Research for Teachers

Strategies for improving pupils' writing skills

published: Fri Feb 01 10:42:30 GMT 2008

Why do we need to improve pupils' writing and what can teachers do about it?

Concerns about pupils' achievements in literacy in England are not new. This is particularly the case with writing, especially where boys are concerned (Bearne & Warrington, 2003; Kingdon & Cassen, 2007). Raising boys' literacy standards, especially their writing skills, has been a key part of English educational policy for some time.

The authors of the research selected for this TLA research summary remind us that writing well is more than just an educational issue; it is a necessity if young people are to participate fully in social and economic life. In addition, we can't assume that good readers are also good writers. Writing requires learners to combine and demonstrate the skills they need for formulating and organising their own thoughts, and producing a written record of them using the rules of spelling and grammar. Nearly all aspects of life at some point require writing in one context or another. Writing is also a means of supporting and consolidating learning.

This TLA feature summarises a study of writing strategies that were found to be effective for pupils in upper primary and secondary school years (KS2 and 3). It is based on the study:

Graham, S. and D. Perin. *Writing next: Effective strategies to improve writing of adolescents in middle and high schools - A report to the Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education, 2007.

Whilst the study took place in the US, the concerns and suggested strategies have a resonance for teachers in English schools. We selected the study because the study authors identify and describe a wide range of approaches that were effective in helping pupils respond to the variety of demands learning to write places on them. These activities helped pupils become familiar with, and use, planning, drafting, reviewing and revising text for a range of purposes, including writing a report or arguing a case.

The study findings are complemented by those of a recent systematic review into children's non-fiction writing in England. This review explored the impact of grammar teaching and sentence combining, one of the strategies in the US review.

We have added detail to Graham and Perin's rigorous but generalised findings in order to supplement the information in the study. (We have placed this additional information in boxes to distinguish it from the study findings). The case studies illustrate the range and adaptability of the strategies, including: teachers' use of action research to identify their pupils' needs and what strategy to adopt and how teachers have used specific strategies and pupils' use of writing to support and extend their learning.

Back to top

Overview

Why is the issue important?
It is fundamental that all students learn to write well and flexibly. Most contexts of life (school, the workplace, and the community) call for some level of writing skill. Helping young people, especially low-income, low-achieving writers to write clearly, logically, and coherently about ideas, knowledge, and views will expand their access to higher education, and help them to progress and develop at work. It will also increase the likelihood of them participating actively in society.

What did the research show?
The report identified eleven elements of current writing instruction found to be effective for helping

students learn to write well, and to use writing as a tool for learning. These included:

- prewriting supports
- teaching pupils strategies for planning, revising, and editing their compositions,
- collaborative writing (which involved pupils working together to plan, draft, revise, and edit their compositions)
- sentence combining (which involves teaching pupils to construct more complex, sophisticated sentences), and
- the process writing approach (which interweaves a number of writing instructional activities in a workshop environment that stresses extended writing opportunities, writing for authentic audiences, personalised instruction).

How was this achieved?
All of the teaching elements were shown to have clear results for improving students' writing, but the report indicated that no one strategy was sufficient by itself. The researchers pointed out how they are capable of being combined in flexible ways to strengthen students' literacy development. They highlighted how the elements are in fact interlinked. For instance, it would be difficult to implement the process writing approach without having peers work together or use prewriting supports. They also highlighted how writing intervention was most effective when matched to students' needs.

How was the research designed to be trustworthy?
The researchers collected and analysed experimental and quasi-experimental research on the teaching and learning of writing in order to determine which elements of existing approaches are reported to be effective by research. They compared the impact of different strategies by analysing the average effect sizes of the different interventions. The technique enabled the researchers to determine the consistency and strength of the effects of different teaching practices on student writing quality.

What are the implications?
The study shows the importance of:

- striking a balance between direct teaching to provide pupils with strategies for writing and process writing which places greater priority on turning pupils into independent writers

- pupil collaboration in various aspects of writing, such as sharing ideas, planning together, critiquing each other's drafts and building learning about sentence structure
- using strategies that help pupils personalise their ideas for writing (such as journal writing) to encourage and motivate particular pupils, for example, reluctant writers
- teachers being trained in process writing.

What do the case studies illustrate?
The case studies show, for example, how teachers:

- used a specific teaching programme to develop their narrative writing skills
- used writing frames to support pupils' narrative writing skills
- used drama to develop the imaginative element of children's writing
- coached pupils in the various processes of writing.

Back to top

Study

What did the study show?
The authors measured the effectiveness of a number of writing strategies in terms of their impact on the quality of writing demonstrated by pupils. They did so using effect size, a measure of the impact of a strategy on pupils' performance. Effect size is explained in more detail later in the research design section of the RfT. Here we group the strategies by how effective they were.

The most effective strategies were found to be:

- direct teaching of writing strategies, including summarising texts
- collaborative writing by pupils
- specific product goals.

Strategies having a moderately positive impact included:

- word processing
- sentence combining.

Other strategies that had a smaller but still significant positive impact were identified as:

- pre-writing
- use of enquiry activities
- process writing - a way of learning how to write that relies less on directly taught elements and more on collaboration and pupils exploring for themselves
- study of models
- writing to learn.

The researchers found that traditional explicit teaching of grammar and sentence structure on its own had a significant (if small) negative effect on the quality of pupils' writing, compared with studies in which it was taught in the context of writing. They suggest that alternative procedures such as sentence-combining are more effective than traditional approaches for improving pupils' writing.

You might like to refer to our Further Reading section for other sources of information about the impact of teaching grammar on learners.

How did direct teaching strategies help pupils organise and plan their approach?

The study authors found that systematically teaching pupils strategies for planning, revising, and editing their work had a high, significant, impact on writing achievement.

Whilst the aim was to teach pupils to write independently, some degree of direct teaching was needed to help pupils achieve specific types of writing tasks, such as writing a story or a persuasive essay.

The study described an approach to teaching pupils how to write effectively called the Self-Regulated Strategy Development (SRSD). The approach was designed to help pupils learn specific strategies for planning, drafting, and revising text. SRSD combined explicit teaching with individual instruction and its pace was determined by what pupils' achieved rather than the demands of the timetable. Pupils were treated as active collaborators in the learning process. There were six stages:

- finding out what pupils know about the task (such as writing an opinion essay) and supplying them with any background knowledge they might need
- describing and discussing the strategy, its purpose and benefits, including frequent revision to ensure pupils could recall its main features (such as stating your opinion, giving reasons and writing a concluding sentence, in the case of an opinion essay)
- teacher modeling of how to use the strategy (such as planning the main idea, adding more information, rounding it off with a concluding sentence)
- teaching pupils how to memorise the strategy using a mnemonic, if there is one, eg. PLAN (Pay attention to the prompt, List the main idea, Add supporting ideas, Number your ideas) in order to support planning
- teacher support of pupil learning of the strategy by, for example, constant reiteration of the process, that could be reduced as the pupil gained a greater understanding
- pupils independently using the strategy.

The SRSD approach combined direct teaching of specific strategies with teaching pupils the importance of setting a clear goal, and monitoring what they were doing by checking against the strategy plan. The importance of understanding the purpose of the writing activity was highlighted. The amount of teacher direction was flexible and could be reduced by, for example, encouraging pupils to write without having the strategy plan to refer to, in response to their pupils' needs.

You might like to read a case study that illustrates how teachers in a primary school taught strategies such as story planning and writing for an audience in order to improve their pupils' writing.

How important was it to write for a purpose?
By offering pupils specific purposes for their writing teachers helped pupils become familiar with different types of writing. This approach included identifying the purpose of the task (eg. to persuade or to inform) as well as what the final product should contain, rather than simply giving an overall goal. The study found that this approach had a large impact on pupils' writing performance.

An example given in the study described how the teacher provided pupils with objectives to focus on when writing, such as persuading an audience. Pupils were invited by their teacher to take a position and write a persuasive letter designed to lead an audience to agree with them. The teacher also suggested pupils consider sub-goals about persuasive discussion. These included their belief, reasons for that belief, examples or supporting information for each reason, reasons why others might disagree, and why the writer considers the reasons given by others to be inaccurate or weaker than their own.

Giving pupils the opportunity to compare different models for writing was used in some studies in the review, with significant but lower impact.

What other purposes for writing are there?
Other purposes for writing include:

- expressive purposes where the writer simply expresses their own feelings, attitudes, ideas, etc.

- informative writing which refers to something external to the writing itself, with the purpose of informing the reader
- poetic writing which relates to the way the elements of language are used, and the structure and pattern of the writing.

Many pieces of writing have more than one purpose.

The teacher may demonstrate the act of writing by thinking aloud as they compose text in front of pupils. This allows pupils to appreciate the thinking behind the writing process, such as choice of topic, how to begin the piece, and how to look for interesting and appropriate vocabulary.

Writing frames constructed for specific purposes have been shown to help children to organise their thoughts and provide a framework for writing them down that relates to the purpose. This enables the writers to gain a better understanding of the purpose and to concentrate on what they want to say rather than getting lost in the form of writing. For example, in relation to a specific purpose, writing frames can:

- help pupils by asking them to select, and think about what they have learned
- give them a structure to work with
- give pupils an overview of the writing task.

You might like to read a case study that shows how teachers used a writing frame to help boys write for a purpose; in this case narrative writing.

How did collaboration help pupils support each other?
The study found strong evidence that pupils benefited from supporting each other. Such collaborative working involved a number of processes, including:

- reading
- planning
- drafting
- revising
- editing their compositions
- checking their final copies.

Studies of this approach compared its effectiveness in relation to the quality of writing with that of pupils composing their work independently. The effect sizes for all studies were positive and large, suggesting that collaborative arrangements in which pupils help each other with one or more aspects of their writing have a strong positive impact on the quality of their writing. Collaboration is a strategy that can be used in combination with a wide range of other methods, such as process writing, direct teaching strategies and the use of ICT.

In one of the studies in the review, teachers used collaborative working in combination with sentence-combining as an alternative to more traditional grammar teaching. This strategy involved teaching pupils to construct more complex and sophisticated sentences by combining two or more basic sentences into a single sentence. One study described how higher achieving pupils were paired with lower achieving pupils. The pairs received a sequence of lessons that covered:

- combining smaller related sentences into a compound sentence using the connectors and, but, and because
- embedding an adjective or adverb from one sentence into another, and
- creating complex sentences by embedding an adverbial and adjectival clause from one sentence into another; and making multiple embeddings involving adjectives, adverbs, adverbial clauses, and adjectival clauses.

Direct teaching was supported by teacher-guided practice and peer-coaching. Members of the pairs took it in

turns to coach each other. The coach was provided with cards bearing the following directions:

1. read the sentence aloud
2. decide either the best word to fit in the gap in the sentence, or the best way to combine the sentences
3. write the answer on the sheet
4. read the new sentence.

The coach suggested changes if the sentence was not grammatically correct. The pair then swapped roles once the sentence was written correctly. Throughout the intervention, the teacher's role was to monitor, prompt, and praise the pupils, and address their concerns.

Collaborative approaches also include joint construction in which teacher and pupils work together to compose a piece of writing in small groups, or as a whole class.

Did ICT help and if so how?
Increasingly, teachers are using ICT to support writing. The authors found that ICT-based approaches had a moderate to significant impact on attainment. Common approaches adopted by teachers included pupils working collaboratively on writing assignments using computers, and word-processing a composition under teacher guidance.

The authors identified a number of advantages of composing writing using ICT, including

- typing text on the computer with word-processing software produces a neat and legible script
- the writer can add, delete, and move text easily.

Compared with composing by hand, the effect of teaching and learning through word-processing in most of the studies reviewed was positive, suggesting that this approach could have a positive impact on writing quality. Low-achieving writers particularly seemed to benefit from this strategy.

How else can ICT be used to support writing?
Teachers in a variety of contexts create writing frame templates for pupils to use on screen. They can differentiate either by the structure of the frame or the supporting vocabulary that they supply pupils with when using it. ICT also makes it easier for teachers to withdraw the support of the frame by progressively simplifying the structure. Projectors and interactive white boards enable teachers to model use of writing frames on a large screen and make it possible for teachers and pupils to work together using writing frames, as an interactive activity.

Were pre-writing activities helpful?
The studies in the review identified pre-writing as a helpful activity. Pre-writing was used by teachers as an opening up process in which pupils generated and organised their own ideas for their writing. Group discussion helped in this process by providing a basis for pupils to reflect on, refine and link their ideas for writing. Engaging pupils in such activities before beginning the drafting stage was found to improve the quality of their writing.

Pre-writing activities were quite varied, but usually include a number of elements such as:

- gathering information through reading
- creating a visual representation of ideas
- group and individual planning
- brief demonstrations of what to do provided by the teacher.

What other pre-writing activities help?
Other pre-writing activities found to be helpful included:

- taking notes during a lesson or presentation
- highlighting key points on a hard copy with marker pens
- writing comments in the margin of a printed copy of materials, and
- keeping a journal to record information and to provide a reflective tool students can use to refine their thinking.

Pupils can find it useful when the teacher directly teaches some pre-writing practices such as creating diagrams, freely writing out their ideas in note form and linking ideas to generate concept maps and spider diagrams. Drawing, listening to music, watching a film or other televisual material, going on a visit and working with simple models can all help pupils generate ideas for a writing project.

You might like to read a case study in which pupils studied drama and English in parallel so that the drama acted as a stimulus to writing.

How did the process approach help?
The review found that process writing strategies had a smaller but nonetheless significant positive impact on pupils' writing. In this approach teachers initiated and supported a number of activities aimed at creating skilled and self-reliant writers including:

- creating extended opportunities for writing
- emphasising writing for real audiences
- encouraging cycles of planning, translating, and reviewing, individually or in groups
- stressing personal responsibility and ownership of writing projects
- encouraging and supporting collaboration among pupils
- developing supportive writing environments
- encouraging self-reflection and evaluation
- offering personalised individual assistance, such as brief teaching interactions (conferences) that support pupils in reaching their individual goals.

In contrast to directly taught approaches, process writing involved teachers prompting pupils to use linked activities that encouraged and sustained an independent approach to the whole writing process. The strategy shared some aspects of the pre-writing approach discussed earlier, such as, group discussion and sharing planning, together with additional features that foster individual and shared approaches to building writing skills.

A key part of the process approach is conferencing between the teacher and pupil in which the teacher supports and prompts the pupil by making helpful suggestions in response to their ideas. You might like to read a case study in which a computer programme performed this task.

The researchers found that explicit teacher training was a significant factor in the success of the process writing approach. When teachers had such training, they were more effective than those who had not. You may like to read a case study that illustrates how teachers who had been coached in teaching writing skills coached pupils in the various processes of writing.

What else do we know about process writing strategies?
In most process writing strategies peer collaboration plays a key part. Once pupils have written their first drafts, they exchange, and read each other's work. Advocates of process writing believe that by responding to each other's work as readers, pupils develop an awareness of the fact that a writer is producing something to be read by someone else. This awareness helps them see their own drafts from a reader's perspective and thus enables them to improve their own drafts. Drafts are returned and improvements are made based upon peer feedback. A final draft is written, followed by another exchange of, and reading of, each other's work.

Other strategies related to the process approach

The study identified enquiry approaches as having a moderately significant impact on pupils' writing. In common with the process writing approach these also aimed to encourage pupils' self-reliance and independence. The enquiry activities engaged pupils in activities that helped them develop ideas and content for a particular writing task by analysing data which they had collected for themselves, as in science, for example. Alternatively the data or materials may have been made available to them. In one study quoted by the researchers, pupils examined and inferred the qualities of a number of objects and then described them in writing. The pupils touched objects while blindfolded, listened to sounds and did physical exercise. They then worked in groups to write and revise their compositions.

What else may enquiry approaches involve?
In some enquiry strategies pupils are encouraged or, if necessary, directly taught to use questions to get the information they need. They then go on to apply these skills in collecting data about an event or phenomenon. The approach is frequently used in geography, history and science where pupils use when, what, where and how questions to explore an event or situation. (See Further Reading).

How did writing help pupils learn?
Writing quality was associated with effective learning of the content of the textual material, although the impact was quite small. Examples of writing activities that supported learning included writing summaries and compiling written answers to questions.

One example given by the authors of the review described writing-to-learn activities in a science lesson. The pupils were studying the human blood circulation system. The teacher's aim was to help the pupils develop an understanding of the role of the heart, blood and circulation. The teacher asked the pupils to write summaries and answer questions in writing. The questions explored a number of features of learning including:

- explaining
- elaborating on knowledge to reach deeper understandings
- commenting on and interpreting written science textual material
- communicating what they don't understand
- describing any change of belief they experience.

Here, writing was a tool for learning and not an end in itself. Evidence from a range of research suggested that the type of questions asked is key to building on pupils' existing understandings. When pupils were given questions that focused on specific answers their knowledge acquisition tended to be fragmented. Where the questions required longer, analytic responses supported by reasoning, pupils' learning was more integrated.

You might like to read two short vignettes that illustrate how teachers have used writing as an effective tool for learning.

What did the study say about how to use the strategies?
The researchers suggested that pupils have different needs whilst they learn to write effectively and it seemed unlikely that any single intervention will meet those needs. To illustrate their point they used the analogy of the medical profession where treatment is tailored to individual patient needs and may involve more than one intervention at a time. In similar vein the researchers proposed that teachers need to experiment with mixes of intervention elements to find what works best in individual cases. They did not suggest what combination or how much of each of the recommended activities teachers need to use for effective learning.

In the view of the researchers, lower-level skills such as handwriting, keyboarding, spelling, grammar, punctuation, and access to appropriate vocabulary were the foundation of effective writing. Familiarity with these processes they argued is essential to enable pupils to go on to develop higher-level skills such as planning, generating, reviewing and revising text. Building pupil motivation was also a key factor. The strategies teachers choose to use should attempt to link, develop and consolidate these skills.

The researchers proposed that before selecting a strategy the teachers should identify their pupils' needs

through assessment, observation, and analysis of their writing. By talking to their pupils, teachers can find out what pupils can do for themselves and what their barriers to writing are. Once an intervention is under way, it is essential that teachers monitor their pupils' progress. Identifying pupils' needs and sharing the information with them to build towards new learning targets is at the heart of assessment for learning. You might like to look at our earlier RfT that summarises research on this key activity.

You might also like to read a case study that illustrates how teachers in an English primary school identified their pupils' needs, developed strategies for meeting those needs and monitored the impact of the approaches through action research. Using this approach they were able to select strategies and combinations of strategies that improved their pupils' experience of learning to write.

How was the study carried out?
The researchers set out to collect and analyse experimental and quasi-experimental research on the teaching and learning of writing in order to determine which elements of existing approaches are reported to be effective by research. (Experimental and quasi-experimental studies are those that use numerical performance measures to compare groups of pupils - those that received the intervention in question and a control or comparison group that did not).

The study focused on writing quality to assess the impacts of the strategies. They defined writing quality in terms of coherently organised essays containing well developed and pertinent ideas, supporting examples, and appropriate detail. Their search identified136 studies that were relevant to their research question, covered the age range 9 to 17 years and met the inclusion criteria for robustness.

They compared the impact of different strategies by analysing the average effect sizes of the different interventions. This method of research is known as meta-analysis, a powerful way of synthesising large bodies of research. The strength of meta-analysis as an approach is that it allows consideration of both the strength and consistency of a practice's effects. On the basis of the effect sizes found, the authors identified eleven effective strategies for teaching writing.

Although each element was treated separately, they were often related in the research studies. For example, process writing approaches could include aspects of pre-writing such as creating initial ideas in groups. Similarly, word processing and the use of ICT may be linked to writing frames. The effect sizes in the following list are those reported by the researchers. In the preceding parts of the RfT, for the sake of clarity, we have only indicated the general level of impact for each strategy. The measured effect sizes reported by the authors were:

1. Writing Strategies (Effect size 0.82)
2. Summarization (Effect size 0.82)
3. Collaborative Writing (Effect Size 0.75)
4. Specific Product Goals (Effect size 0.70)
5. Word Processing (Effect Size 0.55)
6. Sentence-Combining (Effect size 0.5)
7. Prewriting (Effect size 0.32)
8. Inquiry Activities (Effect Size 0.32)
9. Process Writing Approach (Effect Size 0.32)
10. Study of Models (Effect size 0.25)
11. Writing for Content Learning (Effect size 0.23)

What is an Effect Size and how is it calculated?
Effect sizes measure the average difference between a teaching intervention and a comparison condition, usually the comparison group following their normal lessons. They indicate the strength of the effect of the particular intervention in question. The following guidelines relating to the significance of effect sizes of different magnitudes are in general use:

- 0.20 = small or mild effect gain of six months

- 0.50 = medium or moderate effect gain of one year
- 0.80 = large or strong effect gain of two years.

Positive effect sizes mean the strategy had a positive effect on pupil writing. Negative effect sizes mean the instruction had a negative effect on pupil writing.

Effect sizes were calculated as follows. The post-test mean performance of the comparison group was subtracted from that of the intervention group at post-test and divided by the combined standard deviation of the two groups. Analyses were conducted only for groupings of specific strategies that included four or more studies.

Some researchers have pointed out that assessing the effectiveness of writing intervention strategies is problematic. Attempts by children to improve their writing, by reflecting on it, can have the opposite effect, possibly because reflecting takes up valuable mental space and disrupts the child's flow of ideas. Or the child may try to implement a different approach without fully understanding how to apply it successfully. (See case study 3 for examples of this).

What are the implications for teachers and leaders?
Teachers who are interested in raising their pupils' performance in writing might like to consider the following implications:

- Direct teaching aims to provide pupils with strategies for writing, whilst process writing places greater priority on turning pupils into independent writers. What is the balance between the two approaches in your teaching? What could you do to get the best out of both approaches?
- Pupil collaboration in various aspects of writing, such as sharing ideas, planning together, critiquing each other's drafts and building learning about sentence structure was found to be supportive of pupils' writing. Could you do more in your lessons to encourage pupils to work together, perhaps in the context of strategies you already use?
- Journal writing helped pupils personalise their ideas for writing and led to improved motivation. Would using this strategy encourage some of your pupils, for example, reluctant writers? (You may find case study 7 a useful starting point.)

School leaders who are keen to raise the quality of pupils' writing throughout the school might like to consider the following implications:

- Where teachers had previously had training in process writing, the strategy had a bigger impact on their pupils' writing. Would it be helpful for teachers in your school to work together to learn more about the processes, perhaps with input from an external specialist?
- The research stressed the need for pupils to practice and reinforce their skills. This idea was developed in one of the case studies (see case study 5). Would it help your pupils in their writing endeavours, for teachers to adopt a whole school approach to writing and to draw on opportunities from science, history, geography, for example, in order to give the pupils the opportunity to practice their writing skills in a range of contexts?

Filling in the gaps
No single approach to teaching writing will meet the needs of all pupils. Also, other effective strategies teachers are using may not yet have been studied rigorously. There is a need for more research on, and dissemination, of writing interventions that work, so that teachers can select the strategies that are most appropriate, whether for whole classrooms, small groups, or individual pupils. There are also fewer studies of writing for older secondary age pupils.

What is your experience?
Do you have any evidence about initiatives aimed at improving pupils' writing performance which we could perhaps feature in the case study section? Do you have action research or inquiry-based development programmes running that explore, for example the impact of a particular writing strategy, such as direct teaching, the use of ICT or process writing approaches? We would welcome research on effective writing strategies for particular groups of pupils, such as low attainers and pupils with English as an additional language. We would also be interested to hear about examples of effective initiatives aimed at motivating reluctant writers and strategies for supporting pupils' writing.

Your feedback

Have you found this study to be useful? Have you used any aspect of this research in your own classroom teaching practice? We would like to hear your feedback on this study. To share your views with us please email us at: research@gtce.org.uk

Back to top

Case studies

The RfT team has included more case study material than usual in order to provide readers with a sense of the flexibility and breadth of the strategies highlighted by the study. The first two case studies explore teachers' use of specific directed teaching strategies to improve their pupils' writing achievement. Case study three describes how teachers used drama to stimulate pupils' creative thinking for writing. The fourth case study shows how an interactive ICT tool (HARRY) helped young writers review and edit their stories. Case study five illustrates how teachers facilitated pupils' learning of the various processes of writing. The sixth case study describes how pupils used writing as a tool for learning and the final case study shows how action research help teachers identify their pupils' learning needs and decide which strategy to adopt.

How a specific teaching programme helped pupils develop their writing skills

We chose this study because it shows how teachers used a specific teaching programme to develop the narrative writing skills of 32 Year 3 pupils. Learning outcomes for this group were compared with those for a control group of six pupils who did not take part in the programme. The pupils attended a large multicultural junior school (368 pupils). The research was conducted by the Year 3 Coordinator and the support teacher from the local authority service for pupils with EAL and lasted for six months.

What was the situation at the beginning of the project?

Many of the pupils at the school were competent and confident readers and were able to decode print easily and effectively. However, their comprehension skills and understanding of texts was not always accurate and they often had difficulties inferring meaning from a text if it was not made explicit in the writing, such as when figurative language such as metaphors, similes and alliterations was used. The pupils also made errors in their use of tenses, articles, prepositions and pronouns. None of the pupils could use figurative language.

What were the main features of the programme?

The programme, which was designed by the Year 3 coordinator (the researcher) and the EAL support teacher (the co-researcher), included:

- the provision of models and examples of narrative writing, such as planning and writing for an audience
- teaching of descriptive writing skills
- teaching how to use specific parts of speech such as adjectives
- teaching how speech is used by writers of stories.

Teachers used key texts to illustrate what the main points, including:

- *The Boy Who Cried Wolf* by Tony Ross (for narrative skills)
- *The Whales' Song* by Dyan Sheldon and Gary Blyth (for descriptive writing and the use of adjectives)
- *The Lighthousekeeper's Picnic* by Ronda and David Armitage (for the use of speech in stories).

Teachers also used the texts to illustrate features of punctuation such as full-stops, speech marks, paragraphs,

etc. This was complemented by pupils taking part in shared reading and discussion of the grammar and punctuation in the books. Teachers did not ask pupils to do grammar and punctuation exercises, but encouraged the pupils to use the texts as models for their own writing.

Pupils did writing tasks at home on a weekly basis. Teachers kept parents informed of their children's progress and homework task through a weekly home-school record sheet.

The pupils were taught in a range of contexts including:

- teacher-small group
- two teachers-project pupils
- two teachers-project group and other pupils
- one-to-one teacher-pupil conferencing.

What data did the teachers collect and how did they use it?

The data collection consisted of:

- pupils' end of Key Stage One writing test scores as a baseline
- two unaided writing tasks at the start and end of the intervention
- questionnaires for parents, pupils and teachers
- observations.

The researchers assessed the pupils' writing using Key Stage One level descriptors and a story writing assessment tool based on purpose and audience, style, grammar and punctuation. They used statistical methods to analyse the questionnaire responses.

What did the programme achieve?

The pupils made a number of learning gains including:

- improved narrative writing - 25 project pupils used figurative language unaided, only one control pupil did so
- twenty-three out of 32 pupils improved their national curriculum grading by at least one element within level 2 during the project, compared to two out of the six control pupils
- intervention group pupils showed more accurate use of punctuation and grammar.

Teachers' questionnaire responses indicated that partnership teaching between the EAL teacher and class teachers raised the quality of teaching of narrative writing skills. Less experienced staff, in particular, gained from this peer working which offered them the opportunity to observe more skilled colleagues. Also the weekly home-school contact increased parental involvement, with many parents supporting their children with the homework tasks.

Reference:

Donna Barratt and Sue Wheatley, Developing the writing skills of pupils for whom English is an additional language, Yeading Junior School, Hayes, Middlesex
TDA (formerly TTA) Teacher Research Grant Scheme, publication number 75/8-99

The use of writing frames to improve boys' writing at Key Stage 2

We chose this case study because it illustrates how writing frames can be used to support pupils' narrative writing skills. In this study the teacher-researcher focused on a group of 29 Year 5/6 pupils, 15 of whom were

boys. Changes in the intervention group's performance were compared with those of a control group of 30 Year 5/6 pupils containing 16 boys. The pupils came from a primary school attended by 321 pupils; 40 per cent of these pupils were on the school's Special Needs register. The study also drew on twelve teachers' reports of the methods they used to teach narrative writing in eight schools that formed a local cluster. This intervention study lasted for one year.

What did the project aim to do?

The project was designed to explore and increase teachers' understanding of pupils learning of narrative writing, and to support pupils' writing using writing frames. Whilst the project aimed to enhance the writing skills of all the intervention pupils, the researcher was specifically interest in boys' writing.

What were the main features of the programme?

The project took place in two stages; first, pupils used a writing frame to construct a story. The full lesson sequence structure for this stage involved:

- introducing a text which teachers and pupils explored together
- short writing activities relating to the text
- teachers' modelling of writing for particular purposes
- pupils discussing the story after the teacher had read it to them
- extended writing sessions in which pupils used well-known stories as a basis for their own writing which was to be in the style of a newspaper article
- teachers' introduction of a writing frame to support the development of style, conflict and resolution
- a plenary in which pupils read their stories to other pupils who responded with suggestions for improvement.

Differentiation was introduced through the way pupils used the writing frame and how they adapted them for their own purpose.

The second stage built on the pupils' experience of the first stage. Here the pupils went on to use the writing frame to unpick a story of any genre. Pupils worked together or singly to construct a new writing frame to enable them to retell a chosen story in the first person. Stage two lessons followed a similar sequence to those in stage one.

What data did the teachers collect and how did they use it?

- Control and intervention groups were tested at the start and end of the intervention using 1998 and 1999 Key Stage 2 national test papers.
- Six pupils from each group were interviewed about their knowledge and attitudes to narrative writing before and after the intervention.
- Questionnaire was sent to 14 schools in the local cluster to explore current teaching methods in narrative writing.
- National curriculum guidelines were used to assess pupils' attainment levels and to provide information about pupils' specific writing skills.

What did the programme achieve?

- boys' writing improved by at least one attainment level during the year
- writing frames were most useful for average ability pupils but benefited lower-attaining pupils too.

Analysis of both sets of papers showed that pupils made improvements in relation to:

- story-telling
- sequencing events that were related
  vocabulary
- sentence structure
- punctuation.

The researcher found that using traditional stories the pupils knew well helped the pupils understand narrative structure. Whilst the pupils still seemed to focus on the mechanical aspects of story writing rather than the ideas involved, evidence from pupil interviews suggested that pupils were beginning to see how they could use ideas from one story to help them build a new story. They also had a much clearer sense of conflict, climax and resolution in a story.

Reference:

Robin Marlin, The use of writing frames to improve boys' writing at KS2, The Grove School, Melton Mowbray, Leicestershire, LE13 0HN
TDA (formerly TTA) Teacher Research Grant Scheme, Publication number 126/7-00

Using drama to improve creative writing

We chose this case study because it shows how teachers in a middle school used drama to raise the standards of pupils' writing. The project involved three Year 5 classes and their class teachers, all from the same primary school. Most pupils were of Asian origin, but there were 20 ethnic groups represented in the school.

How did the teachers intend to use drama?

We focus on the teachers' use of drama to develop the imaginative element of children's writing. Staff at the school had noticed that the children's work was generally unimaginative. The catchment area was predominantly urban and few of the children seemed to play outdoor imaginary games. However, the pupils responded very positively to drama lessons and arrived for lessons enthusiastic and willing to participate. The teachers sought to attempt to channel this enthusiasm for creativity into the pupils' writing.

What were the main features of the programme?

The programme consisted of:

- an initial period in which pupils were made familiar with the nature of drama and drama lessons
- a series of short, pacy drama activities
- writing activities that ran in parallel with the drama work.

Initially, the pupils had a poor understanding of what a drama lesson was so the drama teacher spent time laying out the ground rules, such as standing still and being quiet when the teacher said 'freeze' and not whispering when others were performing.

The teacher used a formal approach at the start of each lesson to set the scene. This helped the pupils appreciate how the teacher went on to model characters to introduce the theme or story. When necessary, the teacher presented background information on the topic. For example, as the children had little or no understanding of life in Victorian England the teacher fed them information of the period alongside teaching drama techniques. The teacher maintained pace and interest and avoided making the lesson too teacher centred by involving pupils in short periods of:

- 'hot seating' - pupils questioning a role-player
- still images - groups of pupils adopt a particular physical position to capture and hold an idea or theme

- improvisation - pupils spoke unscripted in role.

The children were encouraged to discuss each other's work in drama in a positive way. They were taught to praise and offer suggestions for improvement, about the positions they each took up when acting out a scene. The teachers prompted them to make connections between physical positions and actions, and the emotional content of the work. the teachers believed this helped the pupils to develop a deeper understanding of the power and shape of the story.

For the writing activities, the teachers used a variety of texts covering several curriculum areas and highlighting some interesting literary texts. The teachers made this selection to engage all the pupils; they hoped, in particular, to excite boys' interest and to involve different cultural groups.

What data did the teachers collect and how did they use it?

The teacher-researchers adopted a case study approach to data collection. Two members of the teaching staff were present for every lesson: one to teach the class and one to observe and evaluate. Usually the class teacher conducted the observation using a pro-forma. The observation focused on pupil engagement with the lesson and creative moments, using several children per lesson as the subjects. The teacher-researchers noted anything the pupils contributed that represented engagement with the subject material. They also recorded times when the pupils lost concentration. The teacher and observer discussed the observations after the lesson and shared their reflections on the children's degree of engagement with the material. They also collect data in the form of the pupils' writing.

What did the programme achieve?

This study found that the quality of writing improved in a number of ways including:

- children were more likely to write imaginatively about a text when they had taken part in a physical activity based on it
- children's ability to sequence the events in a plot accurately improved when they had used drama
- drama developed pupils' critical analysis and creativity, and deepened their response to a text
- more children got level 5's in national tests at the end of the study period than in the previous year
- the percentage of pupils with level 4 in writing steadily increased.

However, the authors are careful to point out that the research project was part of a whole school focus on literacy. The school literacy co-ordinator had also concentrated on improving written style, vocabulary and punctuation.

Reference:

Stowe, A. (2004) Using drama to improve creative writing. National Teacher Research Panel summary, available at:
www.standards.dfes.gov.uk/ntrp/publications/stowe/

An innovative approach to revising and editing

This study shows how an interactive ICT tool (HARRY) that responded to the needs of the pupil as they arose when writing a story was effective in raising pupils' writing achievement. It is an example of the process approach, but rather than using a teacher 'conference' with a child, the conferencing took place between the child and the computer. The authors' starting point was that ICT of itself does not support children's writing. Word processing tools needed to be supplemented with strategies designed to help children improve their texts.

The study was prompted by research evidence that suggested that for mature writers, detection and correction

of errors were performed simultaneously, but for beginner writers, both processes are problematic. Children may comment that 'this isn't right', but be unable to correct the problem without help. The impact of HARRY was explored through the writing of four children randomly selected from a mixed ability class of 8/9-year-olds, attending a co-educational, state-funded primary school.

How did HARRY support children's writing?

HARRY was designed to assist children improve their narrative writing by encouraging them to revise and edit their texts. HARRY separated the writing process into three stages:

1. children were encouraged to continually revise as they composed a narrative
2. HARRY detected grammar and style weaknesses and suggested ways of editing the text
3. spelling and technical errors were corrected when the narrative had been transferred to MS Word.

When they felt they needed to, the pupils could access a range of prompts, which gave the children suggestions for:

- content, such as, 'Try starting your story with the children talking as they pack to go on holiday' or 'Tell me more about the children in your story. What are they like?'
- structuring their work, such as, 'I have a feeling something will go wrong in your story soon! But may be things don't turn out to be quite as bad as they first seemed.'
- vocabulary, such as, 'Words to describe the King's palace: polished marble floor, sumptuous red velvet curtains, golden statues, magnificent chandelier shining like..., vast windows as tall as...'
- sentence structure, such as, 'Write some really short sentences in between long ones like this: He smiled. Of course. That was it! They would have to ...'

When the child had completed a first draft, HARRY pointed out to the child places where the text could be improved grammatically and stylistically, and made suggestions about how to go about this such as:

'Check the long sentence that begins ['First we'll show]. It may need breaking into shorter sentences with full stops'.

'You use the word [pirates] a lot in your writing. Try another word, or words, like shipmates, gang, bloodthirsty crew, dastardly bunch'.

How did the authors collect and analyse their data?

Each of the children in the study wrote two stories on the same theme: a control story (written with the assistance of a prompt suggesting a story theme) and a story written with the full assistance of HARRY. The children were shown how to use HARRY before they started writing. Data were collected over five weeks.

The effects of HARRY on story writing performance were analysed using a specially designed computer utility tool, 'CHECK TEXT' that recorded data about twelve features of the children's writing including grammar and style, such as:

- the total length of the story in words (as a measure of the amount of detail included)
- the percentage of different words used in the first 100 words (as an indication of the extent of a child's vocabulary resources)
- the number of 'and's used as a percentage of the total words (as an indication of the frequency of compound sentence constructions).

How did the pupils benefit?

The HARRY assisted stories were better than the controls in a number of ways including:

- more adventurous and varied vocabulary; they contained more words longer than five letters, a higher percentage of different words used in the first 100 and fewer common words
- more sophisticated sentence constructions; they contained fewer common connectives, particularly 'and', and fewer sentences starting with pronouns and the definite article
- more accurate use of full stops; there were fewer words per sentence and greater use of commas in complex sentences.

A note of caution?

The authors noted how improvements in some features, such as vocabulary, were sometimes accompanied by poorer performance in others, such as punctuation and use of the connective 'and'. They suggested this effect was caused either by the child forgetting to pay attention to some features because s/he was paying more attention to other aspects, or by the child trying to implement writing techniques without understanding how to apply them successfully.

For example, with HARRY's assistance, one child improved upon the variety and sophistication of the words he used, and demonstrated a greater variety of ways of starting sentences. However, reviewing and revising vocabulary choice and sentence structure during the first stage had a negative effect upon his use of full stops and the connective 'and' - he tended to write overly long sentences in which he connected many ideas together with 'and's. Although he improved his sentence construction during the second editing stage, by removing 'and's and putting in full stops, the 'CHECK TEXT' reports he achieved for these features were worse for the HARRY assisted story than for the control.

The authors suggested that the fact that attempts to improve children's writing quality can result in a drop in performance in some features, has important implications for the evaluation of writing interventions.

Reference:

Holdich, C.E., Chung, P.W.H. & Holdich, R.G. (2004) Improving children's written grammar and style: revising and editing with HARRY *Computers and Education* Vol. 42, pp. 1-23. The HARRY and CHECK TEXT tools are available at: www.midlandit.co.uk/education

Involving the whole staff in writing

We chose this study because it illustrates how experienced literacy teachers who had been coached in teaching writing skills coached pupils in the various processes of writing. The aim of this cross-curricular intervention was to improve pupils' writing skills at Key Stage 3, particularly in relation to extended writing, and sustain them into Key Stage 4. The project focused on eight teachers, from the English, drama, geography and music departments, and five girls and sixteen boys from Year 9. The pupils were identified through teacher assessment as those not expected to reach the target level in the Key Stage 3 national tests. The project was embedded in larger scale literacy research and development work undertaken by teachers in the school.

What professional development had the teachers undertaken?

The approaches adopted in this writing project grew out of previous research and development work in literacy at the school. Training began with a small group of committed and skilled staff and was subsequently extended to include other teachers.
By the end of the professional development, 84 per cent of the teachers had been involved in reading coaching and 47 per cent in extended writing coaching.

All the teachers at the school had fourteen hours of INSET on:

- helping pupils to develop their ideas for extended writing through speaking and listening

- the use of writing plans, spider diagrams and writing frames
  redrafting
- using ICT to check spelling, sentence punctuation and paragraphing.

The writing coaching group had additional training in:

- structuring an extended narrative into chapters
- teaching grammar
- using ICT for redrafting.

How did the teachers develop their pupils' writing skills?

For six weeks the pupils were withdrawn from a range of subjects, and received seven lessons per week in English prior to the Key Stage 3 national tests. The teachers decided that the best way to sustain the pupils' interest over the period of the intervention was to write a single extended story on a theme they were already familiar with: The Magic Carpet.

The teachers coached their pupils in creating writing plans, and how to split the extended narrative into chapters such as 'Finding the carpet' and 'Disaster strikes'

Many of the pupils in the group were reluctant to check or redraft their own work. They were supported by ICT technicians who typed up their first drafts, including their mistakes. In other lessons pupils continued to develop ideas, and corrected spelling, paragraphing and grammar at the computer. Seeing their work translated into print improved pupils' motivation.

Because technical accuracy plays such an important part in the Key Stage tests, the teachers undertook some direct teaching of sentence punctuation and paragraphing. They also went back to the pupils' original drafts and helped the pupils to see how this affected their work.

What data did the teachers collect?

Teachers assessed the pupils' progress in writing using the results of their Key Stage 3 national tests in English. They assessed the same pupils' progress a year later to see if any benefits were sustained, using English GCSE past papers in Year 10 internal examinations. The Year 10 pupils and their teachers were not made aware of this longer-term assessment.

A control group was used to enable the teachers to measure the impact of the intervention on the pupils' writing performance. This was made up of five pupils who were assessed in Year 9 as marginally above the level 2/3 boundary, but who had had no additional support.

A questionnaire was given to the staff to collect data about their knowledge and understanding of literacy. This included questions about their:

- literacy skills such as phonics and grammar
- prior professional development work in literacy
- experience of reading and writing coaching at the school they had had
- understanding of whole school literacy issues.

How did the pupils benefit from the intervention?

Results of tests showed that:

- seventeen of the 21 pupils achieved level 3 or above in their Key Stage 3 national tests - ten pupils attained level 4 and one, level 5
- the control group made no progress during the intervention period
- internal examinations based on past GCSE papers a year later showed that the average improvement of pupils who had taken part in the intervention was about 1.5 of a GCSE grade, compared with 0.7 of a grade for the control group.

The results suggested that the pupils' writing improvements were sustained over the following year. The improvements also indicate that non-specialists in literacy can help to support pupils' literacy learning across the curriculum.

Reference:

Geoff Sewell, Bishopgarth School, Stockton on Tees, TS19 8TF
TDA (formerly TTA) Teacher Research Grant Scheme, Publication number TPU0675/08-01

Writing to learn

We have chosen the following two studies to provide illustrations of how teachers have used writing activities to support learning. Here the focus was not the writing per se. One was in literature; the other in science. The first vignette did not involve any teacher input in relation to how pupils wrote, so there were no teacher inputs about the writing process. The second one required pupils to use a particular set of questions to create the right thinking approach in their minds. In the vignettes writing to learn represented an important follow on stage from learning to write.

Exploring a literary text - 'The Great Gatsby'

This study assessed the learning of three groups of pupils who were studying this literary text. The pupils experienced different learning routes aimed at helping them understand the text. It involved three similar English classes each comprising sixteen pupils aged 17-18 years.

What were the different learning experiences of the pupils?

There were three different conditions, one for each class:

1. No writing.
2. Guided journal writing based on general features of the story.
3. Guided journal writing based on character features of the story.

All pupils took part in class discussion in which the teacher prompted pupils' thinking by using open-ended questions.

For the guided journal writing based on general features of the story, pupils were guided by questions covering cognitive, metacognitive (about their reasoning processes) and affective aspects of the story, such as:

- What do you notice? eg. Were you struck by some characteristics of the main characters? And do you see any changes in their characters as the story continues?
- What do you question? eg. What questions do you have about events in this chapter?
- What do you feel? eg. Can you track down the part that makes you feel sad, angry, scared?

For the guided journal writing based on character features pupils were prompted with questions such as: How do you feel about [character X/character Y]?

What did the study show?

The results from two tests at the end of the project indicated that those who wrote extensively and took part in discussion achieved a significantly better understanding of the themes and characters in the novel than those who had participated in the discussion only. Pupil interview data suggested that pupils believed that writing had helped them think more deeply about the story and the main characters, generate more ideas, and think about puzzling questions about the story.

Lower school science

This study explored an approach that used structured writing in science to help pupils learn. This approach which is known as the science writing heuristic (SWH) is underpinned by the idea that constructing science knowledge is not a casual but a purposeful activity based upon posing questions, providing and interpreting evidence, and reflecting on learning.

What was the pupils' experience?

SWH was devised to encourage pupils to use hands-on, guided inquiry science activities and collaborative group work to build conceptual knowledge. The SWH contained the following elements:

- Beginning Questions - What are my questions?
- Tests - What do I do? What tests will I conduct or what procedure will I follow?
- Observations - What can I see? What information will I gather?
- Processing - balanced equations, calculations, graphs.
- Claims - What can I claim?
- Evidence - How do I know? Why am I making these claims
- Reflection - How have my ideas changed? How do my ideas compare with other ideas?

Whilst the content of the science activities may be similar to what the pupils might have undertaken in more traditional classes, they were treated more independently. They had some choice over how they proceeded to tackle the problem, for example, and they were expected and encouraged to use the experimental evidence themselves rather than have it interpreted by the teacher.

The approach demanded by the structured writing frame required pupils to closely examine and reflect on what they were doing, why they are doing it, and what their results might tell them. This reflective approach enabled them to collaborate more effectively in groups when they came to compare and construct possible explanations for what they had found. The teacher's role became more like that of a coach.

How did the pupils benefit?

The results indicated that writing-to-learn strategies helped to improve the learning of for pupils in the study compared to those working with more traditional science writing approaches in a number of ways including:

- pupils in intervention groups scored significantly better on conceptual questions than those in comparison groups
- pupils in intervention groups achieved significantly higher total test scores than those in comparison groups
- when the cognitive demand of the question was increased from recall to a design type question, pupils in intervention groups performed better than their peers in comparison groups.

References:

The Great Gatsby:
Wong, B.Y.L., Kuperis, S., Jamieson, D., Keller, L. and Cull-Hewitt, R. (2002) 'Effects of Guided Journal Writing on Pupils' Story Understanding' *Journal of Educational Research*, Vol. 95, No. 3, pp. 179-191

Science Writing Heuristic:
Burke, K.A., Greenbowe, T.J. and Hand, B.M. (2005) Excerpts from 'The Process of Using Inquiry and the Science Writing Heuristic', prepared for the Middle Atlantic Discovery Chemistry Program, Moravian College, Bethlehem, PA June 5 and 6, 2005

Gunel, M., Hand, B.M. and Prain, V. (2007) Writing for Learning in Science: A Secondary Analysis of Six Studies *International Journal of Science and Mathematics Education*

Raising achievement in writing through action research

We chose this case study because it underlines the view that no one method suits all children, and shows how action research can help teachers decide which strategy to adopt. It also highlights the importance of professional development that supported the teachers in their work. The Croydon Writing Project, on which the case study is based, involved fifty teachers working with over a thousand children on writing in a number of schools in Croydon. The overall aim of the project was to to raise standards in writing at Key Stages R, 1 and 2.

What were the main features of the programme?

The project was an action research programme, and teachers responded to the needs of their pupils in different ways. How the teachers did this is illustrated by four mini case studies.

William, Reception

Initially William wrote few letters and words and was unwilling to try words he did not know. His teacher noticed that he enjoyed taking part in activities with other boys, and recalled the findings of the writing project, which found that working with other boys helped improve the motivation of reluctant readers. She placed William and two other boys in a group to work together on a dinosaur story. They made a dinosaur model out of Duplo and then drew and wrote a story about dinosaurs together. William talked imaginatively about dinosaurs while he worked; later he wrote with enthusiasm, and began to use new words.

Carol, Year 1

Carol was a skilled reader (level 3) but not a good writer. At the beginning of the year the teacher gave all the pupils a journal in which they could write whatever they liked for the teacher. Carol's writing had always been 'very neat, and rather dull', but in the journal she wrote 'quickly, untidily, and with verve'. She wrote about things that mattered to her, and as she did so she applied what she had learnt in the Literacy Hour, such as using capitals and exclamation marks for effect. The teacher wrote comments in Carol's journal, about grammar and punctuation, but also about things that really mattered to Carol. This seemed to really motivate Carol.

Letitia, Year 3

Letitia achieved level 3 for reading at the end of Key Stage 1 but only 2B for writing. Her teacher noted that Letitia wrote as little as possible, and without enthusiasm. The teacher recalled a project finding that able readers developed great enthusiasm for reading when they talked with other children about the books they were reading. She put the children in small groups so they could plan and write together. Letitia organised her group, and together they wrote a script that followed play script conventions and showed imagination and enthusiasm. A visiting author told the children that he worried about spelling and punctuation only at the final editing stage. Letitia responded by writing a long story, staying in at playtimes to work on it, and choosing able spellers as editing partners.

Nelson, Stavros, Glen and James, Year 6

The Year 6 teacher focused on four boys who were reluctant to write. To try to encourage them, the teacher gave each pupil a writing journal in which they could write whatever they liked. They could write on their

own or with others; they could read their work aloud if they wished, and they could decide whether or not to share their journal entries with the teacher. Over the period of the research the children's writing grew more informed and sophisticated. They enjoyed hearing work read aloud, and took on ideas for their own writing. Interviewed later, one child explained: 'It gives you confidence, hearing other people's ideas.' In the Year 6 national tests at the end of the research, all the pupils in the class, including the four boys, who had all been forecast a level 3, achieved a level 4 in English.

What professional development activities did the teachers undertake?

The Writing Project was an advisory teacher-led Action Research Project based on a number of professional development activities including:

- a 12-session programme of INSET led by the Project Advisory Teacher. This involved training in research methodology and the teaching of writing
  undertaking case studies, including observation of their pupils
- talking and writing about their research at INSET sessions and sharing ideas, and
  trialing new ways of teaching writing in the classroom.

Throughout the project, teachers developed and adapted ideas from colleagues to trial in their own classrooms. Teachers submitted their work for accreditation at Advanced Certificate level or at postgraduate Diploma level depending on their experience of action research.

What factors did the project teachers identify for improving children's writing?

Observations of pupils' progress during the project suggested that a number of factors enabled the children to improve their writing:

- being able to work on texts with others, boys found this particularly helpful
- writing about what matters to them using journals
- having enough time to get to know the texts so that they write as experts
- experiencing teachers' genuine response to their writing
- input from a writer in the outside writing community
- being able to experiment with different genres and print conventions.

What data did the teachers collect and how did they use it?

Assessments were made of the children's writing skills at the beginning and end of each module. All Key Stage 1 and 2 teachers assessed their children using Writing Scales developed by the Centre for Language in Primary Education. Evidence was collected from:

- teachers' written portfolios
- classroom observations
- interviews with the children.

What did the programme achieve?

At the end of the first year of the Writing Project 72 per cent of the children had improved by at least one level on the CLPE Scale. Of these children, 73 per cent of girls and 71 per cent of boys moved on at least one level.

Reference

Graham, L. Raising achievement in writing through action research. Paper prepared for the TTA/DfEE Teacher Research Conference, 7 March 2001
Back to top

Further reading

The study

Writing next: Effective strategies to improve writing of adolescents in middle and high schools - A report to Carnegie Corporation of New York.
http://www.centerforcsri.org/research/improvement.cgi?st=s&sr=SR005385

Related research

Argumentative non-fiction writing
http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=711
Teaching argumentative writing non-fiction writing to 7-14 year olds: A systematic review of the evidence of successful practice

Grammar teaching (1)
http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=231
The effect of grammar teaching (sentence combining) in English on 5-16 year olds' accuracy and quality in written composition

Grammar teaching (2)
http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=229
The effect of grammar teaching (syntax) in English on 5-16 year olds' accuracy and quality in written composition

ICT and writing
The effectiveness of different ICTs in the teaching and learning of English (written composition). A systematic review of research.
http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=264

Other references

Bearne, E. and Warrington, M. (2003). *Raising boys' achievement*. Literacy Today, No. 35

White, C. (2000) 'Strategies are not enough: The importance of classroom culture in the teaching of writing'. *Education* 3-13, 28 (1), pp. 16-21.

Understanding low achievement in English schools
http://sticerd.lse.ac.uk/case/publications/papers.asp

Sharples, M. (1999). *Writing as Creative Design*. London: Routledge.

Graves, D.H. (1983) *Writing: teachers and children at work*. London: Heinemann.

Resources

Children's story writing website
Contains an online interactive story writing tool and text analysis tool, tips for writing effective stories, and a

library of stories written and submitted by children.
http://www.midlandit.co.uk/education/

Related research

Myhill, D., Fisher, R., Jones, S., Lines, H. and Hicks, A. (2008) Effective Ways of Teaching Complex Expression in Writing - a Literature Review of Evidence from the Secondary School Phase. DCSF: http://education.gov.uk/publications/standard/publicationDetail/Page1/DCSF-RR032
Back to top

Appraisal

Robustness

The authors of this study collected, categorised, and analysed experimental research studies on adolescent writing instruction in order to determine which elements of existing teaching methods are effective. They used meta-analysis, a powerful statistical method which provides a measure of effectiveness using the effect size statistic. The technique enabled the researchers to determine the consistency and strength of the effects of different teaching practices on student writing quality. They then highlighted in their report those practices that held the most promise. Evidence for each practice was provided by at least four studies undertaken in a range of contexts and with a variety of age ranges (between ages 9-17 years) although the researchers highlighted the lack of studies investigating low-income, urban, low-achieving writers. The findings were cumulative in that they built on earlier meta-analyses of writing instruction.

By their very nature, meta-analyses are concerned with quantitative data. Consequently, the researchers did not report on other types of studies, such as observational studies of the writing practices of effective teachers of writing, or studies that measured the correlations between writing performance and particular teaching procedures. The authors focused primarily on research which showed improvement in writing quality as the outcome. Writing quality was defined in terms of coherently organised essays containing well-developed and pertinent ideas, supporting examples, and appropriate detail The only exceptions involved studies examining the teaching of summarisation, in which completeness and accuracy of summaries were assessed, and writing-to-learn studies, in which content learning was the outcome measure.

The report focused on all students, not just those who displayed writing difficulties on the premise that all students need to become proficient and flexible writers. In the report, the term 'low-achieving writers' was used to refer to students whose writing skills were not adequate to meet classroom demands. Some of these low-achieving writers were identified as having learning disabilities; others were the "silent majority" - students who lack writing proficiency, but who do not receive additional help. Some studies investigated the effects of writing instruction on groups of students across the full range of ability, from more effective to less effective writers. Others focused specifically on individuals with low writing proficiency.

The report identified eleven elements of current writing instruction found to be effective for helping students learn to write well, and to use writing as a tool for learning. These included prewriting supports, teaching students strategies for planning, revising, and editing their compositions, collaborative writing (which involves students working together to plan, draft, revise, and edit their compositions), sentence combining (which involves teaching students to construct more complex, sophisticated sentences) and the process writing approach (which interweaves a number of writing instructional activities in a workshop environment that stresses

extended writing opportunities, writing for authentic audiences, personalised instruction).

All of the teaching elements were shown to have clear results for improving students' writing, but the report indicated that no one strategy was sufficient by itself. The researchers pointed out how they are capable of being combined in flexible ways to strengthen students' literacy development. They also pointed out that although all of the elements are supported by rigorous research, they do not constitute a full writing curriculum, even when used together.

Relevance
It is fundamental that all students learn to write well and flexibly. Most contexts of life (school, the workplace, and the community) call for some level of writing skill. Helping young people, especially low-income, low-achieving writers to write clearly, logically, and coherently about ideas, knowledge, and views will expand their access to higher education, and help them to progress and develop at work. It will also increase the likelihood of them participating actively in society.

Applicability
The report will enable teachers to select the practices they consider to be most appropriate, either for whole classrooms, small groups, or individual students. In an ideal world, teachers would be able to incorporate all of the eleven key elements highlighted in the report in their everyday writing curricula, but the list could be used to construct a blend of elements suited to specific student needs. It is important to realise that the elements are interlinked. For instance, it would be difficult to implement the process writing approach without having peers work together or use prewriting supports. The researchers suggest that a mixture of these elements is likely to generate the biggest return. They also highlight how writing intervention is most effective when matched to students' needs. Not all elements will necessarily be effective with all students and all teachers. It is also important to remember that sometimes positive results may not be seen immediately; implementing new practices may require a significant investment of time to reveal their full potential. Once an intervention begins, assessment and diagnostic teaching will be necessary to examine its effects.

Writing
The report is written in a readable style and is well signposted into sections with subheadings. Key terms are defined. The researchers helpfully provide brief descriptions of each of the identified practices, presented in boxes. Each description is drawn from one of the studies included in the review for which reference details are given. Full details of the research methodology (including the selection of studies, the categorisation and coding, and the calculation of effect sizes) are provided in an Appendix together with details of all the 133 studies (including their effect sizes) reported on in the review.Back to top

CPD leader resources

Research evidence
The authors of this study summarised in the RfT (Strategies for improving pupils' writing skills) found a number of writing strategies were effective at improving pupils' writing performance. These included:

- pre-writing supports
- teaching pupils strategies for planning, revising, and editing their compositions,

- collaborative writing (which involved pupils working together to plan, draft, revise, and edit their compositions)
- sentence-combining (which involves teaching pupils to construct more complex, sophisticated sentences), and
- the process writing approach (which interweaves a number of writing instructional activities in a workshop environment that stresses extended writing opportunities, writing for authentic audiences, personalised instruction).

All of the teaching elements were shown to have clear results for improving students' writing, but the report indicated that no one strategy was sufficient by itself.

The researchers also found that traditional, explicit teaching of grammar and sentence structure on its own had a significant (if small) negative effect on the quality of pupils' writing, compared with studies in which it was taught in the context of writing. They suggest that alternative procedures such as sentence-combining are more effective than traditional approaches for improving pupils' writing.

How could I assess and explore differences in my pupils' writing?
Below are two tools that researchers used to explore differences in writing quality/maturity when pupils were 'conferenced' as they wrote stories on the computer. The pupils were prompted at intervals throughout the process of writing their story to think about a variety of elements of successful story writing, such as different ways of starting a story (description, action or dialogue), and more sophisticated sentence construction and vocabulary.

The researchers looked for qualitative and quantitative evidence. Qualitative features included use of literary devices such as similes, imaginative language and the story structure. Quantitative features included the total number of words written, frequency of common words and connectives and average sentence length etc. The researchers compared the writing quality before, during and after the intervention for individual pupils. The stories included:

- a story written without any help
- a story written whilst receiving help
- another story written without any help.

All the stories were written over a five-week period.

Quantitative analysis

For the quantitative analysis, the study made use of a computer tool (available at www.midlandit.co.uk/education) that calculated certain features of stories written in MS Word to enable an objective comparison of the differences in maturity of pupils' writing before and after the intervention. The indicators covered three aspects of writing - sentence construction, vocabulary and punctuation, to try to detect the following signs of increasing maturity:

- movement from limited vocabulary, with imprecise and general meaning, to a vocabulary which has a greater precision
- development from simple to complex sentence constructions, taking into account how mature writers control their sentence structures and apply them appropriately, and
- increased accuracy with punctuation.

The indicators (which were derived from research evidence) included:

Feature calculated by the computer	Reason

Total number of words in the story	a longer story indicated a more developed story
Number of different words used in the first 100	repetitive vocabulary was a sign of immature writing
Common verbs used (said, went, got, get, was, were) as a percentage of total number of words	as a sign of immature/mature vocabulary used
Number of different words with more than 5 characters as a percentage of total words	the most basic sentence connective used by children
Number of 'and's used as a connective as a percentage of the total words	the most basic sentence connective used by children
Other basic common connectives (but, so, then, because) as a percentage of the total number of words	an indication of immature sentence constructions
Percentage of sentences started with personal pronouns (they, he, she), and the definite article (the)	an indication of immature sentence constructions
Mean sentence length	the longer the sentence the less accurate the use of full stops
Commas used as a percentage of mean sentence length	indicating the presence of correctly demarcated complex sentences - a sign of mature writing

Qualitative analysis

Qualitative analyses were made based on the criteria in the table below.

Structure and Organisation	Punctuation	Style
• Some basic elements of story structure are present. • There is an opening. • More than one character. • Two or more events are related in chronological sequence. • Story language is used e.g. 'One day' and 'suddenly'. • Minimal development of setting and characters. • Minimal dialogue. • Story may not have an ending other than 'The End'.	• Some sentences are demarcated by capital letters and full stops.	• Uses basic words like big, nice, got, went. • Non-specific vocabulary (make do, got, thing, someone etc) • Simple connectives eg. and, so, then.
• The writing has a beginning, middle and ending. • Events are related to one another, though not necessarily well-paced. • There is some description of the setting or character's feelings.	• Full stops and capital letters are used accurately in half the sentences. • Other sentences are properly structured even if punctuation is incorrect. • Nouns and verbs generally agree.	• Some connectives other than 'and ' and 'so' are sometimes used to help develop complex ideas (eg. but, also, because). • The writer is beginning to select vocabulary to create an effect. • There is some significant use made of adjectives and verbs to enhance the quality of the writing.
• The events progress logically and the story is lively and well paced. • The writing has a clear beginning, middle and ending, with the beginnings of paragraph divisions. • There is some significant interaction between the characters and characterisation is evident through speech.	• Most sentences use capital letters and full stops. • Dialogue (if used) is properly punctuated and uses speech marks. • Question marks and/or exclamation marks are used accurately. • Sufficient commas are used to allow meaning to be clear.	• Well chosen vocabulary. • There is a sensible use of connectives (eg. if, when, rather, than, although, however, as). • Sentences are often complex with ideas qualified by subordinate clauses or phrases. • Some expansion before or after the noun (a shiny blue machine). • Pronouns and tenses are generally consistent.

• The story has an opening which captures the reader's attention through the use of different narrative techniques e.g. dialogue, action, description and flashback. • The passage is well developed and shows a secure grasp of the chosen form of narrative eg. adventure or fantasy etc. • Paragraphs are used effectively. • There is an unpredictable turn of events and a satisfying ending. • Conclusions follow on logically from all that has been said earlier. • Dialogue (if used) is convincing and helps develop the characters. • The writer makes comments on the action or indicates the thoughts/feelings of the characters.	• Punctuation is virtually wholly accurate. Commas are used to separate elements of a sentence and lists. • A range of punctuation - speech marks (including comma to introduce/conclude speech), question marks, exclamation marks, apostrophes and brackets are used and enhance the quality of the writing.	• Language is imaginative and effective throughout. • Ideas, settings and characters are well described. • Varied sentence structure is employed including the use of questions, short simple sentences and complex sentences which include adverbial phrases and/or expansion. • Appropriate poetic effects, similes or metaphors are used. • Deliberate patterning of words for effect eg. by use of alliteration.
• The story is well constructed, in an appropriate form and shows the development of a theme (controlling idea) as well as a plot. • The mood or moods of the piece are clear. • Detail and sequence are confidently managed to engage and sustain the reader's interest through eg. the management of surprise, use of non-linear time line, the inclusion of conflict or relationship between characters and reflection of characters and actions. • Ideas, including dialogue, are organised appropriately into paragraphs. • Dialogue, action and description are skilfully interwoven. • There is a strong ending.	• Sustained accurate punctuation, with variation in clause length. • Commas used to avoid ambiguity in sentences. • Brackets, dashes, colons, semi-colons used to introduce explanations, examples, lists etc.	• Precise and varied use of vocabulary. • Varied choice of verbs (clambered/plodded) and adverbs (reasonably well behaved children) to give shades of meaning. • Deliberate alteration of word order for effect eg. 'over it went, vase and all'. • Deliberate patterning for emphasis and rhythm eg. 'the thunder roared, lightning flashed and the rain began to pour'. • Characterisation through dialect, slang or colloquialism as needed. • Similes, metaphors, personification or hyperbole are used.

How might I make use of these tools?

You might like to use these tools to help you gather evidence for your own enquiries. For example you might explore:

- What effect does using a particular combination of writing strategies have on my pupils' narrative writing?
- Do my pupils write better stories when I use a particular combination of writing strategies? In what ways are the

stories better?

Find out more

Children's story writing website

Case study 4 of RfT 43 Writing Strategies: An innovative approach to revising and editing

Case study 2 of RfT 17 Effective teachers of literacy: Conferencing with HARRY - a computer tutor for story writing

Holdich, C.E. Holdich, R.G. and Chung, P.W.H. (2002) Assessing aspects of children's written grammar: automating the process. *Computers and Education* Vol 39 pp. 37-50

Holdich C.E. and Chung P.W.H. (2003) A 'computer tutor' to assist children develop their narrative writing skills: conferencing with HARRY. *International Journal of Human-Computer Studies* Vol 59 pp. 631-669

Holdich, C.E., Chung, P.W.H. & Holdich, R.G. (2004) Improving children's written grammar and style: revising and editing with HARRY *Computers and Education* Vol 42 pp. 1-23

Back to top