REPORT

Teaching argumentative non-fiction writing to 7–14 year olds

A systematic review of the evidence of successful practice

Review conducted by the English Review Group

Report written by Richard Andrews, Carole Torgerson, Graham Low, Nick McGuinn, Alison Robinson

EPPI-Centre
Social Science Research Unit
Institute of Education
University of London

June 2006

Teaching argumentative non-fiction writing to 7–14 year olds

A systematic review of the evidence of successful practice

REPORT

Review conducted by the English Review Group

Report by Richard Andrews (University of York)
Carole Torgerson (University of York)
Graham Low (University of York)
Nick McGuinn (University of York)
Alison Robinson (University of York)

The results of this systematic review are available in four formats. See over page for details.

The results of this systematic review are available in four formats:

SUMMARY — Explains the purpose of the review and the main messages from the research evidence

REPORT — **Describes the background and the findings of the review(s) but without full technical details of the methods used**

TECHNICAL REPORT — Includes the background, main findings, and full technical details of the review

DATABASES — Access to codings describing each research study included in the review

These can be downloaded or accessed at **http://eppi.ioe.ac.uk/reel/**

CONTENTS

Abstract

A systematic review was undertaken to answer the research question 'What is the evidence for successful practice in teaching and learning with regard to non-fiction writing (specifically argumentative writing) for 7-14 year olds?' using EPPI-Centre methodology. Starting with studies published since 1990, 1,630 papers were identified by initial searching of which 1,494 abstracts and titles were screened. Of these, 29 were identified as meeting the inclusion criteria for the review. Three studies were reviews; of the remaining 26, 16 were included after second-stage screening.

Results showed that certain conditions are either assumed or have to be in place to create a climate for successful practice. These are not specific to argumentative writing, but include a writing process model in which students are encouraged to plan, draft, edit and revise their writing; self-motivation; some degree of cognitive reasoning training, in addition to the natural cognitive development that takes place with maturation; peer collaboration, thus modelling a dialogue that (it is hoped) will become internal and constitute 'thought'; and explicit and very clear explanations for students of the processes to be learned.

The specific strategies have been identified that have contributed to successful practice in teaching and learning with regard to argumentative writing for 7-14 year olds include 'heuristics', that is, scaffolding of structures and devices that aid the composition of argumentative writing – in particular, planning, which can include examining a question, brainstorming, organising and sequencing ideas, and evaluating; planning which is extensive, elaborated and hierarchical, which can make for more effective argumentative drafting and completion of essays; the use of oral argument, counterargument and rebuttal to inform written argument; the identification of explicit goals (including audiences) for writing; teacher modelling of argumentative writing; and 'procedural facilitation', that is, coaching by the teaching through the process of writing argument.

CHAPTER ONE
Background

Aims and rationale for current review

Our review focuses on the argumentative genres of non-fiction writing.

Non-fiction writing – as indicated by the negative definition – has been the least favoured aspect of writing in the English curriculum for many years. The first and second versions of the National Curriculum for England made little difference to this position, but the current version of the National Curriculum (DfEE, 1999) sets out a more balanced framework for writing and reading in which non-fiction takes its due place.

The reason for such neglect for much of the 20th century is that literature (especially fictional writing, such as the novel) formed the 'central civilising presence' in the English curriculum. Most English teachers, at primary or secondary level, still see a literary core to their practice, values and professional training. The connection between personal development, the nurturing of the imagination and the study of literature is still very strong in the minds of English teachers; indeed, as research in the 1990s showed (Goodwyn, 1992), the personal growth/literary model of English is the dominant one for English teachers. Such a tradition is a great and influential one, and we would not wish it to be

diluted in any way. However, the question remains: what place does *non-fiction* hold in the curriculum?

Definitional and conceptual issues

'Non-fiction' is an unduly negative term, defined in relation to fiction. Under the meta-genre of non-fiction sits a wide range of documentary and other genres or text-types: the essay, the report, the manual, the travel book, the travel guide and brochure, reportage, diaries, etc. For the purposes of the present study, for convenience's sake, we have continued to use the term 'non-fiction' to cover this range.

Non-fiction writing includes writing to inform, explain and describe (reports, explanations, manuals, prospectuses); writing to persuade, argue and advise (essays, reviews, opinion pieces, advertisements); as well as writing to analyse, review and comment (commentaries, articles, etc).

The present review, as justified later, focuses on the second two of these categories, excluding writing to inform, explain and describe. We characterise the second two categories as broadly concerned with 'argumentative' writing.

Policy and practice background

To its credit, the English curriculum for the first part of the 21st century is fairly enlightened with respect to non-fiction. It is now no longer a problem that non-fiction is absent from the English curriculum in all but the most formal and dry text-types. Rather, the latest version of the National Curriculum for English embraces a range of non-fiction forms alongside, and blended with, literary and expressive forms. The questions are now: what is the evidence for *successful* practice in the teaching of non-fiction and how can we help teachers and learners to write non-fiction more successfully?

Although our focus is on *writing* non-fiction, and although reading and writing are framed separately within the National Curriculum for English, we take it as given that reading and writing are reciprocal activities, particularly in writing development. We also think that speaking and listening bear upon the writing of non-fiction, in that, for example, spoken forms of argumentation may well be better employed than they are now to help improve the writing of non-fiction.

We have focused on writing because (a) competence in writing lags behind that in reading in Key Stage 2 (KS 2) assessment tests, (b) less research has been done on writing than on reading, and (c) pragmatically, in the timescale for the present review, we needed to focus on one particular aspect of the English curriculum.

At KS 2, for example, under 'Reading', pupils should be taught 'an understanding and appreciation of non-fiction and non-literary texts' (1999, p 54) and the various types of language that are embodied in them. Unfortunately, such types of texts are characterised as 'non-chronological' – a misleading and inaccurate term (see Andrews and Gibson, 1993) as many fictional works are non-chronological and

many non-fictional ones chronological. The range of reading should include:

(a) diaries, autobiographies, biographies, letters

(b) print and ICT-based reference and information materials

(c) newspapers, magazines, articles, leaflets, brochures, advertisements (p 55)

Similarly, for Writing, pupils should work in a range of forms, including 'reports, explanations, opinions, instructions, reviews, commentaries' (ibid., p 58).

At key stages 3 and 4, the programme becomes more diversified and more specific. The range of reading is to include:

(a) literary non-fiction

(b) print and ICT-based information and reference texts

(c) media and moving image texts

with examples of such texts being by a wide range of authors, including Peter Ackroyd, James Baldwin, Alistair Cooke, Charles Darwin, Flora Thompson and Dorothy Wordsworth. Many of these are characterised as *literary* non-fiction, as if the curriculum is unwilling to let go of the literary dimension. In Writing at key stages 3 and 4, a range of purposes is set out, with forms such as 'memos, minutes, accounts, information leaflets, prospectuses, plans, records and summaries' included, as well as 'brochures, advertisements, editorials, articles and letters conveying opinions, campaign literature, polemical essays' (p 54).

It is important to note that the *functions* of writing at these secondary school key stages include persuading, arguing and advising, influencing the reader, analysing and reviewing, evaluating and presenting a case, as well as the more descriptive

processes of informing, explaining and describing. The distinction between 'argumentation' on the one hand, and 'description' on the other is an important one for our study, reflecting a high level but often simplistic categorisation between imaginative, descriptive and argumentative writing which derives from 19th century rhetorical theory and which has influenced the writing curriculum ever since.

The introduction of the National Literacy Strategy (NLS) into the primary sector in 1998 signalled a more decisive shift away from the orthodoxies of the 'cultural heritage' and 'personal growth' modes of English (Cox, 1991) towards a curricular model which foregrounded the explicit study of 'transactional' language (Britton, 1972) across and beyond the school curriculum. Drawing upon the work of Kress (1994) and others, the NLS asserts the importance of young people being taught how to engage with the non-fictional genres they are most likely to encounter during their lives as citizens and workers.

Even as early as Year 1, pupils are, therefore, introduced to such non-fictional texts as signs, labels, captions, lists and instructions. By the end of primary school, the range of non-fictional genres has broadened to include complex explanatory texts drawn from across the curriculum, as well as information and electronic texts (DfEE, 1998). This work is consolidated and developed at KS 3, where pupils are not only encouraged to explore the linguistic features and structures of a wide range of print, image and 'multi-modal' non-fictional texts, but also to shape their own creative engagement with these genres according to a threaded sequence of writing triplets which runs on into KS 4: 'imagine, explore, entertain … inform, explain, describe … persuade, argue, advise … analyse, review, comment' (DfEE, 2001a). Under the terms of the NLS, the task of helping young people gain an understanding of how these non-fictional genres operate is perceived as being a responsibility for all teachers, not just those concerned with 'English'.

National strategies at primary level

In its *Framework for Teaching Literacy* (1998), the NLS identified both termly fiction and non-fiction text ranges for all year groups from year 1 to year 6 (a yearly overview for reception classes), and text, sentence and word level objectives for both reading and writing. The launch of the NLS Framework was supported by national training programmes and resources to support effective teaching of both reading and writing. Resources in the first set of guidance and support materials for schools included a specific section on the teaching of non-fiction writing. Lewis and Wray (2000) were involved in writing the non-fiction objectives and the professional development materials to support the teaching, which was at that time novel for the majority of teachers in England. The discursive text type was placed in the final term of years 4 and 5 after children had had two years' experience of writing 'non-chronological' reports and explanatory texts.

Additional materials to support the teaching of writing include *Developing Early Writing*, a handbook for practitioners in Foundation Stage and KS 1 (DfES, 2001), and *Grammar for Writing* handbook and self-study CD Rom (DfES, 2000), also supported by local authority consultant-led training programmes. In addition to these resources, web-based support material – such as the set of writing fliers designed to support effective teaching of both narrative and non-fiction writing – also promoted talk for writing and interactive teaching strategies to engage children in speaking and listening, and collaborative writing and drama as further ways to support writing development.

Planning exemplification units promote a teaching sequence from reading to writ-

ing, supporting children in developing their own writing, having explored models of effective writing. Since the NLS became part of the wider Primary National Strategy, there has been a continued focus on supporting the teaching of writing. The publication of recent research undertaken with United Kingdom Literacy Association (UKLA) and several local authorities on approaches to improving boys' writing through the use of ICT is the most significant recent work on the teaching of writing (DfES, 2000).

National strategies at secondary level

The Secondary National Strategy for school improvement began life in 2001 as the Key Stage 3 National Strategy when the English and mathematics strands were introduced to all schools in England. Also at that time, the NLS addressed literacy across the curriculum for teachers from all subject areas. From its onset, considerable guidance and support has been provided for teachers in secondary schools to improve pupils' writing. *The Framework for Teaching English: Years 7, 8 and 9* (DfEE, 2001a) contained teaching objectives for writing, including specifically those for writing to 'persuade, argue and advise'. *English Department Training* (DfEE, 2001b) and *Literacy across the Curriculum* (DfEE, 2001c) both had a section on 'Writing non-fiction', which considered a range of text types including 'persuasion'. *Literacy and Learning* (DfES, 2004a) followed up the *Literacy across the Curriculum* resource in providing teachers of all subjects with guidance on using the teaching objectives from the Framework to assist them in developing pupils' literacy. *Improving Writing* (DfES, 2003, 2004b) was a major resource for English teachers which focused on aspects, such as designing writing, text structure and organisation. The research that underpinned much of this work, particularly Improving writing, was the work of Bereiter and Scardamalia

(1982, 1987), Derewianka (1990), Hillocks (1986, 1995), and Lewis and Wray (2000).

Research background

There have been concerns about the status of non-fiction writing in the English curriculum in England since Barnes, Britton and Rosen's seminal study, *Language, The Learner and the School* (1969). Although primarily focused on talk, that study – along with Moffett's seminal study in the USA, *Teaching the Universe of Discourse* (1968) – set the tone for a generation of research. It drew attention to the need for a balanced writing curriculum, leaning neither towards the dry, empty rhetorical genres that had become staple in the classroom in the 1950s and early 1960s, nor to the freer, more personal and 'creative' forms that had emerged in the 1960s. In the mid-1970s, two key research studies were published: *A Language for Life* (DES 1975) and *The Development of Writing Abilities* (1975), confirming the need for balance.

Research into argumentative writing took its lead within this context from Freedman and Pringle (1984) in Canada, and Dixon and Stratta (1986) in England. To focus on the development of thinking and practice in England, Dixon and Stratta trace their research back to 1979 when they began to study non-fiction and argumentative writing produced by young people for coursework examination for the then Certificate of Secondary Education (CSE). Working with the Southern Regional Examining Board, they discovered that 12-18 year olds were able to produce non-fiction work of high quality and imagination, and with the inclusion of a 'personal voice'. Significantly, they were reacting against a predominance of narrative in the curriculum. Their book, summing up six years of development, was entitled *Writing Narrative and Beyond*.

At the same time, from 1979 to the mid-1980s, the Assessment of Performance Unit (APU) had undertaken the largest ever survey of writing in England and Wales by 11 and 15 year olds, and come to the same conclusion that non-fiction writing was under-represented in the curriculum and that, in particular, 11 and 15 year olds were not very good at argumentative writing in relation to their abilities with other modes of writing. The dearth of opportunity for imaginative writing of these kinds, the dominance of narrative, the reliance on conventional forms (such as the essay) and the assumption that non-fiction writing was 'difficult' (due to the conceptual load) manifested itself in the first version of the National Curriculum in English (1989) and in its modest revision (1995).

Against this background, Andrews began a PhD in 1987, completing it in 1992, on narrative and argumentative writing at year 8 (12/13 year olds) in three secondary schools. The results were partly negative, showing that it was not possible to build on narrative structural powers and understanding to write argumentatively; but positive, too, in that new forms of argumentative writing were tried successfully in the classroom. Pupils' understanding of the process of argumentative writing, their drawing on dialogic skills (and on speech genres) to compose argumentative writing, and the imaginative dimension of such writing were behind an action research project conducted in ten primary and ten secondary schools in 1991/92 by Andrews and Costello (1992), *Improving the Quality of Argument, 7-16*, followed by a full report with evaluation (Andrews, Costello & Clarke 1993) which covered all the compulsory school years of 5-16. These and other pre-school and post-16 projects were collected in Andrews' *Teaching and Learning Argument* (1995). The critical evaluation of these projects revealed a wide range of argumentative written forms that were accessible to 7-14 year olds (the focus of the present review).

During the 1980s, running alongside the gradual emergence of argumentation alongside narrative and other more personal forms of writing, there was increasing understanding of the writing process itself. Such understanding is best represented in the work of North American and Canadian researchers, such as Graves (1982) in his promotion and examination of documentary drafting and re-drafting by 7-11 year olds; and Bereiter and Scardamalia (1987), in their development of writing process models. The basic principle of the pedagogic models that were developed was that, by understanding the writing processes of accomplished (literary and non-literary) writers, processes and procedures could be established for novice writers. It was understood that, whereas narrative writing was often accretive, non-fiction writing was more truly compositional (i.e. a question of 'putting things together' or com-posing) and thus suitable for planning and drafting. Word-processing packages are conducive to such kinds of composition due to the facility of moving around large chunks of text.

Review question

The core research question for the present review is:

> *What is the evidence for successful practice in teaching and learning with regard to non-fiction writing (specifically argumentative writing) for 7–14 year olds?*

and subsidiary questions include:

- How does the evidence vary, if at all, by gender?

- How does the evidence vary, if at all, for pupils with English as an additional language (EAL)?

- Is there evidence to show ways in which pupils who have difficulty with this

aspect of the curriculum can he helped to accelerate their progress?

- What aspects of teaching and learning best help pupils to improve their motivation for, and the quality of, their non-fiction (argument) writing?

- Is there evidence of barriers to, and facilitators for, progression and continuity in the development of non-fiction (argument) writing abilities across the transition from primary to secondary schools?

The rationale for a focus on argumentative writing is partly cognitive, partly curricular and partly pragmatic. Cognitively, argumentative writing remains 'difficult' because it includes the operation and application of ideas – whereas one could argue that narrative or 'descriptive' writing deals with particularities. It is thus an important area in which to review research in an attempt to shed light on how best to help young people to think and to articulate that thinking more clearly. Such thinking and articulation are important across the curriculum, and within a democracy. In curriculum terms, although argumentative writing (and non-fiction writing more generally) are far better represented in Curriculum 2000 than in the 1990 or 1995 versions of the National Curriculum, there remains uncertainty and lack of confidence among teachers as to how best to teach it, partly because most of them are trained in the literary tradition. In addition, and pragmatically, covering the continent of non-fiction writing in a one-year systematic review would require a large team and considerable resources. Our decision to begin by working on the argumentative aspects of non-fiction writing has provided us with a manageable project, but one which will lay the foundations for further work in the non-fiction field.

The research focuses primarily at the whole text level, but takes into account research at sentence level if relevant. It looks at research published internationally (between the years 1990 and 2005), but has as its immediate context the teaching and learning of argumentative non-fiction writing in England. It takes into account the frameworks provided by the National Curriculum for England, the National Literacy Strategy (KS 2) and the Framework for Teaching English years 7 to 9 (KS 3). Where relevant, research evidence from KS 1 is included, although the main focus is at KS 2 and KS 3.

An implication of the research is: 'What do teachers need to know in terms of subject knowledge and subject application knowledge with regard to argumentative non-fiction writing?'. There are also implications for policy and for future research. The development of such writing skills for pupils is essential in helping to develop a critical voice and for participation in the world of work and in democracies.

CHAPTER TWO
Methods use in the review

Defining relevant studies: inclusion and exclusion criteria

The EPPI-Centre tools and guidelines for undertaking systematic reviews were used throughout the conduct of the review, in order to limit bias at all stages (EPPI-Centre, 2002a, 2002b and 2002c).

The review question looked for evidence of successful practice in teaching and learning with regard to argumentative non-fiction writing for 7-14 year olds. Therefore the relevant literature included studies that could be used to draw causal inferences – that is, inferences that various practices (strategies and methods) in the teaching and learning of argumentative non-fiction writing can improve pupils' non-fiction writing. Case studies, explorations of relationships and other non-experimental designs were included only where there was an evaluation.

The scope of the review was limited to English as a first, second or additional language; to students in KS 1-4; to articles or reports written in the English language; and to articles or reports published or unpublished but in the public domain between the years 1990 and 2005.

The full inclusion and exclusion criteria are contained in Appendix 2.

Assessing the quality of studies and weight of evidence for the review question

Studies identified as meeting the inclusion criteria, were analysed in depth, using the EPPI-Centre's detailed data-extraction guidelines (EPPI-Centre, 2002b) and online software, EPPI Reviewer (EPPI-Centre, 2002c).

Three components were identified to help in making explicit the process of apportioning different weights to the findings and conclusions of different studies. Such weights of evidence were based on:

A Soundness of studies (internal methodological coherence), based upon the study only

B Appropriateness of the research design and analysis used for answering the review question

C Relevance of the study topic focus (from the sample, measures, scenario, or other indicators of the focus of the study) to the review question

D An overall weight, taking into account A, B and C

CHAPTER THREE
Identifying and describing studies

Main characteristics of the included primary studies

Although we searched and screened for explorations of relationships and other non-experimental designs, all the studies that met the inclusion criteria for the systematic map were researcher-manipulated evaluations. Of the 23 included studies, 16 were trials (7 controlled trials and 9 randomised controlled trials), and five were of a pre- and post-test design. The remaining two were correlational studies.

Tables 1 and 2 categorise the 23 included primary studies by study type and describe their main characteristics.

Summary of systematic map

Three reviews and 23 primary studies were included in the systematic map. Of the 23 primary studies:

- All were researcher-manipulated evaluations.

- Nine were randomised controlled trials, seven were controlled trials and seven were other types of study design.

- Nineteen studies were conducted in the USA and four in Canada.

- Eight studies involved students solely within the equivalent KS 2 age range and nine involved students solely within the equivalent KS 3 range. Six studies involved students across both age groups.

- Thirteen studies focused solely on students of mixed ability and seven studies focused solely on students with learning disabilities. One focused on gifted students. Two studies involved both mixed ability students and those with learning disabilities.

- Twelve studies involved interventions lasting 6 weeks or less. Three studies applied interventions over 8, 9 and 13 weeks respectively, and three studies applied interventions over 5, 7 and 9 months respectively. In one study, the intervention lasted for one year. The length of intervention was not stated in four studies.

- Nineteen studies reported pre- and post-test writing outcomes, including one study which reported pre- and post test results with formative and summative measures of writing outcome. Three

studies reported post-test writing outcomes only.

- In fifteen studies, English was being taught to first language students only. In two cases, it was being taught to both first and second/additional language students. In six studies, the English language teaching context was not stated.

Table 1 Characteristics of randomised controlled trials (RCTs) (N = 9)

Author, date, country	Age and ability	Length of intervention	Writing outcome	English Language context
Crowhurst (1990) Canada	11-12 (Grade 6) Mixed attainment	Twice a week for five weeks	Pre- and post-test results	Not stated
De La Paz and Graham (1997) USA	10-13 (grades 5, 6 and 7) Learning disabilities	Not stated	Pre- and post-test results	As a first language
De La Paz and Graham (2002) USA	12-14 (grades 7 and 8) Mixed attainment	Six weeks	Pre- and post-test results	As a first language
Englert et al. (1991) USA	9-11 (grades 4 and 5) Mixed attainment Learning disabilities	Seven months	Pre- and post-test results	Not stated
Ferretti et al (2000) USA	9-12 (grades 4 and 6) Mixed attainment Learning disabilities	Not stated	Post-test results	Not stated
Graham et al. (2005) USA	8-9 (Grade 3) Learning disabilities	Five months	Pre- and post-test results	As a first language and as a second/additional language
Knudson (1991) USA	9-13 (grades 4, 6 and 8) Mixed attainment	Two weeks	Post-test results	Not stated
Knudson (1992, 1994) USA	8-11 (grades 3 and 5) Mixed attainment	Two weeks	Pre- and post-test results	Not stated
Troia and Graham (2002) USA	9-11 (grades 4 and 5) Learning disabilities	Approximately 10 hours	Pre- and post-test results	As a first language

Table 2 Characteristics of controlled trials (CTs) (N = 7)

Author, date, country	Age and ability	Length of intervention	Writing outcome	English Language context
Burkhalter (1994, 1995) USA	9-11 (grades 4 and 6) Mixed attainment	Up to one month	Pre- and post-test results	As a first language
Hammann and Stevens (2003) USA	13-14 (Grade 8) Mixed attainment	Six days	Pre- and post-test results	As a first language
Hidi et al (2002) Canada	Mainly 11-12 (Grade 6) Mixed attainment	Eight weeks	Pre- and post-test results	As a first language and as a second/additional language
Reznitskaya et al. (2001) USA	9-11 (grades 4 and 5) Mixed attainment	Five weeks	Post-test results	As a first language
VanTassel Baska et al. (1996) USA	9-12 (grades 4, 5 and 6)	One year	Pre- and post-test results	As a first language
VanTassel-Baska et al. (2002) USA	7-15 (grades 2 to 9) Gifted	Not stated	Pre- and post-test results Formative and summative measures	As a first language
Yeh (1998) USA	12-13 (Grade 7) Mixed attainment	Six weeks	Pre- and post-test results	As a first language

CHAPTER FOUR
In-depth review

Selecting studies for the in-depth review

The systematic map yielded 23 studies that met the inclusion criteria contained in Appendix 2. In order to establish the highest quality evidence provided by the studies in the map, the inclusion and exclusion criteria were narrowed down according to study design, as described in Chapter 3. This process identified 16 studies for in-depth review:

Burkhalter (1994, 1995) A Vygotsky-based curriculum for teaching persuasive writing in the elementary grades

Crowhurst (1990) Reading/writing relationships: an intervention study

De La Pazand Graham (1997) Effects of dictation and advanced planning instruction on the composing of students with writing and learning problems

De La Pazand Graham (2002) Explicitly teaching strategies, skills, and knowledge: writing instruction in middle school

Englert C et al. Making strategies and self-talk visible: writing instruction in regular and special education classrooms

Ferretti R et al. (2000) The effects of an elaborated goal on the persuasive writing of students with learning disabilities and their normally achieving peers

Graham et al. (2005) Improving the writing performance, knowledge, and self-efficacy of struggling young writers: the effects of self-regulated strategy development

Hammann and Stevens (2003) Instructional approaches to improving students' writing of compare-contrast essays: an experimental study

Hidi et al. (2002) Children's argument writing, interest and self-efficacy: an intervention study

Knudson (1991) Effects of instructional strategies, grade and sex on students' persuasive writing

Knudson (1992, 1994) An analysis of persuasive discourse: learning how to take a stand

Reznitskaya et al. (2001) Influence of oral discussion on written argument

Troia and Graham (2002) The effectiveness of a highly explicit, teacher-directed strategy instruction routine: changing the writing performance of students with learning disabilities

VanTassel-Baska et al. (1996) A study of language arts curriculum effectiveness with gifted learners

VanTassel-Baska et al. (2002) A curriculum study of gifted-student learning in the language arts

Yeh (1998) Empowering education: teaching argumentative writing to cultural minority middle-school students

Seven studies (Aulls, 2003; Cox et al., 1991; De la Paz, 1997; De la Paz, 2002; Gordon, 1990; Hallenbeck, 1999/2002; Sexton et al., 1998) were excluded from the in-depth review because they were not of a randomised controlled trial or controlled trial design. These studies could not be reliably used when addressing the research question as their design did not control for temporal or regression to the mean effects, or for selection bias.

Further details of the studies included in the in-depth review are included in the Technical Report (see back cover).

Assessment of weights of evidence

Of the 16 studies identified for in-depth review, 11 were rated as medium quality or above in terms of overall weight of evidence: Englert et al. (1991) and Ferretti et al. (2000) were rated 'high'; De La Pazand Graham (1997), and Troia and Graham (2002) were rated 'high to medium'; De La Pazand Graham (2002), and Graham et al. (2005) were rated 'medium to high'; and Crowhurst (1990), Knudson (1991),

Knudson (1992; 1994), Reznitskaya et al. (2001) and Yeh (1998) were rated 'medium'.

Five studies were rated of low to medium quality or below: Hamman and Stevens (2003), Hidi et al. (2002) and Van Tassel-Baska et al. (2002) were rated 'low to medium'; and Burkhalter (1994, 1995) and Van Tassel-Baska et al. (1996) were rated 'low'.

Further details of studies included in the in-depth review

The 11 studies rated of medium quality or above form the basis of the synthesis. It was decided to only include studies judged by the Review Group to have an overall weight of evidence judgement (WoE D) of 'medium' or above on the basis that this quality of evidence could be relied upon in terms of the reliability and validity of the research. Studies with overall judgements of 'medium to low', 'low to medium' or 'low' were thought not to be able to provide particularly reliable or valid evidence. A study rated as 'high' would represent

Table 3 Main characteristics and overall weights of evidence of studies included in the synthesis

Author, date, country	Study design	Age of participants	Overall weight of evidence (WoE D)
Englert et al. (1991) USA	Randomised controlled trial (RCT)	9-11 (grades 4 and 5)	High
Ferretti et al. (2000) USA	RCT	9-12 (grades 4 and 6)	High
De La Pazand Graham (1997) USA	RCT	10-13 (grades 5, 6 and 7)	High to medium
Troia and Graham (2002) USA	RCT	9-11 (grades 4 and 5)	High to medium
De La Pazand Graham (2002) USA	RCT	12-14 (grades 7 and 8)	Medium to high
Graham et al. (2005) USA	RCT	8-9 (Grade 3)	Medium to high
Crowhurst (1990) Canada	RCT	11-12 (Grade 6)	Medium
Knudson (1991) USA	RCT	9-13 (grades 4, 6 and 8)	Medium
Knudson (1992, 1994) USA	RCT	8-11 (grades 3 and 5)	Medium
Reznitskaya et al. (2001) USA	Controlled trial (CT)	9-11 (grades 4 and 5)	Medium
Yeh (1998) USA	CT	12-13 (Grade 7)	Medium

the highest quality of internal validity, be of a highly appropriate research design for our research question, and be highly relevant to the review in terms of the sample, context and measures. A study rated as 'medium' would be included, but caution would be urged in interpreting the results, as there are likely to be some limitations in the internal validity, the appropriateness of the research design, the relevance to our review, and the choice of sample, context and outcome measures. Similarly, studies in the intermediate categories between 'high' and 'medium' could have some shortcomings in one or more of the categories.

Table 3 shows the main characteristics of the studies included in the synthesis, ranked by their overall weights of evidence. All six studies rated 'medium to high' or above were randomised controlled trials. Three of the five studies rated 'medium' were randomised controlled trials and two were controlled trials.

Synthesis of evidence

The research question which the review attempts to answer is 'What is the evidence for successful practice in teaching and learning with regard to argumentative non-fiction writing for 7-14 year olds?' In the USA and Canada, where all the studies in this in-depth review took place, 'argumentative non-fiction writing' is sometimes categorised as a sub-section of *expository* writing. It has been important, in the course of the review, to make sure that any expository writing that has been examined is indeed argumentative, and not mere exposition or description. A 'how to' or descriptive paper would be excluded; but a compare/contrast, opinion (supported by evidence), or persuasive paper would be included.

High-rated studies

Both Englert et al. (1991) and Ferretti et al. (2000) were rated 'high' overall in terms of weight of evidence.

The study by Englert et al. (1991), 'Making strategies and self-talk visible: writing instruction in regular and special education classrooms' examines the effects of an intervention 'that attempted to improve students' expository writing abilities through an instructional emphasis on student dialogues about expository writing strategies, text structure processes, and self-regulated learning' (p 337). The study was undertaken with fourth and fifth grade students, in the USA. The intervention consisted of training in planning, organising, writing, editing and revising different text types. The writing process model is derived from a standard model that emerged in the 1980s in North America in the wake of work by Graves (1982) and Bereiter and Scardamalia (1987) on writing process: that the taught and learnt model should reflect the writing processes of experienced writers. It is also based on a specific programme, the cognitive strategy instruction in writing (CSIW) which was 'designed to incorporate many features of effective strategy instruction, including the development of students' metacognitive knowledge about writing strategies through an emphasis on teacher modelling of an inner dialogue for directing the writing process, scaffolded assistance...procedural facilitation...through the use of think-sheets, and peer collaboration in writing conferences' (p 342).

The emphasis on text structures focuses attention not only on the shape and structure of a piece of writing, but also on making the implicit structures explicit to emergent writers. The results of the study showed that students who were exposed to the CSIW treatment showed increasing understanding and command of the structures underlying text, as well as a growing sensitivity to their audiences and

to their purposes in writing. One of the findings, for example, showed that compare/contrast texts were significantly easier for students to organize than explanations, although the reverse was true in terms of their writing voice and sensitivity to the audience. The implication is that managing the 'voice' in argumentative writing is more difficult, and identifying the audience is also more difficult, perhaps because of the relative formality of the task and the uncertainty over who is speaking/writing to whom.

One aspect of the results of this study was that students with learning difficulties performed neither better nor worse than those without such difficulties. This is an important finding in that, in the 1980s, students with learning difficulties were not often exposed to the complexity of a writing model such CSIW, as it was assumed that they would progress more readily with programmed, limited and instructed procedures.

There are also suggestions in the paper that the skills learnt by the experimental group were transferable across the different types of writing undertaken: explanations, compare/contrast and 'expert writing'. The control group seemed not able to make such transfers across text-types.

The authors conclude that 'the data from the present study suggest that instruction in the writing process and expository text structures can be effective when they are embedded in an instructional framework emphasizing teacher modelling, scaffolded assistance, procedural facilitation, peer collaboration, and the development of an inner language and vocabulary for talking about writing' (p 369).

Ferretti et al. (2000), in a more recent study undertaken in the USA, aimed to investigate 'the effects of giving students an elaborated goal that included explicit subgoals based on the elements of argu-

mentation as compared with a general goal to convince an audience to agree with their opinion' (p 695). Specifically, fourth and sixth graders in the general goal groups were asked to write a letter to persuade an audience to agree with them on a position, whereas those in the experimental groups were asked to use the following explicit subgoals: a statement of their belief, two or three reasons for their belief, examples of supporting information, two or three reasons why others might disagree and why those reasons were wrong.

The sixth-graders in the experimental group included more of the subgoals and strategies in their writing and thus wrote more persuasively than their control group counterparts. The fourth-graders wrote equally persuasively in both conditions and included equal numbers of argumentative elements in both essays. Again, both students with and students without learning difficulties appeared to benefit from the more specific instruction. The difference between the performance of Grade 6 students and those in Grade 4 was not attributed by the researchers to developmental differences; one explanation put forward by the study is that the difference may be to do with the combined effects of composing and at the same time meeting the elaborated (more specific) subgoals; or the fact that sixth-graders already have a more developed schema for oral and written argument which was reflected by the specific elements of argument that were used in the intervention.

The paper concludes that, overall, 'normally achieving students and those with [learning difficulties] may benefit from instruction on goal setting' (p 700) but the authors also suggest that the essays in themselves were not very persuasive, and only half (54%) of the sixth-grade students used rebuttals or alternative positions in their arguments. They suggest that 'the provision of explicit goals, along with intensive, scaffolded instruction in cogni-

tive strategies and self-regulatory strate-gies...may help all students write more persuasively' (ibid.).

High to medium, and medium to high-rated studies

Both De La Paz and Graham (1997), and Troia and Graham (2002) were rated 'high to medium'.

De La Paz and Graham's study aimed to examine the effects of dictation and explicit instruction in advanced planning on the writing of opinion essays by fifth-, sixth- and seventh- grade students with learning difficulties. Students received instruction in either (a) planning, where they were taught strategies for develop-ing, evaluating and organising ideas prior to composition, or (b) comparison, where students were taught *about* essay struc-ture, revised sample essays, and composed and shared essays with fellow students. Half the students in each group composed their essays orally, while the other half wrote their plans and essays. The most effective combination for these students was that of dictation (oral composition) and instruction in advanced planning (rather than teaching *about* argumenta-tive structures), reflected in the fact that these students wrote more complete and qualitatively better essays than those in the other groups and conditions. These results were measured in a post-test and two weeks later, in order to gauge the sus-tained effect (or not) of the intervention.

Two further aspects of the results are worth reporting: that those students taught the advanced planning techniques (as opposed to those who were taught *about* essay structure) spent more time in planning; and that whether the students dictated or wrote their compositions did not affect the number of propositions they included in their essays. The authors are at pains to point out that dictation (oral com-position) itself did not make for advances in composing skill, but that the combina-

tion of oral composition and advanced planning techniques made the difference. They also make the caveat that the study was conducted with students with learn-ing difficulties, and may not necessarily be generalised to 'their normally achieving peers' (p 220).

The study, however, appears to suggest that direct use of heuristics or techniques for planning argumentative writing, com-bined with oral composition (thus freeing the students from the labour of writing their essays) was the most effective set of approaches. In this sense, there is some common ground with Englert et al. (1991) and Ferretti (2000), discussed above, both of which found that the use of explicit 'scaffolding' had an effect on students' argumentative writing.

Graham was also involved in a study of the effectiveness of a highly explicit, teacher-directed instructional routine used to teach three planning strategies for writing to fourth- and fifth-grade students with learning difficulties (Troia and Graham, 2002). The strategies used in this study included identifying the purposes of the activity and setting clear goals; brainstorming ideas; and organising those ideas. An acronym, STOP & LIST was used to facilitate teaching of these ele-ments: *s*top, *t*hink *o*f *p*urposes, *l*ist *i*deas, *s*equence *t*hem. The writing process itself was divided into four stages: writing a rough draft, revising the draft, proofread-ing and editing, and publishing the final version. Teachers identified multiple tasks and situations for which the students could use the strategies, and gave students homework in which they could apply the strategies. Feedback was given on each completed assignment.

The authors found that there were no significant differences between groups in post-test scores for either essay qual-ity or essay length. More specifically, the post-test essays written by students in the strategy instruction group were slightly

longer but of lower quality than their pre-test essay, whereas the post-test essays written by the students in the writing process group (the control group) improved slightly in quality, but were shorter in length than the essays written for the pre-test. Two caveats must be borne in mind with this study: first, that the results are based on only three homework exercises, so it may be that the instruction hardly had time to have a significant effect on the learners; and, again, the fact that the study was undertaken with students with learning difficulties means that it may not be generalisable to a wider population of students of this age.

Unlike the previous two studies (but slightly lower in overall weight of evidence), the study by De La Pazand Graham (2002) was conducted with 12-14 year olds at grades 7 and 8, and covered the full range of abilities. The aim in this case was to examine 'the effectiveness of an instructional program designed to improve the writing performance of (American) middle school students' (p 687). The key element of the instruction was 'a strategy that organized and directed the processes for planning and writing an essay' (ibid.). The strategy included developing a plan in advance of the writing that analysed the demands of the writing assignment; setting goals for writing; and generating and organising material to write about. The students also planned *while* they wrote, revising and upgrading their original plan as necessary, including transition words, interesting or mature vocabulary, and varied (error-free) sentence types.

As expected, the writing programme 'had a positive effect on the writing performance of the participating…students. Immediately following instruction, students in the experimental group produced essays that were longer, contained more mature vocabulary, and were qualitatively better than the essays generated…in the controlled classrooms' (pp 695-696) and these effects were maintained on an essay

written a month after the instruction ended. The essential elements of the planning process, according to the authors, were that the 'plans of the students in the experimental condition tended to be more complete, elaborate and hierarchical' (p 696) than those in the control condition. Effect sizes were greater than 1.0 on both the post-test and maintenance writing probes (the tools used to test whether the effect was sustained).

Graham's work appears again in Graham et al. (2005), a study which aimed to examine 'the effectiveness of an instructional program designed to improve the performance of struggling young writers… attending urban schools that serve minority and other children from mostly low income families' (pp 208, 234). (The study assumes a connection between minority children and those from low income families.) Working within a self-regulated strategy development (SRSD) approach to learning, which emphasises that learning 'is a complex process that depends, in large part, on changes that occur in the learner's strategic knowledge, domain-specific knowledge, and motivation' (p 208), the students were taught strategies for accomplishing specific writing tasks, and any information or skills needed to use these strategies. There was thus a high degree of self-directed and teacher- and peer-supported development in this study. The specific planning strategy taught to these students was represented by the mnemonic POW: *p*ick my ideas, *o*rganise my notes and *w*rite and say more. As part of the central organising stage with regard to persuasive essays, a second mnemonic, TREE, was used: *t*ell what you believe (i.e. state the proposition or 'topic sentence'), give three or more *r*easons (to support why you believe this) *e*xamine each reason (why will my reader buy it?) and *e*nd it (write a conclusion).

The results of this study demonstrate that students using the experimental SRSD-informed strategies wrote qualita-

tively better and longer essays that their peers in the comparison condition. The experimental students also spent more time composing their post-test essays. In general, the authors conclude that 'teaching third grade struggling writers a general strategy for planning a composition, genre-specific strategies for…persuasive writing, procedures for regulating these strategies and the writing process, as well as knowledge about the basic purpose and characteristics of the [genre] had a powerful effect on the participating writers' performance' (p 234). However, the study was not able to follow up the students' persuasive writing with a delayed post-test, so the authors were not able to claim that the significant effects of the intervention were sustained beyond the period of the experiment itself.

Medium-rated studies

Crowhurst (1990), Knudson (1991), Knudson (1994), Reznitskaya et al. (2001) and Yeh (1998) were rated 'medium' in terms of weight of evidence. We have decided to include these in our synthesis as, in their various ways, they shed helpful light on the research question in hand, despite some shortcomings in methodological validity and/or reliability.

Crowhurst's study is one of the few undertaken in Canada in the present review. It aimed to discover whether students' 'writing of persuasion' (p 157) could be improved by instruction, and specifically whether practice in reading improves writing and vice-versa. 11-12 year old students (Canadian grade 6) were divided into four groups, each of which received a different combination of input. The first group underwent training in writing instruction, with the provision of a model structure, an opportunity for collaborative brainstorming, draft revision in pairs and teacher feedback on four 'for and against' essays. The second group had the same as the first group, plus the addition of reading five specially constructed 'for and against'

texts. The third group read the same texts as the second group, then discussed them – but had no writing instruction. The fourth group acted as a control group, with discussion only and no extra input to the writing process.

The results indicate that the first two of the three experimental groups scored significantly higher than the control group on the writing quality at the post-test stage but not on the pre-test. Specifically, the post-test compositions of the first two groups 'were better organized, with fewer reasons – some of them elaborated – than the list-like compositions common in pre- and post-test compositions by students without instruction. Post-test compositions of the writing and reading+instruction groups were more likely to have some kind of concluding statement as against the very abrupt endings common in other compositions' (pp 166-167). There were no significant differences between the groups on the number of idea units recalled.

Knudson (1991) worked with students in grades 4, 6 and 8 in southern California. There were three types of intervention used: instruction with model pieces of writing, scales and questions designed to guide students' writing and revision; both models and scales/questions; and no explicit instruction in persuasive writing (the control group). Results confirmed the difficulties of argumentative writing for students of this age, showed some improvement in content and form, and appeared to be moderately highly correlated with regard to clarity, coherence, organization and word choice. Grade 8 students wrote better arguments (i.e. improved more) than those in grades 4 and 6, and were also able to sustain performance two weeks after the intervention. But this result in itself is not that surprising, and the author herself concludes that the results were mixed and inconclusive, and that there were limitations in study design. She also acknowledged that there was nothing to explain why girls' scores

dropped so dramatically as soon as the intervention was withdrawn.

A later study by Knudson (1992, 1994) describes work with grade 3 and 5 students using a similar intervention to the previous study. This time, there were no significant main effects for gender though there were significant main effects for grade. As in the study by Knudson mentioned above, such a result is not surprising and seems to point toward cognitive maturation being a significant factor in the ability to write persuasively, rather than any intervention on the part of the teacher. Knudson concludes that 'little is really known about what makes a good persuasive argument' and 'even less is known about how to teach effective argumentation' (p 222). Unfortunately, in neither study is there a clear account of the interventions used.

The study by Reznitskaya et al. (2001) aimed 'to provide evidence about the effects of discussions in which children engage in oral argumentation on (sic) the reasoning that the children then exhibit in persuasive essays' (p 157). It examines 'whether oral discussions can help students acquire 'portable' [i.e. transferable] knowledge of argumentation' (p 159). The intervention in this study consisted of discussion of controversial issues, coaching by teachers in formal argument devices and web forums with grades 4 and 5 (9 to 11 year olds) – a series of interventions that went under the umbrella of 'collaborative reasoning'. At the end of the intervention period, students from the experimental and control groups each wrote a persuasive essay based on a moral dilemma. The essays were coded to measure students' ability to consider a variety of relevant arguments, counter-arguments and rebuttals, as well as to use evidence and to employ certain formal argument devices. Not surprisingly, students who had participated in collaborative reasoning discussions wrote essays that contained a significantly greater number of arguments, counter-arguments, rebuttals, uses

of formal argument devices, and references to text information [evidence] than the essays of similar students who did not experience the intervention. The results, however, must be treated with caution, as the authors themselves, acknowledge, as the study was quasi-experimental.

The final paper included in this synthesis is that by Yeh (1998). The aim of his study was to investigate the effectiveness of two heuristics (scaffolding devices) based on Toulmin's (1958) model of argument and on elements of classical rhetoric. The study was conducted with 12-13 year olds, specifically 'cultural minority' middle school students in two different schools in the San Francisco Bay area. The interventions were plans and scaffolds for writing argument, or 'devices to teach students a pattern of thought' (p 53). Their intention was to achieve a well-formed essay 'that avoids focus on superficial aspects of the written product' (ibid.). In order to focus on the deeper aspects of composition, the first heuristic devised was a 'pyramid', closely modelled on Toulmin, with a thesis, claim or proposition connected to, and supported by, data or evidence via an explicit or implicit 'warrant' (the part of the argument that justifies the connection between the evidence and the claim). The second heuristic was a 'bridge' linking the reason to an opinion via facts, if/then statements and values.

The results show that gain scores were higher in the experimental groups than in the control groups as far as argumentative development and 'voice' were concerned, but not significantly higher with regard to command of the conventions for argumentative writing. The gains were also higher for cultural minorities than for the majority of white students. From the questionnaire/survey results that accompanied the experimental element, it appeared that Hispanic and African-American students were less aware of the thesis-support model than White students, although Yeh acknowledges that a more balanced sam-

ple of white and minority ethnic students would be needed to confirm these findings; Asian-American students were excluded because of the small sample. Overall, the findings suggest that combining explicit instruction in heuristics with immersion (process) approaches to writing development are important, especially for minority ethnic groups.

In general, it appears that there are two aspects that need to be in place to ensure that improvement in argumentation takes place: first, the conditions must be in place to underpin the interventions (that is, the cognitive programmes, writing practices and other factors that appeared to be necessary to the success of the interventions); and, second, the actual interventions must occur to improve argumentative writing *per se.*

All the studies above the 'medium' weight of evidence category suggested that specific heuristics and other interventions took place in the context of a writing process model (De La Pazand Graham 2002; Englert et al., 1991; Troia and Graham, 2002); some degree of cognitive reasoning training (Englert et al., 1991); peer collaboration modelling a dialogue that was assumed to be internalised as thought (ibid.); self-regulated strategy development (a kind of personal target-setting) (Graham et al., 2005); and the ability to match data against an internal model/schema (Ferretti et al., 2000).

Of the actual interventions, the category listed by the largest number of studies (six) was heuristics or scaffolding devices used by teachers to help students write in argumentative mode. This approach was followed in a number of studies by the use of oral argument to inform argumentative writing (e.g. Englert et al., 1991; Troia and Graham, 2002); by teacher modelling (e.g. De La Paz and Graham, 1997; Troia and Graham, 2002); by the explicit identification of goals and audiences for writing (De La Paz and Graham, 2005; Graham et al.,

2005); and by 'procedural facilitation' or coaching through the process of writing argument (De La Paz and Graham, 2002).

Summary

The review set out to answer the research question 'What is the evidence for successful practice in teaching and learning with regard to argumentative non-fiction writing for 7-14 year olds?'

From a review of the 11 studies summarised above, it appears that certain conditions are either assumed or have to be in place to create a climate for successful practice. These are not specific to argumentative writing but include:

- a writing process model in which students are encouraged to plan, draft, edit and revise their writing (De La Paz and Graham, 2002; Englert et al., 1991; Troia and Graham, 2002)

- self-motivation (in the form of personal target-setting – one aspect of self-regulated strategy development) (Graham et al., 2005)

- some degree of cognitive reasoning training in addition to the natural cognitive development that takes place with maturation (Englert et al., 1991; Ferretti et al., 2000)

- peer collaboration, thus modelling a dialogue that (it is hoped) will become internal and constitute 'thought' (Englert et al., 1991)

- explicit and very clear explanations for students of the processes to be learned

More specifically and more relevantly to the present review, a number of strategies have been identified that have contributed to successful practice in teaching and learning with regard to argumentative writing for 7-14 year olds:

- 'Heuristics' (i.e. scaffolding of structures and devices that aid the composition of argumentative writing) – in particular, planning, which can include examining a question, brainstorming, organizing and sequencing ideas and evaluating (De La Paz and Graham, 1997; De La Paz and Graham, 2002; Englert et al., 1991; Troia and Graham, 2002). Planning, which is extensive, elaborated and hierarchical, can make for more effective argumentative drafting and completion of essays (De La Paz and Graham, 2002). Yeh (1998) used heuristics based on Toulmin (1958) and classical rhetoric.

- The use of oral argument, counterargument and rebuttal to inform written argument (De La Paz and Graham, 1997; Reznitskaya et al., 2001)

- The identification of explicit goals (including audiences) for writing (Ferretti et al., 2000)

- Teacher modelling of argumentative writing (Englert et al., 1991)

- 'Procedural facilitation' (i.e. coaching by the teaching through the process of writing argument; De La Paz and Graham, 2002)

CHAPTER FIVE
Implications

Policy

The findings confirm the increased emphasis, and secure the place of argumentative writing in the National Curriculum at key stages 2 and 3 in its Curriculum 2000 version – the present version that underpins the curriculum in schools in England and Wales. It was not until the present version that argumentative writing had such a profile within the curriculum; earlier versions downplayed it in relation to narrative, expressive and descriptive writing. The findings also confirm that advances can be made by pupils in the 7-11 age range as well as in the 11-14 age range. There is every reason to believe that the teaching and learning of argumentative writing should start early in Key Stage 2.

In terms of the Primary National Strategy and the Secondary National Strategy, the findings confirm the emphasis that has been put on the process of writing, teacher modelling and peer collaboration in the strategies. The findings also raise interesting questions about critical thinking and cognitive reasoning, where strategies could be developed for improving and challenging pupils' thinking in relation to both argumentative writing and other forms of writing. In this respect, there is a timely connection with the Secondary Strategy's work on thinking skills in the 'leading in learning' whole school initiative, and the findings are also significant for the functional skills proposals – both writing and oral work – for developing argument and a concept of progression in teaching and learning of written argument over the key stages. The findings reinforce existing support and guidance on speaking and listening and may inform future developments in relation to the value of oral argument *per se*, as well as providing a precursor to and preparation for written argument. Furthermore, the findings are useful in identifying the motivational importance of pupils setting, and having choice over, explicit goals for their writing.

Perhaps the key finding in terms of policy is that argumentative teaching strategies cannot be expected to succeed without deep understanding of writing process and its implications for learning; and an encouragement for pupils to work together in solving problems and exploring ideas. Self-motivation and self-regulatory learning strategies are also needed so that the learning is embedded, rather than being a superficial response to teaching.

Practice

Further development of practice with regard to the teaching and learning of argumentative writing must take on board

what has been said above about the links between contexts for learning and specific 'heuristics' for improving argumentative writing. To use a gardening metaphor, the ground needs to be well prepared for new practices to take root, and for sustained and vigorous growth to take place within a framed ('scaffolded') curriculum plan.

Our knowledge of textbooks and practices in the field suggests that few programmes for teaching argument address both aspects of the problem. The 'critical thinking' movement has spawned a variety of approaches, as have innovations in learning styles and strategies. Neither of these traditions has been linked specifically to the teaching of argumentative writing in English, nor across the curriculum. There has also been little in the way of transfer of argumentative skills across the transitions from primary to secondary schools in the UK.

There is every indication, however, that practitioners and policy-makers working within the context of the National Curriculum for English in England would be receptive to the recommendations made in this report. The genre-based approach to English pedagogy introduced with the National Literacy Strategy in the final years of the twentieth century challenged the perceived dominance of narrative within the classroom by encouraging a focus upon so-called non-fictional genre, such as 'discursive writing'. The genre-based approach also brought with it an explicit concern not only for the ways in which texts are structured but also for how they seek to position their readers at word, sentence and whole text level.

This change of pedagogical focus required teachers to reposition themselves within the classroom, so that they operated less as facilitators of learning and more as expert practitioners who needed to be skilful exponents of some of the key strategies recommended by this report: for example, modelling good practice

as writers themselves or coaching their pupils in the acquisition of explicit writing techniques and strategies. Developments in technology – such as the increasing use of interactive whiteboards with internet access to a wealth of resource materials – have made the explicit modelling and sharing of writing practices a regular and engaging shared experience in many English classrooms.

Most significantly, perhaps, 'argument' is now firmly embedded within the assessment procedures of the English National Curriculum. The writing 'triplet' of *argue, persuade and advise* runs like a binding thread through key Stages 3 and 4. At Key Stage 3, for example, several of the Assessment Focuses for EN3 (Writing) examine pupils' ability to attend to 'deep' and 'surface' structural features of their writing, with a particular emphasis upon 'composition and effect' and the ability to gauge requirements of audience and purpose. Typical national examination assignments at key stages 3 and 4 might be to argue a case for the retention of a public park as a recreational space for young people, to write a letter to a headteacher, arguing for a change in a school's curriculum, or to write in role as a character from a play by Shakespeare, urging a particular course of action. For EN1 (Speaking and Listening) assessment, pupils might be encouraged – and again this is an effective strategy highlighted by the report – to work as a team on the creation of a poster designed to argue a particular case.

In terms of 'curriculum backwash', this shift in assessment focus has encouraged a corresponding classroom emphasis upon the structures and strategies associated with argumentative writing. At a lexical and syntactical level, for example, pupils might be taught how to use a 'discursive marker', such as the word 'however' within a sentence. They might be encouraged to learn and consolidate argumentative strategies through the acquisition of mnemonics, such as 'a forest': *allitera-*

tion, facts, opinion, repetition, emotive language and *three (rule of)*.

The emphasis upon written argument is not of course confined to the English classroom. The National Strategy has encouraged once again an attempt to involve all teachers in the explicit development of language skills. Argument has an important part to play in the History lesson, for example, or the science laboratory. Recent initiatives in citizenship education have reinforced the importance of members of a democratic state being able to argue their case or to weigh the arguments of others. Interest in metacognition has been renewed through the development of thinking skills in the classroom and through attempts to help pupils take responsibility for reflecting upon their own learning and achievement.

Practitioners – particularly those new to teaching – need the kind of guidance that this report can give on how to model good argumentative writing practice themselves; on how to coach their pupils in the most effective and proven writing procedures; and on how to establish engaging learning opportunities in which the skills of written argument might be developed and incrementally honed across the key stages and across all four modalities of English.

Research

The systematic review provides an excellent basis for further research.

First and foremost, we recommend the undertaking of new primary studies in the teaching and learning of argumentative writing in the UK. The age-group from 7-14 appears to be an important one for such studies, as this is the period during which argumentation can be developed in writing in preparation for more advanced work from 14-19.

Second, we believe that a number of large-scale trials in primary and secondary schools might be undertaken to test the worth of different interventions intended to improve the quality of argumentative writing. These could be supplemented or work alongside case studies of classrooms or schools that aim to provide qualitative data on the particular circumstances of teaching and learning such writing.

Third, the suggestion needs to be pursued that pupils with learning difficulties can learn to write better argument alongside pupils without such difficulties.

Fourth, there need to be closer links between review groups undertaking work on critical thinking and other forms of approach to the improvement of reasoning in school education.

Fifth, international comparative studies would be helpful in determining the national characteristics of the relationships between reasoning and argumentation. It cannot be assumed that practices in one country transfer easily or readily to another.

Lastly, this is a field in which traditional research methods can be helpful in examining the effects and the nature of teaching approaches with regard to argumentative writing. However, we should not close the door to new and innovative approaches to research methodology in the field. To help pupils write better argument, we may well need to devise research that gets closer to the heart of the problem.

References

References included in map and synthesis

Studies in **bold** were included in the in-depth review.

Linked papers in the map are indicated with an asterisk*.

Primary studies

Aulls MW (2003) The influence of a reading and writing curriculum on transfer learning across subjects and grades. *Reading Psychology* **24**: 177-215.

*Burkhalter N (1994). Applying Vygotsky: teaching preformal-operational children a formal-operational task. Unpublished research report, University of Wyoming, WY. ERIC document ED379208.**

*Burkhalter N (1995) A Vygotsky-based curriculum for teaching persuasive writing in the elementary grades. *Language Arts* **72**: 192-199.**

Cox BE, Shanahan T, Tinzmann MB (1991) Children's knowledge of organization, cohesion, and voice in written exposition. *Research in the Teaching of English* **25**: 179-218.

Crowhurst M (1990) Reading/writing relationships: an intervention study. *Canadian Journal of Education* **15**: 155-172.

De La Paz S (1997) Strategy instruction in planning: teaching students with learning and writing disabilities to compose persuasive and expository essays. *Learning Disability Quarterly* **20**: 227-248.

De La Paz S, Graham S (1997) Effects of dictation and advanced planning instruction on the composing of students with writing and learning problems. *Journal of Educational Psychology* 89: 203-222.

De La Paz S (2001) Teaching writing to students with attention deficit disorders and specific language impairment. *Journal of Educational Research* **95**: 37-47.

De La Paz S, Graham S (2002) Explicitly teaching strategies, skills, and knowledge: Writing instruction in middle school classrooms. *Journal of Educational Psychology* 94: 687-698.

Englert CS, Raphael TM, Anderson LM, Anthony HM, Stevens DD (1991) Making strategies and self-talk visible: writing instruction in regular and special education classrooms. *American Educational Research Journal* 28: 337-372.

Ferretti RP, MacArthur CA, Dowdy NS (2000) The effects of an elaborated

goal on the persuasive writing of students with learning disabilities and their normally achieving peers. *Journal of Educational Psychology* 92: 694-702.

Gordon CJ (1990) A study of students' text structure revisions. *English Quarterly* 23: 7-30.

Graham S, Harris KR, Mason L (2005) Improving the writing performance, knowledge, and self-efficacy of struggling young writers: the effects of self-regulated strategy development. *Contemporary Educational Psychology* **30: 207-241.**

*Hallenbeck MJ (1999). *Taking charge: adolescents with learning disabilities assume responsibility for their own writing*. Paper presented at the Annual Convention of the Council for Exceptional Children, Charlotte, NC. ERIC document ED430326.

*Hallenbeck MJ (2002) Taking charge: adolescents with learning disabilities assume responsibility for their own writing. *Learning Disability Quarterly* 25: 227-246.

Hammann LA, Stevens RJ (2003) Instructional approaches to improving students' writing of compare-contrast essays: an experimental study. *Journal of Literacy Research* **35: 731-756.**

Hidi S, Berndorff D, Ainley M (2002) Children's argument writing, interest and self-efficacy: an intervention study. *Learning and Instruction* **12: 429-446.**

Knudson RE (1991) Effects of instructional strategies, grade, and sex on students' persuasive writing. *Journal of Experimental Education* **59: 141-152.**

***Knudson RE (1992). *An analysis of persuasive discourse: learning how to take a stand*. Paper presented at the Annual Meeting of the National Reading Conference, San Antonio, TA. ERIC document ED353581.**

***Knudson RE (1994) An analysis of persuasive discourse: learning how to take a stand.** *Discourse Processes* **18: 211-230.**

Reznitskaya A, Anderson RC, McNurlen B, Nguyen Jahiel K, Archodidou A, Kim S (2001) Influence of oral discussion on written argument. *Discourse Processes* **32: 155 -175.**

Sexton M, Harris KR, Graham S (1998) Self-regulated strategy development and the writing process: effects on essay writing and attributions. *Exceptional Children* 64: 295-311.

Troia GA, Graham S (2002) The effectiveness of a highly explicit, teacher-directed strategy instruction routine: changing the writing performance of students with learning disabilities. *Journal of Learning Disabilities* **35: 290-305.**

VanTassel Baska J, Johnson DT, Hughes CE, Boyce LN (1996) A study of language arts curriculum effectiveness with gifted learners. *Journal for the Education of the Gifted* **19: 461-480.**

VanTassel-Baska J, Zuo L, Avery LD, Little CA (2002) A curriculum study of gifted-student learning in the language arts. *Gifted Child Quarterly* **46: 30-44.**

Yeh SS (1998) Empowering education: teaching argumentative writing to cultural minority middle-school students. *Research in the Teaching of English* **33: 49-83.**

Reviews

Crowhurst M (1990) Teaching and Learning the Writing of Persuasive/Argumentative Discourse. *Canadian Journal of Education* 15: 348-359.

Gleason MM (1999) The role of evidence in argumentative writing. *Reading and Writing Quarterly: Overcoming Learning Difficulties* 15: 81-106.

Newcomer PL, Barenbaum EM (1991) The written composing ability of children with learning disabilities: a review of the literature from 1980 to 1990. *Journal of Learning Disabilities* **24**: 578-593.

Other references used in the text of the report

Andrews R (1992) An exploration of structural relationships in narrative and argumentative writing, with particular reference to the work of Year 8 students. PhD thesis, Hull: The University of Hull.

Andrews R (1995) *Teaching and Learning Argument*. London: Cassell.

Andrews R, Costello P (1992) *Improving the Quality of Argument, 7-16 (interim report)*. Hull: The University of Hull, Centre for Studies in Rhetoric.

Andrews R, Costello P (1993) *Improving the Quality of Argument, 5-16 (final report)*. Hull: The University of Hull, Centre for Studies in Rhetoric.

Andrews R, Gibson H (1993) A critique of the 'chronological/non-chronological' distinction in the National Curriculum for English. *Educational Review* **45**: 238-249.

Barnes D, Britton J, Rosen H (1969) *Language, the Learner and the School*. Harmondsworth: Pelican.

Bereiter C, Scardamalia M (1982) From conversation to composition: the role of Instruction in the developmental process. In: Glaser R (ed) *Advances in Instructional Psychology*. London: Lawrence Erlbaum Associates.

Bereiter C, Scardamalia M (1987) *The Psychology of Written Composition*. Hillsdale NJ: Lawrence Erlbaum Associates.

Britton J (1972) *Language and Learning*. Harmondsworth: Pelican.

Britton J, Burgess T, Martin N, McLeod A, Rosen H (1975) *The Development of Writing Abilities*. London: Macmillan.

Cox B (1991) *Cox on Cox: An English Curriculum for the 1990s*. London: Hodder & Stoughton.

Derewianka B (1990) *Exploring How Texts Work*. Australia: PETA.

DES (1975) *A Language for Life (The Bullock Report)*. London: HMSO.

DES (1989) *English for Ages 5-16*. London: HMSO.

DfEE (1998) *The National Literacy Strategy: Framework for Teaching*. London: DfEE.

DfEE (1999) *The National Curriculum for England: English*. London: HMSO.

DfEE (2001a) *Key Stage 3 National Strategy: Framework for teaching English: Years 7, 8 and 9*. London: DfEE.

DfEE (2001b) *English Department Training 2001*. London: DfEE.

DfEE (2001c) *Literacy Across the Curriculum*. London: DfEE.

DfES (2000) *Grammar for writing (key stage 2)*. London: DfES010107/2000, DfES0107/2000V. www.standards.dfes.gov.uk/primary/publications/literacy/63317/

DfES (2001) *Developing early writing*. London: DfES0055/2001, DfES0056/2001. www.standards.dfes.gov.uk/primary/publications/literacy/63337/

DfES (2003) *English Department Training 2003: Improving Writing*. London: DfES.

DfES (2004a) *Literacy and Learning*. London: DfES.

DfES (2004b) *English Department Training 2004: Improving Writing*. London: DfES.

Dixon J, Stratta L (1986) *Writing Narrative – and Beyond*. Sheffield: National Association for the Teaching of English.

EPPI-Centre (2002a) *Core Keywording Strategy: Data Collection for a Register of Educational Research (Version 0.9.7)*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

EPPI-Centre (2002b) *Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research (Version 0.9.7)*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

EPPI-Centre (2002c) *EPPI-Reviewer® (Version 0.9.7)*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Freedman A, Pringle I (1984) Why students can't write argument. *English in Education* **18**: 73-84.

Goodwyn A (1992) *English teachers and the Cox models*. English in Education **26**: 4-10.

Graves D (1982) *Writing*. Portsmouth, NH: Heinemann.

Hillocks G (1986) *Research on written composition: new directions for teaching*. Urbana, IL: NCTE.

Hillocks G (1995) *Teaching writing as reflective practice*. NY: Teachers College Press.

Kress G (1994) *Learning to Write*. London and New York: Routledge.

Lewis M, Wray D (2000) *Literacy in the Secondary School*. London: David Fulton.

Moffett J (1968) *Teaching the Universe of Discourse*. Boston: Houghton Mifflin.

Appendix 1: Authorship of this review

This work is a report of a systematic review conducted by the English Review Group.

The authors of this report are

Richard Andrews (University of York)
Graham Low (University of York)
Nick McGuinn (University of York)
Alison Robinson (University of York)
Carole Torgerson (University of York)

They conducted the review with the benefit of advice active participation from the members of the review group.

For further information about this review, please contact:

Alison Robinson
Department of Educational Studies
University of York
York YO10 5DD

E-mail: ar31@york.ac.uk
Tel: +44 (0)1904 433462
Fax: +44 (0)1904 433459

For further information about the work of the EPPI-Centre, please contact:

EPPI-Centre
Social Science Research Unit
Institute of Education, University of London
18 Woburn Square
London WC1H 0NR

tel: +44 (0)20 7612 6131
fax: +44 (0)20 7612 6800

email: EPPIAdmin@ioe.ac.uk

Review group

Richard Andrews (University of York)
Graham Low (University of York)
Nick McGuinn (University of York)
Alison Robinson (University of York)
Carole Torgerson (University of York)

Advisory group membership

For this review:

Rob Batho (Secondary National Strategy)
Natalie Parish (Department for Education and Skills)
Wendy Pemberton (Primary National Strategy)
Gerry Swain (Secondary National Strategy)
Victoria White (Department for Education and Skills)

Conflict of interest

There were no conflicts of interest for any members of the Review Group.

Acknowledgements

The EPPI-Centre link person for this review was Kelly Dickson.

Appendix 2: Inclusion and exclusion criteria for systematic map

Inclusion criteria

- Must focus on the teaching and/or learning of argumentative non-fiction writing[1] in English[2]

- Must be teaching and/or learning of English as a first, additional or second[3] (not foreign) language

- Must focus on children or young people aged between 7 and 14 years

- Must be study type B (exploration of relationships), C (evaluation) or E (review) as defined by the EPPI-Centre taxonomy of study types (EPPI-Centre, 2002a)

- Must be published or unpublished (but in the public domain) between 1990 and 2005

Notes

1. Non-fiction writing includes writing to inform, explain and describe (reports, explanations, manuals, prospectuses); to persuade, argue and advise (essays, reviews, opinion pieces, advertisements); as well as writing to analyse, review and comment (commentaries, articles, etc.).

2. English implies both English language and English curriculum.

3. English as an additional or second language is used in the sense in which it is commonly employed in UK educational circles: that is, to refer to students in the education system of a largely English-speaking host culture, and who, in theory, are immersed in that culture and environment.

Exclusion criteria

Exclusion on scope

One: Not teaching and/or learning of argumentative non-fiction writing in English

Two: Not teaching and/or learning of English as a first, additional or second language

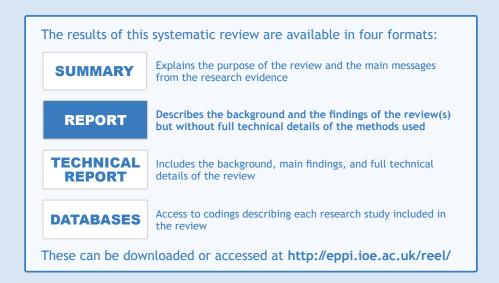Three: Not children or young people aged between 7 and 14 years

Exclusion on study type

Four: (a) A (description)

       (b) D (methodology)

       (c) Editorial, commentary, book review

       (d) Policy document

       (e) Resource, textbook

       (f) Bibliography

       (g) Theoretical paper

       (h) Position paper

Exclusion on date

Five: Not published or unpublished between 1990 and 2005

The results of this systematic review are available in four formats:

SUMMARY Explains the purpose of the review and the main messages from the research evidence

REPORT Describes the background and the findings of the review(s) but without full technical details of the methods used

TECHNICAL REPORT Includes the background, main findings, and full technical details of the review

DATABASES Access to codings describing each research study included in the review

These can be downloaded or accessed at **http://eppi.ioe.ac.uk/reel/**

The **Evidence for Policy and Practice Information and Co-ordinating Centre** (EPPI-Centre) is part of the Social Science Research Unit (SSRU), Institute of Education, University of London.

The EPPI-Centre was established in 1993 to address the need for a systematic approach to the organisation and review of evidence-based work on social interventions. The work and publications of the Centre engage health and education policy makers, practitioners and service users in discussions about how researchers can make their work more relevant and how to use research findings.

Founded in 1990, the Social Science Research Unit (SSRU) is based at the Institute of Education, University of London. Our mission is to engage in and otherwise promote rigorous, ethical and participative social research as well as to support evidence-informed public policy and practice across a range of domains including education, health and welfare, guided by a concern for human rights, social justice and the development of human potential.

The views expressed in this work are those of the authors and do not necessarily reflect the views of the funder. All errors and omissions remain those of the authors.

This document is available in a range of accessible formats including large print. Please contact the Institute of Education for assistance:

telephone: +44 (0)20 7947 9556   email: info@ioe.ac.uk