Evidence-based teaching of writing: Intervention at primary school

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Abstract

Writing skills are important for educational achievement, employment and social and civic participation. This quasi-experimental study aimed to improve writing skills with an evidence-based intervention in two classes of mainstream P6 (grade 5) students (N=44) in two schools in a largely rural local authority (school district) in Scotland. The intervention included peer revision of each other’s texts with a programme of strategy instruction and self-regulation. The control students (N=46) followed an on-going parallel intervention. The experimental programme led to large positive effect sizes for writing quality. This was the first study to investigate peer review with writing strategy instruction and self-regulation as an evidence-based intervention. Implications for practice and future research are discussed.

Keywords: writing skills, writing strategy instruction, self-regulation, intervention, elementary school

The value of writing is self-evident, particularly with regard to education. It is often used to assess learning and difficulties in this area can create barriers to educational achievement or apparent educational achievement (European Commission, 2012). As information technology grows more pervasive, writing skills are becoming increasingly important for civic participation and employment (European Commission, 2012). Moreover, writing has social and spiritual purposes, as Graham and Harris (2013) put it: “We use writing to share information, tell stories, create imagined worlds, explore who we are, combat loneliness, and chronicle our experiences.” (p.5). However, over a third of upper primary and over half of lower high school Scottish students did not attain the required writing standards in 2016 and standards have been in decline for four years (Scottish Government, 2017). The Scottish Government’s National Improvement Framework (Scottish Government, 2016) stated “…we need to ensure that we embed evidence-based approaches in our activities.” (p.22, 2016). This proposal was made in a context of reduced spending on education in recent years (MacNab, 2018), which means resources that are available should be used effectively.

This study aimed to improve the non-fiction writing skills of mainstream upper primary (elementary) school students. It took place in a largely rural local authority in Southern Scotland which was mid-range on measures of deprivation.

Evidence-based Writing Practices Relevant to the Study

The writing practices used in this study were intended to be based on evidence of effectiveness. Consequently, a review of relevant studies was undertaken following a literature search. Those with practical challenges, such as the requirement for IT equipment (Lowther, Ross and Morrison, 2003) or perceived difficulties in sourcing resources (Jampole, Mathews and Konopak, 1994) were discounted.

Meta-analyses by Graham, McKeown, Kiuhara and Harris (2012) and Graham and Perin (2007) both found the most effective intervention to improve writing quality was strategy instruction with self-regulation. This approach provides students with knowledge of writing, skills in the writing process and the skills to monitor and manage their own writing (self-regulation) (Harris and Graham, 2009). An important feature of this approach is the teaching of self-regulatory skills through modelling (Schunk and Zimmerman, 1997).
Modelling alone has been shown to be as effective as direct instruction in improving writing quality (López, Torrance, Rijlaarsdam, and Fidalgo, 2017). These two meta-analyses also highlighted the effectiveness of peer assistance in improving writing skills. By contrast, the meta-analysis by Koster, Tribushinina, de Jong and van den Bergh (2015) calculated goal setting, including process and product goals to be the most effective interventions to improve writing performance, although this was followed by strategy instruction and they too found peer assistance to be an effective approach.

It was decided to intervene at P6 (5th grade) as P7 students would be in the process of high school transition. An evidence-based intervention was developed, the six-week Write Away programme, which included strategy instruction and self-regulation strategies with the addition of peer revision. Combining peer assistance with strategy instruction and self-regulation was logical given the effectiveness found in meta-analyses (Graham et al., 2012; Graham et al., 2007). Peer revision has also been shown to have large impacts on writing quality (Boscolo and Ascorti, 2004) and might support the development of students’ awareness of the reader, as seen with a more knowledge transformational approach which emphasises the importance of rhetorical goals (Bereiter and Scardamalia, 1987). Similarly, leaving time between drafting and revising has been advocated for improving quality (Ogilvy, 1982 quoted in Usher, 2014) and was part of a successful writing intervention, which included the teaching of genre features (Hoogeveen, 2012). This might help the writer see the text as if they were the audience.

The programme shared many features with Cognitive Self-Regulation Instruction (CSRI) (Torrance et al., 2007) and Self-Regulated Strategy Development (SRSD) (Harris and Graham, 2009), such as the activation of prior knowledge at the start of the intervention. Similarly, mnemonics were used, as they have been shown to help students remember product goals (De la Paz, 1999; Fidalgo, Torrance and Garcia, 2008) and product goals have been shown to be effective at improving writing quality (Graham and Perin, 2007; Rogers and Graham, 2008). Process goals have also been shown to improve writing quality (Schunk and Swartz, 1991, 1993). The first mnemonic was based on Fidalgo, Torrance and Lopez-Campelo’s (2017) Spanish language mnemonic “OAIUE” (Objective, Audience, Ideas, Unite ideas, Scheme (Esquema)). An important part of the intervention was strategy instruction in planning, drafting, revision and editing alongside self-regulation (Torrance et al., 2007; De La Paz, 1999; Fidalgo et al., 2008, Graham et al., 2007; Rogers et al., 2008). As in CSRI and SRSD, the students used a graphic organiser while planning (Fidalgo et al., 2015; Harris, Lane, Graham, et al., 2012). They also watched the process of planning modelled as a “think aloud” (p.40, Fidalgo et al., 2015). Teacher modelling is also an essential part of SRSD (Harris, Lane, Graham, et al., 2012). The mnemonic REA/D was also provided (re-read, evaluate, alter/delete) to support revision. This was based on Torrance et al.’s LEA (read, evaluate, act) (2007), although there was an emphasis on making changes to affect content quality since there was an additional step of editing. Finally, the students wrote a second essay to reinforce the process but without the modelling by the teacher or the same degree of collaboration, in order to increase independent use of the strategies (Santangelo, Harris and Graham, 2008; Torrance et al., 2007).

The intervention had a number of distinctive differences from CSRI (Torrance et al., 2007) and SRSD (Harris and Graham, 2009). Firstly, students did not create their own self-regulatory statements, as it was felt that this would be difficult in a class and they would be able to develop self-regulation through observational learning (Schunk et al., 1997). Secondly, unlike Torrance et al. (2007) and Fidago et al. (2008), think-alouds were not used by the students when collaborating. Baaijen, Galbraith, and de Glopper (2014) highlighted the importance of writer beliefs about writing. Writers with high transactional beliefs view writing as an emotional experience which involves the development of understanding as text
is produced, while those with low transactional beliefs believe ideas are not developed during the course of writing. Those adult students with high transactional beliefs saw no increase in writing quality of academic texts when instructed to make an outline plan, while those with low transactional beliefs did demonstrate better writing quality when they had to produce an outline plan. Being unaware of their beliefs about writing, the students were told that although expert writers tend to plan they did not need to do this at length, provided they spent enough time on revision. The planning stage included collaboration, while discussing possible content, then explaining their individual graphic organisers to each other (personal correspondence, S. De La Paz, 23rd November 2015, in relation to De La Paz, 2005). This was in contrast to CSRI, where students in pairs take turns to think aloud as they perform the task while the other student provides feedback (Torrance et al., 2007). De La Paz (2005) reported using an SRSD approach and the students collaborated at the planning stage. However, SRSD emphasises collaboration between the teacher and the student/s rather than students with a teacher present, to ensure they are using the strategies, although teachers are invited to encourage collaboration between peers (Harris, Lane, Graham, et al., 2012, associated online materials).

In addition, revision at the text rather than word level (like spelling) leads to greater improved writing quality (Zhang, 2001) and so revision and editing were separated, with the less demanding editing (punctuation, grammar, spelling) coming after revising. This is in contrast to Torrance et al. (2007) and Fidalgo et al. (2008) who included editing within revision and Fidalgo et al. (2015) who did not include revision at all. Similarly, Brunstein et al.’s (2011) and Glazer et al.’s (2007) use of SRSD in Germany included revision, encompassing editing and revision, but there was no peer collaboration. The intervention here, by contrast, included peer revision (Boscolo and Ascorti, 2004). This involved students revising their own work then each other’s work, rather than only revising their own work while thinking aloud as with CSRI (Fidalgo et al., 2008). Furthermore, peer revision continued following the teaching phase to reinforce the learning so far and provide opportunities for students to develop their understanding of the reader’s viewpoint and so perhaps work more in a knowledge transforming way (Bereiter and Scardamalia, 1987).

Summary
The teaching of strategy instruction with regulation has been shown to improve writing quality (Torrance et al., 2007; De La Paz, 1999; Fidalgo et al., 2008, Graham and Perrin, 2007; Rogers et al., 2008), as has the use of peer assistance (Graham et al., 2012; Graham and Perrin, 2007). Peer revision alone has improved writing quality (Boscolo and Ascorti, 2004). Revision at the text rather than word level (like spelling) leads to greater improved writing quality (Zhang, 2001). Similarly, product goals (Graham and Perin, 2007; Rogers and Graham, 2008) and process goals (Schunk and Swartz, 1991, 1993) have been found to be effective at improving quality and mnemonics can help students remember them (De la Paz, 1999; Fidalgo, Torrance and Garcia, 2008). In addition, activation of prior knowledge and increasing independent use of the strategies taught have been features of very successful interventions such as CSRI (Torrance et al., 2007) and SRSD (Harris and Graham, 2009). All of these features were included in the intervention in this study.

Theoretical Models of Writing
When devising the intervention, it was important to also consider different models of writing. An influential model of writing was devised by Hayes and Flower (1980). They made clear that this was a model of competent writers. It comprised of three major parts: the task environment, the writer’s long-term memory and the writing process. This was further revised by Hayes in light of research twice (1996, 2012). The Hayes model (2012), with three levels of control, process and resource can accommodate the self-regulation model of Zimmerman and Risemberg (1997), which highlighted the environmental, behavioural and
covert ways in which self-regulation can be utilised. Moreover, they each refer to goal-setting, both for product and process, which is in the intervention for this study. In addition, the Hayes model (2012) complements the knowledge-telling model for novice writers of Bereiter and Scardamalia (1987). Hayes’ model (2012) is a broader model for competent writers than the knowledge transforming model proposed by Bereiter and Scardamalia (1987). Hayes (2012) includes resources, such as memory and reading, which are perhaps implicit in Bereiter and Scardamalia (1987) and introduces motivation and collaborators/critics. Although the Hayes model (2012) refers to memory it does not mention content specifically, unlike Bereiter and Scardamalia (1987), however, discourse knowledge is included within the writing schemas element. Similarly, it allows for knowledge transformation but does not make the process for that explicit. Hayes includes planning, writing and revising goals but sees these as being ultimately delivered through the same writing process. While Zimmerman and Risemberg (1997) saw protocols for planning and revising texts as part of self-regulatory cognitive strategies, and these were included in this study. Galbraith’s model (2009) shows how understanding can be improved through writing in university students and that outline planning can impede this (Baaijen and Galbraith, 2018) but improve text quality. Since the focus of this study is to improve writing quality in novice writers it is appropriate to provide instruction in planning but they were free to spend varying amounts of effort on that.

In addition, McCutchen’s model (2011) provides a mechanism for expertise development via linguistic skill and writing-relevant knowledge increases and improved access to long term memory resources via retrieval structures in long-term working memory. So, working on these areas should help novice writers improve. The intervention aimed to improve linguistic skills via modelling by the teacher and through the provision of peer feedback. The peer feedback provided an audience and so not only a form of feedback but something to write for in the first place, both in terms of motivation and task environment. Considering the audience and setting rhetorical goals is an important aspect of the knowledge transforming model of Bereiter and Scardamalia (1987). The revision checklist (see appendix C) provides prompts for this, including whether the text makes sense. McCutchen describes writing relevant knowledge as including stylistic features and genre knowledge. The intervention provides explicit instruction in both of these areas, which are also supported in the Bereiter and Scardamalia’s knowledge telling model (1987). McCutchen overlooked the importance of self-regulation evidenced in expert writers (Zimmerman and Risemberg, 1997) which will also develop as writers become competent, including the use of rhetorical and content goals. Their model would predict an increase in self-efficacy in this study for the intervention groups.

**Theory and Evidence-based Practices**

Zimmerman and Risemberg’s model of self-regulation (1997) has been integral to the very effective interventions which include strategy instruction with self-regulation (Torrance et al., 2007; De La Paz, 1999; Fidalgo et al., 2008, Graham and Perrin, 2007; Rogers et al., 2008). Bereiter and Scardamalia’s (1987) knowledge telling model requires awareness of genre and discourse styles which are also part of such interventions. However, the formation of rhetorical goals within the knowledge transforming model necessitates an awareness of the audience. It is not clear whether strategy instruction leads to this, although revision could provide a tool for improving texts in line with such goals. Peer assistance with revision has been shown to improve writing quality (Boscolo and Asciorti, 2004), but how far this goes in helping novices construct notions of their audience rather than only improving editing and ensuring genre features and style are appropriate is unclear.

The writing model of Hayes (2012) suggests that planning, writing and revising goals and improving transcription will improve writing quality and highlights constraints on
writing such as memory and reading skills. Learning steps to follow supported by mnemonics held in long-term memory, as in strategy instruction, (De la Paz, 1999; Fidalgo, Torrance and Garcia, 2008; Torrance et al., 2007) reduce the impact of memory limitations. Galbraith’s model (2009) considers the development of understanding as well as text quality and although he with others have explored this empirically (Baaijen et al., 2014; Baaijen and Galbraith, 2018) this is something that appears generally to have been overlooked.

**Research Question**

The study aimed to answer the following question:

Does the implementation of a programme of strategy instruction and self-regulation with peer revision improve non-fiction writing quality at P6 (5th grade) in two primary schools?

Further to this, the study investigated:

- The effects of the intervention on the students’ perceptions of self-efficacy at writing and enjoyment of writing.
- The students’ reported enjoyment of the interventions.

**Method**

**Design**

This study was quasi-experimental and used both quantitative and qualitative methods (Cohen, Manion and Morrison, 2011). The research was undertaken in two primary schools in southern Scotland in P6 (broadly 5th grade). To maintain anonymity these were referred to as School A and School B. Each school had an intervention and a control class. The control classes were both already following the Big Writing programme (Wilson, 2012).

Ethical approval for the study was given by the University of Dundee School of Education, Social Work and Community Education Ethics Group.

**Sample**

Participation in the study was offered to the large primary schools in the region which had two P6 only classes. Two Head Teachers responded positively. Which students received the intervention and which were in the control groups was dependent upon which teachers were delivering the intervention. The respective Head Teachers asked the teachers who would most like to take the intervention classes. In School A the female teacher expressed a preference that the male teacher took the intervention class. In School B one class had two teachers, one male and one female. They felt it would be best for the class with one (female) teacher to take the intervention.

The local authority in Southern Scotland where this study took place is one of the largest in Scotland in terms of area but not in population size, having an overall population of 150,270 in 2013 (Scottish Government, 2013). School A was located in the centre of a smaller town than School B (see Table 1). The percentage of students in P4 to P7 entitled to Free School Meals on the basis of their families’ low income in Scotland overall was 15.2% at the time of the study (McAdams, 2016). The study schools had similar if a little lower numbers of-free school meal entitlements.

**Table 1. Demographics of Schools in the Study.**

<table>
<thead>
<tr>
<th>Demographics</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population of Town</td>
<td>8,300</td>
<td>31,600</td>
</tr>
<tr>
<td>Students on Roll</td>
<td>390</td>
<td>361</td>
</tr>
<tr>
<td>Free School Meals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entitlement P4-P7 (%)</td>
<td>11.8</td>
<td>9.9</td>
</tr>
</tbody>
</table>

The age and gender of the students in the intervention and control conditions at the start of the intervention were compared (See Table 2). The average age was 127 months, i.e., 10 years 7 months. The numbers of male and female participant students were broadly the same.
The mean ages of the students in each condition were around the same for School B, but not for School A, whose intervention students were markedly younger than the controls. The school stated that this was coincidental and not the result of a policy.

Table 2. Gender and Mean Age of Participant Students.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Number of Students in the Classes</th>
<th>Number of Students with Complete Data Included in the Study (Percentage Attrition)</th>
<th>Number of Female Students (Male Students) in the Study</th>
<th>Mean Age in Months of Participant Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A Intervention</td>
<td>27</td>
<td>25 (7.41)</td>
<td>11 (14)</td>
<td>124.12</td>
</tr>
<tr>
<td>School A Control</td>
<td>28</td>
<td>26 (7.14)</td>
<td>12 (14)</td>
<td>129.84</td>
</tr>
<tr>
<td>School B Intervention</td>
<td>26</td>
<td>20 (23.08)</td>
<td>11 (9)</td>
<td>128.25</td>
</tr>
<tr>
<td>School B Control</td>
<td>26</td>
<td>19 (26.92)</td>
<td>9 (10)</td>
<td>127.37</td>
</tr>
<tr>
<td>Totals</td>
<td>107</td>
<td>90 (15.89)</td>
<td>43 (47)</td>
<td>127.38</td>
</tr>
</tbody>
</table>

Nature of the Intervention

The intervention was informed by a literature review on evidence in writing. The intervention comprised of five steps rather than individual lesson plans to enable teachers to respond flexibly to the needs of their students and timetables. The teachers delivered two lessons of one hour duration per week for each of six weeks. The amount was not higher because of the competing demands of the remainder of the language curriculum. Control classes spent the same amount of time each week on writing.

**Step One.** Students considered what extended writing they currently did in order to activate prior knowledge (Fidalgo and Torrance, 2017). Next the process goal (Schunk and Swartz, 1991, 1993) of improving their extended writing was given. How to evaluate writing using the mnemonic GRIST (Goals, Reader, Ideas, Structure and Tied together (transition words/phrases) was directly taught. Students were also supplied with some genre knowledge (Hoogeveen, 2012) about compare and contrast essays before comparing a good and a mediocre compare and contrast essay (Torrance, Fidalgo, and Robledo, 2015), since the study of good models aids writing quality (Knudson, 1989). A simple structure for use with compare and contrast essays was highlighted in the good model essay, as text structure instruction has been shown to improve writing quality (Graham et al., 1991, 2002; Fidalgo, Torrance, Rijlaarsdamm, van den Bergh and Lourdes Alvarez, 2015). Notes on the essay structure were provided to the students.

**Step Two.** The Write Away process of “Think Plan Draft Revise Edit” was described (see Appendix A). Each step in the process provided a goal. Plan, draft, revise, edit writing strategy instruction alongside self-regulation has been evidenced to raise writing quality (Torrance et al., 2007; De La Paz, 1999; Fidalgo et al., 2008, Graham et al., 2007; Rogers et al., 2008). The Think stage was to encourage students to take the time to recall the mnemonics and the writing process and to think of good content ideas. Students were told that although expert writers tend to plan they need not do this at length, provided they spent enough time revising. A real-life example of an author’s text was provided to show revisions.

To plan, the students were taught to jot down ideas before completing a graphic organiser (Harris, Lane, Graham, et al., 2012). Students were given the process goal of knowing how to write compare and contrast essays, then watched the process of planning modelled as a think aloud (Fidalgo et al., 2015). The teacher modelled self-regulation of
emotions as well as regulation in terms of working towards goals. The students were invited to discuss what they had noticed about the process, since reflection on modelling has been shown to be beneficial (Fidalgo et al., 2015). This was followed by the students planning their individual essays while receiving feedback from the teacher. The planning included collaboration at the stage of discussing possible content before the explanation of their finished individual graphic organisers to each other (personal correspondence, S. De La Paz, 23rd November 2015, in relation to the use of SRSD in De La Paz, 2005).

**Step Three.** The teacher modelled writing the first draft (Torrance et al., 2007) paragraph by paragraph using the graphic organiser and notes on structure, while continuing to self-regulate. The teacher modelled a paragraph at a time then the students wrote theirs individually, having adult feedback as they did so (Graham et al., 2012). The draft was double spaced in order to make revision easier. This was supported by their graphic organisers and a checklist of important features (see Appendix B).

**Step Four.** Revision has been shown to improve writing (Boscolo and Ascerti, 2004, De La Paz, 1999, Graham et al., 2007, Rogers et al., 2008) and the understanding of topics being learnt (Baaijen et al., 2014). This was modelled first by the teacher using think aloud. Revision then occurred, with a focus on content. This preceded editing, and with an emphasis on mechanical errors. The mnemonic REA/D was provided (Re-read, Evaluate, Alter/Delete). The GRIST mnemonic was used to support this by providing a means of evaluation. It would remind them to ensure that their work considered the goal and the reader and contained good ideas which were given in the appropriate essay structure while using transition words. The students engaged in peer revision after first revising the work themselves. This involved negotiation, with the final say being with the author (Boscolo and Ascerti, 2004). The revisions were marked on the draft. A checklist supported this process (see Appendix C). A time delay was placed between the drafting and revising to help the students see their texts as a reader rather than as the writer (Hoogeveen, 2012). In the same way the Editing process was modelled and experienced. They then considered how they had progressed towards their goals and what they might do differently the next time.

**Step Five.** The students wrote another essay to reinforce the process but without the modelling by the teacher or the same degree of collaboration in order to increase independent use of the strategies (Santangelo, Harris and Graham, 2008; Torrance et al., 2007). They continued to use peer revision (Boscolo and Ascerti, 2004) and to receive adult feedback (Graham et al., 2012). Once more, they evaluated their progress towards product and process goals.

**Control**

The teachers of both control classes reported following the Big Writing programme (Wilson, 2012. It focuses upon developing skills in grammar, handwriting, spelling and punctuation, and what is described as “‘Writing Voice’ or high-level language structures” (p.12, Wilson, 2013). Writing voice was defined as VCO (Vocabulary, Connectes, Openers and Punctuation) (p.13, Wilson, 2012). The approach involves: the use of targets in VCO the regular teaching of grammar, handwriting, spelling and punctuation; weekly opportunities for children to do extended writing independently in silence (“‘Big Write’”); the use of feedback; and termly targeted assessment tasks (Wilson, 2012). The VCO activities occur through the week (Wilkes and Pimm, 2012). The programme assumes that the school also teaches different genres of writing and purposes for writing (Andrell Education, n.d.).

**Comparison of Programmes**

The intervention and control programmes were compared in terms of foci, learning activities and teaching activities (see Tables 3 and 4 below). The intervention students had the opportunities to activate prior knowledge and to have a clear expectation about the product goal, in terms of text structure and genre knowledge. They had the strategies of planning,
drafting, revising and editing text modelled to them as think-alouds by the teachers and the opportunity to practise those skills using the support of graphic organisers and checklists. Furthermore, the modelling included the use of self-regulation. The peer revision supported the learning of these skills and provided an audience for their text so they could have feedback not just on editing, structure and genre knowledge but also on the comprehensibility of their language. The feedback would allow the students to consider whether the writing had achieved its content and rhetorical goals and amend accordingly. It therefore supported a more knowledge transforming approach (Bereiter and Scardamalia, 1987). Moreover, the students had the opportunity to provide this feedback for others and so further consider these features of good writing. The intention was for the intervention students to have relevant writing knowledge for writing compare and contrast essays, skills in the writing process, improved linguistic skills and better self-regulation while writing.

The control students worked on the mechanics of writing alongside some features of good writing, namely the use of vocabulary, connectives and openers. They also had the opportunity to plan their writing. They were expected to discuss their writing topic for homework, although whether they did this or not was not certain. This related to the content of their writing. They practised writing in silence once a week and received written feedback against criteria. The control students did not have the opportunity to revise their work, be it individually or with peers. They did not have writing processes or self-regulation modelled to them. The programme emphasised a knowledge-telling approach (Bereiter and Scardamalia, 1987). The intention for the control students was for them to have improved basic skills and knowledge of some features of good writing, alongside some planning skills.
<table>
<thead>
<tr>
<th>Focus</th>
<th>Learning Activities</th>
<th>Teaching Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy instruction</td>
<td><strong>Consider what extended writing they do in school. Learn mnemonic GRIST to support evaluation.</strong></td>
<td><strong>Activate background knowledge of students. Teach mnemonic GRIST</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Compare a good and mediocre compare and contrast essay with peers.</strong></td>
<td><strong>Provide genre knowledge of compare and contrast essays, highlight positive features of the good model essay and provide a simple structure and notes for such essays</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Listen to writing process. Look at manuscript.</strong></td>
<td><strong>Describe writing process: think, plan, draft, revise, edit. Share example of author’s manuscript to show revisions.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Observe teacher planning an essay as a think aloud then discuss with peers. Plan their essays using a graphic organiser. Collaborate with peers on possible content.</strong></td>
<td><strong>Explicit instruction in planning using a graphic organiser before modelling this to the class as a think aloud. Provide feedback.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Observe teacher drafting essay as a think aloud then discuss with peers. Draft essay double-spaced using graphic organiser as support and checklist of important features.</strong></td>
<td><strong>Model writing the draft as a think aloud the first draft using the graphic organiser. Provide feedback.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Observe teacher revising essay as a think aloud then discuss with peers. Learn the mnemonic REA/D. Revise their own essays individually before engaging in peer revision. Then repeat for editing.</strong></td>
<td><strong>Model revising the draft as a think aloud. Use the mnemonics REA/D and GRIST. Teach how to peer revise, provide checklist. Then model editing in the same way. Provide feedback.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Apply the strategies to a new essay prompt. Continue to use peer revision.</strong></td>
<td><strong>Increase independent use of strategies by setting a second essay without providing modelling. Remind students to use peer revision. Provide feedback</strong></td>
</tr>
<tr>
<td>Self-regulation</td>
<td><strong>Discuss with peers.</strong></td>
<td><strong>While modelling planning, drafting, revising and editing an essay include the modelling of self-regulation of emotions.</strong></td>
</tr>
</tbody>
</table>
Table 4. Focus, Learning Activities and Teaching Activities for the Control.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Learning Activities</th>
<th>Teaching Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>Students complete a 10 minute writing task.</td>
<td>The teacher sets a writing task in relation to phonics, spelling or punctuation each day.</td>
</tr>
<tr>
<td>(Grammar, Spelling, Handwriting, Punctuation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice</td>
<td>Students engage in whole class tasks such as improving a piece of writing using VCOP, finding VCOP in a text, adding punctuation to text, finding particular parts of speech such as adjectives or guessing the meanings of Wow Words provided by the teacher. Students also engage in paired or group activities around these themes.</td>
<td>Teach the children to use Wow words (ambitious vocabulary), connectives, punctuation and openers (opening sentences) using games and tasks. Support with wall displays and the mnemonic VCOP.</td>
</tr>
<tr>
<td>Talk</td>
<td>At home, the students talk to relatives about a topic they will be writing on the next day for the Big Writing Session.</td>
<td>The teacher sets talk homework for the night before the Big Writing Session.</td>
</tr>
<tr>
<td>Extended Writing</td>
<td>Once a week the students write in silence for 45 minutes (Big Writing Session) on the topic they discussed for talk homework after 10 minutes planning time in school. The students look at written feedback later.</td>
<td>The teacher ensures there is soft lighting and music in the background. The teacher assesses the work later using a criterion scale. The students receive written feedback.</td>
</tr>
</tbody>
</table>
Measures

**Written Tasks.** Participant students were given a written task pre and post the six-week intervention period. The two written task prompts (A and B) were administered in a cross-over design to account for any potential task bias. It was decided to select topics which would not necessitate prior academic knowledge and would be areas which one could assume students would be familiar with. Students were prompted to compare and contrast texting and phoning for Task A and playing computer games and playing outside for Task B. Which students completed which task was determined by having the students’ names in alphabetical order and having the first student designated task A, the second task B, the third task A and so on. The assessments were completed in school supervised by their teachers under examination conditions. The students had a maximum of 90 minutes to complete their assessments. Instructions to the teachers were provided.

The length, in words, of the students’ written tasks and plans were recorded. The tasks were assessed by the principal researcher using a rubric (see Appendix D). The rubric was developed by the researcher and comprised a four-point scale for the factors of opening, body, conclusion, conventions (punctuation, spelling, and grammar), transitions and language. An aggregate of these scores was termed writing quality. The Scottish Government’s Curriculum for Excellence described experiences and outcomes for writing expected by the end of P7 for most children (Learning and Teaching Scotland, 2012) (see Appendix E). Four areas are considered: enjoyment and choice, tools for writing, organising and using information and creating texts. The first area is about choice, so learning this genre of compare and contrast essay would widen the students’ repertoire. Three of the four tools for writing are covered by the rubric (see Appendix D). The writing needs to make sense and meet its purpose, as in the Language category of the rubric. It needs to be mostly spelt correctly and use appropriate punctuation, as in the Conventions category of the rubric. The text also needs to be divided into paragraphs in a way that makes sense, as in the Body category. The third area of organising and using information includes selecting ideas and relevant information and organising these appropriate to the purpose. This is reflected in the rubric’s Opening, Body and Conclusion categories. This area also refers to the use of suitable vocabulary, as in the Language category of the rubric. The final area of creating texts refers to using language and style in a way which engages the reader. Giving reasons why a topic is interesting or important, as in the Opening category of the rubric, and using a structure which makes reading easier, as in the Opening, Body and Conclusion categories of the rubric (see Appendix D) to make a text more engaging. Similarly, the Conclusion category of the rubric acknowledges the value of giving a personal view, which links to engagement but also to the goal of expressing an opinion (see Appendix E).

The rubric was initially refined following use with twenty pilot texts in order to provide clarity over in which category to place different papers. All the tasks were then assessed using the same rubric. On occasion as this assessment process progressed there were texts which demonstrated ambiguity over category assignment. A decision was made by the researcher about which category to place the text in on that aspect and a note was made of the rule. In this way, when another text had a similar ambiguity, it was clear into which category it needed to be placed. This ensured consistency.

A sample of three texts was chosen at random out of a hat for each condition, making 24 texts in total. That is, three pre and post for control and intervention for each school. An educational psychologist from a different local authority was trained in the use of the rubric and scored the texts without knowing how they had been scored by the researcher. The inter-rater reliability for Writing Quality was $r=0.88$. 

Student Feedback. The participant students were given an anonymous questionnaire pre and post-test. The Pre-Student Questionnaire had two questions. The first asked how much the students enjoyed writing. The second inquired how good they were at extended writing compared with other students in their class. Both questions were repeated in the Post Student Questionnaire. In addition, the post questionnaire had a question only for intervention students. This asked how much they had enjoyed the programme.

Teacher Feedback. The participant intervention teachers were given pre and post-test questionnaires. They were assured of anonymity. They were asked to rate statements on a 10-point scale. Teachers rated their perceived effectiveness and enjoyment of teaching writing. The post questionnaire included the same questions and was given to both Intervention and Control participant teachers. Intervention teachers had four further questions relating to the programmes’ impact, practicality and effect on their confidence.

Focus Group. Both intervention teachers agreed to attend a focus group. Three items covered some areas from the questionnaire, namely, whether student’s writing skills had improved, whether they would continue to use the programme and whether it had affected their confidence to teach writing. In addition, what the positives, challenges and adverse consequences had been about the programme were explored. Finally, comments were invited.

Implementation Fidelity.
Intervention teachers had two training sessions of two hours each, which provided a rationale for the study and opportunities to experience the different aspects of the programme, including think-alouds. They were provided with the researcher’s email address, a written copy of the programme and support materials, and an aide memoire for modelling writing (see Appendix F). The intervention teachers were asked to note against a copy of their programme the date when they delivered the different items and were invited to comment. This highlighted any areas which were reported as not implemented. Each condition was also observed once by the researcher using a schedule of fixed time interval sampling to record the number of students on task in the class every two minutes. When the groups and teachers were observed, whether or not they appeared to be working on the programme was recorded. Following the observation, the teachers were given brief verbal feedback.

Results
Descriptive Statistics

Written Task. There were large increases in overall writing quality scores for both intervention classes (see Table 5), but little change in the control classes.

The intervention classes also saw marked increases in Opening, Body, Conclusion, Transitions and Language scores. School B intervention class also had a notable improvement in convention scores.

Word Counts reduced markedly for intervention students in School B but remained around the same in the other conditions. The number of words in the students’ plans for their essays (Plan Word Count) increased greatly for intervention students in School A and a little for those in School B. Plan Word Counts remained very low for control students in School B and reduced for control students in School A.

Student Questionnaire. The students in all conditions enjoyed writing to some extent (see Table 6), although students in School B did so less than those in School A. Ratings reduced at post-test for all conditions but this was minimal for School A intervention students. Student ratings for how good they were at extended writing compared to peers reduced for all but the School B intervention students, whose ratings increased at post-test. However, they had started from a lower point than the other conditions. Intervention students in School A greatly enjoyed the programme, while the intervention students in School B gave an average rating suggesting ambivalence.
Table 5. Descriptive Statistics for Primary Schools Intervention and Control Conditions Pre and Post Written Task.

<table>
<thead>
<tr>
<th>Type of Test (N)</th>
<th>Word Count</th>
<th>Plan Word Count</th>
<th>Opening</th>
<th>Body</th>
<th>Conclusion</th>
<th>Conventions</th>
<th>Transitions</th>
<th>Language (Total Score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Pre-Test</td>
<td>Mean 187.88</td>
<td>46.50</td>
<td>1.46</td>
<td>2.65</td>
<td>1.04</td>
<td>2.23</td>
<td>2.35</td>
</tr>
<tr>
<td>(N = 26)</td>
<td>(SD) (74.14)</td>
<td>(22.29)</td>
<td>(0.89)</td>
<td>(1.17)</td>
<td>(0.19)</td>
<td>(0.89)</td>
<td>(0.87)</td>
<td>(0.68)</td>
</tr>
<tr>
<td>Post-Test</td>
<td>Mean 175.85</td>
<td>28.73</td>
<td>1.50</td>
<td>2.88</td>
<td>1.15</td>
<td>2.23</td>
<td>2.54</td>
<td>2.08</td>
</tr>
<tr>
<td>(N = 26)</td>
<td>(SD) (71.87)</td>
<td>(31.35)</td>
<td>(0.80)</td>
<td>(1.22)</td>
<td>(0.36)</td>
<td>(0.75)</td>
<td>(0.84)</td>
<td>(0.67)</td>
</tr>
<tr>
<td>Intervention</td>
<td>Pre-Test</td>
<td>Mean 218.56</td>
<td>40.92</td>
<td>1.84</td>
<td>2.28</td>
<td>1.32</td>
<td>2.00</td>
<td>2.28</td>
</tr>
<tr>
<td>(N = 25)</td>
<td>(SD) (68.04)</td>
<td>(34.20)</td>
<td>(0.83)</td>
<td>(0.66)</td>
<td>(0.47)</td>
<td>(0.75)</td>
<td>(0.66)</td>
<td>(0.61)</td>
</tr>
<tr>
<td>Post-Test</td>
<td>Mean 215.04</td>
<td>90.96</td>
<td>3.48</td>
<td>3.60</td>
<td>2.88</td>
<td>2.16</td>
<td>3.76</td>
<td>2.72</td>
</tr>
<tr>
<td>(N = 25)</td>
<td>(SD) (55.21)</td>
<td>(44.11)</td>
<td>(0.75)</td>
<td>(0.57)</td>
<td>(0.65)</td>
<td>(0.61)</td>
<td>(0.43)</td>
<td>(0.78)</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Pre-Test</td>
<td>Mean 237.05</td>
<td>0.11</td>
<td>1.68</td>
<td>1.84</td>
<td>1.21</td>
<td>1.68</td>
<td>1.89</td>
</tr>
<tr>
<td>(N = 19)</td>
<td>(SD) (63.66)</td>
<td>(0.45)</td>
<td>(0.60)</td>
<td>(0.64)</td>
<td>(0.44)</td>
<td>(0.65)</td>
<td>(0.56)</td>
<td>(0.69)</td>
</tr>
<tr>
<td>Post-Test</td>
<td>Mean 257.53</td>
<td>0.58</td>
<td>1.53</td>
<td>1.89</td>
<td>1.21</td>
<td>1.74</td>
<td>1.79</td>
<td>1.79</td>
</tr>
<tr>
<td>(N = 19)</td>
<td>(SD) (131.19)</td>
<td>(2.46)</td>
<td>(0.75)</td>
<td>(0.60)</td>
<td>(0.57)</td>
<td>(0.78)</td>
<td>(0.52)</td>
<td>(0.61)</td>
</tr>
<tr>
<td>Intervention</td>
<td>Pre-Test</td>
<td>Mean 191.8</td>
<td>1.3</td>
<td>1.35</td>
<td>1.60</td>
<td>1.40</td>
<td>1.60</td>
<td>1.70</td>
</tr>
<tr>
<td>(N = 20)</td>
<td>(SD) (222.62)</td>
<td>(5.23)</td>
<td>(0.57)</td>
<td>(0.58)</td>
<td>(0.58)</td>
<td>(0.58)</td>
<td>(0.58)</td>
<td>(0.64)</td>
</tr>
<tr>
<td>Post-Test</td>
<td>Mean 146.85</td>
<td>12.70</td>
<td>2.80</td>
<td>2.90</td>
<td>1.85</td>
<td>2.15</td>
<td>3.30</td>
<td>2.25</td>
</tr>
<tr>
<td>(N = 20)</td>
<td>(SD) (47.78)</td>
<td>(15.66)</td>
<td>(0.75)</td>
<td>(0.89)</td>
<td>(0.36)</td>
<td>(0.48)</td>
<td>(0.90)</td>
<td>(0.54)</td>
</tr>
</tbody>
</table>
### Table 6. Student Questionnaire Outcomes for Intervention and Control Conditions.

<table>
<thead>
<tr>
<th>Question</th>
<th>School A Control</th>
<th>School A Intervention</th>
<th>School B Control</th>
<th>School B Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-test</strong></td>
<td><strong>Post-test</strong></td>
<td><strong>Pre-test</strong></td>
<td><strong>Post-test</strong></td>
<td><strong>Pre-test</strong></td>
</tr>
<tr>
<td>1. How Much Do You Enjoy Writing? (0-7 Scale Where 0 = Not at All, 7 = A Very Great Deal)</td>
<td>N 26 26 25 25 21 23 21 21</td>
<td>Mean 5.16 4.65 5.72 5.64 5.14 4.43 4.43 4</td>
<td>SD 1.28 1.59 1.31 0.97 1.36 1.58 2.66 2.54</td>
<td></td>
</tr>
<tr>
<td>2. How Good Are You at Extended Writing Compared with Other Students in Your Class? (0-7 Scale Where 0 = Very Poor, 7 = Excellent)</td>
<td>N 26 26 25 25 21 23 21 21</td>
<td>Mean 4.54 4.35 5.08 4.80 4.67 4.30 3.38 4.34</td>
<td>SD 1.08 1.07 1.38 1.57 1.55 1.46 1.94 1.91</td>
<td></td>
</tr>
<tr>
<td>3. How Much Have You Enjoyed Doing This Writing Programme? (0-7 Scale Where 0 = Not at All, 7 = A Very Great Deal)</td>
<td>N A.A. A.A. A.A. 25 N.A. N.A. N.A. 21</td>
<td>Mean N.A. N.A. N.A. 6.48 N.A. N.A. N.A. 3.62</td>
<td>SD N.A. N.A. N.A. 0.64 N.A. N.A. N.A. 2.73</td>
<td></td>
</tr>
</tbody>
</table>

**Teacher Questionnaire.** A degree of effectiveness was reported in response to the prompt “I am effective at teaching writing” on a scale from 0 to 9, where 0= strongly disagree, 9= strongly agree, by the teachers, with the School A control giving the highest rating (“8”). School A intervention perceived effectiveness remained the same at post-test (“7”), while the School B intervention rating reduced slightly (from “7” to “6”). The statement “I enjoy teaching writing” elicited the same quite high ratings at pre-test for both intervention teachers (“7”) which both increased slightly at post-test (“8”). The School A control teacher rating had the same score as the intervention teachers at post-test, but the School B control rating was markedly lower (“3”), indicating a degree of lack of enjoyment of teaching writing.

The final four statements related to the Write Away programme itself and so only intervention teachers responded to the questions on a scale from 0 to 9, where 0= strongly disagree, 9= strongly agree. There was very strong agreement that they would use the programme again and very high or maximum ratings in response to the statements: “P6 students’ writing skills have improved as a consequence of the Write Away programme”, “I enjoyed teaching writing using the Write Away programme” and “The Write Away programme has increased my confidence in teaching writing”.

**Inferential Statistics**

**Mixed ANOVA for Writing Quality.** The Writing Quality (Total Score) results were analysed. A two (School: School A vs. School B) x two (Group: Control vs. Intervention) x two (Time: Pre vs. Post) mixed ANOVA was conducted with School and Group as between-
subjects variables and Time as a within subjects variable. Partial Eta Squared effect sizes ($\eta^2$) were interpreted as small = 0.01, medium = 0.06 and large = 0.14 (Draper, 2018).

For Within Subjects Effects a main effect of Time was found, $F (1, 87) = 189.72, p < .001, \eta^2 = 0.69$ indicating that changes in scores from pre- to post-test were significant and large (see Table 5).

For Between Subjects Effects a main effect of School was found, $F (1, 87) = 25.68, p < .001, \eta^2 = 0.23$. This showed that School A performed significantly better than School B and this difference was large. There was also a Main effect of Group, $F (1, 87) = 27.66, p < .001, \eta^2 = 0.24$, again showing a large difference between the intervention and control conditions.

For Interaction Effects two-way interactions between Time and School, as well as Time and Group, were assessed and a three-way interaction between Time, School and Group was tested. There was no significant interaction between Time and School, $F (1, 87) = 2.55, p = .114, \eta^2 = 0.03$. Thus, the improvement from pre- to post-test occurred irrespective of attending School A or School B, despite differences in Writing Quality mean scores between the schools.

There was a significant interaction between Time and Group, $F (1, 87) = 160.74, p < .001, \eta^2 = 0.65$. As can be seen in Table 5, the control groups did not experience a marked improvement in writing scores, however, the Intervention groups did experience a marked improvement in writing scores.

There was no significant three-way interaction between Time, School and Group $F (1, 87) = 0.01, p = .936, \eta^2 < .001$.

**Cohen’s d Effect Sizes for Writing Assessments and Student Questionnaires.**

Cohen’s descriptors were used to compare effect sizes for the different elements of the writing assessments, where d = 0.20 is small, d = 0.5 is moderate and d = 0.8 is large (Cohen and Manion, 1997). The additional descriptor of very small was added by the author for effects < 0.20 but > 0.09. Effect sizes comparing post-test and pre-test were calculated for all four conditions (see Table 7).

<table>
<thead>
<tr>
<th>Effect Size (d)</th>
<th>School A Control Post-test vs. Pre-test</th>
<th>School A Intervention Post-test vs. Pre-test</th>
<th>School B Control Post-test vs. Pre-test</th>
<th>School B Intervention Post-test vs. Pre-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Count</td>
<td>-0.16</td>
<td>-0.06</td>
<td>0.20</td>
<td>-0.28</td>
</tr>
<tr>
<td>Plan Word Count</td>
<td>-0.65</td>
<td>1.27</td>
<td>0.27</td>
<td>0.98</td>
</tr>
<tr>
<td>Opening</td>
<td>0.05</td>
<td>2.06</td>
<td>-0.23</td>
<td>2.18</td>
</tr>
<tr>
<td>Body</td>
<td>0.19</td>
<td>2.14</td>
<td>0.09</td>
<td>1.73</td>
</tr>
<tr>
<td>Conclusion</td>
<td>0.40</td>
<td>2.75</td>
<td>0.00</td>
<td>0.93</td>
</tr>
<tr>
<td>Conventions</td>
<td>0.00</td>
<td>0.23</td>
<td>0.07</td>
<td>1.03</td>
</tr>
<tr>
<td>Transitions</td>
<td>0.22</td>
<td>2.65</td>
<td>-0.19</td>
<td>2.05</td>
</tr>
<tr>
<td>Language</td>
<td>0.11</td>
<td>1.26</td>
<td>0.08</td>
<td>1.66</td>
</tr>
<tr>
<td>Writing Quality (Total Score)</td>
<td>0.22</td>
<td>2.89</td>
<td>-0.05</td>
<td>2.70</td>
</tr>
</tbody>
</table>
The School A and B interventions both had large positive effect sizes for Plan Word Count, Opening, Body, Conclusion, Transitions, Language and Writing Quality. The School B intervention also had a large positive effect size for Conventions, whereas the School A intervention had a small positive effect size. The greatest effect sizes were those for Writing Quality for both the School A intervention (d=2.89) and the School B intervention (d=2.70). By contrast, the control conditions had markedly less effect. The School A control had small positive effect sizes for Transitions, Conclusion and Writing Quality. The School B control had small positive effect sizes for Word Count and Plan Word Count, and a small negative effect size for Opening. The Writing Quality effect size was negligible and negative.

The comparison of student questionnaire mean responses at pre and post-test resulted in negative effect sizes for all conditions for enjoyment of writing (see Table 8), although intervention ratings reduced less than the control. Both control conditions resulted in moderate negative effect sizes, while School B intervention had a very small negative effect size and the School A intervention effect size was negligible. Students’ reported perceptions of how good they were at writing (efficacy) declined at post-test for three conditions: there were very small negative effect sizes for both School A conditions and a small negative effect size for the School B control. However, the School B intervention demonstrated a moderate positive effect size (d=0.49).

Table 8. Student Questionnaire Cohen’s d Effect Sizes for Intervention and Control Conditions.

<table>
<thead>
<tr>
<th>Question</th>
<th>School A</th>
<th>School A</th>
<th>School B</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How Much Do You Enjoy Writing? (0-7 Scale Where 0 = Not at All, 7 = A Very Great Deal)</td>
<td>Effect Size (d) Control Post-test vs. Pre-test</td>
<td>Effect Size (d) Intervention Post-test vs. Pre-test</td>
<td>Effect Size (d) Control Post-test vs. Pre-test</td>
<td>Effect Size (d) Intervention Post-test vs. Pre-test</td>
</tr>
<tr>
<td></td>
<td>-0.32</td>
<td>-0.07</td>
<td>-0.48</td>
<td>-0.16</td>
</tr>
<tr>
<td>2. How Good Are You at Extended Writing Compared with Other Students in Your Class? (0-7 Scale Where 0= Very Poor 7 = Excellent)</td>
<td>-0.18</td>
<td>-0.19</td>
<td>-0.24</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Further Qualitative Data

Further qualitative information was obtained from an invitation for comments on the post-test questionnaires and the focus group of intervention teachers.

Students. Three School B intervention students made simple positive comments about the programme. The majority of School A intervention students made comments and these were put into themes. The most popular themes were enjoyment (n=12) and approval of the checklist/enjoyment of checking work (n=8), e.g. “I really liked checking it over”. Other positive themes were: would like to do more of this; found it helpful/learned a lot; liked the variety of topics. Two other students made suggestions prefaced with positive comments
about the programme. These were: to have a different writing style each week and to have some WOW words (impressive vocabulary). No control students commented.

**Teachers.** The intervention teachers felt that their confidence to teach writing had improved, that the children had enjoyed the programme and the collaborative revision and editing had “had a massive impact” and reduced teacher workload.

The school B intervention teacher stated, “I feel much more comfortable teaching it because you’ve given us the training on it and we’ve talked about it and everything. Whereas, normally in writing…I don’t remember getting told how to teach writing when I was at Uni…” The school A intervention teacher had felt more confident in teaching writing before the intervention but still felt it had been helpful, remarking, “…having your training to do this type has kind of backed up what I felt I was doing and given me extras.” The teacher went on to state it had altered their teaching of writing as the teacher now appreciated the importance of revision: “What I did with my writing was I always had a plan and tried to structure it out for them but the revising and editing, that was something at the end, check it over, and it was forgotten about. Whereas, like we’ve said before, that has been a massive impact, being able to redraft it and look at it again and see the changes they’ve made. I’ll be doing that for just about every writing piece that I do next year.”

Both teachers had reported that they had not been adequately prepared to teach writing by their Initial Teacher Education. They both agreed, “It’s good to have someone telling you how to actually do it rather than just guessing.” However, the school B teacher acknowledged the challenges of delivering the programme: “The initial getting used to the mnemonics and how it’s actually presented (*modelling*) in the first couple of weeks of the programme was the most challenging part.” (Italics added). Both teachers noted that some pupils found it challenging to complete the writing assessment tasks without their usual prior discussions in class. One commented, “A lot of mine struggled with thinking of ideas for the assessment.” They reported that student writing skills had improved, although one wondered if the reduced emphasis on vocabulary and greater emphasis on “content” might have affected vocabulary use. It was noted that it did not suit all children, as some preferred fiction writing but “those that tend to struggle with creative writing really benefited from this approach!” Both teachers said they would continue using the programme.

**Implementation Fidelity**

School A intervention was delivered with a high degree of implementation fidelity as evidenced by the observation and the teacher log. The exception was that the students did not use different colour pens for revision at the time of the observation, but it was reported that they did subsequently. The students collaborated appropriately, were given ample feedback and were highly engaged during the observation (time on task 97.2%). The teacher referred to the mnemonics and used the appropriate resources during the observation. They completed the two essays required in the programme. School A control class were also highly engaged with their activities (time on task 97.4%). They followed activities and used terms from the Big Writing programme (Wilson, 2012).

The School B intervention at the time of the first observation in week two of the programme showed very limited implementation fidelity with omissions and elements done in the wrong order. The teacher seemed ill-prepared. The teacher had time-consuming personal commitments outside school at the time and this had impacted upon the teacher’s focus on the intervention. The teacher was to model the planning strategy. However, the teacher referred to a revision mnemonic which came later in the programme and did not provide the children with graphic organisers. The teacher used whole sentences rather than notes. The students completed little work. Feedback was immediately given to the teacher and a further observation made a couple of weeks later. At the time of the second observation the implementation fidelity was much improved, with the terms used correctly
and students collaborating on tasks as per the programme. The teacher modelled the revising task effectively to the class and used the appropriate mnemonics and resources. However, the students did not double space their drafts nor use coloured pens to revise. On both occasions the students were not as engaged as the other school classes had been (77.99% and 73.48%). Nonetheless, they completed the two essays required. The programme had been delivered overall with a reasonable degree of implementation fidelity. The School B control class followed the Big Writing programme (Wilson, 2012). Terms and activities from the programme were evident in the observation. The School B control class was markedly more engaged than the School B intervention class.

Discussion

Summary of Findings

The study was the first in Scotland to investigate the effect of peer revision of each other’s texts within a programme of strategy instruction and self-regulation. The Write Away intervention included peer revision of each other’s texts (Boscolo and Ascorti, 2004) in a programme of writing strategy instruction and self-regulation. The intervention had a significant, large impact compared with controls \( F(1, 87) = 27.66, p < .001, \eta^2 = 0.24 \). It had large positive effect sizes in both intervention classes for Opening, Body, Conclusion, Transitions and Language and a large positive effect size in School B but a small positive effect size in School A for Conventions (see Table 7). All of these elements were part of the experiences and outcomes for writing expected by the end of P7 for most children, i.e., in another year (Learning and Teaching Scotland, 2012). The benefits of peer revision were noted by teachers in the focus group and by some students.

Both students and teachers were invited to rate at pre and post-test their enjoyment of writing, and teaching of writing, respectively. The teachers’ ratings of enjoyment increased slightly from quite high to high ratings and one commented, “The kids have enjoyed it, I’ve enjoyed doing it.” However, intervention condition student ratings of enjoyment of writing actually fell at post-test (see Table 6). However, this was also true for the control conditions students. Furthermore, the reductions in enjoyment were markedly greater for the control conditions.

Intervention teacher ratings of effectiveness at teaching writing remained at the same quite high level for School A and dropped slightly for School B, despite both teachers reporting increased confidence to teach writing. The School A intervention teacher reported that they used revision more with writing following the study. By contrast, intervention student ratings of effectiveness dropped slightly at School A \((d = -0.19)\) but increased markedly at School B \((d = 0.49)\) (see Tables 6 and 8). The control condition in both schools was Big Writing (Wilson, 2012). This study showed that it produced a small positive effect size at School A and a negligible effect at School B for Writing Quality (see Table 7).

The students’ reported enjoyment of the interventions was also considered as part of the study. The students gave mid-range (School B) to high (School A) mean ratings of enjoyment of the programme (see Table 8).

Limitations

There were a number of limitations in this study. Firstly, the teachers were not randomly assigned to the intervention and control conditions and this may have reflected differences between them that might have had an impact. Secondly, the attrition rates were higher and the student engagement was lower at School B than at School A. Thirdly, the writing assessment was based on only one type of writing and single pre and post-test measures. There is some evidence to suggest that single measures result in larger effect sizes being found (Rietdijk, Janssen, Weijen, Van den Bergh and Rijlaarsdam, 2017). Moreover, the writing assessment tasks were each done in one sitting at the same time, thereby perhaps preventing the same degree of revision were the pupils to have had more time to reflect. In
addition, there was no maintenance measure. Finally, the timing of the intervention in the summer term, when the end of the academic year approached, might have influenced the pupils’ enjoyment of writing, which decreased for all conditions (see Table 6).

**Links to Previous Literature**

The aim of the writing intervention was to provide students with writing knowledge for writing compare and contrast essays, skills in the writing process, improved linguistic skills and better self-regulation. There were very large positive effect sizes for intervention students for Opening, Body, Conclusion and Transitions (see Table 7). The intervention students evidently improved their knowledge of writing compare and contrast essays, as they were employing features of structure and language use in order to achieve higher ratings. It meant that they had a clear product goal. This would suggest that the use of graphic organisers, checklists and the teaching of these features was important in achieving the improvements seen.

There were also large positive effect sizes for intervention students for Language (see Table 7). The mean scores for Language increased in School A from 1.84 to 2.72 and in School B from 1.40 to 2.25 (see Table 5); meaning that both intervention classes started with lower but ended with higher mean Language scores than their respective control classes. In terms of the rubric (see Appendix D) this meant their language was typically making more sense, was more varied and was beginning to be more appropriate to the audience. This improvement was not evident in the control classes. This suggests that the process of peer revision (Boscolo and Ascorti, 2004) helped students to make more consideration of whether their writing made sense to the reader and to vary their language use, not just when revising with a peer but when working independently. Considering the audience is an important aspect of the knowledge transforming model of Bereiter and Scardamalia (1987). The teacher modelling, albeit briefer, may also have contributed to this. Intervention teachers also reported that the REA/D mnemonic was helpful and mnemonics help to reduce load on memory.

Overall, this suggests that the intervention students had improved their writing through developing better linguistic skill and writing-relevant knowledge, as was posited by McCutchen (2011). Furthermore, they might have had improved access to long term memory resources for writing via retrieval structures in long-term working memory (McCutchen, 2011) as a consequence of the intervention, which would have been helpful in the context of the post-test writing assessment.

The intervention students had self-regulation modelled to them by the teachers both in terms of emotions and of using the cognitive protocols for planning, revising and editing text. The element of control is an important part of the Hayes model (2012). It is possible that they managed to regulate their emotions better but this was not measured directly in this study. Zimmerman and Risemberg’s model (1997) predicts that self-efficacy would increase alongside self-regulation. However, student ratings of writing efficacy reduced slightly at post-test for the School A intervention, although this was also true for both control conditions (see Table 6). Nonetheless, for the School B intervention, which started from a lower pre-test score, there was a moderate positive effect size on mean student ratings of writing efficacy (d=0.49 - see Table 8). The ratings of the School A control condition reduced by a similar effect size (d=−0.18) as the School A intervention (d=−0.19) and the School B control ratings (d=−0.24). This suggests the decline was related to something which affected both schools - possibly the timing in the summer term. The School A intervention students’ ratings of self-efficacy at writing had been the highest at pre-test and even with a reduction they remained the highest at post-test (see Table 6). This suggests that writing quality improvements do not necessarily result in increased student feelings of self-efficacy in writing when ratings are already relatively high. Furthermore, it shows there are limitations to Schunk et al.’s findings.
that writing quality increases following the use of self-regulation strategies which coincide with increased student writing self-efficacy.

Perhaps the School A intervention students needed more time to assimilate their new skills before becoming more confident, as they had thought they were already quite competent writers and maybe the programme had challenged that notion. By contrast, the School B intervention students had started with the lowest ratings of writing self-efficacy amongst the four conditions and that remained the same at post-test. Beginning to learn some new strategies might have made the School B intervention students more confident, but still not as confident as those in the other conditions. The four-stage competency model first described by Broadwell (1969) delineates a skills progression from unconscious incompetence to conscious incompetence to conscious competence and, finally, unconscious competence. It may be that the School B intervention students started to feel more consciously competent. It would be interesting to investigate the longer-term effects of writing interventions on student feelings of writing self-efficacy.

A further aspect of self-regulation, as described by Zimmerman and Risemberg (1997) was the use of the cognitive protocols, such as the graphic organiser and strategies for planning, revising and editing. Measures of revising/editing were not taken. However, the number of words in the students’ plans for their essays (plan word count, see Table 5) were taken at pre and post-test. Planning was also a feature of the Big Writing control intervention (see Table 4). There were large increases in mean Plan Word Counts for intervention students in School A (ES=1.27, see Table 7) and School B (ES=0.98), although intervention School B started from a much lower score (mean= 1.30, see Table 3). Mean Plan Word Counts showed a small increase for control students in School B (ES=0.27, see Table 7) but remained very low (mean = 0.58 words, see Table 5) and moderately reduced for control students in School A (ES=-0.65, see Table 7). Nevertheless, plan word counts for control students in School A (mean=28.73, see Table 5) remained higher than those in the intervention class at School B (mean = 12.70) at post-test, although they had also started higher (control School A mean = 46.50; intervention School B mean = 1.30). The control Big Writing programme saw a reduction in mean Plan Word Count in School A and very small actual increase School B over the course of the intervention period, despite planning being a feature of the programme. By contrast, the intervention led to students increasing the amount of planning they did, although how much actual time was spent on this was not recorded. The study also investigated student ratings of enjoyment of writing. These were lower at post-test for all the students but the reduction was negligible or very small for the intervention classes yet small or almost moderate for the control classes (see Table 8): the control classes’ ratings of enjoyment reduced the most. Again, this general reduction might have related to the timing in the summer term.

A new finding from the study was that a programme of writing strategy instruction and self-regulation including peer revision of each other’s texts but without student self-regulatory statements (Harris and Graham, 2009) or student think-alouds (Torrance et al., 2007; Fidalgo et al., 2008) resulted in large non-fiction writing quality improvements compared to controls ($F (1, 87) = 27.66, p < .001, \eta^2 = 0.24$).

Implications for Teacher Practice

The programme could be adapted to teach other genres, such as problem-solving, as appropriate to the curriculum. Notable numbers of primary students in the study commented on their enjoyment of peer revision and editing, which had the added benefit of reducing marking for teachers. Some elements of the programme, namely the mnemonic GRIST, double spacing, revising in different colours appeared to not be essential and could be dropped. More training might ensure that teachers implement the programme with high integrity and feel more confident to use the approach.
Implications for Future Research
The study took place in Southern Scotland. Replication in other parts of the UK and beyond would be valuable, particularly in more urban environments. The potential additional benefit of increased, good quality, information technology availability for an intervention such as Write Away deserves investigation. The intervention contained numerous elements and replication with and without some of these could help identify their value, for example the GRIST mnemonic, and peer revision versus teacher modelling. Additionally, research on longer-term follow-up is needed.

Conclusions
The research question was: Does the implementation of a programme of strategy instruction and self-regulation with peer revision improve non-fiction writing quality at P6 (5th grade) in two primary schools? The study found that implementing the evidence-based Write Away programme, which included writing strategy instruction with self-regulation strategies and peer revision of each other’s texts, had a significant, large, positive impact for non-fiction writing quality at P6 in two primary schools in Southern Scotland (see Table 5). By contrast, the control condition produced a small, positive effect in one school and a negligible, negative effect in the other (see Table 7). The control students had followed their usual Big Writing programme (Wilson, 2012).

This study demonstrated that student self-regulatory statements and student think-alouds are not necessary for large impacts to be made on non-fiction writing quality, although whether this was due to their superfluity or the addition of peer revision is not possible to say from this study. The students did observe their teachers using think-alouds while writing.

Both intervention classes started with lower but ended with higher mean Language scores for their writing than their respective control classes (see Table 5). This suggests that the process of peer revision (Boscolo and Ascorti, 2004) helped students to vary their language use and to consider the needs of the reader. Considering the audience, both for rhetorical and content goals, is an important aspect of the knowledge transforming model of Bereiter and Scardamalia (1987). The intervention students had improved their writing through developing better linguistic skill and writing-relevant knowledge, as was posited by McCutchen (2011).

The students had also been taught self-regulation. One part of this were the cognitive protocols for planning, revising and editing linked to product goals. The intervention students’ length of plans increased at post-test (see Table 5) but it is not known how long they spent on this activity and the other areas were not measured. Another aspect was of managing their emotions by seeing their teachers model this in the writing process. This was also not measured directly. Zimmerman and Risemberg’s model of self-regulation (1997) predicts that increased self-regulation leads to increased feelings of self-efficacy. Students’ reported perceptions of how good they were at writing increased at post-test for the School B intervention (d=0.49), as predicted, but declined for the control conditions and the School A intervention (see Table 8). However, the School A intervention ratings at post-test remained higher than those in the School B intervention. This showed that the use of self-regulation strategies does not necessarily result in increased student feelings of self-efficacy in writing when ratings are already quite high, unlike those seen in Schunk et al. (1991). The reduction may have been due to the time of year as it was also seen in the controls in both schools. All classes showed reduction in enjoyment of writing over the same period, although this was more marked for the control classes (see Table 6). The students gave mid-range (School B) to high (School A) mean ratings of enjoyment of the programme (see Table 6). It is worth noting that the more competent teacher in School A had students reporting higher levels of enjoyment.
The two intervention teachers agreed strongly that writing quality had been improved as a consequence of the programme and that they would be using it again. They reported increased confidence to teach writing and felt the collaborative revision and editing had “had a massive impact” while reducing their workload. Both teachers felt they had been inadequately prepared to teach writing by their Initial Teacher Education and reported details of how they would change their teaching of writing as a consequence of being in the study. However, they recognised challenges with the programme’s complexity. Increased training and coaching should be used in future and some less crucial elements, such as double-spacing, the mnemonic GRIST, revising in different colours should be removed. Trailing with other elements removed might enable further streamlining of the content without significant reductions in efficacy.

Note
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Appendix A: The Write Away Process

*Write Away Process*

**Think**
- Stop and think about what you want your text to be: GRIST

**Goal**
- What is the purpose of the task? Inform, narrate, describe, persuade? Which genre is it e.g. compare and contrast, cause and effect, persuasive, narrative?
- How will you know if you have achieved your goal?

**Reader**
- Who will read it? Think about age and experience. Take into account: language style, vocabulary, clarity, length.
- Maintain interest - varied sentences, language features, content.

**Ideas**
- What are you writing about? Think of ideas and select which to use.
- Do you have enough good content? Do you need to find out more about anything?

**Structure**
- Most texts need an introduction, development and conclusion.
- Use the structure for that genre. Ideas in paragraphs. Paragraphs in sensible order.

**Tied Together**
- Text needs to be linked. Link ideas in paragraphs and between paragraphs.
- Think of ties you might use: Firstly, secondly, thirdly...first, then, next ...and, also, in addition, furthermore...however, but, although, nevertheless...therefore, consequently

**Plan**
- Jot a BRIEF PLAN using the above. TROD: Think, Research if need to, Organise and Develop writing.
- You can alter the plan as you write.

**Draft**
- Write first draft.
- Keep the plan in mind but you don't have to stick to it. Focus on content.

**Revise**
- Improve by re-reading while drafting and at the end. If you can, put it to one side for a while before revising.
- REA/D: Re-read, Evaluate with GRIST, Alter (rearrange, add, replace)/Delete. Use peer revision.

**Edit**
- Check punctuation, grammar and spelling. Use peer editing.
Appendix B: How to Structure Your Compare and Contrast Essay

Introduction (Paragraph)
- Get the reader’s attention – say why this is important.
- Present the reader with the topic and purpose of the text.
- Perhaps list the areas to be considered.

Similarities (1-2 Paragraphs)
- Topic sentence: *Primary and Secondary Schools have some important similarities*...
- Describe the most important similarity.
- Describe the other similarities.
- Use ties to join ideas within the paragraph: *Firstly,...Secondly,... Thirdly,...Finally... or The first... In the same way,... In addition,... Furthermore,...*
- Support with evidence: examples, facts, ideas.
- Use ties to compare how alike the items are: *likewise, just as, similarly, equally, too, as well, also, both, is exactly/precisely/almost the same as*...

Differences (1-2 Paragraphs)
- Use ties to link paragraphs. *However, in contrast, on the other hand, although, on the contrary*...
- Topic sentence: *Primary is different from Secondary in a number of respects*...Describe the main difference.
- Describe the other differences, using ties to join ideas within the paragraph: *Firstly,...Secondly,... Thirdly,...Finally... or The first... In the same way,... In addition,... Furthermore,...*
- Support with evidence: examples, facts, ideas.
- Use ties to compare the items: *however, but, unlike, in contrast, on the other hand, yet, the reverse is true for..., a major difference between..., Secondary is a great deal/considerably/slightly larger (and so on) than Primary; Primary is completely/very/somewhat different from Secondary; Primary is not exactly the same as Secondary.*

Conclusion (Paragraph)
- Use ties to link paragraphs. *In conclusion,...To sum up,...*
- Summarise briefly.
- Evaluate how similar/different the two items are. Include what you have learned; Remember not to use “I”.
- Give main idea again. Perhaps make a prediction or give a personal view. *Remember to Revise and Edit: that’s what makes great writing!*
Appendix C: Revision Support Sheet

Revise to Improve Your Writing

*Tip: Leaving some time after drafting can help when revising.*

**Use READ = Reread, Evaluate, Alter/Delete**
- Re-read your writing on your own first.
- What are the best bits?
- Have the goals for the text been met?
- Will the text be suitable for the reader? Does it make *sense*?
- Do any of the ideas need changing?
- Is the writing well structured? - Introduction, development, conclusion?
- Are the paragraphs tied together? Are the ideas in each paragraph linked?
- Write on the draft what you will add or delete or *re-arrange*. You can re-arrange (move) paragraphs or a few sentences through cut and stick if you like. Alternatively use arrows.

**Editing (corrections)**
- Check spelling and punctuation (capital letters, full stops and so on).
- Check grammar (e.g. “It went” rather than “It wented”) and number agreement (e.g. “four houses” rather than “four house”; “It was” rather than “It were”).
- Use peer editing in the same way as peer revision.

**Peer revision**

*This is a useful way to improve your writing and writing skills. It means working with someone in your class. Do this after revising your work on your own.*

- Agree whose writing will be revised first.
- Revise using REA/D above.
- Remember to start with compliments. Be polite.
- Together, think about how you might change the work. Make suggestions politely rather than just saying such and such is wrong. The writer has the final say for their writing.
- The writer marks the revisions on their draft. Using a different colour helps. Use a cut and stick approach to support this where appropriate.
- You could read it aloud as a final check.
- Swap over and revise the other piece of writing.
- Edit each other’s writing in the same way.
## Appendix D: Writing Task Assessment Rubric

<table>
<thead>
<tr>
<th>Category</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opening</strong></td>
<td>• States what will be doing in the text</td>
<td>• States what will be doing in the text</td>
<td>• States what will be doing in the text or names the two items</td>
<td>• No introduction</td>
</tr>
<tr>
<td></td>
<td>• Names the two items</td>
<td>• Names the two items</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Gives a reason why this is interesting or important</td>
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</tr>
<tr>
<td><strong>Body</strong></td>
<td>• At least one paragraph on similarities</td>
<td>• At least one paragraph on similarities</td>
<td>• At least one section(2+ ideas) on similarities or at least one section (2+ ideas) on differences</td>
<td>• Ideas in body of text not in a logical order</td>
</tr>
<tr>
<td></td>
<td>• At least one paragraph on differences</td>
<td>• At least one paragraph on similarities</td>
<td>• At least one section(2+ ideas) on similarities or at least one section (2+ ideas) on differences</td>
<td>• No use of paragraph breaks</td>
</tr>
<tr>
<td></td>
<td>• Includes only information relevant to the comparison/contrast</td>
<td>• Includes only information relevant to the comparison/contrast</td>
<td>• Some paragraph breaks used appropriately</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All paragraph breaks used appropriately</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td><strong>All:</strong> Summarises briefly what has been written Judges how similar and different the items are States what has been learnt or gives a prediction or personal view</td>
<td><strong>Two of:</strong> Summarises briefly what has been written Judges how similar and different the items are States what has been learnt or gives a prediction or personal view</td>
<td><strong>One of:</strong> Summarises briefly what has been written Judges how similar and different the items are States what has been learnt or gives a prediction or personal view</td>
<td><strong>No conclusion at the end</strong></td>
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<tr>
<td><strong>Conventions (punctuation, spelling and grammar)</strong></td>
<td>• Contains one or less punctuation, spelling or grammar errors per paragraph Errors are not distracting.</td>
<td>• Contains two punctuation, spelling or grammar errors per paragraph Errors do not detract from the general flow of the essay</td>
<td>• Contains three or four punctuation, spelling or grammar errors per paragraph Errors detract from the flow and the meaning</td>
<td>• Contains more than 5 punctuation, spelling or grammar errors per paragraph Errors make reading too time-consuming</td>
</tr>
<tr>
<td>Category</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Transitions</td>
<td>• Transitions used to compare (e.g. likewise, both…) or contrast (e.g. larger, unlike, yet)</td>
<td>• Transitions used to compare (e.g. likewise, both…) or contrast (e.g. larger, unlike, yet)</td>
<td>• Transitions used to compare (e.g. likewise, and, both…) or contrast (e.g. larger, unlike, yet, but)</td>
<td>Transitions are not used</td>
</tr>
<tr>
<td></td>
<td>• Transitions used to link ideas within paragraphs (e.g. firstly…)</td>
<td>• Transitions used to link ideas within paragraphs (e.g. firstly…) or transitions used to link paragraphs (e.g. in conclusion, topic sentences for sims/diffs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>• Language is very appropriate to purpose and audience (e.g. consistent use of third person); language is clear; variety of sentences; flows smoothly</td>
<td>• Language is appropriate to purpose and audience; some sentence variety</td>
<td>• Some language is inappropriate to purpose and audience (e.g. “Let’s go”; “I’ve been told to write about…”); sentences may be very repetitive</td>
<td>• Language inappropriate to purpose and audience (e.g. may not make sense (not spelling); wrong genre); may not be proper sentences</td>
</tr>
<tr>
<td></td>
<td>• Uses variety of well-chosen adjectives and/or adverbs, verbs and nouns</td>
<td>• Varied use of adjectives or verbs</td>
<td>• Writing is simple but has a few interesting/varied verbs (e.g. communicate) or uses adjectives</td>
<td>• Writing is composed of only simple nouns and verbs (e.g. look, hear, went, phone); may use a word incorrectly</td>
</tr>
</tbody>
</table>

Use best fit. For language: aptness much more important than vocab.

For conventions: effect of the errors more important than the number of them.
Appendix E: Writing Experiences and Outcomes for Second Level extracted from Curriculum for Excellence: Experiences and Outcomes (Learning and Teaching, 2012).

<table>
<thead>
<tr>
<th>Area</th>
<th>Level 2 descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoyment and choice</td>
<td>I enjoy creating texts of my choice and I regularly select subject, purpose, format and resources to suit the needs of my audience.</td>
</tr>
<tr>
<td>Tools for writing</td>
<td>I can spell most of the words I need to communicate, using spelling rules, specialist vocabulary, self-correction techniques and a range of resources. In both short and extended texts, I can use appropriate punctuation, vary my sentence structures and divide my work into paragraphs in a way that makes sense to my reader. Throughout the writing process, I can check that my writing makes sense and meets its purpose. I consider the impact that layout and presentation will have and can combine lettering, graphics and other features to engage my reader.</td>
</tr>
<tr>
<td>Organising and using information</td>
<td>I can use my notes and other types of writing to help me understand information and ideas, explore problems, make decisions, generate and develop ideas or create new text. I recognise the need to acknowledge my sources and can do this appropriately. By considering the type of text I am creating, I can select ideas and relevant information, organise these in an appropriate way for my purpose and use suitable vocabulary for my audience.</td>
</tr>
<tr>
<td>Creating texts</td>
<td>I am learning to use language and style in a way which engages and/or influences my reader. I can convey information, describe events, explain processes or combine ideas in different ways. I can persuade, argue, explore issues or express an opinion using relevant supporting detail and/or evidence. As I write for different purposes and readers, I can describe and share my experiences, expressing what they made me think about and how they made me feel. Having explored the elements which writers use in different genres, I can use what I learn to create stories, poems and plays with an interesting and appropriate structure, interesting characters and/or settings which come to life.</td>
</tr>
</tbody>
</table>
Appendix F: Modelling Aide Memoire

Modelling Aide Memoire

Essay writing is not easy! Modelling through thinking out loud enables students to hear the inaudible thinking process. Plan in advance roughly the kind of thing you will say but do not script it. Try to keep it authentic. Ensure that the key elements below are included.

Shorten the modelling and do it in smaller chunks if attentions drift. Alternatively, switch to a collaborative whole class think aloud and involve the students more actively, asking them to share what they might think as they write.

Key Elements

- Respond to the essay prompt
- Demonstrate the strategies, linking them to success
- Refer to the Mnemonics
- Use goals
- Question yourself …then answer
- Instruct yourself
- Encourage yourself
- Manage your emotions

See example extracts below for writing a compare and contrast essay. This is not a script to follow just a flavour of how to deliver it.

It would be far better to do an essay on a topic that is relevant to what is being covered in class.
PLANNING

- Refer to GRIST mnemonic
- Jot ideas
- Perhaps research a little
- Plan using structure: introduction, similarities, differences, conclusion
- Use graphic organiser or write those headings
- Something important or interesting for the introduction

I know how to write essays... I use GRIST to start with. This will help me write a good essay. I'll write that down...now that means goal, reader, ideas, structure and tied together... (See Model Essay #2 first draft and revisions, edits below.)

Now the question says compare and contrast Primary and Secondary school...so I am trying to tell the reader of ways in which they were alike and different...This will be put in the class library and so the reader could be any one from P6 upwards. I must use language they will understand...
What do I need to do next...? I need to work on a plan, that's my first goal.

I'll jot down what I know about primary and secondary school, especially things that are the same or different.....Well, they're both places where children are taught ...secondaries are bigger and have bigger carparks.. The Curriculum for Excellence, I wonder when it was introduced? I'll look that up and put it in (2010)... (and so on).

Do I have enough good ideas? Yes, that's enough.

To organise my essay I need to use "S" from GRIST - structure. Oh good I can remember the structure for a compare and contrast essay.... You have an intro, a paragraph or so on similarities and then a paragraph on differences before writing a conclusion. (Either write intro, sims, diffs conclusion on paper so can jot down a plan or use a graphic organiser).

I need to find something interesting or important to put into the introduction... I know, children have to go to school for 11 years by law so it is certainly important... I'll put that in the introduction... That's great, I have a plan for the introduction.

Next comes the similarities part. .. What things are the same? I want to use the best ideas. I'll jot them on my plan/organiser. They are both places you go to learn. What other things are there? (open five days per week, pupil attendance recorded, much of what is taught is decided by the government
and so on). (Jot these on the plan). I’ve thought of another one… I’ve got quite a list now. That should make it easier.

My next goal is to plan the differences paragraph. Well, secondaries are a lot larger… I wonder why that is?…. Oh, I know it’s because they have more students…and they have more students so that they can provide a wider range of lessons and activities…. The other differences are (jot down: at secondary school pupils have more teachers and move between classrooms, pupils at secondary school meet more students and find new friends more easily, at primary pupils stay on the school grounds all day and so on). I wonder what this might mean for students? … Well, having the same teacher can mean that pupils develop a stronger relationship with them, however, having a range of teachers can provide more opportunities for relationships…

I’m going to think about the conclusion after I’ve written the draft intro and development. I know I’ll have to summarise what I’ve written and write what I’ve learnt. I’m not sure just yet about that last bit but writing it might help me to think more clearly so I’m not going to worry about that just now… Writing essays isn’t easy but I’m doing all right… this plan is good and will make it a lot easier to start writing… I feel quite excited.
I need to start drafting now. My goal is a first draft. If I double space it will make it easier to change it. I'll worry about punctuation later... I've put the structure in my plan already: it has to have an introduction, a similarities paragraph, a differences paragraph and a conclusion. That seems a lot, I feel a bit nervous... I'll feel better when I've got something down on paper...

It needs a title: A Comparison of Primary and Secondary School

I'll do the intro first... I need to say why the question is important and what I will be writing about... Well, I can see that on my plan/organiser I put children have to do 11 years at school at least. I can word that better...

All children must receive at least 11 years of education in Scotland. This is because the government believe it is important for everyone to have the chance to be educated... (Continue in this way for introduction)

I need to put what I'll be writing about...

There are many similarities between the two types of schools but there are also some significant differences.

Now, I need to do the similarities paragraph. I need a topic sentence. This tells the reader what the paragraph is about.

Primary and secondary schools have some important similarities.

I now give one of the similarities from my plan/organiser. Oh, I need to write in third person (he, she, it, they) for this type of essay...

They are both places where groups of children or young people are supported in their learning by teachers.

I've forgotten T from GRIST (tied together). I also need to remember to link ideas... I could use first, second, third or maybe first, in addition, likewise, furthermore... I prefer the second list but it doesn't matter. I'll change the first one...
Primary and secondary schools have some important similarities. The first of these is that they are both places where groups of children or young people are supported in their learning by teachers.

Now I'm going to look at my plan again to see which similarities to put down and I'll remember to use ties...
In addition, both are open five days per week for a fixed number of hours each day with a set time for lunch. (Continue in this way for rest of similarities paragraph)

That's looking good. Next I need to do a paragraph on differences. I need to give a topic sentence.
There are also significant differences between primary and secondary schools.

On my plan (or graphic organiser) I have the other differences so I just need to put them in good English and remember to tie them together. (Continue in similar fashion to the similarities paragraph).

That's great: I've now got a draft intro, similarities and differences. Now for some serious thinking, I need to do the conclusion. Well, the reader needs to know it is the conclusion...

In conclusion,

I now have to summarise briefly what I've already written. I should use different words. I'll read what I've already written again... I need to put something about them being similar and something about them being different. I'll just mention the important ones.

In conclusion, primary and secondary schools are similar in that they are both places for learning. However, there are significant differences in size, organisation and the freedoms granted to students.

Reading it through I realise that one reason they are different is that secondary schools try to make students more independent. Secondary students are also more mature than primary students and ready for this independence: when they leave they are practically adults.
It seems that many of these differences both reflect, and help to develop, the maturity and independence of the secondary students.

Wow! I've done the first draft. That feels better...
REVISING

- REA/D = Re-read, Evaluate, Alter/Delete
- Evaluation is key to revision
- What are the best bits?
- GRIST helps. Have the goals been met? Is it suitable for the reader? Does it make sense? Do any of the ideas need changing? Have you used the correct structure? Are the paragraphs tied together? Are ideas in paragraphs tied together?
- Use the checklist
- Write on the draft to show alterations/deletions. You can use cut and stick (either on paper or IT).

I've done a draft but I want it to be good so I'll need to revise it. I've put it aside for a day so hopefully I'll be able to spot mistakes more easily...I have to revise using REA/D but what does the mnemonic mean? Let me think...R... Re-read... I remember it now...: Re-read, Evaluate, Alter/Delete....So I need to read it all the way through again carefully and evaluate, that means decide how good it is...then change things or get rid of them.

Write on the draft what you will add or delete or re-arrange. You can re-arrange (move) paragraphs or a few sentences through cut and stick with paper or IT if you like. Alternatively use arrows. When you make a change re-read that section.

I'm going to alter the title first because this is about Scotland in particular...

A Comparison of Primary and Secondary School in Scotland

Ask the revision prompt questions to yourself.
What are the best bits? Well, I think I found some good similarities and differences.
Have the goals for the text been met? The goal was to compare and contrast. I think I've done that...but I will add in bits to improve my text as I go along.

Will the text be suitable for the reader? Perhaps the language is too hard...I'll substitute some simpler words... instead of "mandatory" I'll use "must be studied"

Does it make sense? I've missed out the word "primary"...
Do any of the ideas need changing? There are good ideas. But I will add in a thought I've just had, students find it easier to make friends at high school because there are more people with similar interests.

In the same way, pupils at secondary school get to meet many more other students and so can find new friends with similar interests more easily.

Is the writing well structured? - Yes I've done that but I think the similarities paragraph could be better. The schools being open five days a week and schools keeping a register are about the same type of thing and so should be closer together. I'll move that sentence up.

In addition, both are open five days per week for a fixed number of hours each day. Likewise, for both types of school, a record has to be kept of pupil attendance both in the morning and in the afternoon. This is called the “register”.

I could do with a last line which clinched it better. I haven't really put what I've learnt.... I must not use "I" though...

It is clear that both types of schools have an important role in educating the adults of the future.

Are the paragraphs tied together? The differences paragraph isn’t really linked on....I’ll use “however”.

However, there are also significant differences between primary and secondary schools.

Are the ideas in each paragraph linked? I need to add some more linking words and phrases to my text...like "furthermore"...

Furthermore, at primary school pupils have to stay on the school grounds all day while most secondary students are able to leave for lunch.

That sounds good!

You could now go through the checklist, ticking things off. A belt and braces approach. Not everything has to be ticked but most do! Explain that as their skills develop they will know these things without a checklist and the GRIST and REA/D mnemonics will be enough.
EDITING

• Check punctuation
• Spelling
• Grammar

So to edit I need to check spelling, grammar and punctuation. I purposely didn't focus too much on this before because it can mean I don't concentrate on the content of my writing. I'll read through again...

I've spelt “secondary” wrong... and I'm not sure about “attendance”... (You could look these up in a dictionary).

The first seven years are at primary school and this is followed by at least four years at secondary school.

Checking for capitals... proper nouns have capitals... so Curriculum for Excellence should have them....

The Curriculum for Excellence was...

I've also missed a capital at the start of a sentence.

It suggests what experiences the students should have...

I've also put “meets” but that does not make sense, it should be “meet”.

In the same way, pupils at secondary school get to meet many more other students...

And so on. Point out that if you have time you will be writing up a neat copy. There may not be time for that in an exam. Even when producing the final version changes might still be made.

Celebrate finishing the task. I'm really pleased with myself, this is a great essay. I kept calm and used the strategies. I achieved my goals. I'm a good writer.
A Comparison of Primary and Secondary School in Scotland

All children must receive at least 11 years of education in Scotland. This is because the government believe it is important for everyone to have the chance to be educated. The first seven years are at primary school and this is followed by at least four years at secondary school. There are many similarities between the two types of schools but there are also some significant differences.

Primary and secondary schools have some important similarities. The first of these is that they are both places where groups of children or young people are supported in their learning by teachers. This normally happens in classrooms. In addition, both are open five days per week for a fixed number of hours each day. Likewise, for both types of school, a record has to be kept of pupil attendance both in the morning and in the afternoon. This is called the “register”. Furthermore, much of what is taught in both types of school is decided by the government. The Curriculum for Excellence was introduced in 2010. It suggests what experiences the students should have and what skills they need to develop. The government has also decided that some subjects are mandatory must be studied. For example, all students have to study English until S4 at least. Likewise, for both types of school, a record has to be kept of pupil attendance both in the morning and in the afternoon. This is called the “register”.

However, there are also significant differences between primary and secondary schools. Perhaps the most obvious one is that secondary schools are often a great deal larger than primary schools. This is because they have many more students and have a wider range of activities available. In addition, primary school pupils generally stay in the same classroom with the same teacher much of the time whereas at secondary school pupils have many more teachers and have to move between classrooms for the different subjects. Having the same teacher can mean that pupils develop a stronger relationship with them. However, having a range of teachers can provide more opportunities for relationships and can help to encourage independence. In the same way, pupils at secondary school get to meet many more other students and so can find new friends with similar interests more easily. Furthermore, at primary school pupils have to stay on the school grounds all day while most secondary students are able to leave for lunch. Another important difference is homework: secondary students get much more of it than primary pupils.

In conclusion, primary and secondary schools are similar in that they are both places for learning. However, there are significant differences in size, organisation and the freedoms granted to students. It seems that many of these differences both reflect, and help to develop, the maturity and independence of the secondary students. It is clear that both types of schools have an important role in educating the adults of the future.