

Nurturing young gifted and talented children: Teachers generating knowledge

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Abstract

This article presents the findings of a set of Action Research projects carried out by practitioners in 14 Local Education Districts in collaboration with a team of university tutors over a period of three years. The aim of the project was to explore ways of nurturing the gifts and talents of children aged 4-7 years. The project was funded by the Department of Education and Skills as part of the government's gifted and talented programme in the United Kingdom (UK). Two specific outcomes of the project are presented in this article. The project helped to develop teachers' understanding of both the identification of and provision for gifted and talented younger children. It also highlighted that Action Research offered a suitable methodology for teacher-researchers to explore the complexity of the topic of giftedness through cycles of planning, action and reflection.

Keywords: Young gifted; talented; action research

Context of the study

Two radical new initiatives gathered momentum in England and Wales between 1998 and 2003. A National Strategy was launched for the enhancement of provision for children in the early years. Twenty-five Early Excellence Centres were set up across the country, which were to serve as models for high quality practice in both education and child care (Sylva & Pugh, 2005). Curricular Guidance for teaching children in The Foundation Stage (3-5 year olds) was provided by the government (Department of Education and Skills /Qualifications and Curriculum Authority, 2000). Around the same time the British government launched a *Gifted and Talented* initiative, initially aimed at driving up standards in inner-city areas (DfES, 1999). Secondary schools (pupils aged 12-16 years) in seven Local Education Districts were required to identify the top 10% of their intake as *Gifted and Talented* and provide a distinctive teaching and learning programme for them. In the following four years the *Gifted and Talented* initiative was extended to more Local Districts across the country and after a further two years, upper primary schools (children aged 9-11) were also included in the initiative. It was interesting to note that neither the Early Years developments, nor the *Gifted and Talented* initiatives had referred to any aspect of developing gifted and talented younger children. As a result of raising this issue, the university where the authors work, was commissioned by the British Government to support groups of practitioners working with children aged 4-7 in Local Education Districts across England and Wales to carry out Action Research projects in order to explore aspects of both identification and provision for younger gifted and talented children.

Why was it important to carry out the study?

A review of research literature undertaken by Koshy and Robinson (2006) suggests that of all the children with special needs, younger gifted children are the group most frequently ignored throughout the world. There are many educators who maintain (when they think about this group at all) that such children have no special needs whatsoever and it is far too early to think about their gifts and talents. A literature search showed that although there is significant research on older gifted children, internationally, studies exploring aspects of giftedness in younger children are rare. What are the consequences? There are losses for the children themselves, for science and for society at large. In societies that care about their children, it is difficult to justify continued neglect of children for whom the ordinary preschool or school programme may be a poor fit. Like all children, gifted children deserve a happy childhood full of vigour, joy, optimism and growth. They deserve these qualities irrespective of whether early intervention produces long-range differences in their attainment. In this article we report how a collaborative project between practitioners and university researchers has made a start in meeting the needs of these children in the UK. The project outcomes have been disseminated widely; they continue to provide guidance for teachers to help them to address the needs of younger gifted and talented children.

Purpose of the study

The main objectives of the study were to:

- guide groups of practitioner researchers in schools to explore aspects of educational provision for younger gifted children (4-7) in collaboration with university tutors;
- identify issues which are of particular significance in the education of younger gifted and talented children.

Theoretical framework and perspectives

The project drew on several principles and perspectives. The significant role played by adults – teachers, parents and classroom assistants in our context – in the actualisation of talent, as emphasised by Vygotsky (1978) was emphasised. The significance of early identification and provision is highlighted in studies such as those of Bloom (1985) who studied world-class achievers in sports, arts and academic subjects. His case studies showed that giftedness can be observed in early childhood and that many of the eminent achievers were introduced to the area of their talent by their families early in life. One of the reasons educators shy away from the identification and development of talent in younger children is the fear that the advancement will be a 'flash in the pan'; but Robinson (2006) assures us that studies in the United States of America (USA) show that when we combine adults' description of the children with evidence from objective measures of development, we can identify children who are gifted and talented and remain so.

The challenge of identifying gifted and talented younger children was not underestimated by the researchers. Gardner's (1983) theory of Multiple Intelligences and his assertion about its educational implications that it 'should be possible to identify an individual's intellectual profile (or proclivities) at an early age and then draw upon this knowledge to enhance that person's educational opportunities and options' (9) were drawn on. Renzulli's (1986) Three-ring model and Sternberg's (2000) view of intelligence as 'developing expertise' were also used to guide teachers through the complex processes of identification and provision.

Literature review

Issues of identification

First, who are these younger gifted and talented children, as we refer to them in the context of our projects? Defining giftedness in early childhood is a challenging task and no universally accepted definition exists (Coleman, 2004; Cramond, 2004; Gagné, 2004; Sternberg & Davidson, 2005). So we must make do with an informal consensus. For the study reported in this article we considered children who show *significantly advanced abilities and skills* in any domain to qualify as gifted and talented. In young children it is the evidence of *promise* of developing abilities that tips us off. In most of the reported research studies or initiatives, it is the most advanced children who are considered sufficiently different from their age peers as to need special attention outside their ordinary settings (Robinson, 2006). Although there is a paucity of research about young gifted and talented children, what we know does provide some guidance to build on. We know from some of the earliest and most extensive research on gifted young children that retrospective accounts of the childhoods of individuals who, as adults, made significant contributions had exhibited precocity during their early years. Some of them showed astonishing precocity – and most had been encouraged by their families towards high achievement. An interesting study of young adults who were world-class achievers in sports (swimming, tennis), the arts (pianists, sculptors) and academics (mathematics, research neurology) by Benjamin Bloom (1985) and his colleagues, also confirmed that precocious talents could often be observed in early childhood, although, particularly in the case of the academicians, not specifically in the area that blossomed later. Many of the children in the sports and performing arts had been introduced to their area of talent by their families, and had been gently coached and encouraged until their own strong motivation took over. The importance of the early years in at least some talent areas such as classical music and dance (Winner, 1996) has been re-confirmed many times. The implications of this for parents and others who work with younger children are significant.

Early intervention programmes

The most extensive literature on early school options for gifted children relates to early entrance to kindergarten or first grade in the USA (Robinson, 2004). Almost all countries have dates by which children are supposed to enter kindergarten or regular school. Robinson (2006) points out that that early entry has many advantages for gifted children since it is the least disruptive in terms of friendships and curriculum, is inexpensive and at least in the beginning can provide appropriate challenges for the academically precocious child. Based on her research in the USA, Robinson maintains that very precocious readers will need additional curriculum adaptations, and that a one-grade acceleration is likely to prove insufficient by itself later on. This alternative does require decision-making when the child is quite young, however, and is difficult to reverse. One must, nevertheless, be careful of pitfalls in the research base. There are conflicting views on early school entry with some studies showing that younger accelerated children are less mature in terms of achievement and adjustment and are more often referred, because of suspicion as having learning disabilities (Maddux, 1983) and other studies asserting that academically, the children usually thrive after early entrance. Studies on acceleration (Colangelo, Assouline & Gross, 2004) have shown that social-emotional indicators in such situations tend to be slightly but not dramatically positive and that the children do as well as other children. The few long-term studies, for example Hobson (1963), have tended to show early entrants in positions of leadership later on in school.

The issue of early entry to school remains contentious. A longitudinal study by Colangelo, Assouline and Gross (2004) describes how Gross identified a group of children in Australia who were highly gifted and tracked their development through school. Not all the children were very young when identified, but some were under the age of 8. The single most important factor determining their success was the degree to which their education had been accelerated. It is reported that those who had achieved a good match with the level and pace of their learning were considerably better adjusted and more productive than the group whose advancement had not led them to such challenges.

Educational programmes for young gifted children

There are only a few reports in the literature of programmes specifically designed for younger gifted children and even fewer that have used reliable research designs to evaluate the effectiveness of the interventions. Some of the programmes have targeted children whose development is distinctly advanced, while others have tried to encourage children 'of promise' who were growing up in unpropitious circumstances. Morelock and Morrison (1999) argue that a 'developmentally appropriate' curriculum for young, gifted children must take their advancement into account. They describe a framework for a multidimensional, five-level curriculum that proceeds from children's concrete, direct experiences through increasingly contextual and abstract dimensions crossing disciplines.

A preschool programme, instituted at the University of Washington in the mid-1970s, is one of the few that has tried to validate its efforts (Roedell, Jackson, & Robinson, 1980). This study demonstrated that – as is the case with older children – simply bringing bright children together in a nurturing environment is not enough. To achieve measurable academic gains, it is necessary to develop a targeted academic curriculum that creates challenges and an optimal match with the children's level and pace of development as well as their social development and interests.

Summer programmes

There are very few reported systematic summer programmes for younger gifted children, but the exceptions tend to be well received and are impressive as is evident by the delight experienced

by the children in discovering not only the interesting experience with content not ordinarily covered in school, but also the fact that there are others like themselves who are passionate about learning and skilled in doing so.

Towards a framework for provision for younger gifted children

Our review of the literature showed that research findings on younger gifted and talented children are sparse. What is available suggests that it is possible to identify gifted and talented children at an early age, as they do exhibit personal interests and passions in early childhood. There is evidence that parents can provide reliable information on children's gifts and talents. No studies seem to exist which have explored the effectiveness of teachers' identification systems. Studies on early entry to schooling have produced some useful guidance as to its use as a strategy for provision. Although there are very few studies which evaluated the outcomes of enrichment programmes for younger children, children seemed to have benefited from these programmes if the activities offered were well planned and stimulating.

Methods and modes of enquiry

Action Research was used as the methodology for this project. The process of practitioners undertaking research, in collaboration with academic researchers in universities, has been growing in popularity in the UK for the past few years. Hargreaves (1996), who drove the agenda for evidence-based practice in education, views researchers and practitioners as co-creators of knowledge. Within our Action Research projects which drew on many of the principles set out by Koshy (2005), knowledge was generated within the practitioners' contexts. The aim was to encourage groups of teachers in the 'production of new knowledge' (Gibbons *et al.*, 1994) in the context of application. It was also felt that university tutors and practitioners working collaboratively enable both knowledge transfer and accessibility (Furlong, 2004).

We felt that Action Research with its self-reflective spirals of planning a stage, acting and observing the process and consequences of the change, reflecting, re-planning, acting and observing, reflecting and so on (Kemmis & McTaggart, 2000) was particularly suitable for exploring aspects of gifted and talented education with its associated complexity. Initiatives in gifted education are fairly new in the UK and teachers of younger children (4-7) had been excluded from any support until the start of our project.

Researchers were aware of the limitations of generalisability within Action Research, but this was acknowledged at the start. Epistemologically it was accepted that knowledge is uncertain and was created through negotiation of meanings by discussions with others, followed by reflections. The data gathered were mainly qualitative, with the exception of the use of questionnaires within the projects. In-depth case studies were produced by each of the project teams following Yin's (2003) guidance on what constitutes an exemplar case study: it must be significant, complete, consider alternative perspectives and must be told in an engaging manner. The use of multiple case studies according to Miles and Huberman (1994), however, increases the generalisability and at deeper level 'the aim is to see processes and outcomes across many cases and thus to develop more sophisticated descriptions and powerful explanations' (172).

Participants

All 150 Local Districts in England and Wales were invited to apply to be included in the Action Research projects; 91 applied and 14 giving priority to gifted education during that year were selected. Selected groups were socio-economically representative. Each group consisted of advisers and three practising teachers. The intention was that all projects would produce in-depth case studies on their selected topics which would serve as documentaries and form the basis of replicable models in other similar contexts.

The participants received support in research methodology and literature analysis. As government initiatives in gifted education are fairly new in the UK, practitioners also needed considerable input relating to all aspects of giftedness and giftedness in younger children in particular. All the practitioners who took part taught children in the age range 4-7.

Data sources

Data were gathered from the following sources:

- Demographics of participating institutions and their intake of students
- Questionnaires used within projects
- Interviews of students and colleagues
- Participant observation notes
- Notes of visits by university tutors
- Group discussions of participants at the university
- Video recordings of sessions
- Practitioners' logs
- Focus groups
- Interim and final reports and case studies
- Recorded evidence of on-going samples of children's work and responses during lessons.

Outcomes: Teachers generating knowledge

The project participants were aware of the limitations of Action Research in terms of generalisability, but it was possible to identify common themes and issues across case studies. The richness of the gathered data helped the project teams to make useful interpretations for early years practitioners. One of the features which emerged from this project was the acknowledgement of the practitioners that Action Research offered them opportunities to construct understandings and meanings in the area of gifted education, which is complex and relatively new in the UK. They felt able to interpret the data according to the national guidelines on Quality Standards for teaching gifted and talented children (DfES, 2006) and implement them with greater confidence and understanding.

Data analysis consisted of studying all the data collected during the project and noting emerging patterns and themes (Miles & Huberman, 1994). The findings of the fourteen research projects helped to enrich and extend the knowledge base and understanding of gifted and talented education in Foundation and Key Stage 1 settings (4 -7 years) in England and Wales. Each project was designed to address the local schools' and Local Education Districts' needs within the context of a rapidly developing national agenda for gifted and talented education in the UK. Hence, some projects focused more on approaches to identifying young gifted and talented learners whereas others made curriculum provision their main focus. Some projects were subject-specific (music, mathematics and writing) whereas others explored cross-curricular and thematic approaches to provision. On the other hand, for some of the research projects, the individual needs of some learners predominated – for example, the hearing impaired gifted and talented children, children with English as an Additional Language or the behaviourally challenging gifted and talented children. And yet again, for some projects, the broader themes of transition, relationships with parents or the wider community provided the key focus. A full report of the project and case studies is published by the UK Department of Employment and Skills (Koshy *et al.*, 2006). Despite the rich diversity of the projects, it was possible to discern a range of common themes and shared experiences in the research projects. The fourteen research projects also provide illustrative material. In the following section we present an overview and some significant outcomes of the project.

Issues relating to identification of gifted and talented children

There was ample evidence to show that professional understanding of the identification of gifted and talented learners was improved as a result of sustained involvement in the Action Research process. Practitioners involved in the research projects gained vital professional development in defining and identifying gifted and talented learners. The project teams developed a growing awareness that the identification of young gifted and talented learners is highly complex and emphasis needs to be given to identifying potential gifts and talents at this stage of the children's learning development. Exploring one or a limited number of identification approaches in depth provided the teachers with the necessary confidence to move on to consider multiple criteria and sources of evidence. Initially, as well as taking note of national standardised assessment data where appropriate, the identification processes fell into three broad categories:

- i. Structured or semistructured classroom observations;
- ii. structured or semistructured interviews (conferences) or questionnaires for parents;
- iii. notes from children's conversations or conversations with children or semistructured evaluations by children.

One project developed a semi-structured observation schedule for identifying young, gifted and talented children based on the six areas of the UK's Foundation Stage Curriculum – which includes mathematics, literacy, personal, social and emotional development, knowledge and understanding of the world and creative development (DfES/QCA, 2000). Others devised a series of activities, games and assessment materials focusing on one subject area. For example, one project considered the identification of musically talented young children including an identification chart already developed by an expert music service. The debate on whether identification should be based on a general set of criteria or a list of subject-specific attributes dominated throughout.

The theoretical perspectives of Gardner's (1983) Multiple Intelligences and Renzulli's (1986) Three-Ring Model were used by two project groups in their identification processes and consequently identified not only academic talents, but other attributes such as musical talents, task commitment and creativity in their gifted and talented children.

As the projects unfolded, the teachers' gained confidence in their ability to use and analyse the evidence from particular identification approaches. At the same time their judgements and assessments of gifted and talented learners became more refined and rigorous. Indeed, one project leader reported that:

For the first part of the study, in June 2003, twelve of the most able writers in year 2 (6-7 year olds) were selected. For the main part of the study from October 2004 to January 2005, six children were chosen from year 1(5-6 year olds) and six from year 2. These six pupils had been identified as more able writers on the school's gifted/talented register and have been tracked since the Foundation Stage. This dramatic reduction in numbers of pupils involved represents our growth in understanding that there is a wide gulf between the 'more able' and the 'gifted' writers. As the research progressed, the number of 'gifted' writers seemed to decrease!

The need for flexibility and the difficulties associated with the use of terminology were highlighted in the discussions throughout the duration of the project.

Provision in the classroom

Many of the teachers concluded that effective classroom provision enhances the opportunities for identifying gifted and talented children. At the same time, many of the research projects reported that planning appropriate curriculum provision to challenge and extend the more able learners raised the expectations and achievements of the whole class.

The project teachers reviewed and revised their teaching strategies alongside their approach to curriculum planning. A south of England project team's experience reflected many of the other projects in that, overall, the teachers' curriculum planning became more flexible and creative as was described:

... the children's enthusiasm is infectious and promotes passionate teaching!

Three significant changes to curriculum planning emerged from the project reports. The teachers' planning included addressing one or more of the following:

- i. The integration of higher order thinking skills and creative thinking;
- ii. planning open-ended activities or enquiries which increased children's opportunities for problem solving;
- iii. including children's special interests as central to curriculum development.

Effective curriculum provision often necessitated changes to the normal time-table of events. For example, in a London-based project an 'interest time' was built into each week's timetable and, at the outset of each topic, emphasis was given to children establishing questions that they wanted answered. In a similar way, teachers undertaking two other projects integrated a programme of special workshop or activity days into their time-tables. One focused on the development of cross-curricular tasks to develop children's creative thinking skills, whereas the other began with after-school workshop provision for mathematics within a cross-curricular theme. This model was fine-tuned at a later stage and integrated into the daily mathematics lesson within the classroom setting.

An inner-city teacher devised mini-enrichment projects designed to be cross-curricular and to cater for different learning styles. These aimed to encourage the use of higher-order thinking skills, problem-solving and creativity. Each project was set out on a planning web, showing how activities linking to different areas/subjects of the curriculum could be generated from a single starting point. A broad range of outcomes including story maps, book making, artwork, life cycle drawings and plays were suggested. Resource boxes were made to support each project and suggestions for other useful materials were made. The mini enrichment projects were based on familiar children's stories, e.g. 'The Gingerbread Man', 'Little Mouse and the Big Red Apple' and 'Rumble in the Jungle'. Children's literature also provided the springboard for planning thematically in the Dorset, Warrington and Richmond research.

Attention to resourcing and designing the learning environment to support new curriculum practices was evident in all of the projects. For example, one set of teacher researchers identified ways of adopting the Reggio Emilia (Edwards, Gandini & Forman, 1998) principles into their own provision. Care was taken with the design of the learning environment both inside and outside the classroom – soft qualities such as light, colour, sound, micro-climate needed to be emphasised. Parents often contributed in unexpected ways, for example providing a special carved wooden seat for the outside environment so that children could read undisturbed and in comfort outdoors! At the same time, learning resources needed to be multisensory and provide children with opportunities to explore and represent their ideas in multiple media ('the hundred languages of children', Edwards *et al.*, 1998). In this way children were supported in following their individual learning pathways.

Giving children ownership of the learning activities and the time to follow through their own ideas was a key theme in many of the projects. Removing time constraints enables gifted and talented children to work at their own level of challenge and at a pace appropriate to their individual needs. One project teachers reported that by taking 'a step back' from direct teaching and allowing children to make decisions on their own learning, as well as allowing the children to work on self-sustaining tasks, resulted in high levels of concentration from the children. A

head teacher was challenged by the children's comment in a discussion on thinking that:

There's more to wonder about at home now.
and said:

This led me to wondering aloud about whether there was enough thinking time and space in school. The children's responses indicated that they thought maths, literacy and daily physical exercise gave you no time for thinking, whereas playtime had lots!

These teachers found that they became more skilled at 'reproposing' children's thinking to them in order to challenge and develop their conceptual understanding. They also found that they learnt more about the children's views of themselves as learners :

I don't actually know how clever I am and when I do it surprises me! (Emily age 6)

Use of external experts

Teachers creating opportunities for enriching the curriculum was evident in a number of the projects. One of the ways in which this was made possible was by inviting specialists to work with the children. For example, in a London project the researchers invited an artist to work with a group of gifted 5-year-old writers building a 3D space ship in order to enhance the children's opportunities for using their imagination and extended vocabulary. Similarly, in order to enrich the curriculum and support children's 'expressed interests', another group of teachers invited specialist inputs from local poets, bee-keepers, small-holders (farmers) and children were encouraged to make choices of the medium for representing their ideas. The invited experts were able to extend the able learners' thinking and respond more readily to their challenging questions.

Underlying many of the projects was an earnestly held belief that young children whose abilities lie way beyond their peer group must be identified early, particularly those with atypical learning patterns who have special needs that must be catered for appropriately. Added to this, parents of young gifted and talented children often felt unable to cope and lacked confidence in their ability to satisfy their child's specific needs, so they needed support.

Developing an 'Assessment for Learning' approach

Assessment for learning was brought into sharp focus throughout all of the research projects. A clear spiral of teacher development and practice emerged:

Teachers' skills and confidence in identifying gifted and talented learners began to increase leading to

more focused curriculum planning addressing the needs of individual learners and an enriched curriculum leading to

increased assessment and identification opportunities and an enhanced assessment and identification process providing more finely graded insights (including pupil's own evaluations) leading to

an increase in personalised learning pathways and pupils sharing responsibility for designing learning tasks.

Some key issues

The following are some of the significant issues that emerged during data analysis.

The needs of the exceptionally gifted child

While teachers felt that they developed both their understanding and skills of identification of gifted and talented children, the challenge of meeting the needs of the exceptionally gifted was one of the major issues highlighted in several of the projects. Practitioners found that the needs of the *truly exceptional* young child were difficult to meet within a whole-class situation. Three projects highlighted the conflicts and dilemmas faced by teachers who were expected to follow a nationally imposed curriculum employing whole-class teaching methods, knowing that there were students in their class whose understanding of both mathematical content and the use of sophisticated processes were years ahead of their peers. Of interest to other practitioners, during a dissemination conference, was the case of 5-year-old Matthew who called himself a 'Waiter', always 'waiting for others to catch up'. As early entrance to regular school before the year when the child reaches the *magic age* of 5 is often dismissed outright by most practitioners in the UK, some rethinking may be necessary. Our literature search showed this to be a contentious issue in other countries also.

Acknowledging the difficulty of meeting the needs of the highly gifted young child within the normal classroom, a range of strategies was employed by groups of researchers. An enrichment cluster set up in a central venue, following the principles of Renzulli's (1976) Enrichment Triad, was found highly effective in one district where 20 schools sent their most able pupils to the cluster. They carried out in-depth explorations on topics, created mathematical games, planned and built model bridges – all scaffolded by adults including experts from the local university. Five-year old Sam, who declared at the start of the project '*I am on the hardest shelf, but it is still all too easy*' told the university tutors during an interview at the cluster that he '*used to be on the disruptive register*' and had been taken off that list after joining the cluster. Other effective strategies for nurturing the talents of the exceptionally able included the adoption of the principles of the well-known *Reggio Emilia* programme which offers students personalised learning opportunities by undertaking personal projects arising from their interests. Teachers' documentation of conversations as the project developed and displays of work were major features of this project. Another effective strategy which was trialled with positive outcomes was the use of older mentors to work with groups of gifted 6-year-olds. Students who worked with the mentors developed their self-esteem and described their pleasure in communicating with them about complex mathematical topics.

Identification of and provision for gifted and talented children with special needs

Two pioneering projects involved designing curriculum materials for special groups of younger children whose identification and inclusion in gifted provision posed particular difficulties. One of the projects targeted partially deaf children and the other was situated in an inner-city school within an area of high level social deprivation. In both cases the 5 to 6-year-olds had difficulties with language, both speaking and reading. Specially designed activities which provided opportunities to demonstrate their talents *through doing* were successfully used. This led to the identification of gifted children whose talents were masked by disadvantage. Video recordings showed two particularly significant '*magic moments*' as described by the teacher researchers: one showing a deaf child aged five displaying initiative in transferring water, showing a firm understanding of hydraulic pressure by siphoning water from a higher to a lower level, and the other a gifted young child reproducing, from memory, a map of her neighbourhood which showed a remarkable talent for spatial awareness. The exemplar case studies of these children have raised awareness of the need for specially devised teaching materials to support the identification process, especially of children with special problems.

Enrichment projects

At the start of the project many of the teacher researchers felt it was too early for children, aged 4-7, to be selected for enrichment activities. This perception changed as the projects progressed and as project teams which tried this strategy reported the level of enthusiasm shown by the children who participated in these activities. Participating children exhibited pleasure in having the opportunity to explore ideas in depth and without the time constraints of the normal classroom. A range of enrichment activities – general topics and subject-specific were received with much enthusiasm by the children and their parents. One parent, Fiona, wrote to a project teacher :

The difference the after school club has made to Daniel is tremendous. He brings the bits and pieces he has done at the club home and talks about them endlessly; he wants to carry on finding out more. Television time has now been replaced by talking about what he wants to find out before the next club time.

Teachers planned the enrichment activities taking into account the principles established during university sessions. The enrichment projects provided children with opportunities for personal research, working with more knowledgeable adults – experts, older student mentors – and working with peer groups of similar ability which enabled them to engage in conversations which may not always appeal to all their peers.

Taking note of personal passions and interests

Data collected from projects showed that providing opportunities for children to share their interests with their peers and teachers had contributed significantly to children's general motivation and attitude to work. Several teachers confessed to not knowing their children's interests until they either introduced 'interest sharing times' or made special efforts to find out what interested their children. Teachers were often surprised by the enhancement of children's level of engagement in school, brought about by the scheduled interest discussion times. Amanda, a teacher of 5-year-olds described this as follows:

Melissa spoke very little in the first 4 months after she joined my class. Both the classroom assistant and I thought she was a day dreamer. I did wonder if she was very bright and had not engaged in the activities because she didn't find them interesting. During one of our 'interest' times she spoke a few sentences about her interest in Butterflies. The following day she brought some books on butterflies, from home, to show me. She could read them fluently; although they were mostly targeted at much older children. I asked her to spend some time doing a personal project on butterflies, which brought about a big change in her attitude to me and the class. A quiet, dreamer became a passionate worker and produced a project folder which contained information about many varieties of butterflies, their sizes in centimetres and millimetres, their origin and individual specifications ... I would say: ask the children about their interests and let them do a personal interest project and you will soon identify your gifted and talented children.

The role of parents

The important role of parents in the identification of gifted and talented children and the ways in which they can support their children were shown many times in several of the projects. Parent questionnaires were established as particularly useful in the identification process. It was also reported that parents often expressed their pleasure in working in partnership with the teachers in supporting their children. Many of the teacher researchers felt that this was one of the areas which needed further development in their schools. Two schools, in the east of England, gave curriculum time to developing individual children's special interests via individual 'I like learning about' journals which were used as a shared home-school focus for developing personalised learning journeys.

Limitations of the study

The study has drawn on descriptive, qualitative data to make tentative conclusions. New insights and frameworks have been generated from the collaborative work of practitioners and the university team, all from an applied perspective. The accounts of the projects provide exemplifications of practitioners building personal theories of what works for them in their classrooms and in their local context. The initial unease felt by many who were not involved in the Action Research projects, and who saw the purpose of the project as to label a group of young children as *gifted*, has been replaced (after attending dissemination activities) by a sense that the projects have provided opportunities for nurturing the young shoots of talent.

Concluding remarks

The outcomes of the project have been disseminated at several national conferences in the UK in the past few years. There is a high level of interest within the education community to address the issues highlighted by this project. As provision for younger gifted children is largely ignored in most countries (Koshy & Robinson, 2006), we hope that the contents of this article will be of interest to an international audience. This study has highlighted the need for more research in many aspects of provision for gifted and talented younger children. Fruitful topics for future research include issues of early entry to school, sustaining giftedness, effective models of provision and issues of teacher assessment of gifted and talented children.

The assumption that whole-class teaching and adherence to a prescribed curriculum will serve the needs of gifted younger children is challenged by the findings of this project. Personalised learning opportunities have been shown to contribute more to the wellbeing of individuals than the shackles of uniformity.

References

- Bloom B 1985. *Developing talent in young people*. New York: Ballantine.
- Colangelo N, Assouline SG & Gross MUM (eds) 2004. *A nation deceived: How schools hold back America's brightest students. The Templeton National Report on Acceleration, Vols. I and II*. Iowa City, IA: Belin & Blank International Center for Gifted Education and Talent Development.
- Coleman LJ 2004. Is consensus on a definition in the field possible, desirable, necessary? *Roeper Review*, **27**, 10-11.
- Cramond B 2004. Can we, should we, need we agree on a definition of giftedness? *Roeper Review*, **27**, 15-16.
- DfES (Department of Education and Skills) 1999. *Excellence in cities*. London: Department of Education and Skills.
- DfES/QCA 2000. *Curriculum guidance for the foundation stage*. London: Department of Education and Skills / Qualifications and Curriculum Authority.
- DfES 2006. *National quality standards in gifted and talented education*. London: Mouchel.
- Edwards CP, Gandini L & Forman GE (eds) 1998. *The hundred languages of children: The Reggio Emilia Approach – advanced reflections* (Second Edition). Greenwich, CT: Ablex.
- Furlong J 2004. BERA at 30. Have we come of age? *British Educational Research Journal*, **30**(3), 339-341.
- Gagné F 2004. An imperative, but, alas, improbable consensus! *Roeper Review*, **27**, 12-14.
- Gardner H 1983. *Multiple intelligences*. New York: Basic Books.
- Gibbons M, Nowotny H, Limoges C, Trow M, Schwartzman S & Scott P 1994. *The new production of knowledge; the dynamics of science and research in contemporary societies*. London: Sage.
- Hargreaves D 1996. *Teaching as a research based profession: Possibilities and prospects*. The TTA Annual Lecture. London: Teachers Training Agency.
- Hobson JR 1963. High school performance of underage pupils initially admitted to kindergarten on the basis of physical and psychological examinations. *Educational and Psychological Measurement*, **23**, 159-170.
- Kemmis K & McTaggart R 2000. Participatory action research. In N Denzin & Y Lincoln (eds), *Handbook of qualitative research*. London: Sage.

- Koshy V 2005. Action research for improving practice. London: Sage/Paul Chapman.
- Koshy V & Robinson N 2006. Too long neglected: Gifted young children. *European Early Childhood Education research Journal*, **14**(2), 113-126.
- Koshy V, Mitchell C & Williams M 2006. *Nurturing gifted and talented children at key stage 1. A Report of Action research Projects*. UK: DfES (Research Report 741).
- Maddux CD 1983. Early school entry for the gifted: New evidence and concerns. *Roeper Review*, **5**(4), 15-17.
- Miles O & Huberman A 1994. *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Morelock MJ & Morrison K 1999. Differentiating "developmentally appropriate": The multidimensional curriculum model for young gifted children. *Roeper Review*, **21**(3), 195-200.
- Renzulli J 1976. *The enrichment triad*. Mansfield Centre, CT: Creative Learning Press.
- Renzulli J 1986. The Three-ring Conception of giftedness: A developmental model for creative productivity. In Sternberg RJ & Davidson JE (eds), *Conceptions of giftedness*. Cambridge: Cambridge University Press.
- Robinson NM 2004. Effects of academic acceleration on the social-emotional status of gifted students. In N Colangelo, SG Assouline & MUM Gross (eds), *A nation deceived: How schools hold back America's brightest students, Vol. 2*. Iowa City, IA: U. Iowa, Belin Blank Center. 59-67.
- Robinson N 2006. *Gifted younger children*. Conference presentation at Brunel University, UK, June 2006.
- Roedell WC, Jackson NE & Robinson HB 1980. *Gifted young children*. New York: Teachers College Press.
- Sternberg R 2000. Giftedness as developing expertise. In KA Heller, FJ Monks, R Sternberg & R Subotnik. *International handbook of giftedness and talent*. Oxford: Elsevier.
- Sternberg RJ & Davidson JE (eds) 2005. *Conceptions of giftedness, 2nd ed*. Cambridge, UK: Cambridge University Press.
- Sylva K & Pugh G 2005. Transforming the early years in England. *Oxford review of Education*, **31**(1), 11-27.
- Vygotsky L 1978. *Mind in society*. Cambridge: Harvard University Press.
- Winner E 1996. *Gifted children: Myths and realities*. New York: Basic Books.
- Yin R 2003. *Case study research. Design and methods*. California: Sage.

