



Sheffield Hallam University

CENTRE FOR EDUCATION RESEARCH

***Evaluation of Rotherham's Key Stage
One Gifted and Talented Enrichment
Cluster***

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Final report

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Contents

Summary	1
1. Identification and referral	1
2. The enrichment cluster	2
3. Influences on school life	2
4. Benefits and impact	2
5. Conclusions and key issues	3
Introduction	4
The evaluation	4
Activities with children	4
Parent interviews	5
Teacher surveys	5
Overview and structure of the report	5
Key findings	6
1. Identification and Referral	6
1.1 Reasons for referral and expectations	6
1.2 Reasons for non-referral	10
1.3 The referral process	10
1.4 Summary and issues arising	11
2. The enrichment cluster	12
2.1 Aims and purpose	12
2.2 Pupils	12
2.3 Staffing	13
2.4 Planning, monitoring and evaluation	14
2.5 Cluster curriculum and activities	15
2.6 General views of the cluster	20
2.7 Communication with parents and schools	23
2.8 Summary and issues arising	25
3. Influences on school life	25
3.1 Withdrawal from school to attend	25
3.2 Impact of withdrawal	26
3.3 Summary and issues arising	27
4. Benefits and impact	27
4.1 General benefits	27
4.2 Social / emotional impact	28
4.3 Academic benefits and impact	32
4.4 Summary and issues arising	35
Conclusions and key issues	36
Introduction	36
Key issues for future development	36
Factors affecting cluster impact	37
Cluster sustainability	39
Summary	39
Appendix 1: Theories of intelligence	41

Summary

This report presents the findings of an evaluation of Rotherham's Gifted and Talented (G&T) enrichment cluster for Key Stage One pupils that took place in 2005-06. The objectives of the evaluation were:

1. To investigate the process of referral of children to the enrichment cluster.
2. To investigate the cluster experience.
3. To investigate the short-term impact of the cluster on children's intellectual, social/emotional and creative development.
4. To identify factors affecting its impact.
5. To draw conclusions about the Rotherham model (in terms of transferability and potential benefits to other LEAs) and about the longer-term sustainability of the cluster.

The evaluation design comprised a number of components:

- i) Observation of cluster sessions
- ii) Activities with children. These included: interviews with pairs of children, rating activities (using the 'pots and beans' activity), informal discussions and an activity with pairs of children using photographs they had taken with disposable cameras over the year.
- iii) Documentary analysis (of curriculum planning, techniques for monitoring progress and evaluation)
- iv) Interviews with parents
- v) Interviews with cluster staff
- vi) A survey of children's mainstream teachers

1. Identification and referral

- 1.1 The majority of teachers and parents were clear about why children had been referred to the cluster; most reported that children's identification as 'gifted and talented' was the primary reason. One parent felt that more clarity was needed about the purpose of the cluster and the reasons for referral.
- 1.2 Almost all parents said the cluster met their initial expectations of challenging children and providing them with opportunities to interact with their G&T peers.
- 1.3 A third of teachers said that they had identified children in previous years as G&T, but that these children had not been referred to the cluster. The main reason given was lack of places, since there were already other children from the school attending (the cluster puts some restrictions on the number of places offered to each school; if there are more than two children within a class, that constitutes a 'community' and the need for external cluster provision should not be so great).
- 1.4 The fact that the cluster normally operates at full capacity suggests that the provision is valued by teachers and parents and that, in this sense, it is sustainable in the longer term.
- 1.5 Teachers found the process of referral to be simple and straightforward.
- 1.6 Most teachers felt confident in their ability to identify children correctly as G&T.

- 1.7 Most teachers felt confident in referring children to the cluster because they valued it.

2. The enrichment cluster

- 2.1 The cluster has clear aims and objectives relating to providing enriched learning and socialisation with other gifted children. These objectives need to be shared more explicitly with parents and schools in future.
- 2.2 The majority of G&T children attending the cluster did not have social or emotional difficulties, although a third were on the special needs register with ASDs or behavioural problems.
- 2.3 The cluster is well supported by committed, well qualified and experienced staff. Parents and children in particular valued cluster staff; some teachers also valued the support staff offered to schools.
- 2.4 Theoretical frameworks underpin cluster pedagogy and practice; subjects are thoroughly planned and evaluated; activities and teaching methods are varied.
- 2.5 Children enjoyed the cluster activities; activities with a computing element and those that encouraged personalised learning tended to be those that were most favoured.
- 2.6 Most parents felt sufficiently well informed about cluster curriculum and activities. Two would have liked more information about their children's progress.
- 2.7 Parents particularly valued the challenging activities and the opportunity for them to socialise with other G&T children.
- 2.8 Most teachers valued the cluster, although the majority felt that communication could be improved, particularly with regard to individual children's progress. Several acknowledged that better communication would require additional resources.

3. Influences on school life

- 3.1 Parents and teachers were not concerned that children were withdrawn from school in order to attend the cluster, although some parents reported having concerns initially. One teacher would have liked to be able to offer all children the same quality cluster experiences.
- 3.2 Most children mentioned their cluster experiences at school.
- 3.3 There were a range of reactions to children's cluster visits by their classmates, from no interest to a good deal of interest, as well as some envy.

4. Benefits and impact

Benefits

- 4.1 Almost all parents felt that their children had benefited from attending the cluster.
- 4.2 Some parents felt that they themselves had benefited from the support offered by the cluster.

Social/emotional impact

- 4.3 Just over half of parents and just under half of teachers felt that the cluster had positively impacted upon children's social and/or emotional development.
- 4.4 Parents who said that their children's social development had been enhanced reported that children were happier, more secure, more motivated or better able to relate to other children.
- 4.5 There was some evidence that two children's confidence increased over the duration of the year.

Academic/creative impact

- 4.6 Around half of parents and teachers said that the cluster had positively impacted upon children's academic and/or creative development.
- 4.7 Parents who said that their children's academic/creative development had been enhanced reported that children had learned new knowledge, had improved motivation, confidence or concentration.
- 4.8 Teachers who said that children's academic/creative development had been enhanced described a general improvement in children's ability to apply themselves, development of skills, such as problem solving or enhanced knowledge.
- 4.9 There was some evidence that all children learned some basic German language phrases and retained these for several months.
- 4.10 Some children perceived that they acquired new skills and knowledge at the cluster.

5. Conclusions and key issues

- 5.1 Two issues for future development of the cluster are the need to share cluster aims, purpose and target group with parents and teachers and to enhance communication with schools.
- 5.2 Five key factors that positively affect the impact of the cluster have been identified. These are:
 - Theoretical frameworks underpin pedagogy and practice
 - Varied teaching and learning styles
 - Strong relationships
 - The age of the children
 - The form of the provision - a G&T 'cluster'
- 5.3 The cluster is sustainable in the short term:
 - Parents, children and schools value it
 - Schools continue to nominate children to attend - the cluster was operating at or near full capacity in the year of the evaluation
 - Cluster funding is secure for the next two years.
- 5.4 Beyond this, sustainability is an issue, particularly since less funding may be available for local authorities in future.

Introduction

This report presents the results of an evaluation of a Gifted and Talented Enrichment Cluster for Key Stage One pupils that took place in 2005-06. The report begins with a brief résumé of the purposes and overall design of the study.

The evaluation

The objectives of the study were:

1. To investigate the process of referral of children to the enrichment cluster.
2. To investigate the cluster experience.
3. To investigate the short-term impact of the cluster on children's intellectual, social/emotional and creative development.
4. To identify factors affecting its impact.
5. To draw conclusions about the Rotherham model (in terms of transferability and potential benefits to other LEAs) and about the longer-term sustainability of the cluster.

The evaluation design comprised a number of components:

- i) Observation of cluster sessions, an evaluation meeting and two open nights
- ii) Activities with children (see below for details).
- iii) Documentary analysis (of curriculum planning, techniques for monitoring progress and evaluation)
- iv) Interviews with parents
- v) Interviews with cluster staff
- vi) A survey of children's mainstream teachers

The purpose of using a combination of methods was to obtain a more detailed understanding of the experience and impact of the cluster. All names in the report have been changed.

Three of the methods used in the evaluation are now described in more detail.

Activities with children

The activities with children were:

- Introduction of disposable cameras for children to monitor their experiences of the cluster over the duration of the academic year (November 2005).
- Rating activities undertaken in the IT and art foci. Tape recorded discussions (December 2005). Sixteen children completed this activity.
- Interviews with pairs of children using the 'pots and beans' game to rate the cluster (January 2006). Sixteen children participated in this activity.
- Rating activities undertaken in the German and Philosophy for Children (P4C) focus (April 2006). Twenty-two children completed the evaluation for German activities and 23 completed one for P4C.
- Rating activities undertaken in the music focus (May 2005). Twenty-two children completed the evaluation for music activities.
- Rating activities undertaken in the science focus and rating all the subjects over the duration of the school year (June 2006). Twenty-three children completed the evaluation for science activities.

- Discussions with pairs of children around the photographs taken using disposable cameras (June 2006). Interactions were tape recorded. Twenty children participated in this activity.

Parent interviews

Seventeen parents were interviewed between February and March 2006. A total of 20 parents agreed to be interviewed, although it was not possible to contact three parents (after several unsuccessful attempts). The majority of respondents (14) were mothers and three were fathers. Interviews typically lasted between 25 and 40 minutes; they were tape recorded, transcribed in full and entered into a software package (Nvivo) for analysis.

Teacher surveys

Fifteen teachers of children attending the cluster completed questionnaire surveys. At the time the surveys were sent out (March 2006), 23 children from 16 Rotherham schools attended the cluster. A total of 29 questionnaires were sent out to class teachers and G&T co-ordinators in all of these schools. Fifteen completed questionnaires were received from 12 schools; therefore the views of three-quarters of all schools with children attending the cluster are represented. Just four schools chose not to respond.

In questions that related to individual children (such as benefits for children) totals were 18, since three teachers had two children in their classes who attended the cluster and teachers were asked to report on each child who attended. The analysis that relates to individual children omits responses from G&T co-ordinators where these duplicate a teacher's response for a particular child (thereby ensuring that each child is reported on only once).

Seven respondents were class teachers, three were G&T co-ordinators and five were both class teachers and G&T co-ordinators.

Overview and structure of the report

This section provides an overview of the structure of the report. The key findings and evidence supporting these are then provided under a number of headings. These are:

- Identification of children as gifted and talented and referral to the cluster
- The enrichment cluster - its aims, pupils, staffing, curriculum and activities, monitoring progress, communication with parents and schools and views of the cluster
- Cluster influences on children's mainstream school lives
- Cluster benefits and impact - general benefits, social and emotional impact and academic impact
- Conclusions and key issues

Key findings

1. Identification and Referral

Children are initially identified by mainstream teachers/school G&T co-ordinators. They are assessed using standardised and non-standardised assessments when they first attend the cluster which are:

- Raven's Coloured Matrices non-verbal IQ assessment.
- Conservation of liquid assessment - a simple conservation of liquid exercise to ascertain whether children are post operational or concrete thinkers.
- Finish the artist's creation – in which children are asked to make a drawing from several lines and marks on a page.

1.1 Reasons for referral and expectations

The majority of G&T children attending the cluster do not have social or emotional difficulties, although a third are on the special needs register with behavioural problems or Autistic Spectrum Disorders (ASDs).

Parents and teachers were asked about the reasons children had been referred to the cluster. Table 1.1.1 illustrates their responses and suggests that the majority felt the reason for children's referral was due to their identification as gifted and talented. The majority of parents stated that their children had been identified as gifted and talented in one or a number of areas; some mentioned advanced literacy or numeracy skills, and one felt that her son's skills 'were putting him beyond what the school could easily cater for'. Another said that:

'His teacher this year thought he had a gift for certain things. He'd got an 'inventive flair' as she put it. His imagination and language were far above that of his peers'.

Table 1.1.1: Parent and teacher responses to 'Why was the child referred to the cluster?'

	Parents N	Teachers N
Identified as G&T	13	11
G&T with an additional issue (eg behavioural, confidence or ASD)	3	4
Not sure	1	0

Not all parents of children with additional problems identified these as reasons for referral, although many identified these later. Three parents said that behavioural problems at school (in particular a lack of concentration) or a diagnosis of autism spectrum disorder (ASD) were the main reason for their referral; it is interesting to note that in each of these cases, the behavioural difficulties were mentioned

before any reference to the fact that their children had been labelled as gifted and talented.

Parents and teachers were asked to explain what they expected of the cluster (as shown in Figure 1.1.2). The most frequent teacher response was that the cluster should serve a dual purpose; that of challenging children academically as well as allowing them to socialise with other academically able children (9 responses). Teacher comments included the expectation that the cluster:

'Widen his abilities and opportunities. To allow him to work in an environment where educational conversation can take place with intellectual equals'.

Four parents also felt that the cluster should serve both to encourage children to interact with other G&T children as well as stimulating their learning. Three parents identified interacting with a gifted and talented peer group as the most important feature. One teacher also thought that the peer group was the most important aspect of the cluster for the child in her class.

Five parents felt that their children needed more challenging experiences than they were typically offered at school, making comments such as:

'To stretch him a bit further than what he does in a normal school environment. Sometimes in school they'll be doing things like 5 times table; the teacher says 'Yes Nathan - I know you know, but we've got to go through it with the others'.

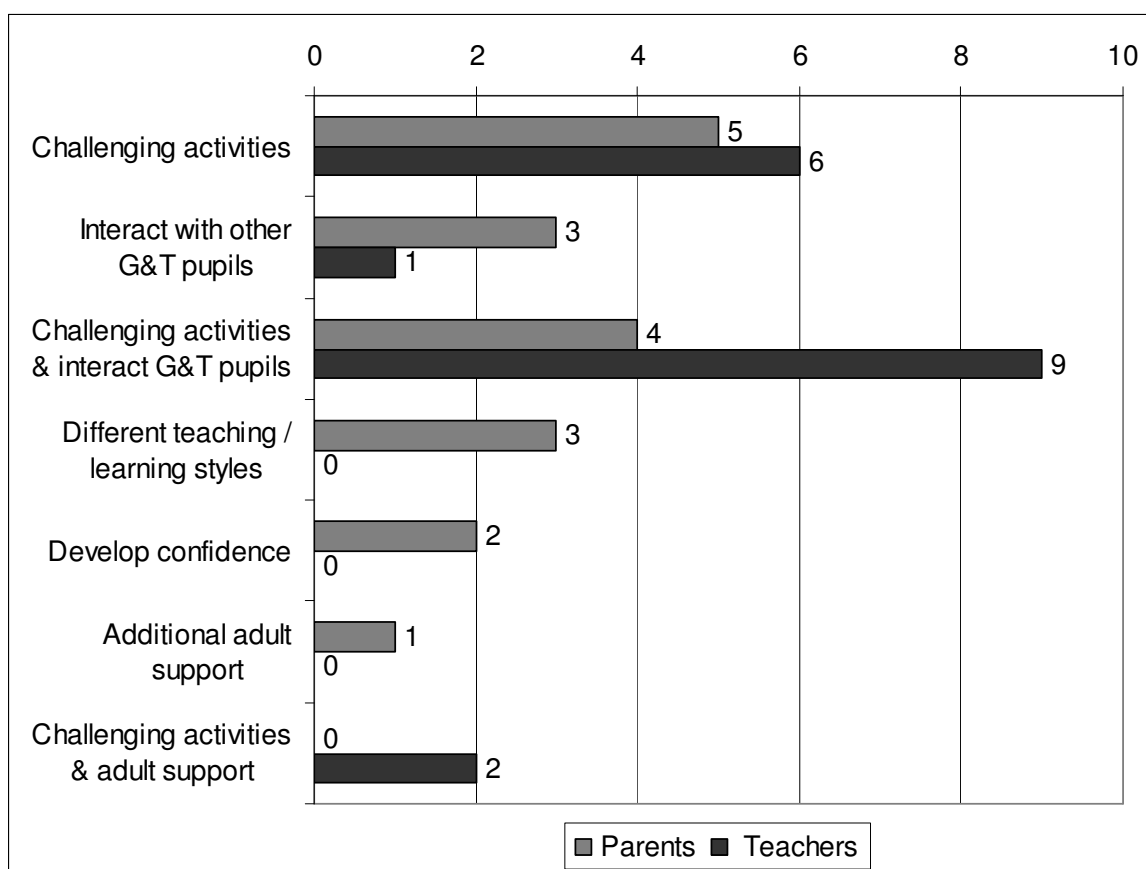
Six teachers, too, expected that the cluster would offer intellectual challenges children. They made comments such as:

'To provide a range of activities to develop all areas of ability'.

The different teaching and learning styles adopted by the cluster were mentioned as being important by three parents. In particular, their comments related to the fact that the teaching and learning styles were very different than those utilised in mainstream school (see James' mother, Box 1.1.1).

Two parents said that their children lacked confidence and had hoped that the cluster experience would help to enhance their confidence by attending it. One teacher said that greater intellectual stimulation combined with more intensive adult support was important for both the children in her class. Other important aspects were additional adult support, mentioned by both teachers and one parent.

Figure 1.1.2: Parent and teacher expectations of the cluster for individual children



(some parent respondents mentioned aspects relating to more than one category)

Box 1.1.1 shows some of the parent and teacher responses to questions relating to identification, referral and children’s needs. James' mother acknowledged her son's autism diagnosis as being important in his referral to the cluster and he coped well with the different styles of teaching and learning there. Ben's difficulties on the other hand, were rather more specific; he was having difficulty in relating to his peer group at school and the cluster his mother felt the cluster helped provide him with a peer group that he could relate to. Anna was not identified as having any specific difficulties at school - although she was bright, she was very reserved and her mother felt this might have influenced the decision to refer her. These three very different examples highlight the fact that children with very different needs attend the cluster.

One parent acknowledged the fact that the cluster does indeed cater for very different types of children. Her comments are shown in Box 1.1.2.

Box 1.1.1: Identification, referral and expectations - Parents' views

James' mother

One mother felt that her son had been referred primarily because of his recent autism diagnosis, although she acknowledged that he was also very bright. Because of his autism, however, he was having problems focusing in class. She commented:

'I guess school referred him because he was diagnosed as autistic last year... and he's very intelligent but he finds it difficult to access the curriculum in a large classroom setting'.

This mother went on to describe how the cluster pedagogy suited her son: *'He likes the different style of learning; he's had a lot of problems fitting into the school environment'.*

Ben's mother

Another parent whose son had been attending for almost three years said the initial reason for his referral was that he found relating to his peer group at school difficult. She said the purpose of his referral was *'to get him a peer group, because he was socially isolated in the Foundation class. He didn't play collaboratively'*. Ben's mother felt that the cluster provided a unique experience that school could not provide. His needs, she felt, were many:

'He needs stimulation and he needs the opportunity to feel that his talents are valued. He also needs a peer group where he realises that he isn't actually the only one - or that amazing! And where he can experience not being the best or not being able to succeed first time, or asking for help from a peer rather than from an adult'.

Anna's mother

One mother was not sure why her daughter had been referred to the cluster. She said she would have liked more information as to the purpose of the cluster and the reasons for her child's nomination. Her daughter lacked confidence and this mother wondered whether she had been referred because *'she might be overlooked in the class because she wasn't confident enough to keep up'*. This mother expressed some surprise that her daughter agreed to attend the cluster, commenting: *'she's surprised me in a way - that she has easily gone to it'.*

Box 1.1.2: Who is the cluster for? A mother's view

One mother of a G&T child with no behavioural problems noted that the cluster catered for two very different groups of children. Her older son, who has Asperger's Syndrome, had attended the cluster previously. She commented:

'I feel that within the cluster there's two very different types of children - children that have got this sort of special educational need; the need for extra support. I think, to a certain extent, they come to thinking club to give their ordinary teachers a bit of respite, in a way. And then there's just the very nice, very intelligent children that gain a lot from it as well.'

This mother went on to say that there was a place for both types of children in the group, although she felt that *'adaptations and structures need to be there when they don't cope with a particular aspect of the course'*. She felt such children needed to have the opportunity for *'very structured one-to-one support'* with adults, should they need it.

1.2 Reasons for non-referral

Teachers were asked questions relating to children who they thought might qualify for the gifted and talented provision but were not referred. A third of teachers (5) had previously taught children who they thought qualified as gifted and talented who had not been referred to the cluster. In four of these cases, reasons given for non-referral related to the number of places available per school, for example:

'Only allowed one child per year group per school'

'Only one place available'

'Already had two children attending'

In the other case, parents did not want their child to attend the cluster during school time.

None of the teachers reported having a child who was nominated but did not attend, or nominated but denied a place. One respondent said she nominated a child who attended only for a short while. The reason given for this was that the child was initially thought to be G&T and underachieving, although once the child was attending the cluster, it was felt that s/he did not qualify for G&T.

1.3 The referral process

The referral process typically involved meeting with the G&T consultant teacher and then organising a meeting with parents. Without exception, teachers reported the process of referral positively; typically they found the process *'simple and straightforward'*, *'easy'* or *'efficient'*. Only three teachers felt that the process could be improved; suggestions included a visit for the child and parents before attending and providing a reminder as to when children should start attending.

The majority of teachers (10) said they felt very confident in referring children to the cluster, and the remainder (5) said they felt reasonably confident in doing so. Reasons given included increased confidence in their ability to correctly identify children as gifted and talented, for example:

'I think after teaching Ben, and after other experiences, I could now distinguish between children who are very able and those who are gifted'

Another teacher reported having less confidence in her ability to identify G&T children:

'It is clear in my classroom dynamics and assessment who my G&T children are, however I am never sure of how clever they are in comparison (to other children outside the school)'

Respondents were asked who made the initial request for each child's referral to the cluster. In the cases of six children, teachers made the request themselves; in eight cases the request came from the G&T co-ordinator and two class teachers made the request with their headteachers. Two respondents did not know as children had entered their classes already attending the cluster.

1.4 Summary and issues arising

- The majority of teachers and parents were clear about why children had been referred to the cluster; most reported that children's identification as 'gifted and talented' was the primary reason. One parent felt that more clarity was needed about the purpose of the cluster and the reasons for referral.
- Almost all parents said the cluster met their initial expectations of challenging children and providing them with opportunities to interact with their G&T peers.
- A third of teachers said that they had identified children in previous years as G&T, but that these children had not been referred to the cluster. The main reason given was lack of places since there were already other children from the school attending (the cluster puts some restrictions on the number of places offered to each school; if there are more than two children within a class, that constitutes a 'community' and the need for external cluster provision should not be so great).
- The fact that the cluster normally operates at full capacity suggests that the provision is valued by teachers and parents and that, in this sense, it is sustainable in the longer term.
- Teachers found the process of referral to be simple and straightforward.
- Most teachers felt confident in their ability to identify children correctly as G&T.
- Most teachers felt confident in referring children to the cluster because they valued it.

2. The enrichment cluster

Rotherham LEA's 'gifted and talented enrichment cluster' was originally set up and support was provided by Brunel Able Children's Education Centre, funded by the DfES. The development of the cluster, in terms of pedagogy and curriculum was influenced by a wide range of literature, including Gardner (1999), Bloom (1984) and Renzulli (1978) (see Appendix 1 for a discussion of these theories).

2.1 Aims and purpose

The enrichment cluster was set up to provide weekly enriched learning sessions for exceptionally able children, particularly those who have difficulty coping at school due to problems with socialisation or engagement. Children come together for one afternoon per week during term time, with the aim of enhancing their creativity, their social/emotional development and their ability to work as part of a group, rather than accelerating their learning. Children are collected from mainstream schools by taxi or minibus and accompanied by key members of staff.

The cluster teacher commented that very able children sometimes become bored or frustrated and may display difficult or disruptive behaviour. Other times, they may be withdrawn, find it difficult to mix with other children, or are not accepted because they are bossy or overbearing. However, this is not always the case; more often, very able children are positive, socially integrated and happy. The cluster provides an opportunity for able children with different needs to come together to experience enriched learning with the aim of supporting children to overcome any weaknesses in relation to socialisation or engagement and to work alongside similarly gifted children.

2.2 Pupils

In the Autumn term of 2005, 18 children attended the cluster; one child dropped out at Christmas. In the Spring term, six more children joined the cluster; by July 2006 there were 24 children attending, 12 of whom were boys and 12 girls. While the enrichment cluster is targeted at Key Stage One pupils, the majority (21 out of 24) were in Year 2 (that is, aged six and seven). Two of the remaining children were Year 1 pupils (aged five and six), one was of Reception age (five years). The majority of G&T children attending the cluster did not have social or emotional difficulties, although a third were on the special needs register with ASDs, social, emotional or behavioural problems.

At the time of writing, the cluster was operating at full capacity, that is, 24 children. The teacher felt, however, that the optimum number of children was 18. She commented that *'this year, working with 24 has stretched us to the limit'* and that *'the benefit for children when it comes to making valued friends within the group has been diluted'*. To date, no children have been declined a place at the cluster

because it was full, although the proposal is that for the following academic year, the maximum number will be 21.

2.3 Staffing

The cluster is supported by a large number of staff. These are shown below, with their qualifications, training and /or experience:

- *The cluster teacher (whose role is also Rotherham G&T consultant teacher) (qualifications - Cert Ed., Diploma in Special Needs, Cert. in G&T co-ordinator training and provision).*
- *An escort and mentor (with specialist training in supporting children with ASDs, behaviour management, Attention Deficit Hyperactivity Disorder, dyspraxia, literacy & numeracy).*
- *An escort and mentor (with a Cert. Ed. and training in IT)*
- *An escort and mentor (trained as a graphic artist)*
- *A driver and mentor (who previously worked as an Education Welfare Officer and has experience dealing with families. Currently supports two boys with complex needs)*
- *A teaching assistant supporting a pupil with ASD*
- *A subject 'expert' (during the 'art' focus, an art expert is employed, during the 'German' focus a languages expert is employed etc.)*
- *In addition, the cluster draws on City Learning Centre (CLC) support staff who are well qualified in IT including animation, graphic design & web site development.*

All parents were positive about cluster staff. A number reported that they were not very well acquainted with them, but those who knew them well were, without exception, very positive. They used words such as *caring, approachable, supportive, hard working, lovely* and *fantastic*. Typical comments included:

'They seem very professional, very enthusiastic, very committed - genuinely interested in the children and what the children are achieving. I can't speak highly enough of the whole team.'

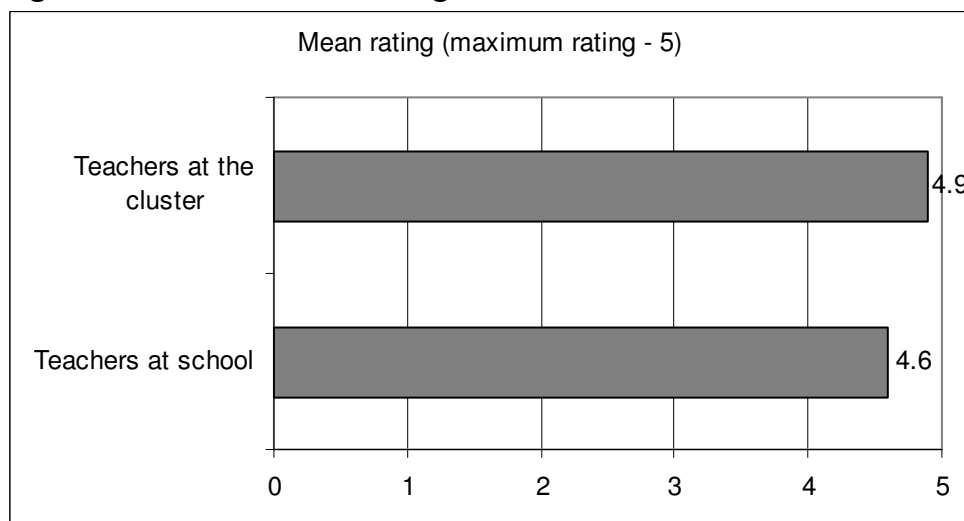
'They're extremely patient and friendly and have an excellent rapport with the children. They quickly become aware of the individuals and their needs'

'Excellent - really first class. They've been really supportive'

Some teachers too, spoke of the support offered by cluster staff (although they were not asked specifically about their perceptions of staff). One teacher said that *'adults from the cluster have given invaluable support to school'*.

Children valued cluster staff too. In general they rated staff just above their school teachers (see Figure 2.3.1). James, who has a diagnosis of Asperger's Syndrome and had difficulty coping in a normal classroom environment (see Box 1.1.1) said that the cluster teacher *'always says good things to me and makes me proud and happy'*.

Figure 2.3.1: Children's ratings of cluster staff and teachers at school (N=16)



2.4 Planning, monitoring and evaluation

Staff meet at the end of each term to plan for the following half term, evaluate the previous foci and discuss children's progress. All staff attend evaluation meetings and are encouraged to contribute. An 'exit review' in the form of a written report is also provided for each child as they leave the cluster. At the end of these meetings, the cluster teacher meets with the 'expert' for the following focus in order to plan the next half-term's activities.

The cluster is built upon strong theoretical foundations and the cluster teacher is well informed about the theory relating to G&T children. This theory is applied to the setting in a variety of ways (see Appendix 1 for an overview of theoretical foundations). These are:

- Assessment measures used when children are nominated for the cluster are based on Renzulli's (1986) three ring conception of giftedness.
- Evaluation sheets (completed for each focus) relate to opportunities for higher level thinking (Bloom's taxonomy). These were originally developed with the assistance of the Brunel Able Children's Education Centre, who helped to set up the cluster with funding from DfES.
- Attempts are made to address different areas of intelligence, as identified in Gardner's theory of multiple intelligences (1999) by including opportunities for creative as well as academic development.
- The cluster teacher frequently describes the literature on G&T in conversation and how this informs practice.

Cluster sessions are well planned and structured. The teacher plans to cater for different children's needs through careful planning of groups and staffing, taking advice from schools and parents. Group games that encourage understanding about the feelings and thoughts of others are planned, since it is acknowledged that children with autism need many opportunities to interact with others if they are

to benefit from attending. Other children also need guidance on how to deal with autistic children. The cluster plans to provide an optimum environment for children with autism through:

- Providing flexible timetables and programme content in a communicable form
- Monitoring and trouble shooting of problems
- Providing an optimum room size with a flexible use of space
- Providing accessible communication systems

Activities are designed to be motivating and to offer intellectual challenge. There are opportunities for interdisciplinary learning and creativity. Attempts are made to encourage children to devise their own ways of approaching activities, to research (for example their own family tree) and to evaluate what they have learned, often through some kind of presentation.

Staff meet at the end of each term to evaluate the previous term's two foci. All staff attend evaluation meetings and are encouraged to contribute. At the end of these meetings, the cluster teacher meets with the 'expert' for the following focus in order to plan the next half-term's activities.

2.5 Cluster curriculum and activities

Six different subjects are covered over the academic year (one per half term); these are ICT, Art, German, Philosophy for Children (P4C), Music and Science. This varied curriculum is intended to cater, to some extent, for both gifted and talented pupils ('gifted' refers to academic ability whereas 'talented' refers to creative achievement). The enrichment cluster is held in different locations within Rotherham, depending on the curriculum focus for that half-term; for example, the ICT focus is held at Rawmarsh City Learning Centre, which was established under the Excellence in Cities initiative to be a centre of excellence for the use of ICT in teaching and learning.

Box 2.5.1 provides examples of activities observed at the cluster in IT, German and Philosophy for Children. The examples illustrate a number of different teaching styles, with an emphasis on individualised learning as well as group work in German and IT. The P4C session observed was unusual in that the session was taken up with whole group activities; this was the only lesson of its kind observed over the whole year. There was very little direct instruction; even in the whole group P4C session, children were encouraged to think critically and debate their thoughts.

Box 2.5.1 Examples of activities and teaching methods

IT: In the session observed, children were set to work on activities as they arrived at the cluster. No introduction was given as children had been introduced to the activities in the previous week. The teacher led activity for this session involved a group using photographs of each child entered into the 'Photoshop' programme. Children drew around the outline of features of the photo (eyes, mouth etc) using the mouse and selected colours to fill in the outlines. The purpose was to develop fine motor and ICT skills. One group of children worked individually on a computer game called 'Zoombinis' aimed at developing children's logic and reasoning skills. A third group played the 'Ungame' with a teaching assistant; the aim of this game was to encourage self-expression, turn-taking and listening skills.

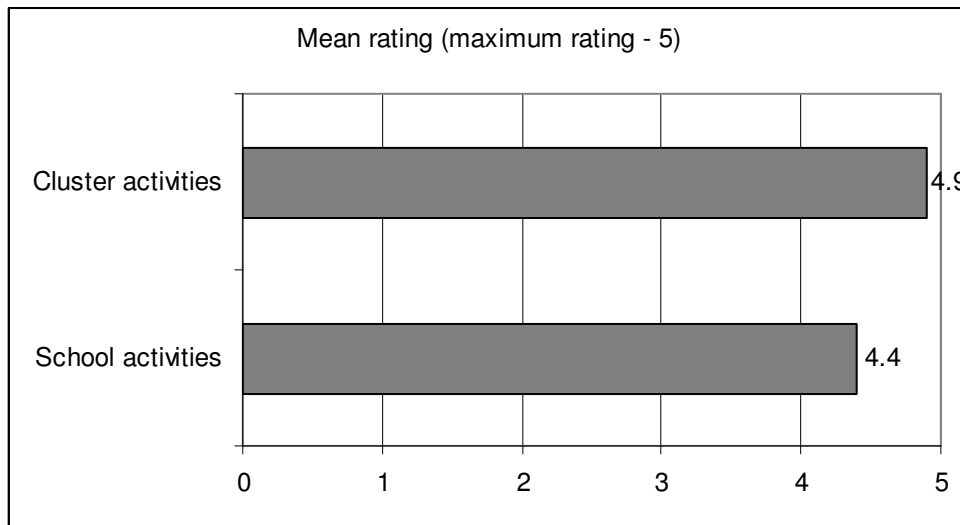
German: Children were gathered together during the introduction (in a more traditional lesson format) to recap German words learned during the previous week and to explain the tasks for the current session. The tasks were working individually on a computer programme called 'Task Magic' in which children labelled parts of the body a skeleton in German. A second individual computer task involved wordsearches and simple crosswords using the Linguascope programme. The third activity was working in a group with the German teacher to devise a play in the German language. The aim was to encourage team work, knowledge of the German language and experience of performing. A traditional plenary session for all children was held at the end of the session.

Philosophy for Children (P4C): Children were gathered together in a circle for an introductory session with the P4C expert. He began with introductory activities, first asking the children to introduce themselves and say what they liked doing. The second activity involved setting the children to think about and discuss issues both as a whole group and in pairs and groups of three (for example, he began by holding up a card with the word 'YES' printed on it and ask the children to generate questions to which 'yes' was the answer). Other introductory activities included discussing children's visual images generated by a story told by the P4C teacher. There were also some discussions around what a question is. The main 'philosophical' activity revolved around children's responses to a story called 'Michael' (by Tony Ross). Children listened to the story and then had to think up questions in groups that they would like to discuss relating to the story. Children then voted for which question they wanted to discuss. The question '*What did he build the spaceship out of?*' was selected and a philosophical discussion followed, skilfully led by the P4C teacher. This was certainly a teacher led session, although the children remained well engaged throughout (a CD Rom of this session has been produced as an introduction to P4C).

Children commented positively on the cluster activities. Typically children spoke of the activities at the cluster (or 'thinking club') being more fun than those at school, for example, '*it's more fun here*' and '*at thinking club you do different things - not just literacy and numeracy*'. Children rated the activities undertaken at the cluster slightly more highly than those at school, as shown in Figure 2.5.1; indeed, half of

the children gave cluster activities higher ratings than school activities while half gave cluster activities the same ratings as school activities.

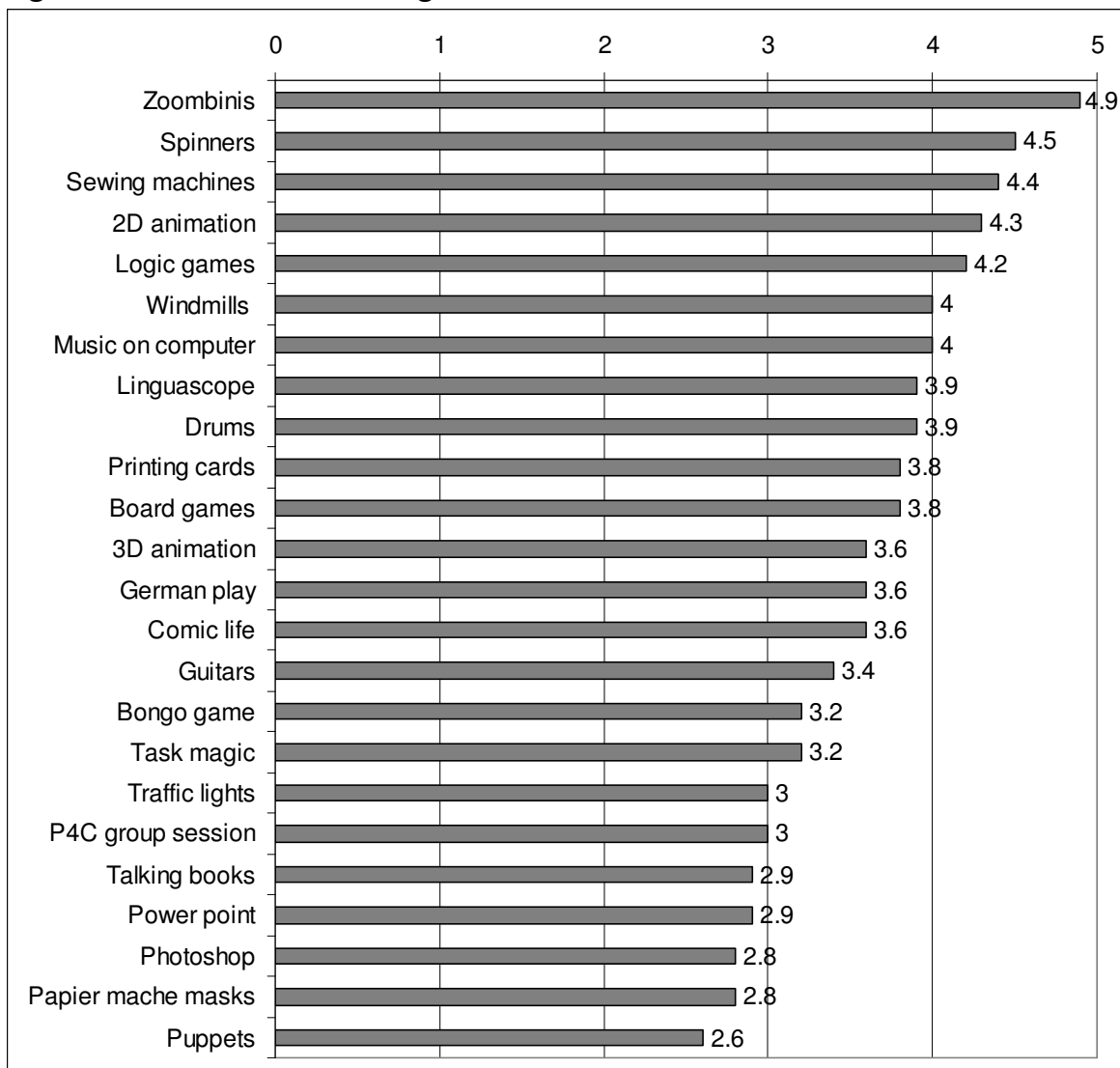
Figure 2.5.1: Mean child ratings for cluster and school activities (N=16)



Children were also asked to rate each activity undertaken at the cluster. The most popular activity was 'Zoombinis' (see Figure 2.5.2), a computer game undertaken during the IT focus that encourages individualised learning. Many of the most highly rated activities had an IT element - sewing machines were programmed to create a stitched picture, 2D animation involved compiling animations on a computer. It is also worth noting, however, that several poorly rated activities also had IT elements (photoshop, power point and talking books), although the activities relating to these tended to be more adult directed.

Activities that involved the most planning and specialist teacher support (such as the German play and the P4C group session described in Box 2.5.1) were not rated so highly by children, although adults might perceive these activities to be the most valuable since they were designed to encourage group work, turn-taking, co-operation, debate and higher level thinking skills. It may be that children perceived activities encouraging such skills to be less enjoyable than those which allow individualised learning.

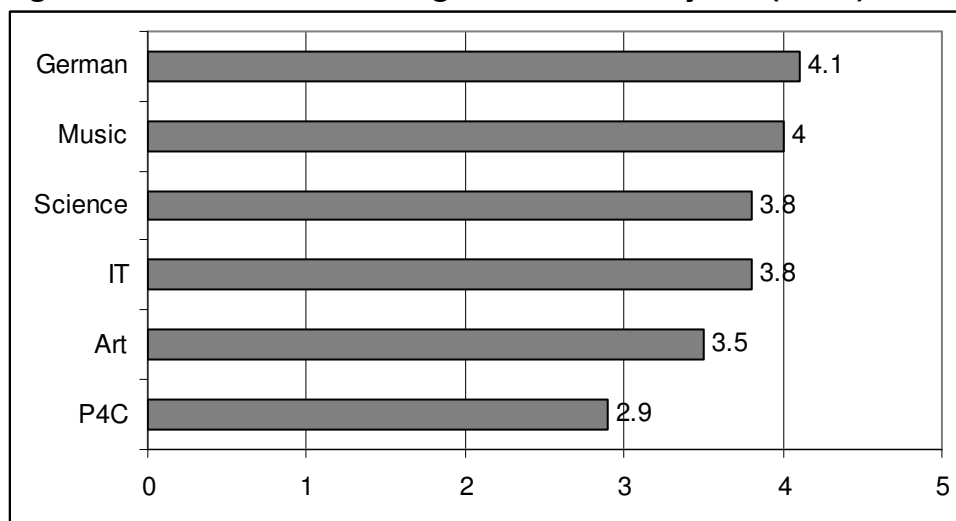
Figure 2.5.2: Children's ratings of cluster activities



(NB: Numbers of children responding varied between 16 and 22 as evaluations were completed at the end of each term, when different numbers of children were present. The separate evaluations were amalgamated to create this figure)

Children were also asked to rate each of the six subjects covered at the cluster. German was the most popular and P4C was the least popular (see Figure 2.5.3), although the top four subjects (German, Music, Science and IT) were rather closely rated.

Figure 2.5.3: Children's ratings of cluster subjects (N=23)



(NB: While N=24, there were a number of non-responses for earlier subjects from children who had joined the cluster later)

Parents comments about cluster activities were all positive, with some parents commenting on the differences between the activities at the cluster to those at school (see Box 2.5.2). Parents also commented on the subject matter in a positive way. One father said when he saw in a newsletter that subjects included German and Philosophy for Children, his initial reaction was that the children were too young. However, he soon realised that the children could indeed cope with the subjects and were learning and enjoying what they were doing. Two parents mentioned that their children particularly enjoyed the homework activities, although one felt that homework was sometimes difficult. Other positive comments made by parents included that children enjoyed them (5 parents) and that activities were 'valuable'. An overview of responses is shown in Table 2.5.1.

Table 2.5.1 Parent views of activities undertaken at the cluster

	N
The child loves them	5
The different teaching & learning style is valued	4
The range of activities and subjects covered is excellent	4
The homework is very good	3
Parents value the fact that many activities result in a quality end product	2
The activities are valuable	1

(a number of respondents mentioned aspects relating to more than one category)

Box 2.5.2: Cluster activities - Parent and teacher views

All parents commented positively on the activities. Some acknowledged the value of providing creative activities and the positive effect this had upon children's motivation; for example:

'They're so creative and imaginative with everything that they do.... They really get their brains going! And that's the kind of thing that Stuart likes'.

A number of parents compared the activities at school with those at the cluster. It was acknowledged, for example, that cluster subjects and activities differed from those offered at school. In some cases, pressures of the curriculum were acknowledged, for example:

'School does seem to get bogged down quite heavily with the curriculum, and to touch on other areas which are interesting and stimulating, I feel, is wonderful'.

And:

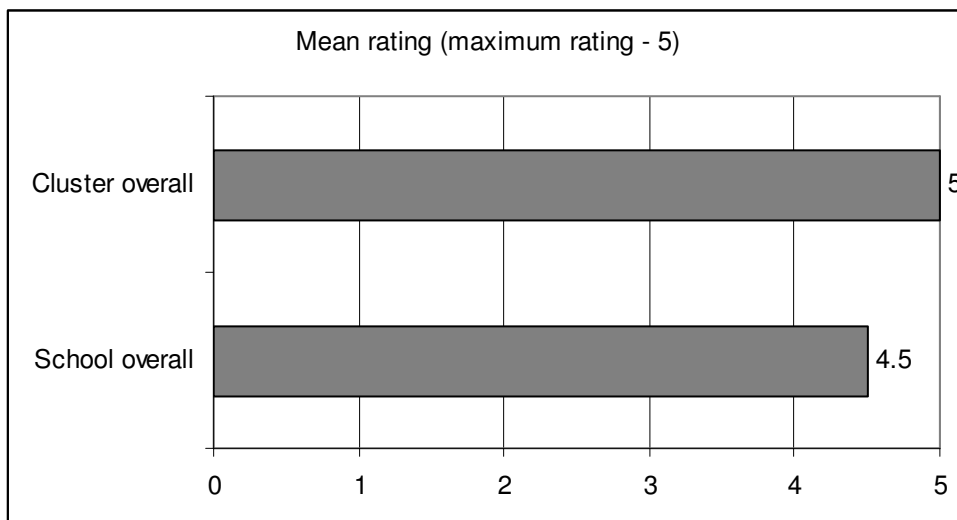
'It would be no good taking them out of school to give them harder versions of what they do already. Because it wouldn't be fun then'.

Some teachers, too, acknowledged the flexibility the cluster was able to provide in terms of the activities on offer. One teacher reported being *'impressed by the range and depth of activities'.*

2.6 General views of the cluster

Children appeared to enjoy the cluster; attendance was high and most children completed the weekly homework tasks regularly. All children gave the cluster the maximum '5' points overall (see Figure 2.6.1); in the case of seven children, this was more than they had given their school, for the remaining nine children who participated in this activity, the rating was the same as they had given schools.

Figure 2.6.1: Mean child ratings for cluster and school (N=16)



All parents reported that their children enjoyed going to the cluster and many said that they looked forward to going. A number went on to say that their children gave full accounts of activities and experiences, including the journey in the minibus or taxi to and from the cluster. Often they added that such information was not forthcoming when parents asked about school activities.

Parents themselves were also very positive about the cluster. They were asked to identify what they considered to be the best thing about the cluster; the results are shown in Table 2.6.1. The most common response was that the opportunity to socialise with other G&T children was the most important thing. Others said that the range of subject areas were a particular strength of the cluster. German and Philosophy for Children (P4C) were mentioned by several parents as examples. These subject areas were seen as being very different from those offered by schools.

Table 2.6.1: Parent responses to 'What is the best thing about the cluster?'

	N
The opportunity to socialise with other G&T children	6
The different and challenging learning environment	5
The benefits it has had for the child	4
The range of activities and subjects covered	3
Specific subject area - 'Philosophy for Children'	1

(a number of respondents mentioned aspects relating to more than one category)

Parents also thought highly of the teaching and learning environment at the enrichment cluster. While several parents said that their children struggled to concentrate at school, the cluster adopted a style that facilitated learning. It was seen to be imaginative and challenging; generally *'more fun'* than school.

Box 2.6.1 provides some of the comments offered by parents and teachers relating to the perceived value of the cluster overall.

Box 2.6.1: General views of the cluster - Parents and teachers

Almost half of parents interviewed mentioned the value of interacting with other gifted and talented children as being one of its main strengths. Typical comments included:

'the best thing, out of all of it, is that it puts them in with a peer group that they can learn from and relate to outside of the classroom environment'

A teacher commented positively on the cluster and noted that it offered provision that would not be possible to offer within school, saying:

'Very pleased with cluster group. Feel they offer opportunities that extend and develop the children's abilities. It is well organised and resourced'

Some parents and teachers acknowledged the cost of the cluster, while stressing its value. Parents commented:

'I feel it's excellent provision. I realise, with the transportation it's quite a funding drain, but I feel it's the only way to deliver it'.

'I think it's been immensely valuable for him and I think it's definitely the most appropriate way to give provision in Key Stage One'.

One teacher requested that the cluster continue to operate during school time, and also suggested that it be extended to cater for children in Key Stage Two:

'Please continue to fund this and extend it to older ages, particularly funding it in school time, rather than on Saturdays'

There were very few negative comments about the cluster from parents. When asked to identify the worst thing about it, almost half were unable to say anything negative at all, as shown in Table 2.6.2. For one parent, the worst thing was that her child would be unable to attend next year, since the cluster caters only for children in Key Stage One and for another, the cluster did not occur regularly enough. One mother felt it was a shame that children were introduced to a new language, which they enjoyed, but that teaching in this subject was not continued.

Table 2.6.2: Parent responses to 'What is the worst thing about the cluster?'

	N
Nothing	8
Children have to miss an afternoon of school each week	2
Difficulty and/or amount of homework	2
The cluster will not continue into Key Stage Two	1
The fact that the children can't continue subjects such as German	1
The fact that it does not occur more frequently	1
The behaviour of some children	1
Time taken to set up some activities	1

Other slightly negative aspects were considered to be that children had to miss an afternoon of school, which two were unsure about. One parent said she had concerns about '*social isolation from his school, by missing out on a particular chunk of the week; by being seen to leave every week and children not necessarily understanding why*'. However, the same mother added that the school had made attempts to address this and it was not a problem at present.

Two other parents said that on certain occasions early in the academic year, the homework challenges had been too difficult for children to complete without adult support. One said that while she understood that many of the children attending the cluster had behavioural problems or ASD, she thought that some parents might have difficulty understanding the behaviour of some of these children (although she stressed that she herself did not find this a problem). Another said that she had attended the cluster several times and been impressed with it, although she thought that too much time was taken in setting up and organising children for some of the activities.

Teachers were given the opportunity to make comments about the cluster in an open response question, and ten chose to do so. Half of the comments offered a positive endorsement of the cluster; some of their responses are shown in Box 2.6.1. Three teachers made suggestions for the development of the cluster. One felt that it should continue to operate during school time and should be extended into Key Stage Two. Another suggested she was keen to visit the cluster in order to observe and to be able to follow up activities in the classroom, since she would like to visit to develop links in class.

2.7 Communication with parents and schools

Parents receive regular newsletters and are invited to termly open nights, in which children's work and photographs of children at work in the cluster are displayed. Informal discussions between parents and staff are also encouraged at the open nights. The cluster teacher is making efforts to inform mainstream teachers about the cluster through:

- *Developing a CD Rom that explains the purpose of the cluster and theoretical frameworks for conceptualising intelligence. This has been sent to every primary school in the borough.*
- *Inviting mainstream teachers to open nights*

In general, parents felt reasonably well informed about the cluster curriculum and activities, with responses ranging from '*very well informed*' to '*quite well informed*'. Two parents felt that more information could be given; of these, one said she would like to receive a report about her child's progress at the end of the year. One parent said she felt informed about what children were doing at the cluster but not about why they were doing it (this relates to uncertainty about the purpose of the cluster, as discussed in the 'referral' section).

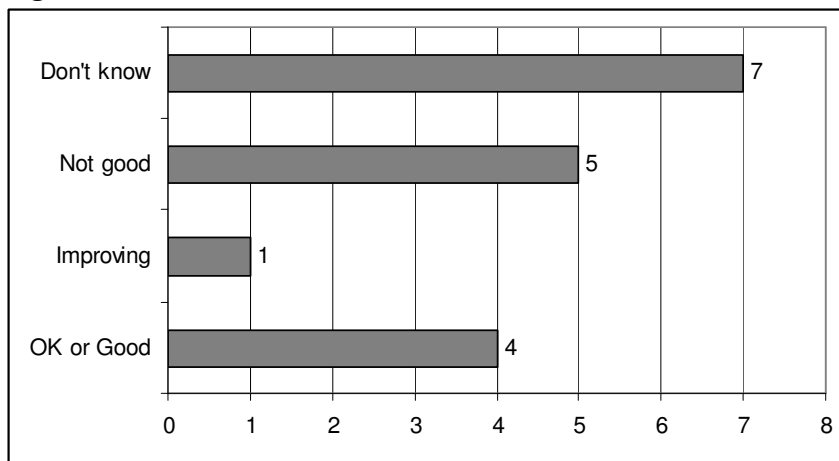
Parents were asked to comment on communication links between the cluster and children's schools. Figure 2.7.1 shows the responses. Seven felt they did not

know enough about this area to be able to comment. Five parents said communication was 'good' or 'improving' and five felt it was 'not good'. Those who said communication was good made comments such as:

'they always ask the teachers to attend open nights. But of course the teachers are busy and Nathan's the only one that they've got there. So they haven't attended anything as yet.'

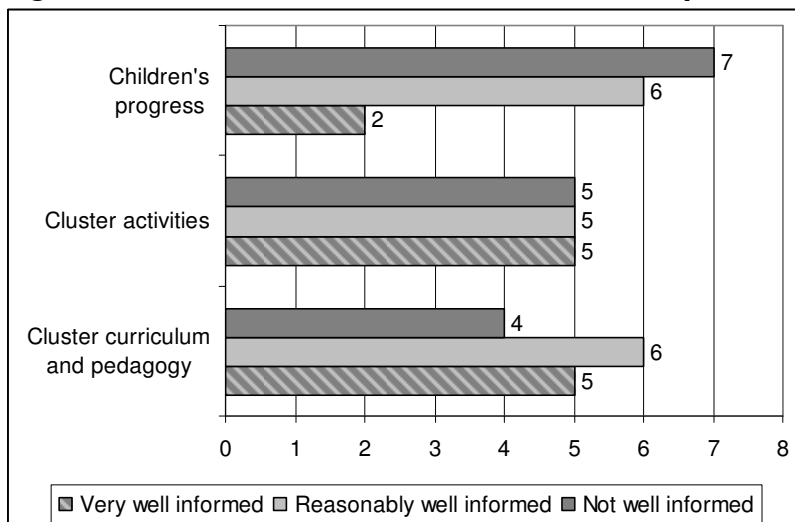
Those who felt communication was not so good reported that children's schools seemed to lack knowledge about cluster dates and other information related to it.

Figure 2.7.1: Parents' views of cluster communication with schools



Teachers were asked to comment on the extent to which they felt informed about the cluster curriculum and pedagogy, cluster activities and children's progress at the cluster. The results are shown in Figure 2.7.2.

Figure 2.7.2: Teachers' views on information provided by the cluster



When asked whether anything could be done to improve communication, 11 teachers answered yes. The majority of suggestions (8) related to more information about children's progress. Three of these responses specified that they would like formal, written feedback, for example '*an assessment summary at*

the end of each module would help keep us informed'. Others suggested feedback should be in the form of a meeting, for example:

'If time/money could be provided, a termly meeting like an IEP review meeting with G&T staff, parents, school and child'

The remaining responses did not specify what form the feedback should take; only that it should seek to inform schools about progress:

'Information about the child's progress within the group e.g. social skills, enjoyment levels'.

Three teachers requested more information regarding activities covered, with one stating that:

'I feel poorly informed of the purpose, progress, curriculum and outcomes that this scheme has entailed'

2.8 Summary and issues arising

- The cluster has clear aims and objectives relating to providing enriched learning and socialisation with other gifted children. These objectives need to be shared more explicitly with parents and schools in future.
- The majority of G&T children attending the cluster did not have social or emotional difficulties, although a third were on the special needs register with ASDs or behavioural problems.
- The cluster is well supported by committed, well qualified and experienced staff. Parents and children in particular valued cluster staff; some teachers also valued the support staff offered to schools.
- Theoretical frameworks underpin cluster pedagogy and practice; subjects are thoroughly planned and evaluated; activities and teaching methods are varied.
- Children enjoyed the cluster activities; activities with a computing element and those that encouraged personalised learning tended to be those that were most favoured.
- Most parents felt sufficiently well informed about cluster curriculum and activities. Two would have liked more information about their children's progress.
- Parents particularly valued the challenging activities and the opportunity for them to socialise with other G&T children.
- Most teachers valued the cluster, although the majority felt that communication could be improved, particularly with regard to individual children's progress. Several acknowledged that better communication would require additional resources.

3. Influences on school life

3.1 Withdrawal from school to attend

Parents and teachers were asked to give their opinions about children being withdrawn from mainstream school in order to attend the cluster. No parents or

teachers had any concerns. Two parents reported initially having concerns about this, although they had been reassured by school teachers or headteachers that children who had attended in previous years had benefited and their school work had not suffered. Several parents commented that attending the cluster after school would not have been practical, since the children were so young this would have been too tiring.

None of the teachers objected to the children's withdrawal and most felt that the benefits outweighed the drawbacks of such an arrangement. One teacher commented that she would like to be able to offer all the children in the class the same experiences and activities. A teacher of a child with behavioural issues said that other children benefited when the child was at the cluster and that the other children in the class were calmer when the child was absent. More detail is provided in Box 3.2.1.

A small number of parents mentioned that they had originally had concerns that their children might be picked on because attending the cluster during school time was seen as different. However, none of the parents who raised these concerns had experienced any difficulty, and in general this was perceived to be because children were so young.

3.2 Impact of withdrawal

Teachers of 11 children said children occasionally talked about the cluster, with three reporting that they frequently spoke about it. According to teachers, only four children did not talk about the cluster. Children typically spoke about their experiences and the activities at the cluster and their homework. One teacher said that the child needed reassurance that she was not missing anything important at school.

Teachers were asked to describe the reaction of children's classmates to their cluster visits. Responses were mixed, with 5 saying that children were interested, 3 suggesting mild interest and 5 saying that children had no interest. It tended to be classmates of the less outgoing children who had little interest, possibly because such children did not talk about the cluster so frequently. One teacher said that children were interested to hear about children's experiences and that some subjects caused envy among other children.

Box 3.2.1: Children's withdrawal from school to attend the cluster - Teachers' and parents' views

A teacher who particularly valued the cluster felt that the opportunity to participate in cluster activities far outweighed the drawbacks of being withdrawn from class, saying:

'I feel that it is important to be offered opportunities, to meet with others and try new activities and skills. They are quick to pick up activities missed'

Another teacher of a child with behavioural issues confirmed the views of the mother who felt that difficult children's attendance at the cluster gave their teachers and classmates some respite:

'It does give the class and the child sitting next to him a break - time to work without constant interruptions'

The positive views of teachers were largely reflected in the parents' comments, although one mother had had concerns about withdrawal when it was first suggested she attend:

'I suppose initially I didn't want Elizabeth to be singled out by her peers and query where she's going and why she's going'

However, this mother reported that in fact, her concerns had not been realised.

Another mother confirmed that other children just accepted the fact that the child was withdrawn one afternoon each week, and that it was other parents who were most interested:

'Other children know that he goes, but I don't think they actually torment him about it. The parents are more curious than the children!'

3.3 Summary and issues arising

- Parents and teachers were not concerned that children were withdrawn from school in order to attend the cluster, although some parents reported having concerns initially. One teacher would have liked to be able to offer all children the same quality cluster experiences.
- Most children mentioned their cluster experiences at school.
- There were a range of reactions to children's cluster visits by their classmates, from no interest to a good deal of interest, as well as some envy.

4. Benefits and impact

4.1 General benefits

When asked whether parents thought their children had benefited from attending the cluster, all answered 'yes', with the exception of one, who felt she couldn't say. There were a wide range of perceived benefits, from having enjoyed the experience and having the opportunity to socialise with other G&T children, to

outcomes such as being calmer and better able to concentrate, being more confident and having been introduced to a new language. A summary of parents' responses is shown in Table 4.1.1.

Table 4.1.1: Parents' views of benefits for children

	N
Opportunity to socialise with G&T peers	6
Improved concentration/behaviour	3
Increased confidence	2
Introduced to new language	2
Stimulating learning experience	2
Enjoyment	1
Don't know	1

Several parents perceived that, while there had been benefits for their children, they themselves had benefited too. In general, these tended to be parents of children with behavioural problems or ASD. For example, one mother who felt her son's behaviour had improved dramatically as a result of attending the cluster also commented on the support she and her husband had received from cluster staff, as well as parents of other children who attended. She said that *'to speak to other people who have children who do similar sorts of things - it makes you feel better as a parent. And you deal with your child better, I think because of that'*.

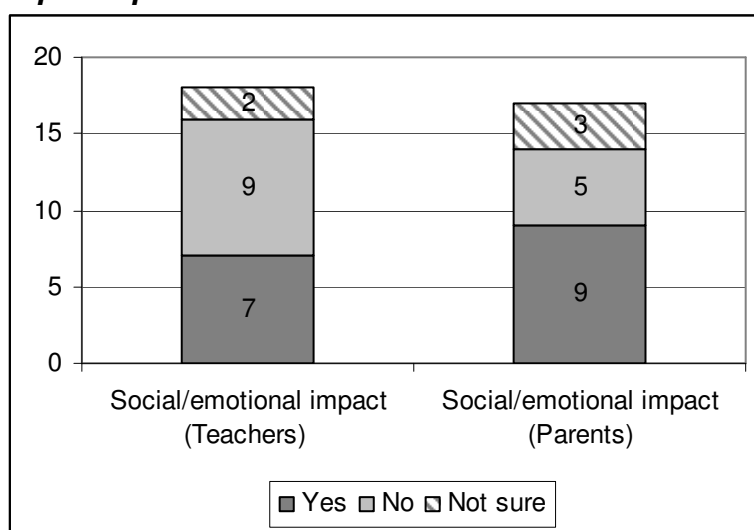
This mother was very grateful to the support she and her husband had received, saying:

'I look back now to 3 years ago, to how terrible everything was, and that (the cluster) were a real lifeline to us'.

4.2 Social / emotional impact

Parents and teachers were asked to specify whether they thought the cluster had impacted at all upon children's social or emotional development (see Figure 4.2.1). A higher proportion of parents reported this to be the case (that is, nine parents but only seven teachers). Four parents said their children now related better to other children, two others said that their children's behaviour had improved since attending the cluster; in particular their behaviour in school. One said that his son, who was suspected as having Asperger's Syndrome, was having problems in school, although *'he seems to be able to cope with them a lot better now'*.

Figure 4.2.1: Parents' and teachers' responses to 'Has the cluster had any impact upon the child's social or emotional development?'



Two parents of children with no behavioural problems said their children's confidence had improved as a result of attending the cluster. The mother of one child with autism felt that her son had benefited through the high adult-child ratio and small group working at the cluster. Box 4.2.1 shows the responses of four parents and three teachers who felt that the cluster had benefited children in the area of social/emotional development. In the case of John, the social effects of attending had not been straightforward; while both his father and teacher said that he initially benefited, this had not been sustained.

Parents who felt that there had been no impact on social or emotional development tended to be those with children not reported to have behavioural difficulties or ASD. Parental comments included remarks such as:

'she's really socially outgoing anyway, so I can't say I've noticed a massive change in her'.

However, as the case of Molly in Box 4.2.1 shows, not all positive responses were from parents of children with complex behavioural issues.

Teachers who felt that the cluster had impacted positively upon children's behaviour tended to comment that children were happier, more secure, more motivated or better able to relate to their peer group. One reported that her two pupils who attended G&T had become more co-operative when working alongside other children. Another teacher said that she felt her two G&T pupils had developed a sense of belonging as a result of attending. One teacher acknowledged that both the children in her class had benefited in general terms, although they still needed support in continuing to develop positive attitudes towards other children and adults.

Three parents and two teachers felt unable to say whether attending the cluster had resulted in positive social outcomes for their children. Some felt that children had shown changes, but that these may be down to maturity rather than the effects of the cluster. One parent said she could not say because she rarely saw her daughter interacting with other children:

'That's difficult to say; I don't see her in a classroom environment, so I can't comment to be honest. Because outside of school she doesn't really mix with children all that much'.

It has been seen that around half of teachers and parents felt that there had been some positive effects of the cluster on children's social or emotional development. A number of cluster staff also felt that one of the most important effects of the cluster was for children to have the opportunity to socialise with other similarly gifted pupils their own age. A teaching assistant made the following comments relating to this issue:

'We've had some really quite troubled children coming, and they go home happier, I feel. They feel different at school to other children, but when they come here they feel more of a one with other children'.

Observations as part of this evaluation also provided some evidence of impact. Two children who lacked confidence were very reserved when being interviewed and involved in activities for this evaluation in December and February (when they had been attending for three and five months). However, when participating in the final activity (discussing photographs they had taken) with the same researcher in June (when they had been attending almost a whole school year) their behaviour was far more outgoing; they volunteered information, made eye contact with the researcher and smiled as though they were enjoying the experience; they had not done any of these things in the earlier activities. While this change in behaviour could have been the result of a number of factors, such as increased familiarity with the researcher, increased maturity, or the fact that it was a different and more enjoyable activity, it is nevertheless a noteworthy example. While it is not possible to say conclusively that this change in behaviour was the result of cluster impact, it is possible to say, more tentatively, that two children appeared to develop confidence at the cluster over the duration of a year.

Box 4.2.1: Cluster impact on children's social/emotional development - Parents' and teachers' views

Ben

Ben's mother and teacher both felt that Ben's social skills had developed as a result of attending the cluster. His mother said that:

'his ability to interact with groups of children he doesn't know well has improved. And to cope with disagreeing with someone'.

Ben's teacher also felt that he now interacted with his peer group better, saying:

'Ben seems happier in himself and more confident. He relates better with his peers and shows more initiative'

Stuart

Stuart's mother explained that before attending the cluster, her son was so frustrated with his peer group that he used to bite other children. Attending the cluster, she felt, had improved things dramatically. She said:

'Perhaps there were other children in nursery that could play chess with him, but he couldn't find one. So when he got to thinking club and he did find other children that he could do things like that with, he discovered that he could have fun with children. And I think from developing friendships there, he started to relate better to children out of thinking club and he's got a good little group of friends now'.

John

John's father noted that his behaviour improved substantially after he began attending the cluster just over a year ago, and he put this down to the work of the cluster. However, his behaviour had begun to slip again. John's father commented:

'Last year his performance in his classroom group was better. That was all related to work that G&T was doing. So that benefited him in a social sense. That has waned this year; he's now gone the other way slightly'.

John's teacher, too, made a similar observation:

'Initially his behaviour was calmer and more even, however during this school year he is finding it more difficult to focus and can be disruptive'

Molly

Molly is an outgoing child who is not reported to have social or behavioural issues. However, her mother felt that she had become more confident as a result of attending the cluster. Her teacher, too, acknowledged that there had been some positive changes:

'She draws upon her experiences and refers to them at school. She really enjoys learning and is eager to share her ideas'

4.3 Academic benefits and impact

It is difficult to measure the extent to which skills and knowledge acquired by children in subjects that children may have experienced outside the cluster (such as ICT, science and art) were the result of the cluster experience. However, none of the children (with the exception, perhaps, of the son of the German expert, who attends the cluster) had any experience of the German language prior to attending the cluster. There is evidence that all children acquired some knowledge of the German language through attending the cluster and retained some of this knowledge for several months (they sang the German song they had learned to parents at a parent open night in June).

Children were asked to rate how much they learned at the cluster and at school on a scale of 1-5. Mean ratings for learning at the cluster were slightly higher than those for learning at school, as shown in Table 4.3.1, with six children rating learning at the cluster above learning at school.

Table 4.3.1: Mean child ratings for learning at school and at the cluster (N=16)

Learning at the cluster	4.4
Learning at school	4.1

Five children rated their learning at the cluster below that of school. Most of these children described what they had covered at school (for example, five times table, how to make a wormery and a book about Willy the Wimp) then went on to compare this with what they thought they had learned at the cluster, for example, '*Not too much*' and '*I only learn some stuff*'. Box 4.3.1 shows some children's perceptions of the learning potential of the most highly rated activity at the cluster, a computer logic game, Zoombinis.

Box 4.3.1: The learning potential of 'Zoombinis' - children's views

It is interesting that the most highly rated activity, Zoombinis was one which encouraged individualised learning. For a number of children, however, the thrill of this activity appeared to be the competitive element - boys in particular were aware who had completed the highest level, and this appeared to fuel their motivation. Children also had ideas about what activities (particularly Zoombinis) taught them. In the following example, children attempted to describe the value of this game:

*Well.... You have to use all your senses..... Like looking.
Looking and thinking.*

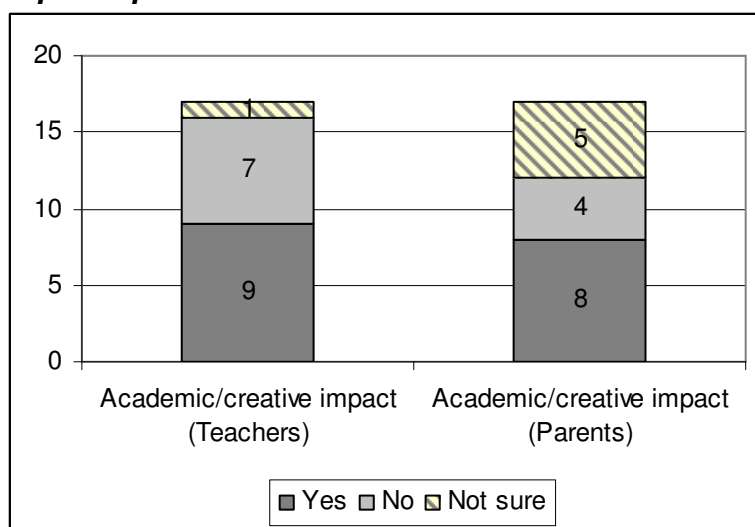
Another child also tried to explain why he rated his favourite activity so highly:

*'Well I think ... because there's loads of levels and it's ..
impossible to complete, and you've got 600 Zoombinis to get
across to Zoombini Island. It **is** hard and it's a really good
game, and I really like it'.*

While almost all parents said there were benefits in attending the cluster (see Section 4.1) most were more cautious when asked to comment specifically on whether they thought the cluster had impacted upon children's academic

achievement. A total of nine parents did not think that their children had benefited academically or felt unable to comment (as shown in Figure 4.3.1).

Figure 4.3.1: Teacher and parent responses to 'Has the cluster had any impact upon the child's academic or creative development?'



Eight parents said that their children had made gains in a number of areas; for example, three said they had learned new knowledge and four said children's motivation or confidence had been enhanced. Another mentioned improved concentration (see Table 4.3.2).

Table 4.3.2: Cluster impact on children's academic or creative development - Parents' views

	N
Learning new knowledge (such as a new language)	3
Increased motivation	2
Increased confidence to learn	2
Increased understanding and concentration	1
None reported	4
Don't know	5

Of those parents who felt unsure as to whether the cluster had achieved academic benefits for their children, one said she could not comment without talking to the class teacher. Of those who said there was no impact, one said that while she felt her daughter was challenged at the cluster more than at school, she did not think that it had impacted upon her academically. Another gave an example of her daughter speaking German, but said that apart from this, there had been no impact.

There were a number of teacher comments relating to cluster impact upon children's academic or creative development. Some related to a general improvement in children's ability to apply themselves (see Box 4.3.2), to development of skills, such as problem solving, or to specific knowledge, such as German language.

**Box 4.3.2: Cluster impact on children's academic or creative development
- Teachers' views**

One teacher said that her G&T pupil was more inclined to apply himself since he had started attending the cluster. She commented that he was *'more prepared to work hard at things that were not immediately obvious'*. In addition, she felt he had become more motivated when undertaking art activities; *'I can persuade him to take greater care over artwork now - maybe he has a wider idea of his strengths'*

Two teachers felt that children had acquired skills through attending the cluster that were transferable to other areas, for example:

'In problem solving "thinking laterally" skills'

'More confident - able to apply knowledge learnt to solve problems.'

Another teacher mentioned the specific knowledge that children had acquired from attending the cluster, such as:

'More broad knowledge of different curricular areas, e.g. German, IT'

Box 4.3.3 shows one parent and child's view of the impact of the cluster on children's academic development. Stuart was not the only child to describe his cluster experiences more favourably than school lessons. Ella also suggested that she found some of her school lessons repetitive and unstimulating, stating that *'teachers at school always teach you the same things'*. Another child felt that the reason he learned so much at the cluster was that more time was given to ICT than at school, saying: *'I learn a lot because we do a lot on the computers, and you have more time than you do at school on it'*.

Box 4.3.3 Cluster impact on children's academic development - Parent and child views

Stuart

Stuart's mother felt that attending the cluster had given him confidence in his ability to learn. He had initially struggled to cope in the school environment (in reception) but when he started to attend the cluster, he enjoyed it and learned a lot. She felt that this enabled him to transfer his learning back into the school environment:

'I think it's given him the confidence to learn more - because he were going there (to the cluster) and he were learning. Then when he was in the school environment, learning wasn't such a frightening, awful experience for him any more, I don't think. He found out that learning could be fun'.

Stuart explained that he was frustrated at school; in particular he felt that there was a lot of repetition in school lessons. He compared this with learning at the cluster:

'We're learning the whole time at thinking club. It's not just like reading and writing and stuff. We're having fun while we're learning at thinking club, so it makes learning easier'.

4.4 Summary and issues arising

- Almost all parents felt that their children had benefited from attending the cluster
- Some parents felt that they themselves had benefited from the support offered by the cluster
- Just over half of parents and just under half of teachers felt that the cluster had positively impacted upon children's social and/or emotional development.
- Parents who said that their children's social development had been enhanced reported that children were happier, more secure, more motivated or better able to relate to other children.
- There was some evidence that two children's confidence increased over the duration of the year.
- Around half of parents and teachers said that the cluster had positively impacted upon children's academic and/or creative development.
- Parents who said that their children's academic/creative development had been enhanced reported that children had learned new knowledge, had improved motivation, confidence or concentration.
- Teachers who said that children's academic/creative development had been enhanced described a general improvement in children's ability to apply themselves, development of skills, such as problem solving or enhanced knowledge.
- There was some evidence that all children learned some basic German language phrases and retained these for several months.
- Some children perceived that they acquired new skills and knowledge at the cluster

Conclusions and key issues

Introduction

The previous sections describe the main findings of the research that relate to the first three objectives identified in the Introduction; these are:

1. To investigate the process of referral of children to the enrichment cluster.
2. To investigate the cluster experience
3. To investigate the short-term impact of the cluster on children's intellectual, social/emotional and creative development.

This final section discusses the issues arising from the findings from the first three objectives under the heading '*Key issues for future development*'. The final two objectives are then addressed; these are more interpretative than the first three. These final two objectives are:

4. To identify factors affecting cluster impact.
5. To draw conclusions about the Rotherham model (in terms of transferability and potential benefits to other LEAs) and about the longer-term sustainability of the cluster.

Key issues for future development

The key issues arising from Sections 1 to 4 are:

- The need to clarify aims, purpose and target group
- The need to enhance communication with schools

1. Clarifying cluster aims, purpose and target group

Parents and teachers should be provided with more clarity about the aims of the cluster and the target group, as some (particularly those whose children did not have socialisation problems) were confused about these important issues. As indicated in Sections 1.1 and 2.1, while a third of children do have socialisation or engagement issues, the majority do not.

Related to the above issue, the question that arises is '*Can the enrichment cluster meet the needs of all the children in the group?*' The evidence is that the majority of parents and children valued the cluster and benefited from it, although those who benefited most appeared to be children who were experiencing socialisation issues. The cluster teacher makes every effort to cater for all children's differing needs.

Clarifying the cluster aims and purpose would also help parents and teachers to manage their expectations of the cluster at the outset. Several parents and teachers said that they thought children would be offered activities to challenge them in the subjects which they already excelled, usually maths or literacy. Such a programme, however, would be classed as acceleration rather than enrichment. It is important that parents and teachers are made aware that this is an enrichment, not an acceleration programme and what this means.

2. Enhancing communication with schools

While parents generally felt well informed about the cluster curriculum and activities, children's mainstream teachers tended to feel that communication could have been better, particularly with regard to children's progress. This is a very difficult issue to address, since enhancing communication links with schools would very likely incur additional costs in terms of staff time and therefore funding. Indeed, several teachers acknowledged that better communication would be costly. At present, it would be difficult to manage too, because the cluster teacher is employed in this role on a part-time basis.

Efforts are increasingly being made to keep schools informed and an 'exit review', a written report of each child's progress, has always been provided for parents and schools when children leave. Teachers are invited to open nights (which few attend) and schools have been given a CD Rom providing information about the cluster this year. Other cost effective ways of conveying information should also be considered.

Factors affecting cluster impact

We have identified five key variables that we feel have been the main factors to influence cluster impact. These are:

- Theoretical frameworks underpin pedagogy and practice
- Varied teaching and learning styles
- Strong relationships
- The age of the children
- The nature of the provision - A G&T 'cluster'

Theoretical frameworks underpin pedagogy and practice

The cluster is built upon strong theoretical foundations and the cluster teacher is well informed on the literature relating to G&T children (see Section 2.4). Expert assistance from Brunel Able Children's Education Centre was provided in setting up the cluster and developing an appropriate pedagogy.

The cluster is constantly developing; the teacher and the Rotherham LA G&T co-ordinator are always on the look out for good practice in G&T elsewhere. The teacher is not afraid to adapt the curriculum, include new subjects and invite new subject experts in attempts to improve the cluster. Because of this openness to new ideas the cluster is unlikely to become set in its ways and resistant to change. Subjects are reviewed at the end of the six week focus and effectiveness and value for money are considered.

Varied teaching and learning styles

Partly, but not entirely linked to the previous issue is the finding that varied teaching and learning styles positively influenced the impact of the cluster. Many parents, and some children, commented how different the activities were to those undertaken at school; without curriculum pressures, activities were often designed to be more inquiry oriented and to encourage debate and co-operative working.

Consequently, children often perceived the activities as being more 'fun' than school activities and many parents reported that children very much looked forward to their weekly cluster experience. While acknowledging that children generally benefited from this style of teaching, one parent felt that his son was experiencing conflicting teaching styles at the cluster and at school, which was confusing for him.

The varied teaching and learning styles at the cluster appear to benefit children with socialisation issues and ASDs in particular. The cluster offers an optimum learning environment to benefit such children, providing flexibility, sufficient staff to monitor problems, good sized accommodation and accessible communication systems.

Strong relationships

There are three issues around key cluster relationships. Firstly, staff-child relationships were very strong; children related very well to cluster staff and rated them very highly. Secondly, staff-parent relationships were also excellent; parents felt they could approach staff for support and advice (particularly parents of children with socialisation issues or ASDs). The strength of feeling of support from several such parents was a largely unanticipated outcome of this evaluation; indeed, one parent described the cluster as a 'lifeline' in terms of the support she and her husband received. Thirdly, related to the strength of the relationships is the amount of adult support children received; at least six staff supported each cluster session in the year of the evaluation.

The age of the children

Identifying children as G&T at Key Stage One has been a positive feature of this enrichment cluster. Identifying the children so young meant that there were very few negative effects of withdrawing children from mainstream school to attend; there were no reports of children being singled out by their peers for being withdrawn. In addition, neither parents nor teachers were concerned about children missing school lessons. In addition, early intervention appears to have been a contributory factor in achieving the cluster's aim of positively impacting upon the behaviour and attitudes of children with emotional and behavioural difficulties.

The form of the provision - A G&T 'cluster'

Offering G&T provision in the form of a 'cluster' in which children are brought from all over the borough is undoubtedly very costly. The question that arises is '*Could a different form of G&T provision be offered that is less costly but as effective?*' While addressing this question is beyond the scope of this evaluation, the findings suggest that alternative provision would be unlikely to satisfy as many parents, since many believed that the main value of the cluster was that it enabled children to interact with other G&T children (see Box 2.6.1). There was also some evidence that interacting with a G&T peer group helped some children to develop socially or to develop confidence (see Section 4.2).

Cluster sustainability

The final objective relates to the sustainability of the provision. The cluster has made efforts to address this issue in previous years; originally the cluster teacher ran the sessions with two support staff until it was suggested by Brunel Able Children's Education Centre that this was unsustainable. It was therefore decided to use outside subject experts with the teacher in a more managerial role.

The cluster is sustainable in that schools generally value it and are increasingly nominating children to attend. A third of teachers had not referred children whom they thought should qualify because of a perceived lack of places (although the cluster teacher had not declined any admissions). The cluster operated at or near its full capacity for the academic year; next year the number of places will be slightly fewer, which may result in greater competition for places. In another attempt to address sustainability, the teacher intends to strengthen cluster links with the Autism Outreach Team in Rotherham in the next academic year (2006-07).

There is a desire to embed the cluster in Rotherham's provision for G&T pupils, although it is acknowledged by staff that the main limitations are linked to funding and sustainability. Funding for the cluster is secured for the next two years; according to the cluster teacher, the cluster is *'now so closely linked with the City Learning Centre that our fortunes seem tied together'*. However, the teacher fears that *'the current climate of putting all monies back into the hands of schools could eventually be detrimental to the cluster'*, which is why she feels they need national recognition. A number of other authorities have shown an interest in Rotherham's work although lack the funding to be able to offer similar provision. Possibilities for future development include cluster provision based around specialist colleges.

Summary

- Two issues for future development of the cluster are the need to share cluster aims, purpose and target group with parents and teachers and to enhance communication with schools.
- Five key factors that positively affect the impact of the cluster have been identified. These are:
 - Theoretical frameworks underpin pedagogy and practice
 - Varied teaching and learning styles
 - Strong relationships
 - The age of the children
 - The form of the provision - a G&T 'cluster'
- The cluster is sustainable in the short term:
 - Parents, children and schools value it
 - Schools continue to nominate children to attend - the cluster was operating at or near full capacity in the year of the evaluation
 - Cluster funding is secure for the next two years.
- Beyond this, sustainability is an issue, particularly since less funding may be available for local authorities in future.

References

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Appendix 1: Theories of intelligence

There are a number of theories that are helpful in conceptualising intelligence that have been drawn upon in the development of the cluster (see Section 2.4).

Gardner (1999) contends that the traditional notion of intelligence, based on IQ testing, is far too limited. His theory of multiple intelligences suggests that every person possesses eight 'intelligences', which account for a much broader range of potential. These include linguistic intelligence, logical-mathematical intelligence, kinaesthetic intelligence, musical intelligence, spatial intelligence, interpersonal intelligence and intrapersonal intelligence. Each person has their own blend of these intelligences. Schools generally tend to focus on linguistic and logical-mathematical intelligences, although, Gardner argues they should pay equal attention to artists, musicians, dancers, athletes and designers. The theory of multiple intelligences fits well with personalised learning; that each child is different in their abilities, interests and how they learn.

Bloom (1984) devised a taxonomy of levels for intellectual behaviour in learning. This classification comprised three overlapping domains: the cognitive, psychomotor, and affective. Within the cognitive domain, six levels were identified: knowledge, comprehension, application, analysis, synthesis, and evaluation. Other theories have been developed specifically with respect to gifted learners. Renzulli (1986) contends that gifted behaviour consists of behaviours that reflect an interaction among three basic clusters of human traits - above average ability, high levels of task commitment, and high levels of creativity.