NCSL National College for School Leadership

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Leading First-Age Learning

How 12 school leaders are applying the University of the First Age philosophy and methodology in Newcastle-upon-Tyne primary schools

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FULL PRACTITIONER ENQUIRY REPORT

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Introduction

Context and rationale

Increasingly, it is recognised that headteachers and senior colleagues have a vital role to play in actively shaping what goes on in the classroom. What constitutes what is commonly referred to in the USA as instructional leadership and in the UK as pedagogic leadership or educational leadership is not altogether clear, although the burgeoning research literature in this field places emphasis upon the following leadership behaviours:

- engaging in discussion with teachers focused around teaching and learning and pupil performance, and employing such strategies as making suggestions, soliciting opinions, giving feedback, modelling and using enquiry methods
- fostering teacher reflection
- promoting teachers' professional growth

Typically, these three aspects are coupled with other headteacher behaviours such as:

- being highly visible around the school
- extending teachers' autonomy
- praising outcomes

The project examined here, a joint venture involving Newcastle-upon-Tyne Local Education Authority (LEA) and the National Centre for School Leadership (NCSL), grew out of an LEA induction programme for new heads, co-ordinated by the Adviser for Leadership and Management. Following an introduction to the University of the First Age (UFA) philosophy and methodology as part of the induction programme, a 12-strong group of heads and deputy heads became interested in UFA's potential to enhance pupils' learning. With the active support of LEA advisory staff and senior representatives of NCSL, it was agreed to mount a project based on introducing UFA methods into teachers' practices in the 12 schools. The 10 headteachers and 2 deputy heads were designated NCSL research associates and were charged with promoting and overseeing the introduction of UFA-influenced practices in their schools.

Following discussion between the research associates and LEA advisers, agreement was reached that the overall focus of this active intervention would be targeted on four main areas:

- developing teachers' teaching and children's learning through applying the UFA philosophy and methodology in everyday classroom practice
- developing effective coaching techniques and practices for use with their staff
- developing awareness of the impact of their own and others' leadership upon learning through engaging in a process of reflection and self-evaluation
- developing an understanding of the value of a collective approach to leadership

The UFA training

The training was concentrated in the period January-September 2003 and was principally delivered by two LEA advisory staff who were trained UFA Fellows. The 12 research associates were provided with the equivalent of five days of training on the UFA philosophy and methods,

which covered brain-based learning; visual, auditory and kinaesthetic (VAK) principles and multiple intelligences; thinking skills; the accelerated learning cycle; and mind-mapping techniques.

In addition, an external leadership and management consultant provided a day on strategies for monitoring and evaluating lessons, the principles of adult learning and training in coaching skills. The adviser for leadership and management led additional discussions on aspects of leadership and management, for example, managing change and building capacity. In January 2004, the group met again to reflect on progress to date and to identify members' further development needs. Throughout the period, the research associates were supported by the two adviser-trainers and the LEA adviser for leadership and management.

Aims of the evaluation

The evaluation was commissioned by LEA advisory staff, who believed that the cutting-edge nature of this venture was deserving of close scrutiny. Although, in recent years, increasing numbers of classroom practitioners have been trained in the UFA methodology, it is believed that equipping such senior staff with this knowledge and attendant skills may well be unique. Furthermore, it offers enormous potential for influencing actual practice because of the authority of these potential leaders of learning.

The evaluation brief was to examine how the 12 heads and deputies went about introducing into teachers' practices key elements of the UFA philosophy and methodology. It sought to determine what impact the introduction of UFA principles and practices in the 12 schools had had upon teachers' classroom practices and pupils' learning.

Methodology

The main method of data gathering employed was face-to-face, semi-structured interviewing of the 12 heads and deputy heads on two occasions, in June 2003 and July 2004. In addition, where possible, one or more members of a school's teaching staff were interviewed about their experiences in employing the UFA methodology, as were pupils, with a view to finding out what differences, if any, the UFA-based practices had made to their experience of the learning process. In all, 9 teachers from 6 of the 12 schools were interviewed, together with a total of 11 pupils drawn from 2 schools. Furthermore, interviews were also carried out with the two LEA advisory staff who were responsible for providing the UFA training and with the LEA's adviser for leadership and management in the spring of 2004 about their involvement in the project and for their views as to how the research associates were faring in their efforts to introduce the UFA philosophy and methodology into school practice.

The participants and school contexts

The participants

The participants were 10 headteachers who had recently taken up their first headship, together with 2 deputy heads, who had been undertaking an LEA induction programme for new heads and deputy heads and who had expressed an interest in learning more about brain-based learning in general and UFA in particular. They differed considerably in terms of both the extent of any prior knowledge of the UFA philosophy and methodology and any first-hand experience of applying UFA practices to children's learning. This may be assumed to have had a bearing on what the participants were seeking from the UFA training, how they found the training and what they actually derived from it. It is also likely to have had a bearing on the extent of their confidence to act on what they had learnt and may well have influenced how they sought to use what they had acquired within the context of their school.

The research associates' circumstances further differed in the extent of their formal authority. Unlike the headteachers, the two deputy heads were obliged to work through their respective headteachers when attempting to introduce the UFA methods into their schools. In theory, this could pose problems, since so much would depend on the quality of their working relationship with their headteacher. It was also the case that one of the deputies had a full-time class-teaching commitment and was faced with the problem of how to find the time and opportunities needed in order to introduce change of this nature.

One further point concerning the 10 heads is that, while it was their first headship, there was some variation in the length of time for which they had been in post, this ranging from a matter of months to almost 2 years. In turn, this may be seen to have had a bearing on the extent to which they were able to influence practice.

School context

It is argued that contextual variables can have a substantial bearing on what is actually realised when implementing change within schools. It is important, therefore, to record that there was considerable variation across the 12 research associates in terms of the school context and culture within which they were operating. These organisational variables were many and diverse. They included the following situational variables:

- type of school
- aftermath of school reorganisation or an impending reorganisation
- size of school
- stability and consistency of the school roll
- single or split site
- nature of the school catchment
- extent of staffing instability, especially at leadership level, in recent years
- whether the head was an external or an internal appointment
- head's teaching commitments
- age profile of the staff
- receptiveness of the staff to change
- extent to which it was possible to bring in new staff
- pre-existing knowledge of UFA on the part of the head and staff

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- school performance and pupil attainment
- financial health of the school

Quite apart from these situational variables, an organisation's culture also can have a bearing, directly and indirectly, on what is actually achieved. In this respect too, there were some notable variations in relation to the **organisational cultures** of the 12 schools. This term relates to the values, norms and beliefs about the organisation and how it should function, which are individually and socially constructed. An organisation's culture is a complex matter and influenced by many sources, most notably, the headteacher, but possibly other leaders too. Since this project is in part about fostering leadership for learning, a further four variables are pertinent here:

- leadership style of the head
- the head as solo operator or an integral part of a management team
- the head's particular interests and priorities
- staff disposition
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Leadership style of the head

The style of leadership of the previous headteacher can leave a legacy that is more or less conducive to embracing change. For instance, several of the schools were seen to have been under the control of rather autocratic heads, the legacy of which was perceived to be teachers who were unaccustomed to assuming responsibility, exercising initiative and experimenting in relation to their classroom practice.

The personalities and style of leadership of the 10 current heads certainly showed considerable variation. A few were unashamed risk-takers, whereas a majority appeared to be more cautious. That said, most were very clear about what they wanted to make of their school and appeared to be providing firm leadership. There were, however, evident differences in the extent to which they were favourably disposed towards the principle of collegiality. While none came across as an out-and-out autocrat, equally only one espoused an explicit belief in collegiality and in the principle of distributed leadership.

The head as solo operator or an integral part of a management team

There was variation across the 10 heads in relation to whether or not they were essentially operating on their own as leaders, be it by accident or design, or whether they had one or more colleagues – usually senior, though not necessarily so - with whom they worked quite closely. This too is likely to have a direct bearing on their ability to introduce change of the kind being examined here.

The head's particular interests and priorities

There was some variation across the schools in terms of the interests and emphases of the previous headteacher, as well as the current incumbent. For instance, at two of the schools, the previous incumbents were perceived to have been oriented and particularly active beyond the school, and, as a consequence, to have rather neglected the maintenance and development of the school. In turn, this presented the current heads with areas and issues for development which they could not afford to ignore. An indication of the present incumbents' interests and priorities may be gleaned from Section D (1).

Staff disposition

One other relevant factor concerns the disposition of the staff as to whether, individually and collectively, they are content to take their lead from the head in all circumstances or whether they themselves want to influence or determine the school's future direction.

There is, in fact, a complex nexus between a head's style of leadership and the capacity of the staff to respond. Once again, there was considerable variation among the schools in terms of this particular dimension too.

The UFA training

Overall reception given to the training by participants

Despite the lack of a common starting point among the research associates, all 12 heads and deputy heads were highly complimentary about the core of the training that they had received. While the following comments derive from two of the participants, they would appear, nevertheless, to be characteristic of the group as a whole. One of the heads declared, "I think it's one of the best things I've ever done," whilst one of the deputy heads stated: "It's really exciting. You come out buzzing… It's somewhere I want to go." What makes the latter comment the more remarkable is that this person was the member of the group who was the most knowledgeable about, and experienced in using, the UFA methodology.

What was good about the training?

The participating heads and deputies identified the following aspects.

- The trainers

The two main trainers, both of whom had undertaken the national UFA training, were strongly praised by all of the participants. Both were seen as highly approachable and to possess a very engaging manner. They believed deeply in the merits of UFA and were committed to extending its sphere of influence upon educational practice. It was evident that a synergy had been fashioned between trainers and trainees. The trainers had established a strong rapport with the participants, partly through their personal dynamism, and had worked the group hard, but at the same time had made the learning stimulating and enjoyable.

- The training materials

The core training had been firmly focused on practice and had drawn upon good-quality, well-planned learning materials. There was also a good balance struck between theory and practical application. Above all else, it had as its focus children's learning.

- The pedagogy employed by the trainers

Especially appreciated was the way in which the approach to learning which the two trainers had employed had been commensurate with the principles which underpin UFA, ie experiential, group-based learning, paying attention to individual's preferred learning styles and multiple intelligences, embracing modelling and coaching skills. "It's doing something practical together, rather than just taking notes," one participant noted. A second declared, "It's not too didactic," adding:

> It has been thinking all the time, not only of the content of the learning… but also the mode of delivery they've given us, constantly asking yourself the question: 'Could I use this with my staff'?

As a consequence, another research associate noted: "It's very varied – you never know what's coming next… It has been very refreshing."

Partly because of the skilful way in which the two trainers had worked with and managed the participants and partly because of the nature of some of the subject matter, an important dimension of the training as a learning experience was the strong sense of the power of group learning which the participants gained. They also had a definite sense of being part of a distinct and cohesive group. Note, too, that there was an emphasis on teambuilding, which may be seen to have reinforced the natural coalescing which had evidently occurred amongst the research associates.

Reservations expressed about the training

Any reservations about the core of the training were very minor. Some among the participants were of the view that such topics as brain-based learning, VAK principles and multiple intelligences might have been gone into in greater depth. As a consequence, not all of the heads felt sufficiently confident to deliver training on UFA methods to their staff. At least four of the heads preferred to engage the two LEA advisers and UFA lead trainers to fulfil this task to ensure that it would be done properly.

Other relevant components were woven into the core of the training. These included coverage of the monitoring and evaluation of lessons, and consideration of leadership issues, including leading learning. It was here that the participants' feelings became rather more mixed. Although a handful of participants had found the coverage of monitoring and evaluation to be of value, the general view was that it had been a somewhat wasted opportunity and that precious time might have been put to better use. A further criticism was that this aspect of the training had been rather formal and dry, and thus of a different tenor from the core training. In addition, some among the participants had found it rather superficial and too general.

The leadership and management component also received a somewhat mixed reception. While some among the participants had found this useful, particularly the coverage of the related issues of managing change and persuading staff to take change on board, together with the reference materials, others reported having learnt comparatively little.

There were a number of calls for much fuller consideration of issues to do with leadership and the link between providing leadership of the school and for the staff and leading teaching and learning.

Otherwise, any further reservations were very much person-dependent. For instance, one of the participants would have liked to have devoted more time to planning issues. "How can we plan longer term to embrace the UFA ideology?" Another would have welcomed time for quiet reflection having been built into the training days. A third maintained that they would have benefited from some focused work on teams, eg how to build an effective team, how to get team members to work together, how to optimise team functioning, including playing to individuals' strengths, and how to manage those who oppose change.

How had the participants benefited from the training?

All had found it stimulating and enjoyable, and for many it had proved a novel approach to professional development – a reference to the experiential nature of much of the core programme. Those with little or no pre-existing knowledge of this subject matter had gained considerable knowledge about it.

Asked to say how they had benefited, the participants identified the following aspects:

- having acquired knowledge about how the brain functions, brain-based learning generally and the UFA philosophy and methodology in particular
- increased awareness of how children learn
- increased confidence to engage colleagues in discussion about how children learn, how learning might be made more effective, different ways of approaching learning, and the kinds of learning that they wished to encourage and foster
- through sharing information, ideas and expertise and resolving problems
- opportunity for reflection
- the support of peers

The element of peer support that had been fashioned deserves particular mention here. It was very apparent that the particular group dynamic that had been forged was considered to have been crucial to the extent to which the training was regarded by the participants as having been a success. It was seen to have been a remarkably cohesive and extremely supportive group. All 12 participants professed to have gained considerably from spending time in a safe environment with colleagues of equal or similar status. Several remarked on the degree of openness that had obtained between group members. The absence of any outsize egos was mentioned repeatedly, as was the comparability of their circumstances in relation to UFA. By and large, they were all in the same boat, and therefore had had to rely on one another.

> As a group we've gelled particularly well… I just feel there's more of an openness about it [the group]… There's no other group that I'm part of where there's such openness of discussion… It's a safe environment… I don't feel as if I'm in competition with that group of people… I suppose you feel more confident in talking within the group and saying what you feel.

A number of the heads made it clear that this had been a new and, in many respects, rather different kind of support network. Also, with this particular group, there was the strong sense of its being exclusively *their* support network. One of the great advantages this was seen to bring was the sense of their all being in the same or a very similar situation. There was the reassurance which came from the realisation that others were in a similar position and were experiencing many of the same difficulties and problems.

Every one of the participants reported having come away from the training convinced of the merits of the UFA philosophy and methodology and of brain-based learning in general. "Simple, nothing complicated," one observed. "Some of it just seems to make so much sense," remarked a second, pointing to the work on multiple intelligences, which was seen to rest on the premise: "Find something that the child is good at and work with that." Several of the group referred to what they clearly saw as the pressing need to make the curriculum more memorable, less boring and less mechanistic, to reintroduce more in the way of creativity and enjoyment, and also to engage children directly in learning. A number also acknowledged their greater appreciation of the significance of the learning environment itself, eg an environment that was physically attractive, colourful and stimulating, and which contained positive messages and reinforcement - exhortations to aspire, to succeed and to believe in oneself, for instance, and where positive thinking and attitudes were deliberately fostered.

The view of the adviser for leadership and management

The LEA adviser for leadership and management regarded the training as having empowered the heads and deputies to have the confidence to go ahead and introduce UFA and brain-based learning in their schools, and in the process perhaps take risks. It also had underscored the importance of continuing to focus on children's learning and children's needs. How people learn, adults as well as children, and the notion of different learning styles had commanded

considerable attention in the training and were seen to be highly pertinent to any manager and leader of learning. Lastly, the notion of peer support – here, heads learning from other heads – had received a massive boost and might in time, it was hoped, also play out in the form of teacher peer support and networking.

Theory into practice

The research associates' personal agendas

There were differences between the 12 research associates as to what they wished to see brought about in their respective schools in relation to brain-based learning generally and UFA in particular, although there was also a good deal of common ground. One of the differentiating factors between the research associates was the extent to which they themselves were in a position to determine the school's future path, as distinct from needing to attend to someone else's agenda - that someone else, typically, being Ofsted, although the two deputy heads, of course, had to work through their respective headteachers. While there need be no real issue here, if head and deputy are thinking along similar lines, were their respective concerns to differ, then this could make it difficult for a deputy to pursue his or her particular agenda.

The research associates were asked what issue or issues they were keen to address and what they were hoping to derive from this initiative. For one head, it was primarily a matter of reintroducing excitement and stimulation into the curriculum. "I want a memorable curriculum," was how he expressed this, his reasoning being that if school work were made more interesting and stimulating for pupils, then the learning would come. There was also a need to try to counter the low expectations and low aspirations which so many of the school's pupils were seen to have absorbed from the home. More broadly, this head was keen to see his school transformed into a learning institution for adults as well as children. "I want to generate the kind of culture where teachers can make mistakes, recognise that, talk about it with colleagues and learn from it."

A second head had three main concerns which he wished to see addressed. Like the previous head, he too considered the curriculum "extremely dry", given the sort of children for whom the school catered. Pupils were perceived as "starved of stimulation", and there was a pressing need to provide them with enriching educational experiences. In addition, there was a need to address the rather lax work ethic which obtained and also to broaden pupils' horizons and aspirations. Secondly, he was concerned to improve and enrich the learning environment of the school, convinced that part of the reason for pupils producing poor-quality work had to do with the substandard physical environment in which they were currently operating. Thirdly, he was looking to develop the school's management team. He believed that curriculum co-ordinators ought to be to the fore in debate centred upon how to make teaching and learning effective for all pupils. With this in mind, he had introduced an extended management team consisting of himself, his deputy, the Foundation Stage co-ordinator and the co-ordinators for Key Stages 1 & 2. He saw developing the co-ordinators in particular as vital, so that they might actively lead their teams and develop their curriculum areas.

A third head was keen to enhance the life chances for her pupils and perceived that children's preferred learning styles were a crucial consideration in this. She was convinced that a good many of the pupils for whom the school catered were kinaesthetic learners and that the national curriculum simply failed to engage them. "They find it easier to express themselves by doing things than by verbalising or reading or writing. We need to develop the thinking and the reading and the verbalising side." In addition, this head wanted to move from a teaching to a *learning* environment. "At present, we're focusing on the teaching and not the learning." The chunking of lessons was seen to offer considerable promise here, periods of intense concentration alternating with spells of time out. "A lot of our children don't have the necessary concentration to access the curriculum." Like a good many of the research associates, she too was keen to review and make greater use of the creative elements within the curriculum as a means of motivating children, improving their behaviour and raising their self-esteem. The latter was a particular focus. Finally,

and more broadly, this headteacher was also seeking to change the culture of the school by empowering her staff and fostering greater professional autonomy. She firmly believed that they should think and act for themselves, but was aware that some among the staff found this uncomfortable and even felt threatened by it.

Others among the heads participating in this project were keen to pursue not dissimilar developments, albeit tailored to the specific needs of their schools. Thus, the need to make learning more attractive for pupils came up repeatedly, as did the need to revitalise the teaching staff, some of whom heads perceived were simply going through the motions in their teaching. There was also the problem of underachievement, among boys in particular, which was fed by low aspirations and low self-esteem.

One of the other heads noted that she and her staff faced a particular challenge in needing to counter the boisterous behaviour of a good many pupils, most especially boys. Also, her school contained some more able pupils, who were in need of being stretched intellectually. It was also perceived to be the case that teachers were failing to address children's preferred learning styles. "Our curriculum is boring, " the head remarked. "[It's] death by worksheet." Another of the heads echoed this last point, maintaining that so many of the staff were so locked into thinking about and seeing children's performance in terms of how they fared on the national literacy and numeracy initiatives that they quite failed to develop other talents. For yet another head, her agenda derived in the main from the fact that, in relation to pupils' attainment, the school currently failed to add much value between Key Stages 1 and 2. In particular, there was a pressing need to improve children's literacy, and to a lesser extent, numeracy. It was also the case that pupils were not very adept at learning independently. Nor did they respond well to opportunities to engage in debate. As for teachers' approaches to learning, lessons were perceived all too often to be uninspiring. The staff were seen to avoid taking any risks in their teaching for fear that chaos might result. Consequently, most learning was of a visual or auditory nature, with very little in the way of kinaesthetic learning, and yet the head suspected that the latter probably would be most germane for the majority of the school's pupils.

The circumstances of two of the heads were rather different from those of their peers, and this was reflected in their particular agendas. For one, it was a case of "taking a very successful school forward". She recognised, however, that there were areas where improvements could be made. For instance, children's high level of performance on leaving Early Years was not maintained throughout the remainder of their time in the school. In addition, it was felt that some of the most able pupils could achieve even more. There was also the fact that children's writing was the one area of the curriculum for which the school had failed to achieve top marks. The second head was in charge of a community special school and faced the particular problem of wanting to introduce more coherence into an organisation that was dispersed across several sites, each with its own unique identity.

As for the two deputy heads who were part of the project, one of these was notably more advanced in her knowledge and understanding of brain-based learning generally and UFA in particular than any of the other research associates. Furthermore, she was already active in helping those of her colleagues who were inclined to implement such strategies in their teaching. Naturally, her concerns were of a different order. "For me, the big issue is trying to embed practice across the school." Part of the means to achieving this was to ensure that UFA – in the shape of the accelerated learning cycle – was an integral part of the school's improvement plan (SIP). Her other concern was that of monitoring and evaluation. What difference was UFA making? Were the staff close to realising the developments which they wished to see brought about?

The second of the deputy heads saw UFA as highly pertinent to the needs of both the school's pupils and staff. For instance, the former were seen to relish small segments of work at a time. Some had a markedly limited attention span. Others were disaffected and were felt to need a

more stimulating approach. "The children in our school all want to move [around]." In turn, this presented quite challenging behaviour for staff to have to manage. The VAK principles, in particular, were considered highly relevant in these circumstances. The deputy suspected that many pupils' preferred learning style would be strongly inclined towards the kinaesthetic, but very little use was currently made of strategies such as drama and role play. This partly reflected a belief among staff that, were they to pursue such approaches, pupils' behaviour would become even more extreme. Accordingly, they tended to play safe, which in turn led many of the pupils to switch off or play up.

The main lines of in-school development

Prior to examining the main developments reported in the various schools over the period May 2003 to July 2004, it is pertinent to note a number of contextual differences which may well have had a bearing on the extent of the development reported.

Firstly, the 12 schools were at different stages in their development in relation to UFA and brain-based learning. While practice in one of the schools was already reasonably well advanced in this respect at the outset of the project, for the other 11 schools this was not the case. Indeed, by the end of the summer term 2003, in at least two of the schools, there was little to suggest *any* UFA influence upon their then current practice.

Secondly, one of the reasons that a number of the heads put forward in July 2003 to explain the limited development at that time was that their SIP for the 2002/03 school year had been finalised well before this project got underway and, accordingly, they had been unable formally to introduce UFA into the plan. They gave an assurance that it would feature in their 2003/04 SIP.

Thirdly, not all of the research associates were in a position to be able single-mindedly to pursue the UFA and brain-based learning agenda because of other more pressing agendas that needed to be addressed such as school reorganisation or the need to raise pupil attainment.

Fourthly, the head's personal disposition and leadership style can also be relevant to the rate of progress made, as can the presence on the staff of potential blockers – teachers opposed to embracing change of any kind, as distinct from those sufficiently open-minded to try out and experiment with new practices, or prepared to take their lead from the head. There is, too, a further consideration: the extent to which a collegiate culture can be said to exist within a given school, where staff are accustomed to working collectively and collaboratively on the continuous quest for improvement.

In fact, all of the above were seen to have a bearing on the rate and extent of progress made in adopting changes.

Six main areas of development over the period May 2003 to July 2004 were identified:
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- enhancing the learning environment, eg improving the physical fabric, making display work more creative and purposeful, making fresh water readily available
- focusing on improving pupils' attitudes and behaviour, eg by the use made of display work and motivational posters, by having teachers accentuate the positive in their dealings with pupils, by using music as a calming influence
- improving teaching and learning, eg by making use of UFA methods, setting achievable targets and reviewing progress on a regular basis, deploying older pupils as peer tutors
- developing curriculum resources
- monitoring classroom practice more regularly and purposefully, and seeking evidence of UFA methods being used

- investing in the professional development of the staff, both by in-house training and external means such as visits to see good practice and attendance at courses

Three of these are commented on below:

Improving pupils' attitudes and behaviour

These objectives were approached in a variety of ways, among which were:

- paying attention to the motivational value of posters displayed about the school premises by means of which pupils are exhorted to aspire and aim high, to work hard, to experience and celebrate success
- altering the school policy on display with a view to utilising displays in order to encourage pupils to apply themselves, to produce good work and to achieve
- changing the nature and conduct of the school assembly, eg introducing a weekly theme related to raising pupils' self-esteem which all staff and pupils pursue
- encouraging staff to accentuate the positive in their interactions with pupils as part of fostering pupils' self-confidence and self-esteem
- utilising music for the purpose of calming pupils or to underline the transition from one kind of activity to another

Improving teaching and learning

Here too a range of developments was to be found, including:

- teachers making it clear to pupils what their expectations were regarding individual lessons. Sometimes this extended to shared target-setting, teacher and pupils negotiating and agreeing what these should be. The logical development was subsequently to involve pupils in reviewing their learning.
- applying UFA methods and strategies, eg the chunking of lessons, whereby lesson content is broken down into small steps, with a period of focused effort followed by a few minutes of brain gym or other forms of time out, developing mind maps, making learning more interactive, accelerated learning, acquiring different ways of remembering key items of information, attaching priority to revision skills, with booster classes, where the fun element is to the fore. In addition, in a number of the schools, efforts were being made to address pupils' preferred learning styles.
- the blocking of the timetable, eg at KS1, reverting to a topic-based curriculum in the afternoons, with the mornings being devoted to the core curriculum, and at KS2, introducing fortnight-long mini-topics, in which cross-curricular links are emphasised. Alternatively, blocking the timetable to allow for concentrated attention to be paid to a given curriculum area such as science, humanities, the environment or the arts.
- introducing much greater variety into lessons, including more in the way of activities for pupils to sample. More generally, experimenting with curriculum delivery, including making learning far more active (eg kinaesthetic learning) and experimenting with classroom organisation (eg introducing a carousel of activities within a single lesson). In some schools mixed-ability groups had been reintroduced.
- employing the latest technological developments such as the interactive whiteboard
- paying greater attention to reviewing lessons and learning itself over a set period of time, eg half a term
- deploying older pupils in a peer-tutoring capacity, eg having pupils trained in the 'Jolly Phonics' reading method help younger children with their reading development

- targeting specialised attention on particular pupils in an attempt to address their specific learning needs. For instance, at one school, an advanced skills teacher – she was also a UFA Fellow – came into school and worked with Year 2 children on different ways of engaging them in science.
- encouraging staff to carry out small-scale action-research projects. For example, at another school, two teachers were investigating whether particular ways of blocking the curriculum and chunking lessons were more effective than others.

Investing in the professional development of the staff

This was an area that was receiving considerable attention in the majority of the schools. That said, however, there was some variation across the schools in terms of the importance and prominence given to relevant training, together with how it was actually approached.

There was a clear division between the 12 research associates in accordance with whether the UFA training was approached largely in-house (6 cases) or was mainly farmed out to an external source - most commonly, the 2 LEA advisory staff who had been responsible for delivering the UFA training for the research associates themselves (4 cases). In a number of schools either of these approaches was augmented with other relevant training.

An instance of the mainly in-house approach was where a head led a whole training day on interactive speaking and listening activities for use with Year 1 & 2 pupils who lacked a male role model. Another was where a head assumed responsibility for leading two training days in which the focus was on ways of breaking up lessons with a view to sustaining pupils' interest, eg the chunking of lesson content, presenting small amounts of key factual information in a variety of ways, building VAK principles into lesson delivery and exploring ways of actively involving pupils in their learning. There was also some preliminary coverage of different learning styles based on multiple-intelligences theory.

One of the reasons for opting for a mainly in-house approach was the breadth of knowledge and expertise, coupled with the self-confidence, of the head or deputy in question, sometimes complemented by one or more knowledgeable members of staff. However, staff of one school had no option but to adopt this approach for the simple reason that the school's budget would not run to expertise being bought in or to staff going on courses. Here, it took some time for the staff development to get under way because of the research associate's heavy teaching load. (She was a deputy head.) By late summer 2004, however, the deputy was able to report that all staff had received some coverage on the topic of brain-based learning, including different learning and teaching styles and examples of brain breaks. In addition, she had worked with staff on lesson structure to ensure the topping up of knowledge throughout the lesson and had provided coverage of the accelerated learning cycle. Staff members were asked to reflect on their own preferred learning style as a precursor to being invited to show on their lesson planners how they intended to address the different learning styles of their pupils. The deputy was able to secure a pledge from each teacher that they would try out three of the UFA strategies and report back on this. Consideration also was given to ways of improving the school environment, and a mind map was constructed collectively with a view to its serving as an action plan.

At the other extreme, in at least four of the schools, the heads had preferred that the basic training in the UFA philosophy and methodology be delivered by the two UFA-trained LEA advisers. In each case, a condensed version of this training was provided, usually after school. Typically, the reasons for opting for this approach were twofold. Firstly, these research associates maintained that, if UFA was worth doing, then it was worth doing well, and they had not always felt sufficiently confident of their own capabilities in this area. It was also the case that there were specific aspects of the training, notably role play, which some among the research associates felt

would be better coming from those more experienced in putting across such approaches to fellow professionals. Secondly, some of the heads felt that involving outside experts would bring an element of gravitas and status, which could prove crucial to such practice being adopted.

Interestingly, among those heads who had opted for a mainly in-house approach, it was not uncommon for them to employ the reverse of this argument to justify their preferred strategy. For instance, one argued that sharing the training between him and his deputy was likely to have a greater impact on the staff than if it were to be farmed out to an external source. An added reason that some of these heads gave for going down this route was the desire, as one put it, "to show them [the staff] what I was experiencing". Another of the heads drew a connection with providing leadership for the school: "I think, as a leader, you need to be seen leading." She further maintained that part of her agenda had been to encourage staff members to talk and feared that involving outsiders would lead the staff to clam up.

The mainly externally-led approach also contained a variant, in that two of the heads agreed that their staff should join together for the purpose of training. This got under way in autumn 2003 and was undertaken in blocks, with time deliberately built in so that teachers might consider and reflect on what they had learned and experienced for themselves, and also so that they might experiment with some of the strategies with their classes. The two heads agreed beforehand the aspects on which they wished the training to focus – the VAK principles, multiple intelligences and the accelerated learning process – and this coverage was preceded by an introductory session which looked at the brain and its development, the importance of water for the brain and the human organism as a whole, and brain-friendly activities, including the use of music. The training was followed up in each of the schools with at least one staff-development meeting at which teachers considered and debated the training content and how it might be acted on. They were encouraged to go away and experiment, and at a subsequent staff meeting were expected to be ready to discuss the use to which they had put these activities and also to report on children's learning styles in the context of a multi-sensory activity that they had undertaken with their class.

In practice, in a good many of the schools, elements of a mixed-economy approach to staff development were adopted. This is where either the dominant approach is supplemented by other forms of training or there is little to suggest a dominant approach ever existed. Typically, the head would lead the training, but someone from outside the school would be brought in to deliver training on a specific topic or area. In addition, if individual teachers were sufficiently motivated, their continuous professional development could be in the UFA domain.

Two further aspects of the staff development associated with UFA and brain-based learning across many of the 12 schools are worth underlining. Firstly, the extent to which there was evidence of peer-led training was very noticeable. In at least half the schools, teachers had been directly involved in the professional development of their colleagues and peers by making short presentations in staff meetings and during training days. In some of the schools, the principle was taken further, in that members of staff put on workshops for their colleagues' benefit. This was especially common in the case of teachers who had trained as UFA Fellows, although it was not restricted to such individuals. For example, at one of the schools, the UFA-trained Reception teacher ran a session on brain gym for all Early Years and KS1 staff. The head subsequently sought to capitalise on this by agreeing with the staff that each teacher would demonstrate to his or her colleagues one brain-gym activity which they had tried out with their class. At the same school, another teacher led some training on thinking skills.

Actions such as these were widely seen by the heads as potentially very powerful models of professional development, in that teachers were thought to be more likely to listen to and heed their peers than they would an external trainer.

A slight variant on this principle was the school where two willing members of staff, the deputy head and one of the Key Stage co-ordinators, would trial a particular strategy or technique and subsequently report back to colleagues as to what had transpired. It was hoped that, in turn, some at least among the staff would be sufficiently enthused to try this for themselves. This approach is based on a slightly different model of implementation, in that here the idea is to commence with the keenest and most open-minded of the staff, persuade them to experiment with the new strategies and subsequently look to them to sell the idea to their colleagues.

Secondly, incorporating UFA into the school's SIP and system of performance management was a further strategy which at least five heads were actively pursuing. An instance of this is the school where there was an agreement that all staff would incorporate some elements of the accelerated learning cycle into their planning. In such circumstances, it was not uncommon to find that teachers' continuous professional development could be in a related area.

Deploying higher education (HE) students

It is not that this was a widespread development so much as a highly innovative one that justifies its inclusion. At least two schools were exploring ways of capitalising on the presence in school of HE students. At one, the head had the students screen all Year 2 pupils on multiple intelligences, with a view to their subsequently devising an afternoon's activities which would be used with pupils and which would draw upon multiple intelligences. At the other school, the head insisted that student teachers on their final placement try out some form of VAK application in at least one lesson. This was monitored and reviewed by the school's professional tutor. In a third case, a group of trainee psychologists undertook a piece of research into how the curriculum could be accessed by an approach which emphasised kinaesthetic forms of learning, rather than the customary chalk and talk. Year 5 pupils whose preferred style of learning was kinaesthetic were identified by their class teacher and their peers and subsequently worked closely with the trainee psychologists on a weekly basis over a five-week period.

Lastly, attention is drawn to an overarching strategy which can be seen to be guiding developments in a good many of the schools. This has to do with the notion of backing likely winners and looking to build on early successes when seeking to implement change. For instance, one of the heads remarked: "We started with the easy things." These included introducing water dispensers in the classroom, using music with KS1 pupils when entering and exiting assembly, or when changing for or after Physical Education (PE). Staff frequently built on these beginnings by making a sustained effort to improve the learning environment for pupils. Significantly, however, it was only with the installation of a smartboard in every classroom, the refurbishment of the school's Information and Computing Technology (ICT) suite and the establishment of research bays in corridor recesses, that developments with direct implications for teaching and learning began to emerge.

Leading learning

The research associates in their role as leaders

A range of actions were either directly taken or actively supported by the research associates. Not every head and deputy did all of the things mentioned below or to the same extent, but their involvement in helping to shape an evolving practice was readily apparent.

The nature of their actions and contribution included the following:

- thinking and acting strategically
- shaping and driving the learning agenda
- monitoring classroom practice more widely and more intensively
- facilitating others' actions
- staffing-related
- training-related
- managing resources
- integrating UFA into the organisational structure

Each of these aspects is examined in some detail below.

Thinking and acting strategically

There were countless instances of this. For example, in the initial stages, one head had deliberately sought out what might be termed easy winners, reasoning that it was much easier to tackle more complex challenges from a position of some success and strength. These easy winners included introducing music and water into the classroom and improving the classroom learning environment. Another example of strategic thinking is the head who sent no fewer than seven of her teachers, one from each year group, on the UFA training. Part of her intention in doing so was to force staff from the respective Key Stages to interact and co-operate. (Within this school the two groups occupied separate buildings and did not mix very much.) A further example was the deliberate mixing of teachers from the respective Key Stages, so that anyone from either Key Stage who was perceived to be slow or reluctant to embrace the UFA philosophy and methodology was reallocated to a different Key Stage team and paired with a colleague known to be deploying this methodology. One last example is that of the head who had held regular meetings with the co-ordinators of literacy, numeracy and science, with whom she had led discussion on the need to incorporate the VAK principles into both curriculum content and lesson delivery, together with ways of achieving this. She explained that this had less to do with the fact of these being the core curriculum areas than that these co-ordinators were the three members of staff who she was confident would most readily embrace this initiative.

Shaping and driving the learning agenda

Equally vital was the research associates' role in assuming responsibility for shaping the agenda on UFA and brain-based learning, making the case for adopting the change, devising a broad strategy for developing practice in this area and being the driving agent for change and experimentation.

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What did this mean in practice? For several of the heads it had to do with spelling out their vision for the school and the place of brain-based learning within this, and seeking to secure the commitment of the staff. Some saw this in terms of their employing sound reasoning coupled with their powers of persuasion, as well as being prepared to adapt any better ideas that might be put forward. Some heads appeared to afford their staff rather more in the way of influence. For instance, one outlined her belief in providing staff with a basis to work from, though she insisted that she actively sought their ideas and views in order to shape and develop this further. A third, however, was unusual among the sample in proclaiming her commitment to something altogether more collegial.

> As a leader I don't use the 'I' word very much… We are a team… I don't want staff to think I am imposing… It's a very open style of leadership and management that we have here.

Apart from supplying the guiding vision, to a greater or lesser extent, in what other actions did these heads engage? One noted how he would deliberately accentuate his positive manner and attitude. Another described how she had been responsible for the motivational posters displayed around the school and for ensuring that key motivational messages were reinforced on a regular basis. In addition, over the first few months she had gone around just sowing the seeds, in the hope that some among the staff would pick up on some of these ideas and develop them. Many of the 12 research associates also mentioned how they made a point of publicising any instances of good practice involving brain-based learning strategies which came to their attention. Some took this further by arranging for other staff members to be able to see such practice for themselves.

Monitoring classroom practice more widely and more intensively

Several of the heads made a point of undertaking more in the way of classroom observation, having made it clear to their staff that they would be looking for evidence that they had experimented with UFA strategies and techniques. In addition, a number of the heads who were without a regular teaching commitment took it upon themselves to undertake short periods of teaching in as many classes as possible, not least because it afforded them the opportunity to discover fairly readily what, if anything, their staff were doing differently. And a fairly common form of monitoring was for the heads and deputies to examine teachers' lesson planning for evidence of the VAK principles.

There was only the one school where the focus of the monitoring had more to do with seeking to determine the impact and value of brain-based learning strategies than whether or not these were being deployed. The research associate – a deputy head – explained that this represented the next stage of development.

Facilitating others' actions

In many respects it is a truism that leaders act to facilitate others' actions. However, two of the heads appeared to stand out with regard to the extent to which they chose to emphasise this aspect of their role. One observed, "You're there to facilitate the talents of others," eg by offering encouragement and support, and even the occasional nudge. The other characterised her role as that of a facilitator, affording her staff opportunities, encouraging them to experiment with their teaching and making learning resources available by way of support. She stressed that at no

stage had she laid down any formal requirements. Rather, it had been a case of providing encouragement and exhortation.

Staffing-related

This encompassed a wide range of actions, including:

- finding ways of getting rid of teachers who were seen as too fixed in their ways
- appointing new members of staff who either were familiar with brain-based learning or who had indicated a willingness to learn about and experiment with such approaches
- mixing up the composition of teaching teams, which sometimes extended to teaching assistants and perhaps other support staff, with a view to ensuring that every team contained someone who could serve as the driver for change, eg by offering support and encouragement to, though also applying gentle pressure on, those teachers perceived to be paying lip service to the UFA approach or thought likely to obstruct progress (the blockers)

Training-related

This aspect has been covered in some detail already (see p 15) and will not be dwelt on at length here. It was however a major – and vital – aspect of providing leadership for learning. Again, this took various forms, including:

- formulating a rationale as to the relevance of UFA and brain-based learning to the education of the children in the school and personally delivering and overseeing relevant training. Some of the research associates also made a point of modelling appropriate UFA strategies in their training of their staff, eg incorporating a variety of learning approaches. Alternatively, or in addition, they modelled appropriate strategies in other areas of their work – when leading staff meetings, for example, or when taking school assembly. One of the deputy heads had modelled the UFA principles and methods in a science lesson which colleagues on the staff had observed and which she had deliberately used to stimulate debate as to the relevance and quality of current teaching and learning in the school.
- drip-feeding information and ideas about UFA and brain-based learning to the staff
- working closely with key members of staff, Key Stage and curriculum co-ordinators, eg on the need to incorporate aspects of brain-based learning into curriculum content and delivery, together with ways of doing so
- coaching individual members of staff in order to help them to develop a particular skill or technique
- encouraging staff to experiment and not to be afraid of making mistakes
- conducting demonstration lessons or parts of lessons
- identifying potential allies on the staff who were sent on the UFA training or other relevant courses, with a view to building up a cadre of staff who were like-minded and familiar with the ways of UFA and brain-based learning
- actively promoting the concept of peer learning within the school
- where appropriate, drawing on the expertise of an external trainer, though making a point of briefing those concerned on the content and aims and the desired pedagogic approach
- bringing in external experts to support their staff. For example, one of the heads had brokered the deployment of trainee psychologists in a research capacity in a Year 5 teacher's class. Another had commissioned a freelance science consultant to undertake some training with staff on the topic of science investigation and utilising VAK principles. Subsequently, the staff identified an aspect of the subject to teach using VAK principles, reporting back at a staff meeting on what had transpired.

- continually reinforcing the importance of continuous professional development and striving to steer individual staff towards appropriate training, either because they were considered in need of it or because it was felt they would really capitalise on the opportunity

Managing resources

Those among the research associates who were headteachers exercised responsibility for managing the school budget and so were in a position to juggle resources to enable the relevant professional development of their staff to take place or the purchase of appropriate learning resources.

Integrating UFA into the organisational structure

The two most common means of achieving this objective were to make sure that UFA and brain-based learning was integrated into the SIP and to ensure that the school's system of performance management was geared around some aspect of teaching and learning for all the staff.

To conclude this subsection, a few more general observations about the behaviour of these heads and deputies may be made. Not surprisingly, there were differences among the 12 research associates as to how they went about the task of shaping a climate within which this innovation might be adopted by staff and also as to how actively they pursued its implementation. Some appeared to be satisfied simply with raising ideas and suggestions for debate, and encouraging discussion amongst staff with a view to gauging their reaction. In contrast, a number of the heads made clear their belief in the need for firm and unambiguous leadership for fear that the innovation might otherwise not be adopted. Another difference was that, whereas some of the heads and deputies did not hesitate to talk up the UFA philosophy and methodology, others chose to play down the UFA tag, instead emphasising the centrality of quality teaching and learning, of which UFA was but one desirable component.

What had the research associates learnt about themselves in their capacity as leaders, as well as about leading learning?

The heads and deputies were asked what sorts of lessons to do with leadership and leading learning they had learnt from this experience.

Lessons learnt about being a leader:

- the need to be personally committed to the change being attempted
- the need to be knowledgeable and convincing when attempting to implement change. As one head put it: "Making staff feel secure in that I know why we're doing it… that there is a reason for it…and where we're going with that."
- the need to be a positive role model
- being willing to allow staff to experiment and take risks
- being persistent. As one of the heads observed: "It is a slow process to change the mindset, but you need to keep at it by showing the positive advantages of addressing the pupils' needs."
- retaining a belief in, and optimism about, the innovation and making this apparent to staff
- recognising that it can be more productive to work with those who are willing, rather than to do battle with those who are set in their ways. On this matter, one of the heads had this to

say: "I don't believe in challenging too much… It's about letting them [teachers opposed to the change] see the benefits from other people doing things, rather than telling them to do something."

As for the second aspect, providing leadership for learning, these were the main areas of learning which the research associates specified:

Lessons learnt about leading change:

- the need for active leadership
- the need for allies when seeking to implement change
- the need to provide appropriate professional development, so that staff have the requisite knowledge and expertise to be able to develop mastery of the innovation. It was recognised that staff needed to feel comfortable with what was being attempted or they were unlikely to embrace the change. As part of this process, one research associate spoke of the need for what she termed 'wow' moments, by which she meant those momentary experiences which sometimes arose and which tended to have a huge bearing on learners' preparedness to adopt a particular innovation. It underlined for her the importance of really good training and constituted a point of learning for her, in the sense that she had not previously sufficiently recognised its true significance.
- the place and value of peer learning as part of the professional development associated with adopting any new practice
- the need for a phased introduction, to give the innovation time and to allow things to evolve. A deputy head, insisting that very rarely did change occur overnight, noted: "These things have to grow organically." In particular, staff needed to be given time to try things out, monitor, reflect, discuss with colleagues and develop a sense of ownership of the innovation.
- the need, as a leader, to strike a balance between informing and guiding one's staff and encouraging and affording them autonomy. One of the heads made this observation: "As a leader…I've allowed them to [do things, pursue interests or satisfy curiosity]… If they're in charge of it more, you'll get more from them."
- being able to sense when to press staff to move forward into uncharted or partly unknown waters and when to stand back.

Interestingly, there were only two clear instances where research associates explicitly eschewed the notion of leading from the front. One was a headteacher who was a firm believer in collegial leadership, having worked as a deputy under a head who had practised such an approach to leadership. She noted that she had an excellent deputy and a basic confidence that her staff worked well together. The other was a deputy head who was working in a school where the head's philosophy evidently embraced delegated (or distributed) leadership and where the staff, for the most part, were comfortable with such an approach. She recognised the need for a leadership team, but maintained that team meetings should be open to anyone on the staff who wished to become involved. One of the lessons she considered she had learnt was of how, over time, the early adopters among the staff can become, in effect, the lead team.

How had the research associates' own leadership behaviour changed, if at all?

One of the main lessons to be drawn from this particular study is that leadership behaviour gradually accrues. None of the research associates claimed or pretended that their behaviour had been transformed. Rather, one of them employed the term 'refined' when discussing this, and the notion of refinement would seem to be just right. It is a case of learning small lessons, of coming gradually to small, albeit very telling, realisations.

For example, one of the heads, when leading in-service training with his staff, would base its delivery firmly on UFA lines, so as to embrace different ways of putting across information, in line with the need for variety and in recognition of the fact that different people have different preferred ways of learning. Another described how she had learnt to rein in her own tendency to go all out in taking the lead, setting the pace, and insisting that changes were made. She now appreciated that implementing change did not necessarily encompass a continuous upward line on a graph. She reported being now more considerate of her staff and of the possibility that they might have needs of their own when asked to take on a piece of change. In particular, she could appreciate the need to engage with her staff at the affective level, in the process deploying emotional intelligence. It helped that there were now several members of staff with a working knowledge of UFA who were keen to try out new things. This head reported having adjusted her behaviour in the light of this. For instance, she now was more encouraging of her staff when they showed interest in trying out something and also more prepared to go with something and see what materialised.

Impact

The response of school staff to UFA and brain-based learning

All 12 research associates were of the view that, while there was plenty that was positive, there also was a degree of indifference among some members of staff and even outright opposition on the part of a minority of teachers. In at least eight of the schools, the circumstances were perceived by the head or deputy as being broadly or very positive. That said, there were five schools, and possibly more, where it was acknowledged that the staff contained one or more blockers, who had the potential to be a negative influence and to steer colleagues against the change proposed.

There was some variation across the schools in terms of the perceived readiness of staff to take their lead from the head and give something new a go. Six of the research associates suggested that there was never any doubt that practices associated with UFA and brain-based learning would at least be given a chance, even though the rate of adoption might not be as rapid as they would have wished. It was also the case that some elements were taken up more readily than others – the use of music within the classroom, brain-gym activities and mind-mapping, for example. Several of the heads suggested that, rather than outright opposition, their main difficulty was that of countering the lip service which some on the staff were perceived to be paying to this innovation. A further variant was that, in several of the schools, the research associates indicated that staff from a particular area of the school – typically, a Key Stage team – were more favourably disposed than others among their colleagues. Half of the heads and deputies reported having allies on the staff – teachers, not necessarily members of the management team - who they were confident would attempt to innovate and who, by dint of the respect in which they were held by their colleagues, were likely to wield influence.

As for the other end of the continuum, as already noted, in five of the schools there was reference to the presence on the staff of one or more blockers – members of staff with a disposition to oppose change of any kind and with the potential to attempt to influence colleagues to behave likewise. In two of the schools, this was but a lone individual. In the one case, the head believed that if she focused her efforts on those among the staff who were prepared to give UFA and brain-based learning a chance, this ought to be sufficient to enable the person concerned to be marginalised. In the second school, the head took more direct action, bringing in a UFA-trained teacher to work with the person concerned, in particular looking to break down a rather negative outlook. The head also arranged for this member of staff to take the UFA training.

Circumstances in the other three schools appeared to present rather more of a challenge, however. In each case, there were considered to be two or more members of staff who were opposed to UFA, and quite often others who were paying lip service to it or who, at best, were indifferent. The hope was that the combination of training and working on teachers' self-esteem would serve to change the negative attitudes and outlook.

Evidence of early impact

Research associates' perceptions

Staff

While overall practice was more advanced in some of the schools than in others and while the impact on the individual teacher varied substantially, nevertheless, all 12 research associates were firmly of the view that some benefit had accrued for substantial numbers of staff by the end of the 2003/04 school year. What, then, were these benefits?

Main perceived benefits for teachers:

- increased enjoyment and satisfaction with their teaching
- increased understanding of how children learn
- deeper engagement with teaching and learning issues
- increased knowledge and competence in respect of UFA and brain-based learning
- greater experimentation with teaching and learning approaches
- increased professional autonomy
- more collaboration and teamwork
- increased appreciation of the significance of the state of the learning environment itself

These are commented on selectively below:

- Increased understanding of how children learn

Many of the research associates remarked on greater staff awareness of how children learn and of the factors that can affect children's learning. Several of the research associates considered being introduced to the literature on multiple intelligences and preferred learning styles to have been particularly influential. In practical terms, staff were perceived to be engaging pupils more by discussing lesson objectives with them, and identifying and agreeing learning targets. Increasingly, they were employing a variety of teaching and learning approaches in recognition of pupils' different needs and preferred learning styles. In a number of schools, learning audits had been conducted with a view to discovering what were pupils' preferred learning styles, or whether and how pupils were more actively involved in their learning.

- Deeper engagement with teaching and learning issues

A number of the heads and deputies reported that there was more in the way of discussion and analysis of teaching and learning issues, eg what constitutes quality teaching and learning, and how it can best be developed. Some considered this a significant step forward in their desire to see created a learning community for all – staff as well as pupils. One said: "It's a better community. There's a consistency – people are all talking the same talk." A second remarked: "I think there's a great deal more openness. There's the attitude now, 'We can give things a try'." It prompted this observation from another of the heads: "I hope that people now feel empowered to think more about children learning, rather than simply covering the curriculum." Yet another head reported that there was now more reflection on what had gone well or badly and more effort to determine why this should be so. Furthermore, staff were seen to be genuinely engaging with the issue of how to make the curriculum more creative.

- Increased knowledge and competence in respect of UFA and brain-based *learning*

One of the heads noted how staff were catching on to the need to break up lessons in order to sustain pupils' motivation and powers of concentration. Furthermore, they could now appreciate how introducing an element of fun into their lessons offered a means of sustaining or enhancing concentration. Brain breaks and brain-gym activities were a means of achieving both these ends. The technique of mind-mapping was another component that teachers in many of the schools were reported as having taken to fairly readily. Several heads commented on how staff were applying the VAK principles in their lessons. One noted how staff were being more creative in their teaching – as evidenced by their use of drama and role play, for instance, or by going out of school on educational visits. Another remarked on how having a smartboard in every classroom had helped to facilitate an approach to teaching and learning based on VAK principles. One of the deputy heads noted how there was now an awareness throughout the school of the principles of accelerated learning and the accelerated-learning cycle. Another of the heads reported that thinking skills had been built into teachers' weekly lesson planning.

- Greater experimentation with teaching and learning approaches

All 12 research associates were able to report that at least some among their staff were trying out new strategies and approaches to teaching and learning, many of which were rooted in UFA and brain-based learning. One head acclaimed this experimentation with pedagogy which was not considered second nature to them. In a number of the schools, it was noted that a determined push had been made to reintroduce greater creativity into the curriculum. Across all of the schools, it was claimed that a good deal of group work could be found. Staff were also seen to be making use of new technology such as smartboards. Generally speaking, a good many teachers were seen by the heads as being "more willing to take risks about learning", as one put it.

Pupils

As a rule, research associates were more cautious about proclaiming that UFA and brain-based learning in general had had notable consequences for pupils. There was the strong sense that it was still early days. Indeed, in several of the schools, there was the feeling that only now were staff in a position to be able to capitalise on their new-found knowledge and practical expertise.

What claims did the research associates make in respect of how pupils had benefited? The most widely mentioned benefits were these:

Main benefits for pupils:

- greater enjoyment of learning and increased motivation to learn
- increased confidence and self-esteem
- increased self-knowledge as to how they learnt best
- raising of aspirations
- increased pupil autonomy
- development of social skills
- improved behaviour
- improved attendance

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Once again, these are commented on selectively below:

- Greater enjoyment of learning and increased motivation to learn

In part this was seen as having been fostered by what one research associate termed big events, such as Superlearning days or a literacy consultant creatively teaching aspects of science, eg combining the solar system and poetry. However, another of the heads maintained that introducing the VAK principles into the day-to-day classroom routines, especially addressing kinaesthetic learning, had been a crucial factor. More generally, work on thinking skills and employing such strategies as mind-mapping and brain gym were seen as having brought back some of the enjoyment and unpredictability traditionally associated with learning and considered missing from the national curriculum. As one of the heads noted, UFA was all about providing pupils with different kinds of learning experiences from those to which they were accustomed. In addition, it afforded them greater responsibility for furthering their own learning. For yet another of the research associates, the key to success lay in making learning more active, building in plenty of opportunities for group work and employing mixed-ability groupings. Some of the research associates considered the improvement in the value placed on learning by the pupils to be remarkable.

- Increased confidence and self-esteem

A great many of the pupils in these schools were traditionally seen to lack confidence and to suffer from low self-esteem. Developments such as the introduction of more group work and teachers striving to cater for different learning styles were perceived to have contributed to a noticeable rise in pupils' self-esteem. Several of the research associates linked the perceived growth in pupils' confidence to the work on multiple intelligences and to teachers' efforts to address pupils' different learning styles. The point was made repeatedly that, if the appropriate learning approach was adopted, most pupils could achieve. In turn, this often had a dramatic effect on their self-image.

- Increased self-knowledge as to how they learnt best

Pupils were seen to be more aware of where their strengths as learners lay and what kinds of learning styles they preferred. One of the research associates noted that not only could the older pupils talk about their preferred learning styles, but they were also capable of choosing methods of learning which best suited them. A number of the heads and deputies had noticed how it appeared to be the case that greater tolerance was being shown towards other pupils, and suggested that teachers' attempts to cater for all learning styles and their emphasising that no one style was superior to another might be responsible for this.

- Raising of aspirations

The emphasis placed by many of the research associates on encouraging and helping pupils to raise their aspirations and to value achievement for its own sake was also seen to be paying dividends, albeit gradually. The spread of target-setting, often negotiated with the pupils themselves, the joint reviewing of learning followed by setting fresh targets, and the encouraging of pupils to talk about and celebrate their successes were seen to have made a difference in this regard. In addition, in several of the schools, the heads were to be seen actively encouraging pupils and staff alike to take more risks, talking up the message that you learn from your mistakes.

- Increased pupil autonomy

Increasing familiarity with the principles of group work and the feeling of greater comfort about applying these, eg, the notion of group members exercising responsibility for different roles, were widely seen to be having a positive impact on pupils' self-esteem, enjoyment of learning and their capacity to behave responsibly and autonomously. Generally, pupils were seen to be becoming more independent and self-reliant. Also, they were better able to admit to mistakes or to not knowing something.

- Development of social skills

Experience of group work in particular was seen to have led to some improvement in the development of pupils' social skills, which, in a considerable number of the schools, were reported to be notoriously poor.

- Improved behaviour

One of the heads remarked on a dramatic improvement in this regard, noting how exclusions had been reduced from 25 in the year prior to his assuming control of the school to zero. He believed that a key factor behind this reduction was the effort being made by staff to make learning more interesting, coupled with the emphasis placed on fostering pupils' autonomy and responsibility for their learning. Another of the research associates remarked on the much calmer, more purposeful atmosphere that could be detected throughout the school. It was thought that this had a good deal to do with the use of music in the classroom at certain times of the day.

- Improved attendance

Pupils were seen to be happier, as a consequence of which school attendance had risen. This was attributed to the fact that pupils were now more stimulated and more engaged in learning.

Attainment

Few of the research associates were prepared to make any firm pronouncements as to what impact there had been, if any, on children's attainment. Of the handful who did, these were the areas in which they claimed to have noticed a difference:

- better retention of factual information
- improved communication skills, especially speaking and listening
- improved performance in Key Stage testing

In addition to the more generalised benefits, specific gains were reported as having arisen from particular initiatives that had been mounted in individual schools. For instance, staff at one school had placed emphasis on developing children's writing skills, in part by ensuring that the VAK principles were reflected in the staff's approaches to teaching and learning. Another example was that of the community special school, where one teacher had introduced a philosophy component into her teaching. It was claimed that this had transformed the teacher's relations with the pupils. In addition, pupils were exercising greater responsibility for their learning.

Teachers' own perceptions

Themselves/their colleagues

All nine of the teachers interviewed referred to there having been general benefits for themselves, along with specific consequences for their approach to teaching and learning.

The former included increased confidence in following their intuition, greater awareness of what was entailed in learning, greater appreciation of what motivated children, greater awareness and understanding of multiple intelligences and VAK principles and their relevance for children's learning, and the acquisition of practical strategies which they could employ in their teaching.

As for how these teachers' approaches to their classroom craft had evolved to reflect the influence of brain-based approaches to learning, the main changes are listed below. Note that eight of the nine teachers stated that they had introduced greater variety into their approach to teaching and learning.

The influence of UFA and brain-based learning on teachers' classroom craft:

- Curriculum and lesson planning was informed by the accelerated-learning cycle.
- Pupils were more actively involved in their learning, eg talking about and discussing what they had been asked to do, working collaboratively, working on timed tasks.
- Pupils were encouraged and afforded more opportunities to dare to do things differently.
- There was more use of paired work and group work, and more thought going into the composition of pairings and groupings. For instance, one of the teachers described how she would pair a more able and a less able child, with a view to building self-esteem and promoting discussion about their work, including reaching conclusions.
- Specific brain-based learning strategies were employed, albeit to varying degrees.
- There was greater awareness of the importance of VAK principles and the need to build them into lesson planning.
- There was greater use of environments other than the classroom for the purpose of learning.
- Other aspects of the learning environment were now taken into consideration, eg the use of music in the classroom to provide a calming background against which pupils could work on their own, the use of promotional posters to encourage aspiration and achievement.

The perceived impact on their colleagues tended to vary with the school. In a number of the schools, there was the feeling that there had been little in the way of major impact so far. Typically, there were little pockets of experimentation, but rarely were these across the board. However, in the one school where UFA and brain-based learning was best established, it was claimed that every classroom would feature the following.

- use of brain breaks and brain-gym activities
- use of mind-mapping
- some use of accelerated learning (VAK principles)
- a display board featuring the principles of accelerated learning
- celebration of achievement or effort

In turn, this was seen by teachers to be having positive consequences for pupils' attitudes to learning, which in turn ought to help raise attainment in the longer term.

A teacher in this particular school, who had been in teaching for ten years, summarised the ways in which her approach to teaching and learning had evolved under the influence of UFA and brain-based learning. Her current class consisted of seven-year-olds.

Vignette: evolution in teaching and learning

- She sought to find out what pupils already knew about a topic at the outset and to establish what they subsequently had learnt. She made a point of establishing with pupils the objectives of each lesson at the start. She also believed in encouraging pupils to say, and preferably demonstrate, what they considered they had learnt.
- At the end of each week, she would engage pupils in reviewing what they had done that week, eg tasks that they had worked on, what they had enjoyed or found difficult, their successes.
- She actively promoted pupils' autonomy and independence, albeit with guidance.
- Where appropriate, she sought to model and to make connections between different elements of learning as part of a wider objective to enable pupils to become independent learners.
- She had undertaken a good deal of work on multiple intelligences, which had helped to unlock hidden potential in some pupils.
- She routinely deliberately mixed up pupil groupings, eg by ability, aptitude and friendship.
- She had carried out a good deal of training with her class with a view to getting them to listen to what their peers had to say and to respect one another's contributions.
- Brain breaks were widely employed, as seven-year-olds could only maintain concentration for short periods of time. Mind-mapping was another strategy she frequently used. She also made use of games for learning purposes.
- She made a point of praising pupils and generally being very positive in her exchanges with them.
- She emphasised the use of display work in the classroom with a view to motivating pupils. Special achievement or effort would be celebrated publicly at the end of each week, with certificates awarded for achievement, special effort or good behaviour.

Pupils

The main benefits for the pupils, which their teachers identified, were these:

- greater opportunity to work collaboratively with their peers on learning tasks
- encouragement and opportunities to dare to do something differently
- improved levels of concentration
- improved capacity to remember and retrieve information
- concentration improved and sustained for longer periods
- greater independence as learners
- more in the way of purposeful discussion going on between children, especially in relation to discussing their ideas and listening carefully to one another

Pupils' own perceptions

A total of 11 pupils from two schools were asked about their learning experiences and, in particular, what they felt about UFA and brain-based learning strategies.

It quickly became apparent that these developments were proving both popular with, and helpful to, pupils. Four Year 2 pupils spoke about a Superlearning day which they had experienced, during which each year group had focused on a different country and were required to inform and show their peers what they had done and learnt. Asked what had stood out about this experience, they identified the following aspects:

- It was a way of making learning exciting and fun.
- At times during the day, they had had the opportunity to dress up and to engage in role play relating to the theme (Australia), both of which were very popular.
- Breaking up learning into periods of concentrated activity interspersed with play or relaxation in the shape of brain breaks and brain-gym activities helped to sustain their motivation and interest.
- Use of colour was an effective technique for helping them to learn.

The Year 4 pupils, who were from a different school, spoke about how new practices and activities had been introduced into their regular lessons by their teacher and about the consequences for their learning. It was apparent that they were now more actively involved in learning, that there was a greater emphasis upon pupils working co-operatively with their peers, and that their teacher was attempting to make learning more exciting and pleasurable, for example by making use of educational games and setting timed tasks.

All five pupils fully endorsed these developments. In particular, they spoke very positively of four strategies, all of which were seen to make learning easier:

- mind-mapping
- the chunking of lessons
- the use of colour
- visual representations

Pupils further approved of the emphasis on looking and listening, which is integral to VAK principles. They also recognised their teacher's efforts to make learning more enjoyable by utilising games with an educational purpose and also by setting them tasks to do, which often involved co-operating with other pupils and had time limits. In addition, each was well aware of his or her preferred learning style, together with those of their peers.

Factors assisting and constraining development

As was noted earlier, the rate and amount of progress in implementing UFA methods and brain-based learning strategies varied considerably across the 12 schools. The reasons for this variation are multiple and cumulative. The circumstances obtaining across the 12 schools have been broadly analysed with a view to seeking to explain this variation and are recorded in Tables 1 & 2 below.

It is suggested that this portrayal of schools' circumstances should be treated as a broad guide, rather than as categorically being the case, since the data on some of the schools was more extensive and more robust. That said, this qualification does not detract from the broader argument being advanced here – that, in order to begin to explain the differential progress in implementing this piece of change across the 12 schools, consideration needs to be given to multiple factors which work in concert and have a cumulative effect.

The tables below offer an economic means of recording the salient features for each school, and space does not allow for detailed discussion of each factor. Instead, it is proposed to comment briefly and selectively.

- Competing agendas

The existence or lack of one or more strongly competing agendas is likely to have a marked bearing on the progress made in implementing this piece of change. This was the case in several of the schools. For instance, staff at one school which underwent a change of character at fairly short notice (from a First to a Primary school) found themselves having to develop a curriculum for Year 5 pupils for the first time, and a Year 6 curriculum a matter of months later. Admittedly, such instances were not typical. More common, however, was the need to raise pupil attainment in the short to medium term.

- Instability at leadership level

This has to do with the degree of stability of a school's senior management, most importantly, the headteacher. A number of the schools had had several different heads, some in an acting capacity, in a comparatively short space of time. It is contended that, in such circumstances, in organisational terms, a school is likely to be in desperate need of a period of stability and that going all out in pursuit of fairly fundamental change is unlikely to be a sensible course of action at that stage. It is likely, also, to be the case that a school with a recent history of leadership instability will lack the sort of culture that encourages experimentation and risk-taking.

Table 1: Factors aiding progress

Factor / School	A	B	C	D	E	F	G	H	I	J	K	L
Head/Research associate accustomed to working in pressured circumstances and being very focused		•	•					•			•	
Head/ Research associate inclined and able to take risks		•	•								•	
Research associate actively driving change		•	•	•							•	
Research associate with some prior experience of UFA and brain-based learning		•	•	•				•				•
Availability in school of allies		•	•	•		•			•			•
A positive staff, reasonably or notably committed to change		•	•	•	•		•		•			
A staff who are comfortable with autonomy				•								
The appointment of new staff	•	•							•			
The deliberate reshuffling of staff	•		•	•								
Presence on the staff of early adopters	•		•	•	•	•						•
The absence of blockers on staff		•		•	•		•		•		•	
Strong investment in relevant INSET	•	•	•	•		•					•	
Staff trained or training as UFA Fellows	•	•	•	•					•		•	•
Size of the school					•		•		•			
A settled catchment	•				•					•		
Pupil homogeneity	•		•		•					•	•	

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Factor/School	A	B	C	D	E	F	G	H	I	J	K	L
A healthy budget		•		•				•			•	
Access to additional funding or expertise	•	•		•			•				•	
Evidence to suggest school developing as a learning community for pupils and staff		•	•	•								

Table 2: Factors constraining progress

Factor/School	A	B	C	D	E	F	G	H	I	J	K	L
One or more strong competing agendas		•					•	•			•	•
Competing demands on the research associate's time	•	•					•	•				•
Head/Research associate cautious about driving through change	•				•	•	•		•	•		
A lack of allies on the staff	•							•				
Staffing instability at leadership level in recent years	•	•	•					•	•	•	•	
Considerable staff turnover		•	•					•	•	•	•	•
A degree of organisational instability		•						•		•		•
Split site hinders development of shared identity					•	•				•		
Not a unified school. Tensions between different areas of the school	•					•					•	•
Low staff morale		•						•	•			•
Staff resistance to change	•					•		•				•
A staff unaccustomed to autonomy		•	•		•			•	•			
Presence on staff			•			•		•			•	•

of likely blockers											•	
A recent history of low pupil attainment	•	•	•			n/a	•	•			•	
Low aspirations of pupils and parents	•		•			n/a	•	•			•	•
Significant pupil turnover		•				•		•				
School budget cash-strapped							•	•		•		
Limited investment in staff development							•	•		•		
Little to suggest emergence of a learning community for pupils and staff	•					•	•	•	•			•

- Schools as communities of learners

The majority of the 12 schools at this time might be said to fall some way short of being genuine learning communities where pupils and staff alike can be found actively engaging with the process of learning, where this is defined as individual betterment and improvement. In such communities, teachers might be expected to be highly motivated, to enjoy a high degree of professional autonomy and to be actively striving to improve or extend aspects of their professional practice. The role of the head in such establishments would be very much that of encourager, facilitator and orchestrator, rather than the originator of ideas and the driving force for experimentation and development, as is often the case for the more typical school.

- The driver of change

The majority of the schools represented in this project fall into the latter camp (ie the more typical school). Only two, or possibly three, show definite signs of developing as learning communities for the adults within them, as well as for the children. As such, there was a clear need for someone to drive change. This was a role envisaged for the research associates, and one which all of them were striving to fulfil in respect of UFA and brain-based learning, albeit to varying degrees. Change was approached in a variety of ways, in keeping with each individual's circumstances and preferred mode of operating. The research associates were not all equally able to pursue implementing this particular piece of change to the same extent because of contextual differences, as is evident from Tables 1 & 2. The preferred mode of operating of the research associates ranged from those who clearly were strong, active leaders and adept at managing people to others whose preference was for a more collegial approach to leadership based on building consensus.

- The presence of allies on the staff

One of the main findings from the research literature on change is that attempting to bring about the adoption of change single-handedly can be hard going and that it can prove more effective for this to be in the hands of a change team. At least six of the research associates had one or more colleagues on the staff in whom they were able to confide and whose active support they had sought in relation to introducing this piece of change.

There was, however, only the one school where there could be said to be a definite change team. This consisted of the research associate (a deputy head), an assistant headteacher, who also was a UFA Fellow, and a Key Stage co-ordinator. It did not stop there, however. Several of the staff had undertaken relevant training and, as a consequence, were convinced of the value of brain-based learning approaches. It was stated that each year group contained at least one teacher who was in a position to influence colleagues with respect to adopting UFA and brain-based learning. In addition, the headteacher and other senior managers were actively committed to developing the curriculum and improving the quality of teaching and learning. A high priority attached to staff bettering themselves professionally. They were afforded considerable autonomy to experiment with and put into practice what they had learnt, secure in the knowledge that support was readily available, if required, and that mistakes were regarded as potential opportunities for learning.

- Staff receptiveness to change

The extent to which a school's staff are prepared to embrace change varies substantially and is influenced by a number of factors, which include:

- the stability of the school in an organisational sense
- the age profile of the staff
- the confidence of staff members, both individually and collectively
- the nature of the staff's professional relationship with the headteacher
- the extent to which the staff are willing to take their lead from the head
- the nature and quality of the leadership being provided
- the level of pupil attainment

- Staff unity

Arguably, building a unified staff is that much more difficult in those situations where the school is the consequence of a merger of two or more existing institutions, especially where the resulting school is spread across more than one site. Wherever a staff is less than unified, getting an innovation to take hold is likely to prove a slower and more complex process than in schools where there is a sense of unity binding staff together.

- Staff composition and stability

A number of the heads were of the view that there was a need to shake up what they perceived to be an element of complacency on the part of some staff with regard to the possible need to consider alternative ways of approaching teaching and learning. One possible means of tackling this issue is to bring in new staff. However, it could take a considerable time before a head would be able to change the composition of the staff to a significant degree by this means. In the short term, therefore, it was fairly common to find heads reassigning staff to different year groups and Key Stage teams in an attempt to trigger the adoption of new ideas and approaches to learning. Typically, they looked to pair teachers known for their openness to change with colleagues who they perceived to be more set in their ways, in the hope that the former group's willingness to experiment would influence the latter's steadfast attitudes and practices. In the longer term, heads sought to bring in new staff who were more open to embracing change and whose thinking was more in line with what they wished to bring about.

- Teacher-led dissemination of good practice

In one school, the strong investment in professional development, coupled with encouragement of teacher autonomy, had led to a situation where a number of the staff had acquired new

knowledge and practical ideas which they had experimented with in their teaching and, over time, made work for them. Subsequently, with encouragement from the school's senior management, they had shared their new knowledge and practical ideas with their colleagues. This was seen to be a very effective means for spreading good new practice within a school and was now happening with UFA.

- Turnover of pupils

Against a background of considerable instability in terms of pupil composition, it can prove difficult for teachers to experiment with UFA and brain-based learning methods and strategies. There is the likelihood of progress stalling or even going into reverse, as the pupil composition changes.

Conclusion

There can be little doubt that this project has proved a success, even in such a short time span. Regarding the specific aims (see page 5), the research has uncovered plenty of evidence to show that developments in teachers' teaching and children's learning as a consequence of applying UFA methods in everyday classroom practice were occurring, even if the rate of progress varied, both within individual staffs and across the 12 schools.

If two things above all else stand out about the impact of the training, they are, firstly, its having focused attention firmly on learning - primarily children's learning, though, importantly, underscoring the significance of adult's learning too; and secondly, its having enabled these senior educators to experience for themselves what different approaches to learning and drawing on multiple intelligences and VAK principles can be like. It was equally apparent that the second aim, developing effective coaching techniques for use with teachers, had been realised. Most of the research associates could provide illustrations of modelling and coaching actions which they had carried out with colleagues, both collectively – in the context of professional training days, staff meetings and school assembly, for example – and individually – working one-to-one with a teacher with a view to helping him or her to acquire or develop aspects of the relevant professional repertoire.

The two other specific aims are, in some respects, of a different order and their development should be seen as longer term. It was apparent that, while the research associates recognised the importance of providing active leadership, they had come to the realisation that this did not require them to do everything. It was also evident that the research associates had swiftly come to appreciate the strength and value of peer support. Accordingly, there were various instances of these heads and deputies seeking out allies to assist them in facilitating this particular piece of change and, more generally, of their investing in developing the leadership potential of some of their staff colleagues.

It would seem even more the case that the future will hold more in the way of heads facilitating change, as well as acting to promote teachers' and children's learning. Also, as part of this whole process, the place of peer support – head to head, teacher to teacher – and networking would appear fairly central. In these respects, the project can be said to have been at the cutting edge of development. A good deal has been achieved, although much still remains to be done. The challenge henceforth is how to sustain the research associates and their allies in their quest.

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