TEACHING THINKING SKILLS – SELECTED RESOURCES 2003

This selection of resources has been compiled by the NUT with assistance from Miranda Bell (Centre for the Use of Research and Evidence in Education, CUREE); Steve Higgins and Viv Baumfield (Centre of Thinking Skills at the University of Newcastle); and Patrick Costello (North East Wales Institute of Higher Education, Wrexham).

It draws together:

1. Introduction to Thinking Skills resources
2. Books and reports about teaching thinking and thinking skills
3. Academic articles about teaching thinking and thinking skills
4. Published programmes and classroom resources
5. Subject specific resources
   Geography
   History
   ICT
   Maths
   RE/PHSE
   Science
6. Books, articles and resources about research processes and tools
7. More general books and articles about teaching, thinking and learning
8. Magazines and websites

1. Introduction to Thinking Skills resources

Carol McGuinness’s Research Brief for the DfES (McGuinness, 1999) gives a good general overview of some of the more well-known programmes in teaching Thinking Skills. She recognises three different kinds of approach, including those that:

♦ target thinking skills as a discrete entity;
♦ explore thinking skills in a subject specific approach;
♦ aim to infuse thinking skills in a generic way across all lessons.

The six key programmes that McGuinness mentions are:

♦ Feuerstein’s Instrumental Enrichment (IE) (Feuerstein et al, 1980)

  The best-known thinking skills programme, developed over 40 years ago. It has been widely used and extensively evaluated, showing positive effects mainly on non-verbal reasoning.

♦ Somerset Thinking Skills Course (Blagg, 1988 and 1989)

  This is a UK version of the IE approach, developed when a study (Blagg, 1991) showed no positive outcomes of IE applied in a UK context. Shows positive effects on a range of cognitive outcomes.

♦ Matthew Lipman’s Philosophy for Children (Lipman et al, 1980)
Closely linked with Robert Fisher’s work on primary schools (Fisher, 1998), this is a widely used approach in the UK and is especially suited to application in the context of social and moral education. Evaluations have shown positive outcomes in many areas, including quality of students' discussion and argumentative skills, ability to formulate questions and self-esteem.

♦ CASE (Cognitive Acceleration through Science Education)

A highly successful programme aimed at 11-14 years, shown to be effective at raising GCSE grades for students (Adey and Shayer, 1994). Two subsequent projects have emerged: CAME (Cognitive Acceleration through Mathematics Education) and the Nuffield Primary Science Project which helps primary age students understand topics such as electricity, light, sound and energy.

♦ Thinking Through Geography (Leat, 1998)

A curriculum development project aimed at geography teaching at the post-primary level. Evaluation work is ongoing.

♦ ACTS (Activating Children’s Thinking Skills) project. (McGuinness et al, 1997)

The UK adaptation of a US programme on the infusion approach to developing thinking skills (Swartz and Parks, 1994). The project is aimed at upper primary level, specifically Key Stage 2 and has been evaluated in the Northern Ireland curriculum.

The specific references identified above are provided in more detail later in the document.

2. **Books and reports about teaching thinking and thinking skills**


Quinn, V. *Critical Thinking in Young Minds* London: David Fulton.


A copy of ‘Better Cognition’ – the report of a conference ‘A Whole Lot of Thinking Going On’, held at NUT Headquarters during November 2001- can be obtained from Janet Friedlander, NUT Information Officer (e-mail: j.friedlander@nut.org.uk)

3. Academic articles about teaching thinking and thinking skills


4. Published programmes and classroom resources


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5. **Subject specific resources**

**Geography**


**History**


ICT


Maths


Higgins, S. (2000) **Figure Out the Framework.** *Teaching Thinking*, 2, pp.41-43 Birmingham: Questions Publishing Company

RE/PHSE


Science


6. **Books, articles and resources about research processes and tools**


7. **More general books and articles about teaching, thinking and learning**


8. **Magazines and websites**

- Edward de Bono’s catalogue of resources (such as CoRT and the Thinking Hats) is on-line ([http://www.edwdebono.co.uk/debono/home.htm](http://www.edwdebono.co.uk/debono/home.htm)) and colour-coded like his six thinking hats.

- Thinking Together ([http://www.thinkingtogether.org.uk](http://www.thinkingtogether.org.uk)) have a site offering free software, articles for downloading and details of recent publications.

- Alistair Smith’s Accelerated Learning has its own website ([http://www.alite.co.uk/](http://www.alite.co.uk/)) as does Robert Fisher ([http://www.teachingthinking.net/](http://www.teachingthinking.net/))
Kings College London’s two thinking skills programmes CASE (Cognitive Acceleration Through Science Education) and CAME (Cognitive Acceleration Through Maths Education) and Let’s Think for Key Stage 1 pupils. Information about CASE can be found at: http://www.kcl.ac.uk/depsta/education/teaching/CASE.html. And CAME similarly at: http://www.kcl.ac.uk/depsta/education/teaching/CAME.html

Dialogue Works (http://www.dialogueworks.co.uk/) produce Newswise, an on-line resource to promote thinking through news stories, and Storywise, a handbook by Karen Murris and Joanna Haynes for developing Community of Enquiry with young children.

SAPERE (Society for the Advancement of Philosophical Enquiry and Reflection in Education) is a UK based educational charity offering resources, conferences, and training in philosophy for children. Membership forms from Sara Liptai, 7 Cloister Way, Leamington Spa CV32 6QE. SAPERE website: http://www.sapere.net

IAPC (Institute for the Advancement of Philosophy for Children) (http://chss.montclair.edu/iapc/homepage.html) produces ‘Thinking’. The Institute for Critical Thinking (http://www.chss.montclair.edu/ict/homepage.html) produces ‘Inquiry’. Both are at Montclair State University, Upper Montclair, New Jersey, 07043, USA.

ICPIC (the International Council for Philosophical Inquiry with Children) distributes ‘Thinking, Analytic Teaching and Critical and Creative Thinking’. Subscriptions from ACER, Private bag 55, Camberwell, Victoria 3124, Australia. Reports and papers from their annual conference are available on the SAPERE website (see above)

Teaching Thinking is a quarterly magazine from Questions Publishing Company, Birmingham http://www.teachthinking.com and has regular articles about developing thinking in the classroom.

The DfES Standards site ‘Schemes of Work’ section (http://www.standards.dfes.gov.uk/schemes) has a section on thinking skills related to different areas of the curriculum. Go to the ‘Teachers’ Guide’ link under the specific subject area, and then ‘Links with Other Areas of the Curriculum’.

The GTC has a Research of the Month (RoM) website (http://www.gtce.org.uk/research/romhome.asp) which aims to bring research to practitioners in an accessible format by summarising studies and articles of direct interest to teachers. Relevant RoMs to date are Improving learning through cognitive intervention based on the study by Adey and Shayer (1994).

The Scottish Council for Research in Education (SCRE) Spotlights series (http://www.scre.ac.uk/spotlight/index.html) are short papers on general education issues. Relevant papers are:
• Spotlight 26: John Nisbet (1990), *Teaching Thinking: an introduction to the research literature*

• Spotlight 79: Valerie Wilson (2000), *Can thinking skills be taught*

• Spotlight 82: Keith Topping (2001), *Peer and Parent Assisted Learning in Reading, Writing, Spelling and Thinking Skills*

♦ *Teaching Thinking Skills*, ([http://www.nwrel.org/scpd/sirs/6/cu11.html](http://www.nwrel.org/scpd/sirs/6/cu11.html)) by Kathleen Cotton, is another entry in School Improvement Research Series at Northwestern University with information on a number of approaches.