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Thinking Headteachers, Thinking Schools

How three headteachers are leading their schools towards becoming communities of enquiry

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SUMMARY PRACTITIONER ENQUIRY REPORT

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Foreword

School leaders have always looked for ways of doing their job better. Even though their job has been externally constrained and prescribed, they have needed to create a vision and make it work in their schools. Much of the best in creative innovation is locked within the heads of individual school leaders and within individual schools. The purpose of the 'Thinking Heads' project was to enable three school leaders to share their enquiry into ways of creating thinking schools and communities.

What creative school leaders are engaged in is not just school improvement, but transformation through planned innovation. The way to spread that innovation and good practice is through research networks or communities of enquiry that question, reflect and report on professional practice. In this study, three heads explore ways of transforming the approach of students and teachers to teaching and learning in their schools and within the wider community, and reflect on ways to sustain those changes.

The key to innovation is the question: "How can we add value to what we do?" The key to transformation is: "How can we add value to *all* that we do?" Incremental change – the adding of a strategy here, an improvement there – is not enough to have a significant effect on school culture. New approaches are needed to the whole school and to ways in which teaching and learning take place, if schools are to be transformed into thinking schools. Key questions in this process are: "How do we create a school culture?", "How do we lead a community of enquiry?", "How do we lead and sustain change?"

What is clear is that change requires passion – what one of the heads calls "fire in our eyes". It also requires moral purpose and resilience, as well as the recognition that school leaders must themselves model being active learners, and that all involved in a school should be made active partners in creating a community of enquiry. This report models that process and the passion that underpins it.

Robert Fisher
Professor of Education, Brunel University

Introduction

In 2002, Professor Robert Fisher led the first Leading Edge seminar entitled 'Creating a Thinking School' at the National College for School Leadership (NCSL). He drew upon research carried out in recent years into what is commonly referred to as thinking skills, as well as the research carried out by Black and William into assessment for learning. Central to his concept of the thinking school is the challenge to "raise achievement and the capacity to learn". The following were some statements that shaped his view of the thinking school and helped motivate our research:

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- "Without vision, the people perish."
- "Passion and commitment cannot be bought by money."
- "Unless we feel this vision, it will not be enough."
- "If we live in a world of targets, where achievement in numbers are our vision, we live in a world of failures."
- "The mind is more like a rainforest than a computer."
  Fisher (2002)

The concept of the thinking school raised many questions. Of these, "What defines a thinking school?" intrigued us and provided the basis for this research enquiry. With help from Robert Fisher and NCSL, three headteachers from contrasting schools came together to research and try to define the factors that contribute to creating and sustaining a thinking school.

The heads involved have all devoted considerable time and effort within their schools to principles, policies and practices loosely defined as thinking skills. These include such thinking frameworks as philosophy for children, accelerated learning and 'mantle of the expert'. The group was therefore predisposed to the notion that creating a thinking school is an achievable goal. This work then lies open to accusations that the researchers "only find what they were looking for". It is, therefore, offered as a story that readers can use to draw their own inferences, reflect on their own practice and construct their own relevant conclusions.

This study tells the stories of three school leaders investigating the ways they developed and sustained the ethos and practice of a thinking school. It also examines the role of the thinking school in relation to the wider community. Findings from this shared enquiry are discussed and some conclusions drawn. As in any community of enquiry, the investigation begins with some key questions and ends with suggestions for further research.

This study investigates the following key questions:

- How is a thinking school created and led?
- How is the community of enquiry sustained?
- How do we extend the school culture into the community?

We sought to answer these questions first by looking at what others have said and then by telling our own stories. We go on to describe the research methods we used to investigate what others in our school communities thought and felt. We summarise what we discovered through this process of reflection and research, and discuss the key themes that emerged. In our conclusion, we try to put it all together. We identify some key features that emerged from our research, as we see them, and share some questions for further investigation and research into ways of leading and sustaining thinking schools.

What the papers say

In 1998, Carol McGuinness of Belfast University was commissioned to review and evaluate research into thinking skills and related terms. The purpose of this review was to analyse what was understood by the term thinking skills and their role in the learning process, to identify approaches to developing children's thinking and to evaluate the effectiveness of these approaches. She concluded that there had been sufficient practice and research to identify core concepts in a framework for developing thinking skills, but that considerable evaluation work remained to be done. What was needed, she concluded, was to link a thinking framework to learning outcomes in different subjects and to generalise the framework beyond a narrow focus on skills to include thinking curricula, thinking classrooms and thinking schools.

In her report, McGuinness (1999) identified three models for delivering thinking skills and stated that, whatever approach is adopted, the methodology must ensure that learning transfers beyond the context in which it occurs. All interventions are not equally successful. The most successful approaches have a strong theoretical underpinning, well-designed and contextualised materials, an explicit pedagogy, good teacher support and programme evaluation.

She further concluded that:

1. Focusing on thinking skills in the classroom is important because it supports active cognition processes, which make for better learning.

2. Developing thinking skills is supported by theories of cognition that see learners as active creators of their knowledge and frameworks of interpretation.

3. Successful thinking approaches are characterised by the creation of powerful learning environments. Common elements of these include:

-   identifying high quality thinking as a classroom priority
-   developing a vocabulary for talking about thinking
-   making thought processes explicit through exploration, discussion, reflection and sharing
-   teacher modelling of thought processes followed by hints and feedback to students on their performance (coaching and scaffolding)
-   co-operative and collaborative learning permitting students to become self-regulated
-   deliberate teaching for transfer

4. Developing better thinking and reasoning skills has as much to do with creating dispositions for good thinking as with acquiring specific skills and strategies. Therefore, we need to create classrooms where talking about thinking – questioning, predicting, contradicting, doubting – is not only tolerated, but actively encouraged.

5. Developing thinking skills has implications not only for pupils' thinking, but also for teacher thinking and development, as well as the need to create the ethos of schools as learning communities.

One of the key tasks of this research is to enquire into how this ethos can be developed in schools and to investigate how all the members of these learning communities view themselves and their task.

We began our research by investigating and comparing various programmes and approaches to thinking-skills development such as 'Philosophy for Children' (Fisher 1995), de Bono's 'Thinking Hats' (de Bono 2000), 'Cognitive Acceleration through Science Education' (Adey & Shayer 1989), 'Thinking through Geography' (Leat 1998) and 'Thinking Across the School Curriculum' (Wallace 2001). These approaches are well documented elsewhere, and we will not describe them in this paper.

Research shows that what is central to the success of any initiative to raise the standards of thinking and learning in schools is to develop a learning culture. Two factors are essential within the learning culture of a school, if pupils are to be helped to become more effective learners (Higgins et al 2001). Teaching and learning are complex processes and, while it is essential to have teaching objectives and short-term subject outcomes, it is even more essential that these be connected to long-term aims that develop each pupil's skills, attitudes and dispositions to learn. This requires an ethos, a vision and a policy that are school-wide.

The second factor is a belief in the importance of language, discussion and the development of effective learning relationships. Teachers and pupils need to develop connections within their own learning and to bridge this learning to other aspects of their personal or professional experience. A learning culture in a classroom or school is developed through learners taking control of their own learning and actively constructing personal meaning from experience (Weatherley 2000, Claxton 2002, Greaney & Rodd 2003)

Much research suggests that leadership is central to the success of any learning organisation (Senge 2000). A successful policy to develop a learning culture in a school depends on the quality of leadership displayed by the head and the ability to involve others in leading the learning culture (Fullan 2003). If a learning culture is to be created, all in the organisation must have a real stake in the process (West-Burnham 2003).

We need to create the ethos of schools as learning communities. But how in practice do we achieve this? How is a thinking school created and led? How do we extend the school culture into the community? How is the community of enquiry sustained? What are the issues for leadership in these schools and are they different from those in other schools?

One way to enquire into how this ethos can be developed in schools is by investigating how all the members of the learning community view themselves, their organisation and their task. What follows is the stories of three school leaders, reflecting on their personal journeys and beliefs and explaining the contexts of their schools and what they did to lead their schools towards becoming genuine communities of enquiry.

Who are we? Three headteachers' stories

Sue's story

Personal journey and beliefs

I am lucky enough to have had an interesting and varied career, teaching across the 3-to-18 age range, in many different types of schools, in different countries, including a spell in advisory work.

I am passionate about the benefits of a truly balanced, child-focused approach to education, where children can develop a lifelong love of learning, a positive self-image and a sense of their place, voice and value in their community (whatever that community may be), and where teaching is a continuing and enjoyable learning experience for adults.

I feel that schools are very powerful organisations and have always been mindful of the necessity to work with integrity and respect. My guiding principles are concerned with democracy, social justice and honesty.

Context of the school

Tuckswood Community First School has 110 children on roll, with 7 teaching staff (including the head and a job-share), 5 learning support assistants and a nurture worker. The school serves an area of established local authority housing. It is an area of socio-economic deprivation, with a high percentage of free school meals and children on the Special Educational Needs (SEN) Register. The school is physically and socially at the heart of the community, the children delightful, well behaved and engaging, and the parents extremely supportive.

It was not always so. We have spent nearly nine years working towards the shared vision of Tuckswood as a community of enquiry – a fascinating journey.

We began with a close look at our principles and beliefs about education, formulating such vital documents as our 'Value Statement', 'Positive Behaviour Policy', 'Spiritual Development Policy', 'Learning and Teaching Policy' and, crucially, our attitude and approach to policy writing and school documentation – the steps we took and continue to take to try to make sure that we live the words written in the documents and keep the children at the centre of our thinking.

I became head of Tuckswood nine years ago. The school had undergone a long crisis period, which had resulted in staff feeling undermined and in children having inappropriate amounts of power, but very little self-esteem or sense of community.

Alongside a huge amount of dialogue concerning values, beliefs and policy development, we needed to take action to show the children a different way of being. Some of the Year 3 children had lived with the distressing atmosphere that had prevailed for all their school life. There was not only a lack of compliance, but also some dangerous behaviour prevailed. All members of staff worked together to identify a group from Years 2 and 3 whose behaviour was particularly worrying for themselves and others. We identified 18 children, all of whom were boys. My deputy head and I worked with this group of children on activities which would lift the conventional work pressure from them - this was obviously not working for them - but which would be rigorous in expecting and requiring their total involvement. Motivation to learn and a positive view of themselves as learners – important for all children - were paramount for this group of children.

How we did it

We used activities such as philosophy for children (I came from a background of teaching philosophy for children to young children.), poetry and drama work, soft war and co-operative games. These sessions were exciting, but really challenging for us, and were full of tensions. However, our success criteria were finely tuned and shared with the children and with all, and we felt we were successful. We were very realistic about what we could achieve for these children – realism, as well as high expectations, is important for our own well-being. The children became more involved in their work, developed at least

some sense of belonging to the school community, including the responsibilities that go along with that, and had a more positive self-image.

The success and excitement of learning and teaching that happened in this group had a huge impact on the work in the rest of the school. There was great interest in the teaching of philosophy for children and in providing the sorts of educational activities that would serve the children's needs as lifelong learners and reflective, critical and creative thinkers. With our principles about learning and teaching having been established very early on, looking for the practical processes, activities and teaching styles that would help us fulfil those principles became a vital part of our work.

At the very heart of our development work in those first few years was some high-quality professional development. We worked hard, exploring our own questioning, our teaching and learning styles, positive behaviour strategies, children's secular and spiritual development, and personal, social, moral and health education (PSMHE). All staff members (teaching and non-teaching) were fully involved in this; they were also involved in training for the teaching of philosophy for children. It is our approach to professional development, together with our strong adherence to our value statement, which has enabled us to sustain and continue to develop our work.

Professional development is most powerful when it is shared at first hand by all or the majority of the staff and when time is given for reflection, exploration and classroom research. All staff have had high-quality training in the neuroscientific research concerning how the brain works and how learning happens most effectively; we have all had training in inquiry curriculum and 'mantle of the expert' contextual drama; similarly, all staff have had training in the teaching of literacy, numeracy, and information and computing technology (ICT). We read and discuss any relevant articles and give a lot of time to professional debate and dialogue to improve our practice. Over the years, we have developed a strong whole-school approach to learning and teaching and we share not only an understanding of our principles, beliefs and moral purpose about education, but also about how to live our vision.

We feel strongly that our children need a true balance of basic-skill teaching, expressive arts work and an infusion approach to the teaching of metacognition and thinking skills. Any new initiative arising from external sources or from within the school is evaluated against these important questions:

- What difference will this make to the children?

- What will this look like in the classroom or school?

- How will it link into our values and our vision for the school?

We have always involved the children in the life of school; it is, after all, their community. The development of the Tuckswood Community School and class councils and committees enabled them to take on a more active and formalised role in decision-making. In the early days, it became evident that the philosophy-for-children approach had enabled the children to discuss issues brought forward to council in a very mature fashion, to see all sides of an argument, and to agree and disagree with one another amicably, but they found it hard to reach any decisions. This was easily solved by giving them decision-making strategies such as the De Bono Plus/Minus/Interesting (PMI) format. The council is now a very strong part of our community of enquiry and is inclusive of all at Tuckswood.

During the eight years of our work, there have been important periods when we have consolidated our learning, working to evaluate methods and processes and put evidence-based practice in place. Equally, there have been times when we have felt it has been right to explore new avenues to enhance both our learning and that of the children. As the leader of this process, I feel that the timing of these periods of reflection and intervention is crucial. However, much of this is about trusting one's instincts and listening carefully to people; there is no magic formula to tell us when to act and when to step back. The original sharing and forming of the values and vision were really important and, in terms of sustaining and refreshing the community of enquiry, it has been vital not to lose sight of them. We are not afraid to integrate new ideas, in the interests of developing our community. We know that learning is not linear – it is sometimes messy, and sometimes mistakes have to be made – but the children's education is never put at risk. Our redesigned curriculum complies with the Foundation Stage and Curriculum 2000, and is research-based and fully in tune with our values and beliefs. We have found that it is entirely possible to be innovative within this context.

Peter's story

Personal journey and beliefs

As a child of a family employed by the armed forces, my educational history is wide and varied. I believe this is why I have become deeply concerned about the implicit messages permeating the reform agenda of the late 20th and early 21st centuries. The centralised reforms of the United Kingdom in this period focus on the need for high levels of performance in academic tests as the measure of learning. Furthermore, learning measured thus is considered a key to a prosperous society. However, I reflect that many adults I meet are good learners, but do not always value what schooling offers. They still contribute to our prosperous economy, have happy and stable family lives and are committed to social harmony. I question the reasons why academic test success should be the measure of learning and, furthermore, believe the weight of academic performance data is in danger of crushing the cultural, moral and spiritual values in childhood. I believe these are the keys to learning and engender a prosperous society.

Context of the school

I am head at Rayleigh Primary School. It is a two-form entry primary school, which includes a nursery, in the South Essex commuter town of Rayleigh. The town is quite affluent, with few of the difficulties associated with inner cities.

How we did it

As head, I am a keen learner. I follow research in the belief that I can stand on the shoulders of other to improve my practice. I also read widely on the theme of our future as a civilisation, because I am mindful that we educate children not for our world, but for a world we cannot see. Encouraging others to share their views of the future needs of children created a profitable mindset when the school amalgamated from an infant and junior school into a 5-11 primary school. After amalgamation in 1995, we took a difficult decision to review our curriculum and plan an individual way forward. This involved asking the question: "What do we mean by learning?" From this small beginning, the school developed and resourced a curriculum based upon four areas of development: core skills, PSHE, research and creativity. These areas were then broken down into practices that informed our learning policy, a policy that identified different practices for different stages of a child's development. For example, we separated the Early Years from the national curriculum as play-based learning before the Foundation Stage was published.

The next step involved developing schemes of work and a curriculum plan that illustrates how the school meets the requirements of the national curriculum. Eight years later, the school is investigating ways to maximise achievement in terms of performance data and continually evolve this personal curriculum. Research into thinking skills revealed that the vision developed by the school was finding wider popularity, but rather than being thought of as a learning curriculum, it is being treated as the thinking skills movement. Comparison between research and the school curriculum showed both matches and areas for further development. It seemed we were already on the path of visual, auditory and kinaesthetic learning, emotional intelligence, philosophy for children, creative intelligence and memory skills. However, we needed to develop a stronger pedagogy of learning progression. What exactly are the differences between learning at the age of 4 and at the age of 11? Is it the repetition of learning environments and habits or are there appropriate and specific approaches for key phases of development? Thus, the thinking-skills movement is offering Rayleigh the opportunity to consolidate its approaches into a more rigorous and practically-based system that makes possible that most difficult of ambitions: success for all.

Janet's story

Personal journey and beliefs

As a head, I became increasingly concerned about the narrowing of the curriculum that was taking place in our school, because of the time needed to implement in full the National Literacy Strategy, and to a lesser extent, the National Numeracy Strategy. This was contrary to my long-held belief that children need a range of experiences to aid learning and time to reflect upon them.

Earlier in my career, I studied for a qualification as an Associate of the Drama Board (ADB Ed.) and later worked as an advisory teacher and school curriculum industry project (SCIP) co-ordinator, facilitating curriculum development projects using experiential learning strategies and involving colleagues from the business world. These two strands had many similarities and had convinced me of the value of engaging children in activities which had a meaning and purpose for them and which developed them both cognitively and emotionally.

Context of the school

Heathfield Junior School is a three-form entry school with 320 children on roll, 18 teaching staff and 10 part-time teaching assistants. It serves a very mixed catchment area in an affluent London borough. We have 28 per cent free school meals and 20 per cent of our children have English as an additional language, a significant proportion of them having arrived in the area as refugees. Varying cohorts have between 30 per cent and 50 per cent of children with special educational needs, which make average achievement in literacy very difficult for them. Our Standard Assessment Tasks (SATs) results reflected this. Our perceived need to raise achievement, both for the future life chances of the children and to show our school as successful, led us to listen carefully to advice given by external agencies.

By the year 2000, it had become apparent that doing more of the same was not a successful strategy. Pupils who experienced difficulty in particular areas did not do better, but instead became increasingly alienated, because subjects such as physical education, music, art, drama, and design and technology, in which they did well and consequently increased in self-esteem, now seemed to be less important and less valued.

I therefore embarked upon my own journey of discovery to find out how we could change our curriculum in a way which recognised all talents, developed self-esteem and also encouraged joy in learning and teaching – something that seemed to be endangered. I also believed that, by empowering pupils, we would, in the longer term, raise standards as measured externally in a way in which we were unable to do using our present strategies.

Since 2000, there have been many developments and publications relating to learning to learn or to the development of thinking skills which were not widely available at that time and this has evolved so that by 2004 the emphasis is now on creativity in its widest sense.

How we did it

In 2001, I investigated possible alternative curriculum models and wrote a paper entitled 'Beyond the Hamster Wheel', setting out my findings as part of my Master's degree. I also instigated a major curriculum-development project, which has involved pupils, staff, parents and governors and which is still growing in 2004.

As part of this, I arranged for all staff to be involved in professional development, with training in areas such as accelerated learning, mind-mapping, and assessment for learning, all of which have influenced curriculum planning and delivery.

However, it was two particular training sessions that had the most significant impact upon teachers and teaching assistants. Both were related to thinking, and this became the centre of our programme. One

was a session in 2002, in which Robert Fisher discussed the teaching of thinking skills, and the other was in 2003, when Karin Murris also worked with us on philosophy for children.

We had managed to retain occasional topic, arts and story weeks, but we are now developing our foundation-subject areas as opportunities for thinking and creativity. All classes have philosophy lessons each week, and children and adults use thinking tools such as de Bono's 'thinking hats' to focus thinking and solve problems. This has added to our long tradition of school and class councils and a collegiate style of leadership and governance. As I write, the primary strategy training is promised, which seems to follow the path we – and many other schools – have had to discover for ourselves.

Having grown to know one another and gained insight into our motivations, attributes and leadership styles, we needed to decide upon the structure of the research we were to follow. At this point, it was important to find a methodology that not only melded with our ethos, but also with the needs of our schools.

Our research method

Having read and reviewed what others thought, and having then reflected on and discussed our own experience as school leaders and recorded our stories, we wanted to investigate how *all* the members of the learning communities in each school viewed themselves, the school community and the tasks they faced.

We used interviews at each school as our main method for collecting this information. The interviews were recorded on digital video, which gave us speedy recall and access to body language, as well as verbal content. Interviews were undertaken in each school with:

- the head
- a governor
- a class teacher
- a learning support assistant
- a parent
- a group of children

In this way, we could explore how far the head's vision and view of the school were shared. We were also able to gauge the impact of the head on the school and look at specific leadership issues.

We each examined the data from the interviews for commonalities and emerging patterns. We looked particularly for indicators that showed a specific focus for each school on thinking and learning to learn. This was a fascinating process and derived from an approach to research called grounded theory.

The use of grounded theory

Grounded theory, as defined by Glaser and Strauss (1967), allows the researcher to formulate hypotheses as he or she investigates the phenomenon of interest. The data can, therefore, be seen to be suggesting interpretations and the techniques modified to illuminate whether those interpretations are correct. The theory is drawn from the data – the respondents themselves – and seeks to make implicit beliefs explicit. To avoid accusations of only finding what you he or she is looking for, the researcher increases the reliability of the findings by allowing others to review his or her interpretations. Alternatively, the researcher can interrogate the research to find comparable deductions. In our case, we grounded our interpretations by working independently and then reviewing one another's work. We were fortunate to be able to use Robert Fisher to review our ideas as we progressed and so modify our research through informed debate. Further grounding occurs through direct comparison with one another's research findings. In short, we collect the data, we say what we think it means, we check our ideas are valid with one another and also with someone outside the research, in this case Robert Fisher. We look at what other researchers have found and then draw together our discoveries to show comparisons, similarities and differences.

Our theory, therefore, becomes grounded – and better informed – by the evidence we have gathered and critically reviewed from the different elements of our research.

Analysis

On our initial review of the data, it became pertinent for to pursue the following three threads. Firstly, in response to our question, "What are the issues for leadership?", one key factor seemed to be the importance of the leadership philosophy, theoretical constructs and practice prevailing in the three schools.

Secondly, in response to the question, "How can a thinking school be created and developed?", the thread of sustainability became pertinent – that is, how the vision and practice can be sustained over time.

Finally, in response to the initial interviews with each head, a thread of involvement with the community became relevant to the study. How do we extend the culture of the thinking school into the community?

Our findings

Our findings on thinking schools are presented under three headings:

- sustaining the common mind
- leading your community
- leading thinking and learning

Sustaining the common mind

When we were considering curriculum innovation in school communities, we looked carefully at issues of sustainability. A straightforward definition of sustainability would be the ability to embed, continue and further develop the innovation in a coherent way, without adversely affecting anything else. Research suggests that, if innovation takes place in isolation, maybe as an add-on to the normal curriculum, then it is far less likely to have a lasting affect on the learning and teaching that takes place in the school (Fullan 2001). If the innovative work is powerful and has a positive and transforming effect on the members of the school community, then it tends to outlast the influence of the initiators of the innovation (Senge 2000).

We found nine key themes which we feel to be concerned with sustainability emerging from the evidence of interviews, visits and debate with the three schools involved in this study. They are:

1. Whole-school effective-thinking approaches have been adopted that change habits and dispositions of thinking and learning, rather than just thinking strategies and tools, and staff all have an underlying understanding of the pedagogy behind the approaches: they know why they are doing what they are doing. Examples of these approaches, called infusion approaches by Carol McGuinness, are philosophy for children, 'mantle of the expert', which is a contextual drama approach, and accelerated learning.

2. Curriculum redesign has centred on the importance of developing children's metacognitive awareness and integrating new initiatives, whilst maintaining the coherence of the overall framework – nothing has been put forward as an add-on to an existing curriculum.

3. Each school community values and demonstrates full pupil involvement and accountability. Pupils are given an authentic voice in the school community.

4. There is a strong central shared set of beliefs and values to work by in each school, and all involved are fully committed to it.

5. The members of each staff community are, to varying extents, action researchers in their approach to learning and teaching – they are creative and critical thinkers themselves.

6. Whole-school continuing professional development is a strong feature of each community, and staff continue to develop and integrate appropriate strategies and approaches into their work.

7. There is evident trust between colleagues in each school community.

8. Staffs are passionate about what they do – as is made clear when they talk about what they do.

9. There is real community involvement in each of the three schools. Those interviewed stressed the importance of including the local and wider community, and identified ways in which this is practised. The schools have become, to some extent, the drivers of the community's aspirations. There is an expectation from those in the community that the school will continue to work in an innovative way.

In each school there was a strong sense of teamwork and trust in colleagues. Staff talked of the possibilities of sharing both the good things and the disasters that happened in their classrooms with colleagues without being thought badly of on either account. Professional debate formed an important element of the work of each school.

Hargreaves (2002) talks of the need for colleagues to trust one another in order for innovation to embed, citing Reina and Reina's (1999) work on trust in the workplace, in which three forms of trust are identified:

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- contractual trust – colleagues trust each other to meet their obligations and keep promises, that is, to do what they say they will do.
- competence trust – colleagues trust their own and their colleagues' actual ability to do the job.
- communication trust – colleagues do not keep things to themselves: they share information and there is a flow of talk and debate.

Examples of these different forms of trust could be seen in each school. Systems were set up to facilitate the formal sharing of information derived from courses, school visits, professional readings etc. Trust between different members of the school community was a theme that emerged from the interviews and visits we were involved in for this study. Teachers had the confidence to share new ideas with one another, with the senior management team and with governors. As one teacher described it:

We'll make an action plan, take it to curriculum meetings and governors, looking at what we have done and need to do now… putting things in place… trying them out… feeding back to each other…

In addition to trust, Hargreaves (2002) identifies the following five dimensions for sustainability:

1. Creating sustaining learning

Learning should be engaging, creative and nourishing, and connect children to a passion for learning. In this scenario, staff are seen as leaders of learning. In each school studied, there is a very strong focus on learning, as illustrated in the following interview quotes:

Yes – we are all good learners.

We don't waste time in learning time.

Your brain is important… we listen and think, so we learn. [Children]

What is important is the ability for the children to think for themselves… to think outside the box. [Parent governor]

I work out how the different children learn… I believe that all children can do something. [Teacher]

2. Distributed leadership

The important element of this dimension is that the innovative approach is built up over time, and nothing is done as a quick fix. This way, the change lasts over time and does not just rely on one leader. The duration of the innovative work at the study schools ranged from three to nine years. As yet, none of the schools in the study has had a change of head since the work began, but there have been changes in leadership positions, and some staff have moved on to other schools. In the school where the innovative work has been sustained for nine years and distributed leadership is in place, a deputy head left for a headship and is seeking to transform her new school into a thinking school, and three other staff moved into teaching positions where they have been able to introduce and develop effective-thinking approaches into their new jobs. A trainee teacher in one of the schools has begun leading the teaching of philosophy for children.

In each school in the study, distributed or shared leadership is practised. This builds the capacity in others to lead innovation and be a full participant in the realisation of the vision of school as a thinking community. As noted earlier, in each situation there is a growing awareness and expectation on the part of the local community that the school will continue to live by its values and beliefs about democracy and inclusion in the thinking and questioning approaches to learning.

3. Innovation within existing human and financial resources

Hargreaves (2002) refers to the need for the school community to be able to be successful within existing human and financial resources. One of the emerging themes from the study, as noted above, is that the underlying pedagogy for innovative approaches is fully examined and understood by staff, and therefore becomes part of a habit of mind or disposition – part of one's being as an educator. Thus, this is not dependent on situation or resources. The action-research approach might be seen to be reliant on

financial resources, but there are many outside aids to this, for example Teachers International Development and Best Practice Research Scholarships, bursaries, and Network Learning Communities, all of which have been accessed by the study schools to facilitate development work in the absence of adequate school budgets. An important aspect of this dimension is the necessity for adults to have a positive work-life balance and not expect more than is possible of the people within the organisation. The study schools all made some reference to this, for example, operating a 'family first' policy and releasing people for things such as attendance at their own children's performances, a day's sleep for a new father etc, recognising the importance of happiness and well-being in people's lives.

4. Responsibility to other schools, children and communities

Hargreaves (2002) also refers to the need for change and development in the school community not to impact negatively on the surrounding environment, but to acknowledge a responsibility to other schools, children and communities. Each of the study schools demonstrates this quality. One of the heads led her infant-school colleagues and fellow heads in discussions on ways to develop thinking-skill approaches in their schools. Her Advance Skill Teacher works with other local schools and contributes to university courses. A quote from one school's recent Office for Standards in Education (Ofsted) report reads: "The school is very influential beyond its locality." Each study school has a planned programme for staff to visit other schools to learn from them and share practice with them.

Sustainability, argues Hargreaves, is about social justice. Each school seeks to enable their children to grow to be influential in whichever community they will live and to have a positive effect. As one of the heads interviewed put it:

> I want children to really know that they can make a difference in whatever their community is – children who are well versed in knowing how to learn…

5. Building capacity through diversity

The fifth dimension concerns sustainability being about building the future capacity of teachers and children through creating a sense of diversity – looking for different ways of achieving excellence and not just through standardised approaches to learning. If we standardise all learning, argues Hargreaves, we make people vulnerable, as they will have no capacity to learn from one another over time. In valuing and encouraging diversity, we enable a flow of learning to continue over time. Each study school has a rich environment where all the different forms of intelligence are celebrated and where children can excel in their chosen field, be it academic, practical or creative. Also, the diverse strengths of staff were recognised and celebrated. One school published a set of entitlements that children have access to over the four years in the school and has a policy for using the different talents and passions of the adults in the school.

Many schools demonstrate some or all of the above dimensions, but for change and development to embed and sustain in a thinking school or community of enquiry, we believe that all of them need to be in place. Full involvement of the local and wider community was an important aspect of the work of all three schools. When community and school work closely together, a real understanding of the culture and values of each group in the partnership can build. We can see in each school a meeting of the community's aspirations for its children and those of the school. Much positive energy is created when the aspirations and values of school and community meet. Parents and community have a valuable part to play in enhancing the children's learning experiences in each school, and the school plays a valued part in the life of the communities it is in. Expectations of the community that the school will continue to provide a lively, creative and innovative curriculum for its children are high. Each community knows and understands what it wants for its children and what part they can expect to play in it.

Two key questions emerge for us as leaders. These are:

- How can we best plan for change and development that outlive us?
- What will help us to build capacity for leadership not only in our staff and children, but also in our local and wider communities?

Leading your community

In this section we put forward as a key element in a definition of a thinking school its ability to lead its community. We conclude that community leadership can act as an appropriate initial stimulus to begin the journey of becoming a thinking school.

Analysis of the interviews with the heads undertaking the study revealed three common themes worthy of investigation. Firstly, they all expressed the view that education was more than academic study – it was about personalised learning. One head spoke of a deeply held belief that many children deemed failures within the education system were in fact good learners who could use academic skills to great effect in their personal lives. As a consequence, schools may be increasingly failing children by being unable to engage learners with the curriculum and teaching they value. Another argued that, for children to succeed, different forms of personal engagement in learning were required.

Secondly, all the heads were concerned with the self-image of children. In particular, the notion that education must be concerned with building resilience within children to enable them to succeed in a rapidly changing world. This included ideas that children would need to learn, unlearn and relearn concepts, skills and knowledge throughout their life. Thus making mistakes should be recognised as external to the image of the self. Education should boost the self-image of learners and seek to minimise personal feelings of failure.

Finally, all the heads referred to the importance of teaching techniques that involved a great deal of negotiation and discussion with learners. The outcome of such negotiations should be that the curriculum is no longer the possession of teachers to hand down to learners, but a communal task of effort where the teacher acts as model learner.

Each head believed he or she was to some extent out of step with current national curriculum guidance. In answer to the question, "Do you feel you are doing something different from the centralised reform agenda?", there was almost universally agreement in the responses of those interviewed. That each school was attempting a path less trod shone through the data and reflected that each school was trying to achieve something it saw as specific to its own and its community's needs. Interestingly, some respondents thought that the centralised reform agenda was moving closer to their own view of education, but were not entirely confident of this.

Each head believed that internal school culture was an influence on the culture of the wider community. The key to this interaction was seen as the ability of the school to communicate clearly to both parents and pupils why the children needed the innovations that were taking place. This suggests that a key component in defining a thinking school is a commitment to take actions to involve the community in seeking to improve the future life chances of its children. This commitment involves communicating to the community why the school feels such innovations are important. Although it is too strong to say these schools are enriching their communities, they are striving to involve their communities in agreed paths to improvement.

The community of enquiry

Fisher (1998) seeks to define community as a principle of action. It is more than a group of parents, pupils and teaching staff. A true community is a way of life that:

- embodies as a principle the freedom of expression of individuals
- makes critical reasoning not convention the arbiter of moral judgement
- is organic in the sense that its working procedures and values are open to adaptation
- is democratic in ensuring that all its members have a right to a voice and a vote
  (Fisher 1998 p59)

For Fisher, community is central to thinking, because it is through community, as a principle of action, that problems are resolved. This definition of community does not differentiate between the school and its constituency, because, for Fisher, there is no limit to group size when creating a mandate for action. Teaching thinking is not only about creating a community of enquiry in the classroom. There is a community of enquiry internal to the school which embraces the broader community that the school serves. Discussion is key to the process of creating a community. The kind of discussion in question is oral debate that "requires speakers to put themselves in another's place in order to know how to communicate information so as to be comprehensible to others" (Fisher 1998). Many schools do not ask

parents to put themselves in their position, let alone offer an opportunity to take the role of speaker for the institution. Fisher argues that a community is a "rational structure for maximising effective thinking and a moral structure of mutual respect and shared democratic values" (Fisher 1998). Drawing upon Vygotsky, he argues that our intellectual range can always be extended through the mediation of, and interaction with, others, by the social distribution of intelligence. This not only has implications for classroom practice, but also for the way schools are managed and the way the wider community is made part of the consultative and problem solving process.

Summary

In hypothesising the link between school culture and community culture, we have proposed a key facet in defining a thinking school is that the school strives to lead its community. We believe this is within the ethos of Fisher's definition of a community of enquiry, but that different structures need to be used to stimulate thinking and discussion. A dialogue with the external community needs to be created that is both leading and responding, speaking and listening. Such dialogue must have the structures to guide and inform the discussion, but it must also be morally led and inspired by a vision of the community in action. In this way, schools can share the problems they encounter and stimulate debate on how to find answers, through creating a genuine community of enquiry. In this process the educator is the holder of the shape of the outcome, but not the actual solution itself. Key questions do, however, arise from this refocusing of Fisher's work:

- If schools are to be thinking schools, they must encourage staff to study possible futures for education and use this research to lead their vision.
- Such schools must have effective structures for communicating with those outside their boundaries.
- The school must have an efficient way of collecting the views of the community and collating them quickly in ways that can be shared.
- The school must work to resolve disagreements between the short-term imperatives and long-term goals occupying the minds of its internal and external community.

Finding their own answers to these key questions would be an admirable starting point for any thinking school. However, once begun, the challenge is to sustain this engine of collaboration between community and school learning.

Leading thinking and learning

McGuinness (1999) stated that developing thinking skills is supported by theories of cognition that see learners as active creators of their knowledge and frameworks for interpretation. She warns that developing thinking skills has implications for teacher development as well as for the ethos of the school as a learning community.

What are the implications for leadership? Are there particular qualities of leadership which best enable this environment to be created? Are particular styles of leadership required? Our personal belief before embarking on this project was that the leadership characteristics of the headteacher and other key figures in a school and relationships between adults and between adults and pupils must be key factors in developing a thinking school.

This research allowed us to explore leadership issues within the three schools being studied by observation and by interviewing each headteacher, members of staff, and groups of pupils, governors and parents. The following summarises our findings from these interviews in relation to leading thinking and learning in schools:

1. The need for fearlessness and moral purpose

Fullan (2003) argues that leaders need fearlessness and a sense of moral purpose to do what they believe to be right. In each of our project schools, it was found that the head was guided by values and beliefs and a strong moral purpose by which the school was led. All had entered teaching with a strong belief that they could make a difference and had become heads as part of this quest.

One had been in post for nine years and had introduced the community of enquiry at that time. Although there had been many difficulties in building the learning culture, the vision of the head had remained clear and steadfast. The second had been in post for only two years, but had helped to develop the curriculum as deputy. This school had felt pressure to conform more closely to national curriculum subject areas. The third had been in post for 11 years, but, despite a background in experiential learning, felt that she had allowed herself to be deflected from her true beliefs by external pressures and that it was only when she had rediscovered a clear vision that the school had once again begun to provide a rich educational experience for all.

In all three schools staff told of the lead of the head in taking on new ideas and creating a climate where it was permissible to take risks. The teachers felt strongly that the head's lead had given them courage and had enabled them to develop their own skills and expertise.

A question put to staff, governors and parents was: "Do you feel that this school may sometimes do things differently from what is perhaps the government line?" In all cases, the answer was a resounding "Yes". Members of schools A and B felt that this had been very much the case in the past. School A had never actually adopted the structure of the literacy hour, and it and school B had not used the subject boundaries of the national curriculum, both preferring cross-curricular themed work. School C had been less radical, but had adapted the literacy strategy and was in the process of using the foundation-subject guidelines to provide opportunities for thinking. All three schools felt that the government had moved closer to their position, but had no certainty that it would not veer away again onto some other trajectory which might once again conflict with their own beliefs about learning.

Fullan's comment about the need for headteachers to be fearless was confirmed in this study. Indeed recent Ofsted reports have stated that successful schools have heads who are certain about what is right for their school and who are able to steer a steady path through the many initiatives and demands made upon schools, thereby creating an organisation in which all are clear about what is required and in which all are committed to learning.

2. Constructivist leadership

Southworth (1998) describes five key theories of leadership style, ie situational, instrumental and expressive, cultural, transactional and transformational. He suggests that all have their place and that, whereas transactional leadership helps to ensure that the school is organised efficiently and a sense of stability and equilibrium established, transformational leadership goes beyond this, by striving for the growth and development of the school. Such leadership provides opportunities for others to lead, supports their growth, both professionally and as leaders, and helps to put in place professional learning and improvement. Transformational leadership is essentially educative for all, including the leaders.

In the case-study schools, qualities of leadership were constant, but the styles of leadership varied according to the needs of the time and place. An instructional style had been adopted at the beginning of the journey, so that other staff could learn from the expertise acquired through the research of the headteacher. As time went on, the style changed to transformational, as the expertise and responsibility for developing the ethos became more widely spread. In each case, this spread varied as new members arrived and key figures left, but as the ethos was devolved throughout the organisation, there were more people to say: "This is what we do around here."

Despite a genuine belief in distributing leadership throughout a democratic organisation, it had been felt that, at times, an autocratic style was required, eg in the case of one head, who said in the interview:

> At one time I actually told certain staff that I was not giving them permission to allow children time to reflect, but instructing them to do so, such was their concern about coverage.

Lambert (2003) defines constructivist leadership as "the reciprocal processes that enable participants in an educational community to construct meanings that lead towards a shared purpose of schooling". For Lambert, the concept of constructivist leadership is based on the same ideas that underlie constructivist learning: adults, as well as children, learn through the processes of meaning and knowledge construction, inquiry, participation and reflection. She states that, as leaders, we are compelled to develop a learning environment for adults which draws from the theories of human learning.

Lambert also draws parallels between "teaching habits of mind" (Costa and Kallick, 2000) and leading. Leadership then becomes the process of purposeful learning from which actions are drawn. These parallels were further developed using evidence from our research. (Appendix 1)

3.The recognition of adults that they must model being an active learner

Kennedy, quoted in French (2004), states:

> As the processes for motivating and learning in the school are the same for adults as they are for children, commitment and passion to learning should also be expected from staff. Yet if the job of the leader is to serve, to enable motivation and learning, then this also means ensuring that everybody has the time, money and resources to perform to their highest aspirations. As the children were given responsibility for their learning, so the adults can have responsibility delegated to them as well… responsibility increases motivation. They too should receive recognition of their work and of themselves.

This has implications about the time we give teachers for reflection and research and the recognition they receive, as well as for the way teachers see themselves and their role:

The most important responsibility of an educator is to model being an active learner; for only when their role models make their learning visible will students take their own learning seriously. (Barth, 2001 p143).

West-Burnham (2003) examines the relationship between the development of effective leadership and the nature of the learning process. He suggests that these are two of the most elusive and problematic concepts and that this has led to a reductionist and instrumental approach, with leadership portrayed as super management and learning as teaching and a series of events.

A common factor discovered in observation and interview was that all three headteachers believed themselves to be the lead learner and researcher and felt the need for their staff to have access to high-quality professional development. All had arranged for teaching and other staff to attend a wide range of in-service training, both whole-school and individual, and, in the case of school A, a number of staff had travelled abroad, eg to New Zealand and Malta to pursue further studies. In this case, all had received the same core training, but individuals were pursuing related areas of particular interest to themselves such as de Bono techniques and 'mantle of the expert'.

In each school, there was opportunity and an expectation that all members of the school would be reflective practitioners and critical thinkers, with key teachers acting as role models and systems in place for staff to reflect on practice. The responsibility of adults to be learners themselves was ably expressed by one teacher thus:

The ongoing learning of the staff, as well as pupils, is crucial. If we are saying to children learning is important, learning from mistakes is important; then if we took the easy way and stopped doing new and difficult things, this would start to transmit to the children. Learning is hard work, is difficult, and you have to put in the effort. If we are coasting, it becomes insincere, and children pick up on insincerity very quickly. In a learning institution, the learning process is going on all the time throughout the school, trying new ideas. This gives the energy.

Governors spoke of the importance of research and the lead the heads had given. One teacher spoke of the fact that the headteacher's research had moved the school forward significantly. In one school the responsibility of all staff to model learning was less developed, but the number of staff involved was growing rapidly. A critical mass had been achieved.

Lambert (2003) suggests that such learning requires a maturity that emerges from opportunities for meaning-making in sustainable communities over time and that, when individuals learn together in community, shared purpose and collective action emerge about what really matters. These learning processes that enable us to construct meaning occur within the context of relationships. The creation and expansion of our possibilities and capacities for reciprocity occur in communities rich in relationships

4. The recognition by pupils that they are active participants in their own learning

All three schools have long traditions of school and class councils, and all pupils interviewed felt very strongly that they were listened to by the adults in the school and that their views were often acted upon. Pupils from all three schools gave examples of changes which had come about because of school-council proposals. These included playground development, both in physical improvements such as new climbing frames and in organisational changes like playground friends or buddy schemes.

Thinking-skills interventions had been introduced in all the schools – in schools A and B for rather longer than in school C – but in all cases the development of pupils as thinkers was evident both from observation and interview. Pupils could explain very clearly their metacognitive processes and strategies and preferences for learning, when they liked to learn alone and when in a group, and the advantages and disadvantages of each.

When the children from school A were asked, "Are you good learners?", their heads shot up and there was fire in their eyes when they declared unanimously "Yes". In the same school, children explained very fully about their 'companies' (from their context-drama or 'mantle of the expert' work) and showed total commitment to completing their 'commissions'. In school B, pupils could also explain very clearly the importance of learning and being a good thinker both in school and elsewhere. In both schools, pupils believed that school was preparing them well for their future lives by enabling them to become confident learners who were able to use their skills to discover new information. They were also aware of the wider range of skills they were developing. Pupils in school C also felt that they were good thinkers and that this was important for their future lives, but, when asked what they believed teachers thought it was important for them to learn, were less sure about the wider skills, concentrating more on maths, English and science, "because this is what we do a lot". This suggests that the message may not be quite so clear in this school, but the fact that they were in the second term of Year 6 and therefore preparing for SATs might have influenced these particular interviewees' views of school.

Conclusions

Our research suggests that there are a number of key factors that enable the creation of a thinking school. Central to this are the importance of adults as role models, the responsibility of pupils for their learning and the development of a community of enquiry over time in which all share the effort and the joy of learning.

The qualities of leadership and relationships in the school are a major factor, and the role of the head teacher is crucial. Indeed, it could be said that a truly reflective head is a precondition for a thinking school.

Putting it all together

In this study we have explored the concept of the thinking school and its implications for leadership. We have shared our reading, reflected on our personal journeys, and engaged in action research so that our theory is grounded in evidence from others in our schools – teachers, pupils, parents and governors. We have identified three themes from the evidence base of this research. One key factor seemed to be the importance of the leadership philosophy prevailing in the three schools. Secondly, the thread of sustainability emerged – that is, how the vision and practice can be sustained over time. Finally, in response to the initial interviews with each head, the thread of involvement with the community became relevant to the study - how to extend the culture of the thinking school into the community.

 It can be seen from all the three areas studied that these schools do have key elements in common. Drawing upon the work of Costa and Kallick (2000), we can integrate all three strands into a common format (see Appendix 1). This illustrates that we are working within boundaries that can be defined in a model or paradigm.
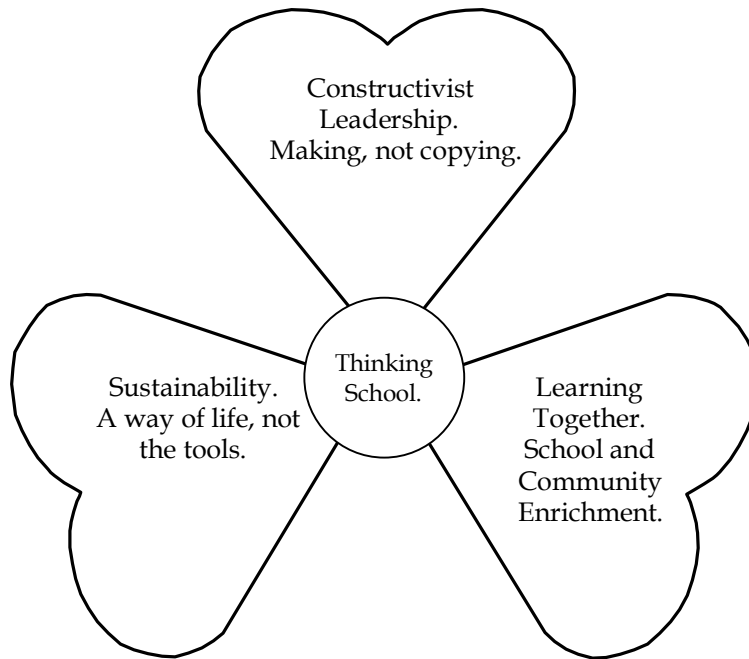
Three essential elements in our model or paradigm for a thinking school are:

- constructivist leadership
- sustainability through community of enquiry as a way of life
- learning together through school and community enrichment

Constructivist leadership involves the active making of meaning, the formulation of one's own set of purposes and guiding principles and not copying a rationale or set of recipes from others. It means engendering a way of life, not merely living according to the blueprint of others. It involves leading communities of enquiry in which the agenda is owned by that community and is constantly evolving, developing and being constructed through questioning and dialogue.

The challenge facing any constructive or creative innovation is sustainability over time. Constructive change, as Fisher suggests in his foreword, can be achieved through using a tool or strategy such as community of enquiry for improvement. Such a tool or strategy will not, however, have any significant effect on school culture, unless the change becomes embedded as a habit within the community – as part of our way of life, within the classroom, within the school and within our dealings with the wider community.

What is clear is that change requires passion – what one of the heads calls "fire in our eyes". It also requires moral purpose and resilience. Central to this are the importance of adults as role models and learners, and all within the community taking responsibility for their learning. The school and community are enriched by collaborative projects – learning together - in which all share the effort and the joy of learning. School and community enrichment provides a necessary component of a thinking school.

Thinking School.

Constructivist Leadership. Making, not copying.

Sustainability. A way of life, not the tools.

Learning Together. School and Community Enrichment.

One might also ask what other processes or procedures schools are required to perform? How can our three areas be the heart of any school? We argue that learning can only be meaningful if it is set in a context and that, in the modern world, that context is one of continual change. "Making, not copying" and "Learning together" indicate the ability to respond to change. Sustainability is achieved through living practices which are both organic and developmental. We suggest that a thinking school is an organic and responsive school, capable of adapting and evolving in the climate of change prevalent in the 21st century.

A thinking school is one that shapes other procedures and initiatives, whether developed from within or imposed by centralised government. These procedures include *curriculum entitlement*, the statutory need for a core and common, broad and balanced curriculum. They include procedures of *external assessment* and testing. They also include *specific teaching and learning strategies* such as the primary strategy. A thinking school is not defined by its given curriculum, by the assessment procedures it must adopt or by specific learning and teaching strategies. These are not sufficient to ensure a school is a thinking school. Such initiatives never replace the three necessary core elements that we have defined. What characterises a thinking school (and also a thinking person and a thinking community) is self-evaluation, self-expression and self-determination.

Overleaf is a representation of the necessary features of a thinking school expanded to include the other processes or procedures schools are required to perform:
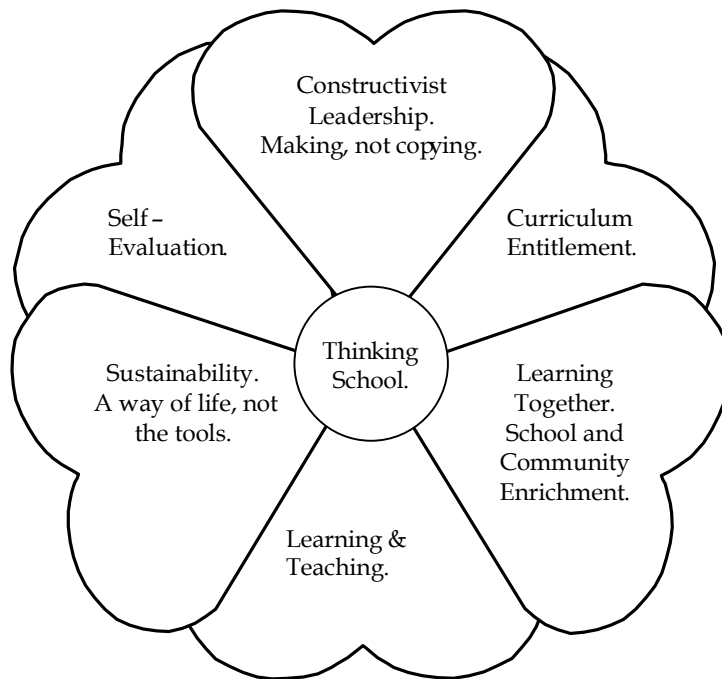
These elements seem to combine quite naturally, but when we look deeper, further questions emerge about the completeness of this model. Questions also arise about the roles of centralised-versus-localised systems of schooling, and about accountability. Our conclusions are tentative, and, as in any genuine community of enquiry, as we find answers to our questions, more emerge for continued reflection and discussion.

Questions for the future

Questions emerging from this research include the following:

- Does our model include all the key elements of a thinking school?
- What else might be needed to create powerful learning environments?
- Do we want a common curriculum defined centrally or for each school to evolve its own unique perspectives relevant to its community?
- Should this curriculum be a menu rather than a recipe and where does this leave the national curriculum?
- If individual learning is to be owned by children and community, should the traditional school structure remain (offering choice between schools) or do we need to transform the school structure to allow local people to create their own menu from several schools?
- Should future school leaders be lead learners or project managers for their community?
- Where does the individual responsive school leave centralised accountability?
- How can a centralised accountability structure be flexible enough to identify excellence, if schools develop their own unique pathways?
- Who should own the correctness of educational provision - centralised authority or individually innovative schools?
- Might heads and other school leaders in the future become isolated if they run institutions so diverse they struggle to have common ground?

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Appendices

Appendix 1

Adapted from Costa and Kallick (2000)

	Teaching	Leading	Leadership - Evidence from interviews in three schools	School leading community	Sustaining the school brain
Modelling	Modelling of what we want students to do. If we want students to be thoughtful, we need to demonstrate what thoughtfulness looks like.	Modelling of leadership behaviours. If we want others to be leaders, we need to demonstrate what leadership looks like.	Each headteacher regarded himself or herself as lead learner and researcher and modelled these desired behaviours for staff and pupils.	Modelling the democratic and transparent system to generate innovation.	Modelling the behaviours so they become a habitual part of the school and expected by the community. Innovation is transformed into the expected behaviours for the school. Distributed and shared leadership is a strong element of the school and the community.
Coaching	Helping students to think through what they are trying to do. The teacher raises questions rather than tells students what to do.	Helping others to think through what they are trying to do. Teachers raise questions with one another rather than tell others what to do.	Heads and teachers coached others in development of learning. Peer group coaching of adults and children took place.	Helping parents and pupils think through their concerns. Acting as a critical friend for family learning.	Coaching and collaborative learning and thinking have become a recognised and valued part of the process. Much attention is paid to emotional intelligence (EI) in learning. Questioning, reflection, critical and professional debate are part of life of school and wider community.
Scaffolding	Provide the content bridges necessary for the task, raising the necessary questions and giving students the opportunity to explore and perform the task.	Providing the content bridges necessary for the task, raising the necessary questions and giving others, particularly new teachers the opportunity to explore and perform the task	Head and staff raised questions and facilitated the exploration and performance of key tasks by staff and pupils.	Providing the resources and strategies to meet the needs of the community.	Provision of structures to support new members of staff, adults and children and wider community is in place to help them find their voice in and enhance the work of the school community. Structures, resources and strategies are an important, but flexible, part of the process, with constant reference to school and community values as a regulator.

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Articulation	Explaining what the teacher is thinking about, so it is visible to the student.	Explaining what the teacher is thinking about, so it is visible to colleagues and parents.	Time for reflection and discussion provided throughout organisation. Presentations to or by colleagues, pupils, parents and governors.	Communicating to the community about the values, principles and ethos that guide school's perception of the future needs of the community.	Strong, central, shared belief system involving commitment of all members of the school community is in place. Truly shared and distributed leadership can be observed, as can pupil involvement, with pupils having a real voice in decision-making. Visible thinking and questioning are at the heart of the learning process for children and adults.
Reflection	Being reflective and thoughtful about the work. Raising evaluation questions. What went well today? Why? If I did this again, how would I do it differently?	Being reflective and thoughtful about the work. Raising evaluation questions. What went well today? Why? If I did this again, how would I do it differently?	Meta-learning discussions about what is going well and how to solve difficulties encountered. Time for reflection valued and provided.	Being open to the views of the community, allowing them to shape the path of innovation.	Adults and children functioning as researchers – continual reflection being part of the dispositions and habits of working. Raising evaluative questions (children and adults) as a matter of course. Wider community expects to be involved.
Exploration	Modelling risk-taking so students understand that uncertainty is involved in all new learning.	Modelling risk-taking so others understand that uncertainty is involved in all new learning.	Headteacher showing courage to follow moral path and do what is believed to be right. Trying new things. Praising experiments by staff and pupils and learning from these as to the next steps.	Modelling risk-taking so the community understands that uncertainty is involved in an improving school.	Whole-school continuing professional development (CPD) a strong feature of all three schools. Adults and children reflective action researchers. There is constant reference to school community values and beliefs as an integrity check. Focus on solutions rather than problems – looking for possibilities – travelling in hope and optimism.

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Appendix 2

Background to the Six Thinking Hats® System

With this tool there are six different coloured, *imaginary* or *metaphorical* hats that can be put on or taken off. (Actual hats are not used.) Each hat represents a different type or mode of thinking:

	Information – Facts: what you have, what you need and where to get it
	Feelings – Intuition and instincts
	Caution – Dangers and potential problems
	Benefits – Positive aspects and values
	Creativity – Alternatives, options, new concepts and perceptions
	Managing the thinking – Ensuring rules are observed, sequencing hats and decision taking

The whole group wears the same colour hat at the same time (ie everyone does the same type of thinking at the same time) and all participants change hats at the same time (ie everyone changes thinking from one mode to another at the same time). It is critical that all participants do the same type of thinking at the same time. This is termed Parallel Thinking™ and is central to the success of the framework.

Traditional discussion is adversarial. A argues with B in the hope that the best solution will emerge. This can be depicted by two opposing arrows.

Thinker A → ← Thinker B

In Parallel Thinking, A and B do the same type of thinking at the same time. They may then choose to switch to another mode—again both at the same time—until the exploration is complete. Parallel Thinking can be depicted by two parallel arrows.

Thinker A →

Thinker B →
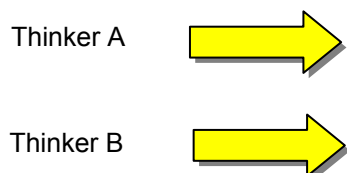
The Six Thinking Hats method therefore has great impact by:

- improving the output and productivity either when working individually or alone
- enabling the evaluation of ideas and topics quickly, yet thoroughly
- constructively challenging current thinking
- developing a co-operative culture or climate when used in group settings

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- enabling team-working by separating ego from performance and promoting positive relationships
- providing an equal opportunity for all team members to make a valuable contribution
- encouraging the reticent to take part and optimising individual strengths
- overcoming cultural differences