were regularly thrown out and taken up, and where the family ‘multi-tasked’.
Life for such youngsters had never been dull.

But in those instances where the adult failed to develop what we teachers had seen as a
precocious early ability, the one common factor was that they had come from safe,
predictable but unchallenging homes. Excitement, fun, and the unexpected had been
totally absent from their early years.

There is a great research topic here, waiting to be started.

Long before I became a headmaster, I knew from hard experience that it was the child
who came to school already enthusiastic to make sense of issues that matter to them
personally who takes from formal schooling whatever it can offer to help them meet their
personal objectives. It’s not the other way round, however hard the school might try.

The greatest incentive to learn is personal, it is intrinsic. That is why a caring, thoughtful,
stimulating life – a life of manageable, child-like proportions – in the greater community
is so vitally important. Vitally important, that is, both to the child and to societies such as
our own that are so dependent, year after year, on the continuous, restless energy of the
next generation of young minds.

That is why society has to realise that streets that are unsafe for children to play around
are as much a condemnation of failed policy as are burned out teachers or inadequate
classrooms.

For 13 years I was Head of a large English comprehensive school. It was a good school
by the exam standards the public likes to apply. But to me it seemed that its success was
bought at the price of too many young people feeling they were only second rate.

I tried to change the culture. At one stage I was told that we had more pilot projects than
there were aircraft in the entire Royal Air Force! I felt myself being pulled in every
possible direction. It took me a while to realise why.

It was a lesson I had to learn from a colleague in the primary schools. Those of you
immersed in schools will know that secondary heads find it hard to accept advice from
the primary sector. But it was what I needed.
I had earlier noticed that pupils coming into secondary school at the age of 11 could relatively easily be classified into two groups. This was in the mid ‘70s and Hertfordshire, where I was then head, had invested heavily in Plowden-type experiential primary schools. About a third of our intake came from such schools. For the most part they were bright-eyed and bushy-tailed; learning to them was exciting and they were pretty much self-motivated.

The other two thirds, however, came from fairly old-fashioned schools. They were well disciplined in terms of learning their tables, they knew where Uganda was on the map, and who invaded who in 1066 and 1944. By and large they were quiet in class, and didn’t ask too many questions. In horse breeding terms they had already been ‘broken in’, whilst the others were young colts delighting in their newfound skills.

The old grammar school staff knew how to work with the traditionally educated pupils – the ones who had been ‘broken in’. They could easily test them in terms of English and mathematics, and they delighted to describe them as ‘gifted’ or ‘below average’ or even as ‘remedial’. Once labelled, of course, the description tended to define the child for his entire school career.

The Plowden-type children were nothing like as easy to define. Not only did they not sit still in a literal sense, their interests and abilities often ran off in very different directions. Their faith in themselves was strong, and the urge they had to work things out for themselves, ruled their every action. Their behaviour intimidated the established staff who found this openness and enthusiasm hard to cope with.

It took the primary school Head to point out the obvious to me. “Don’t you realise that, in the best of the primary schools, we’re trying very hard to give children the skills to think, and to work things out for themselves? It seems to me that you in the secondary schools – although you try to deny this – willingly accept the artificiality of single subject disciplines. It makes it easier for you to teach – but that is NOT the same as being good for learning. Instead of giving children the skill to work things out for themselves you overload them with content.

“The integrated view of knowledge that the primary school has tried so hard to develop is all too easily lost in the secondary school. Pupils do as they’re told because they’ve been conditioned into accepting that teacher knows best. The individual no longer feels responsible. That’s terrible…..the secondary system stands condemned for destroying, in the minds of so many young people, that vital attribute of personal responsibility. Many
youngsters never recover because they see learning as associated with failure, and this bugs them for ever.”

I came to understand that argument very well. While it gave me no comfort, it did fire my determination to do what Professor Crawford had urged me to do more than a dozen years before - to accept that we had a pretty rotten system. Yet, as I looked across my staffroom I saw that the vast majority of the teachers were highly conscientious, well-qualified and very caring people. How could I rationalise my conviction that while the system was wrong, many of the people working within it were doing the best job they could?

Slowly the reality of the 1980s dawned on me. Economic and social change was proceeding at such a pace that the parents as well as teachers were becoming stressed out. The support the school would have called on from parents only five years previously was fast disappearing. The statistics, not only from England but also across the advanced countries, were starting to tell a grim story.

In his seminal study on adolescents, published in 1984, Mihaly Csikszentmihalyi, the Chairman of the Committee on Human Development at the University of Chicago, noted that, on average American fathers were, at that stage, spending less than 5 minutes a day in solo contact with their adolescent children. As Patricia Hersh states in her study “A Tribe Apart”, published only 3 years ago, “the most stunning change for adolescents today is their aloneness. The adolescents of the 90s are more isolated and more unsupervised than [their predecessors]…..not because they come from parents who don’t care, from schools that don’t care, or from a community that doesn’t value them, but rather because there hasn’t been time for adults to lead them through the process of growing up.”

Hindsight has its limitations, but in 1985 I was already convinced that the problems young people faced as they grew up were at least as much a reflection of the uncertainties in society as a whole, as they were about the often cited “crisis in schools”. 1985 was the year I resigned my headship to enable me to concentrate on getting more people to recognise that good schools alone can never be good enough to equip young people fully for the challenges of modern life. School and Community had to be linked to a renewed search to release the grandeur of human potential.

Twelve months before a very wise American, Ernest Boyer, then President of the Carnegie Foundation, expressed it perfectly: “To blame schools for the rising tide of
mediocrity is to confuse symptoms with disease. Schools can rise no higher than the expectations of the communities that surround them.”

Just what are these expectations?

For a moment or two let me take you into an aspect of economics that I find very troubling. In the past twenty years the world has discovered globalisation. Living standards, especially in the west, have risen dramatically. Increasingly, however, we feel that we are on a treadmill; the more we work the more we can buy. Then we fall foul to the advertising industry and rush out to buy still more. Then we work still harder. Greed is no longer seen as a Deadly Sin, but rather as the essential driver of economic growth. Often it makes us miserable.

A most perceptive piece of research by two American professors – Bell and Freeman – shows that the greater the differential between the very rich and the very poor in a country, the greater is the willingness of other people to surrender their own private time to make more money. In the United States, where the differential is greatest, 60% of the population said that they would give up even more time to earn more money, even if this were to interfere with their private lives. In Germany, where the differentials are lower, it was only 37%. In England it stands at an alarming 55%. Where stands Ireland? I hope you are coming to accept that children’s’ informal learning experience is not only very important, but is being put at risk by the economic imperative for everyone to be evermore productive. If so I must take you deeper into a reality that few wish to acknowledge.

It’s really very simple. We’re all on average living longer, but we still wish to retire at 60, 62 or 65. We therefore need more money in our pension funds. Pension fund managers pressurize businesses to be ever more productive. That means those people of working age have to work even harder. This is particularly true of those workers in their late twenties and thirties – their skills and energies are very good for business. With an ever watchful eye on economic productivity governments all over the world are encouraging young mothers to return to the workplace directly after the birth of their child. One moderately paid ‘childminder’ (how I dislike that term!) can release 6 or 7 well qualified adults to return to work. To the economist the logic is faultless — it’s the best way to increase productivity and so fund pensions and investment.

Look this issue straight in the eye.
If a country, be it England, the United States, or Ireland wants to create a society in which the provision for young children is good both in the home and in the school, this can only happen at a cost. The choice is waiting to be made.

The equation is simple, but the difficulties of the implementation are enormous.

If young parents are to have the time and resource to be good parents, then the rest of the population will have to work significantly longer before they retire. Does the Celtic Tiger have sufficient faith in the future to shape its social policy in the interests of its cubs?

In a sense we have to go back to the future to regain our balance. We have to recognise – indeed we have to shout it out from the rooftops and the church steeples – that schools can’t do in 20% of a child’s working hours that which the community is no longer doing in the remaining 80% of those hours. Csikszentmihalyi again: “In all societies since the beginning of time adolescents have learned to become adults by observing, imitating, and interacting with adults around them. The self is shaped and honed by feedback from men and women who already know who they are, and can help the young person find out who he or she is going to be.”

Ladies and Gentlemen. Heed this warning. The proper education of our young people is our greatest responsibility. You cannot, nor should you even try, to delegate all of that responsibility to schools to do on their own.

Several years ago a conference on this theme was held in Jordan. Many Arab nations attended, conscious of their rapidly burgeoning birth rates. The discussions were long, the conclusions desperately vague. As the participants got up to leave, a woman leapt to the stage. “There is one thing we could all do,” she shouted at the departing delegates. “We can put up posters in every village in our different lands stating “Education is too important to be left simply to the ministry of education”.

I rest my case.

Thank you.