

Gifted and Talented Children and ICT



**British Educational
Communications
and Technology agency**

JANUARY 2001

What is a gifted or talented child?

There are many definitions of what it means to be gifted or talented. These definitions agree to the extent that they state such a person to be someone:

'who demonstrates, or has the potential to demonstrate, an outstanding level of ability in one or more fields of activity.'

These abilities can be general, such as the ability for extraordinary creative thinking, or specific, such as a particular ability in a subject.

The Government is developing a national strategy for the education of gifted and talented (G&T) children, outlined at: <http://www.dfes.gov.uk/parents/maintenance/o24.htm>. There are plans to:

- ensure that all national education policies include a focus on the needs of G&T children
- develop effective ways to identify, educate and support them
- ensure that these methods are taken up and used in every school and LEA.

Information and communications technology (ICT) will be playing a large part in this strategy as it can be used to assist G&T children both in and out of school. It can not only aid their education but also improve their social communication and assist their relationships with other children, teachers, parents and carers, because it can enable a child to remain in their own age group and help to relieve peer pressure. ICT can reveal aptitudes in children, for example by the use of computer-based learning systems, and demonstrate that children are gifted or talented in one or several subjects or areas.

How can ICT help G&T children?

The imperative to provide educational support for G&T children is clear, and ICT can assist with this support in a variety of ways:

- ***Provide greater breadth and depth of information than is available from other sources***
Resources such as CD-ROMs, on-line information and the Internet offer a wealth of material in readily accessible form which can be matched to G&T pupils' individual needs and enable them to develop a higher level of skill in thinking and handling information. Suitable subject knowledge can be made available and be particularly helpful in primary education. Materials that can be delivered via electronic sources are now being designed specifically for younger pupils who are working at more challenging levels than would be usual for their age group.

- ***Enable children with a particular talent to display and develop that talent***
 Children's talents can be displayed by using ICT. Creativity or mathematical ability, for example, may be displayed through a computer-based learning system.

A particular talent can be further developed using specific ICT. Musicians, for example, can be provided with access to a range of virtual instruments and mixing technologies. Scientists can access virtual environments, research data and experts.
- ***Support a specific cultural background and/or language***
 G&T children with a different cultural background, and sometimes language, can be isolated. The Internet and networks can give them the communication they need with others from similar backgrounds. On-line links and CD-ROMs can be used to provide work programmes with the appropriate level and language balance, incorporating translation and cultural explanation if necessary.
- ***Aid educational inclusion***
 Provision can be made for G&T children within their peer group with the help of ICT, for example using a particular learning system or work scheme. This can avoid moving a child to an older age group, that may cause isolation and peer pressure.
- ***Alleviate peer pressure and other obstacles to a pupil achieving at a high level***
 There are indications that ICT enables individual pupils to achieve and perform at a high level within the school or class environment, thus relieving possible peer pressure. Computer-based learning systems in particular, such as integrated learning systems (ILS) and other less structured systems, can be helpful. These give the opportunity for rapid progress and immediate feedback.
- ***Improve educational and social communication with and between G&T children***
 Regional or national ICT networks can be used to give G&T children a broader base of communication, as there is often only a small number of such pupils in a class or even in a school. E-mail or conferencing systems can be used to link these children, so that they can exchange ideas and feel less isolated. G&T children can also make use of the research networks of adults therefore gaining access to a wider field of knowledge.
- ***Enable the effective recording of pupils' ideas***
 Software such as word processors, spreadsheets, and multimedia authoring packages, are particularly helpful for G&T children. Word processors enable the speedy and effective recording of ideas, plus the ability to refine work. Spreadsheets make it possible to present data in a number of ways. Multimedia authoring software offers ways of presenting complex ideas and processes.
- ***Support for G&T children with a learning difficulty or disability***
 ICT can help G&T children realise their potential where they have a specific learning difficulty or disability. Pupils with dyslexia, for example, can overcome barriers by using a voice dictation system or talking word processor and a spell checker. Assessment software can be a valuable aid in early identification of difficulties. Becta's information sheets provide further guidance on [ICT and special educational needs](#).
- ***Support and network teachers working with G&T children***
 ICT can provide support and networking for teachers of G&T children. There are mailing lists and forums, such as the High-Ability forum, which has been set up by the [National Association for Able Children in Education](#) (NACE), the [Support Society for Children of Higher Intelligence](#) (CHI), and the [National Association for Gifted Children](#) (NAGC). There are also links with projects and the Web sites of organisations dedicated to G&T children. These all provide communication, ideas, practical material, and information to support teachers working in this area.

NACE organises one-day regional conferences, provides INSET, produces booklets, and maintains a database of contacts. It also provides resources for the primary sector, and is establishing a network of teachers who will become more skilled at providing for able children in their schools.

A home-school network link can also provide a valuable method of communication between teachers, pupils, parents and carers. Liaison about home computer use between teachers and parents can also be helpful.

- ***Provide extra education and support in the home***

The Internet, CD-ROMs or word processing can assist with parental/carer involvement, even more so if there is a home-school network link in place. Such facilities can be helpful to relationships within the family and between home and school. Co-operative assistance by parents and teachers can be given to the children much more easily using ICT as a communicating link. The Internet can provide a link with other families all over the world via specialised sites such as pen-pal exchanges for the children, educational links generally, parent and carer chat rooms, and message boards which help to solve isolation problems for children, parents and carers.

For children with specific talents, an ICT learning environment can be created at home, making it easier for them to develop their abilities whilst also maintaining their general education. Children in the primary age group particularly benefit from this, as they may not be able to attend a specialist school.

Conclusion

There is a changing environment for G&T children enabling more freedom of communication and development, much of it made possible by the use and development of ICT. Developments in mobile internet and communications technologies are creating exciting opportunities.

In addition, the more flexible educational environment both in school and in society generally has given the opportunity to identify and assist children's particular needs.

All this is focusing the attention of educational establishments, parents and carers, and society in general, on the needs of G&T children. Co-operative encouragement can now be given to this aspect of children's education through the use of ICT, which should result in the discovery and encouragement of these abilities in more G&T children.

Other Sources of Information

Becta publications

Computers and Inclusion: Factors for Success

Becta, 1999. Priced

Provides a host of case studies where both generic and specific software packages were used to help learners develop their literacy, numeracy and creative skills. Other areas include information handling, graphics and the growing use of multimedia.

[Special Needs and ICT information sheet](#)

Becta June 2000. Free

<http://www.becta.org.uk/technology/infosheets/pdf/senict.pdf>

Details generic special needs and ICT information. In particular, different types of software and hardware which can help and lists of other sources of information such as organisations, publications and software.

[Dyslexia and ICT Information Sheet](#)

Becta July 2000. Free

<http://www.becta.org.uk/technology/infosheets/pdf/dyslexia.pdf>

Voice Recognition Technology in Education: factors for success

Becta, 2000 ISBN 1 90330 300 1. Priced

Provides the reader with a number of issues and strategies to consider before attempting to use voice recognition with learners who have physical and communication difficulties.

Software

Becta's [Educational Software database](#) provides details about a wide range of software:

<http://vtc.ngfl.gov.uk/resource/esr>

Becta has been running a project on [Speech Recognition](#) software with full details available at:

<http://www.becta.org.uk/inclusion/speechrecog/experiences/index.cfm>

Organisations

The organisations listed below are UK associations and some schools and networks aimed at supporting the gifted child.

[The Advisory Centre for Education \(ACE\)](#)

Tel: 020 7354 8321

Fax: 020 7354 9069

E-mail: ace-ed@easynet.co.uk

<http://www.ace-ed.org.uk/>

[British Mensa Ltd](#) (Junior Branch)

Tel: 01902 772771

Fax: 01902 392500

E-mail: enquiries@mensa.org.uk

<http://www.mensa.org.uk/mensa/junior.html>

[Brunel Able Children's Education Centre \(BACE\)](#)

Tel: 020 8891 0121 ext. 2415

Fax: 020 8891 8274

<http://www.brunel.ac.uk/faculty/ed/edpages/centres/bacc/bacc.htm>

[Centre for Studies on Inclusive Education \(CSIE\)](#)

Tel: 0117 923 8450

Fax 0117 923 8460

<http://inclusion.uwe.ac.uk/csie/csiehome.htm>

[The National Association for Able Children in Education \(NACE\)](#)

Tel: 01865 145657

Fax: 01865 245658

E-mail: nace@ox-west.ac.uk

<http://www.nace.co.uk/>

[National Association for Gifted Children \(NAGC\)](#)

Tel: 01908 673677

Fax: 01908 673679

E-mail: amazingchildren@nagcbrtain.org.uk

<http://www.rmplc.co.uk/orgs/nagc/index.html>

[Youth Cafe](#)

(Virtual Branch of the Youth Agency of NAGC)

<http://www.youthagency.org.uk/>

The Potential Trust

Shepherds Close

Kingston Stert

Nr Chinnor

Oxon OX9 4NL

Tel: 01844 351642

Offers courses for G&T children.

[The Support Society for Children of Higher Intelligence \(CHI\)](#)

Tel: 01386 881 938

<http://www.users.dircon.co.uk/~tutorcom/chi>

The Sutton Trust Ltd

Tel: 020 8788 3223

Fax: 020 8788 3993

E-mail: sutton@suttontrust.com

Forums/Mailing Lists

There are many mailing lists for teachers and parents of G&T children. The following are examples.

[Research Centre for Able Pupils](#), Westminster Institute of Education at Oxford Brookes University

Includes:

- resources for teachers and classroom activities
- links to organisations sites and resources sites for teachers and G&T children.
- information about masterclass programme
- current research
- courses on offer at university – for example, G&T Co-ordinators' Training Programme (Master's level course)

<http://www.brookes.ac.uk/schools/education/ablepupils/>

High-Ability

It is for the exchange of information, and to provide an opportunity for the discussion of issues related to the education of G&T children.

<http://www.becta.org.uk/inclusion/discussion/highability.html>

This sheet can be accessed on the Internet:

- in summary at: <http://www.becta.org.uk/technology/infosheets/html/g&tchild.html>
- in full as a pdf file at <http://www.becta.org.uk/technology/infosheets/pdf/g&tchild.pdf>

While every care has been taken in the compilation of this information to ensure that it is accurate at the time of publication, Becta cannot be held responsible for any loss, damage or inconvenience caused as a result of any error or inaccuracy within these pages. Although all references to external sources (including any sites linked to the Becta site) are checked both at the time of compilation and on a regular basis, Becta does not accept any responsibility for or otherwise endorse any information contained in these pages including any sources cited.

British Educational Communications and Technology Agency (Becta)
 Milburn Hill Road, Science Park, Coventry CV4 7JJ Tel: 024 7641 6994 Fax: 024 7641 1418
 Information Sheet E-mail: infosheet@becta.org.uk E-mail: Becta@becta.org.uk
 URL: <http://www.becta.org.uk/> Ch4 Teletext Page 475