
EFFECTS OF PEER RESPONSE USING GENRE KNOWLEDGE ON WRITING QUALITY

A Randomized Control Trial

ABSTRACT

This study examined whether instruction in genre knowledge enriches students' feedback on each other's writing, resulting in better writing quality. In total 140 sixth-grade students (age 11–13) participated in the study. Two approaches to peer response with additional instruction were compared. In one condition, students were taught specific genre knowledge (SGK). In another condition, students were taught general aspects of communicative writing (GACW). Both groups were compared with a baseline control group. Students were randomly assigned to the conditions. Results showed strong effects of the SGK condition outperforming the other conditions on text quality of four posttest writing tasks. Video recordings of students commenting on each other's first drafts showed that the students in the SGK condition gave significantly more attention to the functions taught than students in the GACW condition. This finding supports the interpretation that knowledge about the genre-specific functions was actually used to improve texts.

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STUDIES have demonstrated that young writers (in primary school) need specific support during the complex writing process (Gillespie, Olinghouse, & Graham, 2013; Graham, 2007; Hayes, 2011). Without such support, they show little evidence of using planning and revising activities (Bereiter & Scardamalia, 1987; Fitzgerald, 1987), pay little attention to the rhetorical situation and

the needs of their readers, and often fail to monitor their writing process, resulting in texts with poor coherence (Glaser & Brunstein 2007; Graham & Harris, 2003; McCutchen, 1995; Rose, 2009; van Gelderen, 1997). According to the results of meta-analytic studies (Graham, McKeown, Kihara, & Harris, 2012; Graham & Perin, 2007; Hillocks, 1986), peer response appears to be an effective ingredient of writing instruction for children and adolescents in helping to resolve some of the problems they face in their writing. These studies showed that peer response is not only an efficient way of providing students with direct feedback on their drafts, but that it also results in texts of better quality in comparison to other conditions. Hoogeveen and van Gelderen (2013) demonstrated, however, that studies of writing with peer response include several additional instructional components. These components can be divided into three categories. The first consists of instruction in writing strategies involving planning, formulating, or revising text. The second consists of instruction directed to the interaction of peers while giving feedback. The third consists of knowledge of genre characteristics to guide both the writing of the individual students and the contents of peer feedback. For the first two categories, experimental results suggest that they can be quite useful additions to writing with peer response (Englert, Raphael, & Anderson, 1991; MacArthur, Schwartz, & Graham, 1991; Olson, 1990; Prater & Bermudez, 1993; Sutherland & Topping, 1999). For the third category—genre knowledge—surprisingly few experimental studies have been conducted to support such a conclusion. In this study, we attempt to establish the effects of genre knowledge on writing with peer response because, according to several researchers, it is important for achieving coherence in writing (Christie, 1992; Prior, 2006). The purpose of this study is to find empirical evidence not only for the beneficial effects of genre knowledge for writing with peer response, but also for the type of genre knowledge that can be effectively used for writing with peer response in classroom contexts.

Reasons for Investigating Genre Knowledge

It is of interest to investigate the role of instruction in genre knowledge as a supplement to writing with peer response for two reasons. First, as indicated above, genre knowledge potentially provides students with important textual knowledge that they can use for meaningful feedback on each other's drafts. If students know, for example, that in the case of a narrative, certain basic textual properties should be met, they can use that knowledge in responding to their classmates' texts, thus providing them with specific aspects to pay attention to in text revision. Second, although a number of studies have been carried out into the role of genre knowledge in writing with peer response (Corden, 2002, 2007; Englert, Raphael, & Anderson, 1992; Graham, Harris, & Mason, 2005; Kos & Maslowski, 2001; Sims, 2001), results do not allow for an appraisal of its beneficial effects. Most of the studies are multicomponential, combining several instructional components in addition to genre knowledge (e.g., writing strategies and directions for peer interaction). For that reason, the contribution of genre knowledge itself cannot be established. In addition, in many cases research designs—for example, case studies and interventions without control groups—do not allow for general conclusions about the contribution of genre knowledge to peer response and writing quality (Hoogeveen & van Gelderen, 2013).

Approaches to Teaching Genre Knowledge

Several theorists have described the advantages of the so-called “genre perspective” for writing pedagogy (Donovan & Smolkin, 2008; Halliday & Matthiessen, 2004; Hayes, 1996; Kress, 1994; Martin, Christie, & Rothery, 1987; Rose, 2009; Wyatt-Smith, 1997). In this perspective, the emphasis is on functions of texts in their communicative context, defined by their social and rhetorical purpose. Texts are structured according to their purpose, and texts with the same purpose will have the same structure (Lewis & Wray, 1995). Writers use genre knowledge to realize the rhetorical functions of different types of texts (Bereiter & Scardamalia, 1987). They therefore must have insight into these functions and how they are shaped by certain global and local characteristics of text genres. For example, writing a comprehensible set of instructions means that the writer must give a clear and precise explanation of everything the reader has to do. Writers must have linguistic knowledge at their disposal for expressing such genre-specific functions and for evaluating whether the text is adequate communicatively and accurate linguistically (Carter, 2003). In addition, writers develop the meta-language needed for planning, evaluating, and discussing texts (Cope, Kalantzis, Kress, & Martin, 1993).

Genre knowledge is quite complex. Therefore, it is not easy to decide what specific type of genre knowledge should be focused upon for the benefit of novice writers. On the basis of the studies reviewed in Hoogeveen and van Gelderen (2013) and the wider literature about the use of genre knowledge for writing, we distinguish the following three possible approaches. The first approach can be characterized as focusing on general aspects of communicative writing. It aims to make students aware of the general purpose of a genre and to facilitate goal- and audience-oriented writing. In the case of narratives, students learn that their purpose is to amuse their readers. Therefore, they learn that it is essential to select exciting content and to add details the readers may find amusing and interesting or that otherwise work on an emotional level (e.g., humor, fear, suspense). In the case of instructive texts, students learn that their purpose is to prescribe as precisely as possible what to do to achieve a circumscribed result. This type of genre knowledge aims at the differences existing between quite generally defined genres (e.g., narratives, expositions, instructive or argumentative texts) without pointing to specific structural or linguistic elements characteristic of these genres. Well-written texts are often used as models to clarify what is meant by goal- and audience-oriented writing (Corden 2002, 2007; Sims, 2001). In addition, students are encouraged to apply criteria to evaluate whether texts are sufficiently goal and audience directed, such as whether a story is fun to read or whether instructions are described clearly.

A second approach to genre knowledge focuses on structural characteristics of a genre, such as story grammar for narratives (Corden, 2002, 2007; Kos & Maslowski, 2001) or argumentative structure for persuasive texts (Englert et al., 1991, 1992). Instruction in structural characteristics of different text genres can be combined with the use of writing strategies. For instance, students are instructed to use a planning strategy by discussing the structure of a good story. Sometimes studies combine such structural genre knowledge with attention to the use of linguistic means for realizing genre-specific functions, for example, by discussing the use of exciting, colorful, and descriptive words in narratives (Graham et al., 2005).

The third approach focuses systematically on linguistic features of genres. It provides linguistic tools for the realization of specific functions such as the description of the passing of time in a narrative, or the formulation of a supportive argument in an argumentative text. This approach, which we call specific genre knowledge (SGK) and which is inspired by the functional grammar approach of Halliday and Matthiessen (2004), has been implemented in several pedagogical studies (Beck & Jefferey, 2009; Christie & Derewianka, 2008; Cope et al., 1993; Schleppegrell, 2007). It has much intuitive appeal because it provides students with concrete linguistic tools for the formulation of sentences, as opposed to a more abstract approach that focuses on general aspects of communicative writing, and to the structural approach that is mainly directed to the macro-structure of text genres. Instruction in specific genre knowledge may support planning, formulating, and revision of texts because it provides concrete linguistic tools and explains their functions in texts of a certain genre (Beach & Friedrich, 2006). Peer response based on such knowledge might help young writers become aware of the demands of the writing process (especially formulation of sentences) and adapt their writing behavior to the specific demands of different genres. At the same time, this type of peer response may help students pay attention to specific linguistic features both in planning and in revising their texts.

Intervention Studies

Several intervention studies have used different types of genre knowledge for peer response, although none of them aims at specific genre knowledge as described above. In a study conducted by Toth (1997), students writing in pairs (experimental group) and individually (control group) received instruction in genre structure by means of the use of story starters. In addition, all students received strategy instruction in writing-process steps. The experimental students received instruction in how to provide peer feedback as well (e.g., asking questions for brainstorming). Results showed that paired writers had greater gains from pre- to posttest than students in the control group.

Englert et al. (1991, 1992) investigated the effects of peer response, instruction in text structure, goal and audience orientation, and the use of writing strategies to regulate the writing process. The first study investigated the effects of the instructional program on text quality, and the second studied the effects on knowledge about text structure and writing processes. In both studies, students in the control group received regular writing instruction from their teachers without peer response. Results of the first study showed that the experimental students produced significantly better-organized compositions compared to the control students. Results of the second study demonstrated that the experimental students improved in knowledge about text structure and writing processes.

In the study by Graham et al. (2005), effects of planning strategies for third graders' writing narrative fantasy and persuasive essays were examined, in addition to instruction in how to provide peer feedback. The planning strategies taught for the different genres were represented by mnemonics containing directions for text structure (e.g., for persuasive essays, the mnemonic TREE: *tell what you believe, give three or more reasons to support why you believe this, examine each reason, and end it with a conclusion*). The students were randomly assigned to three conditions: genre-specific strategy instruction (experimental condition 1, without peer response),

genre-specific strategy instruction with peer response (experimental condition 2), and peer response (control group, Writers' Workshop Approach without strategy instruction and instruction in how to provide peer feedback). As predicted, the experimental students from both groups receiving instruction outperformed the control students in writing performance (global text quality, time spent on writing, text length) and knowledge about writing processes, measured with questionnaires. The peer-response students receiving instruction in strategies and in how to provide peer feedback (experimental condition 2) performed better than both other groups on transfer tasks for two uninstructed genres: personal narratives and instructional texts.

In Harris, Graham, and Mason (2006), the study by Graham et al. (2005) was extended by assessing the impact of their approach on writing (narratives and essays), and knowledge about writing of younger writers (second graders instead of third graders). As in the previous study, both experimental groups outperformed the students in the control group. The students in the experimental groups were more knowledgeable about writing and performed better in the two instructed genres, as well as in the two uninstructed genres (transfer). In addition, it is concluded that peer support augmented the genre-specific strategy instruction.

In a case study conducted by Kos and Maslowski (2001), instruction was directed to story grammar, strategy use (idea generation), and regulation of peer interaction (e.g., "Read your draft aloud," "Praise the text"). Interview data were collected before and after the intervention. Student talk during the response sessions was recorded and transcribed and their texts were analyzed. It was found that students' perceptions of "good writing" expanded from formal issues such as correct spelling, capitalization, and punctuation, to more meaningful aspects of writing, such as story grammar, idea generation, and planning. Children's conversation during writing with peers reflected emphasis on the organization of their narratives and awareness of audience needs. Analysis of texts showed that peer interactions were more effective in generating ideas than in generating revisions.

Sims (2001) investigated the effects of peer response with instruction in genre knowledge, strategies, and instruction in regulating the interaction. Genre knowledge was provided by the analysis of model texts (modeling a specific writing style) and by instruction in writing reader-response journals. Pre- and posttest writing assignments were administered. Analysis of the texts indicated improvement in students' writing skills and fluency: the students wrote more and improved on several criteria for text quality (clarity of subject, support of details, text structure, and conventions).

In the studies of Corden (2002, 2007), students writing narratives in a Writers' Workshop with peer response received genre instruction (analyzing text models of expert writers, features of structure and style) and instruction in how to provide peer feedback. Students' narratives before and after the treatment were compared, peer-group discussions were audio recorded and transcribed, and questionnaires were administered at the beginning and end of the intervention to determine self-esteem. Results revealed significant progress in writing performance (text structure and style). The results of the questionnaires showed that students reported enhanced self-esteem. Analysis of the peer discussions showed that the students developed meta-language; they used specific literary terms when discussing their texts.

The present study compares two approaches to peer response with additional instruction: peer response with instruction in specific genre knowledge, and peer response with instruction in general aspects of communicative writing. As mentioned above, experiments probing the effects of specific genre knowledge on students' writing have not yet been carried out (see also Hoogeveen & van Gelderen, 2013), nor is there previous research comparing the effects of these different types of genre knowledge on the writing quality of young writers. We expect instruction in specific genre knowledge to be superior to instruction in general aspects of communicative writing by providing more specific criteria for students to focus on while formulating and revising and suggesting improvements in each other's texts. By improving the quality of writing conferences, such instruction in genre-specific linguistic knowledge might also increase the global quality of the written texts produced by students. The focus on specific linguistic features of text quality may help students to simplify the complex writing task. It may present a method for preventing their working memory from becoming overloaded (Flower & Hayes, 1980), as an alternative for the well-known "knowledge telling" strategy used by most young writers (Bereiter & Scardamalia, 1987). Genre-specific linguistic knowledge may set young writers' minds free for the use of linguistic tools needed for improving text coherence.

The following research questions will be answered:

1. Is instruction in writing with peer response focusing on specific genre knowledge superior in improving students' writing quality compared to writing with peer response focusing on general aspects of communicative writing and compared to a baseline condition of regular language instruction (without peer response)?

Our approach is to compare writing lessons with peer response focusing on specific genre knowledge with the same writing lessons focusing on general aspects of communicative writing, and to compare both of these groups with a control group (the students' regular language curriculum without peer response) in posttest writing. We expect that students in the first condition (SGK) will outperform students in the second condition (GACW), who in their turn will outperform students in the control group.

2. How do students in the experimental conditions divide their attention among the relevant aspects of peer collaboration: specific linguistic features, text contents, conventions (spelling, punctuation, grammar), and interaction process?

As stated above, we expect that peer response using specific genre knowledge is more helpful in improving text quality than peer response using instruction in general aspects of communicative writing. For that reason, we investigate whether students in the SGK condition pay more attention to specific linguistic features of each other's texts than students in the GACW condition.

Method

Participants

In total, 140 sixth-grade students (78 girls and 62 boys) divided over five classrooms from four elementary schools in the Netherlands (three urban schools and

one school in the countryside) participated in the study. No sample attrition occurred. All students were in the age range of 11–13. In the Netherlands, sixth grade is the final grade for primary education. Data about their language background were gathered using a questionnaire. Most students (123) were native speakers of Dutch. The remainder of the participants were from immigrant backgrounds, but only five of them were born in another country (Morocco, Surinam, China, Brazil, Norway). All students with immigrant backgrounds had attended Dutch primary school for many years and therefore can be regarded as fluent speakers of Dutch.

Experimental Design

A posttest-only (between-subjects) experimental design was used. Students in each classroom were randomly assigned to one of three experimental conditions. Therefore, in each classroom all students had an equal chance to be assigned to any of the experimental conditions. In condition 1, the (47) students received instruction in peer response using SGK. In condition 2, the (44) students received instruction in peer response using GACW. In condition 3, the control condition, the (49) students received regular language instruction from their own teacher. Each of the five classrooms consisted of 24–30 students. The students of each condition received instruction in groups of 8–10 in separate rooms (the control group remained in their regular classroom, while the two other groups were taken to a separate room).

The posttest consisted of four writing assignments (two narrative and two instructive texts) as measures of global writing proficiency, the dependent variable of this study. In addition, by way of an intermediate process factor, the attention students paid to the focus of each experimental condition (indicators of time and place and general aspects of communicative writing, respectively) during the writing conferences was measured. We decided that it was impractical to measure writing proficiency in a pretest because of time limitations in the schools' schedules. For a valid measurement of writing proficiency, a series of writing assignments is necessary (Schoonen, 2005). As proxies we used two covariates to control for preexisting differences in writing proficiency between conditions: receptive knowledge of Dutch vocabulary, and metacognitive knowledge of writing and reading. From previous research, it is known that these skills are strongly related to writing proficiency (e.g., Schoonen et al., 2003). In addition, we used gender as a covariate, because it is known that gender differences in writing proficiency exist (Bourke & Adams, 2011).

Treatments

The students in the two experimental conditions received a series of 12 writing lessons (60 minutes each). The writing lessons were divided into two parts. The first part consisted of six lessons dedicated to the writing of three narratives. The second part (six lessons) dealt with the writing of three instructive texts. Each pair of lessons (120 minutes) was dedicated to one writing assignment. Each pair of lessons incorporated prewriting, formulating a first draft, conferencing, and revision components (Graves, 1983). In studies of writing with peer response, writing conferences normally take place only before revision of the first draft (Hoogeveen & van Gelderen, 2013). Studies show, however, that children write texts of higher quality when they converse with a peer in several stages of a writing task (Boscolo & Ascorti, 2004; Daiute, 1986;

Daiute & Dalton, 1993). Therefore, we added writing conferences during the stage of planning (prewriting) for the first two writing assignments of the two parts of the lesson series. In addition, for the third assignment of the two parts of the lesson series, students also worked on their first draft in dyads.

The students used booklets containing all instructions and exercises. The lesson materials consisted of an instruction book, a workbook, and an answer book. The instruction book contained example texts, explanations, instructions for exercises, and prewriting, writing, conferencing, and revision assignments. In the workbook, the students wrote down answers to questions (e.g., words in sentences, content elements, underlining of parts of texts, evaluations of their texts, ideas for revising texts). The answer books were used by the students to check answers after finishing the workbook.

In each first lesson of a pair, students analyzed a sample text (15 minutes), received instruction in genre knowledge (10 minutes), planned their texts collaboratively (10 minutes), and wrote their first drafts on a computer (25 minutes). In each second lesson, they evaluated their drafts and wrote down what they would like to change (10 minutes). These evaluations were the starting point of the writing conferences (20 minutes) followed by the revision of the first draft (30 minutes).

To make students familiar with writing conferences, principles for interaction during the writing conferences were modeled by the teachers with the help of a few students. At the beginning of each second lesson, preceding the writing conferences of the first drafts, a writing conference was demonstrated for the whole group. In addition, the instruction books contained the following principles for interaction in the writing conferences: (1) read the text of your peer, (2) tell the writer what you appreciate in the text, (3) read the evaluations of the writer, (4) tell if you agree with them or not, (5) give the writer suggestions for improving the text, and (6) check whether other parts can be improved.

In each conference, the draft of each student was discussed (10 minutes). After discussing the first draft, peers changed their roles of writer and peer evaluator for discussing the second draft. The writing conferences resulted in concrete tips for revision that were written down in the workbooks. The revision took place immediately after the writing conferences. The students revised their drafts, again using the computer.

Condition-Specific Instruction

Specific genre knowledge. In the writing assignments and instructions for writing conferences in this condition, the use of indicators of time and place was systematically highlighted. We selected two types of genre-specific linguistic features for condition 1: the use of indicators of time and place. These indicators seem particularly suited for providing students with concrete examples (Buss & Karnowski, 2002; Halliday & Matthiessen, 2004; Kress, 1994; Stein & Glenn, 1979). Indicators of time and place serve different functions in narrative and instructive texts, allowing us to focus students' attention on these differences. Students learned words and clauses that can be used as indicators of time and place and their specific functions, using model texts for exemplifying these functions. In narratives, indicators of time and place give writers the opportunity to provide detail and make texts more interesting

to read, while in instructive texts these indicators make them more precise and serve the purpose of clarifying the instructions.

The first lesson pair (both for narratives and instructive texts) was devoted to the use of indicators of time. For narratives, students learned the use of single words that indicate time (“first,” “suddenly,” “when”), descriptions with more words (“in the beginning”), and the use of verbs as indicators of time (present tense, past tense) (see App. A). In addition, for narratives, an explanation was provided about the difference between the role of time in a narrative and its use in the real world. Students learned that time-related words help the reader visualize the progression of events over time. In this context, the use of flashback to make the text more exciting or to explore the feelings of a main character of the narrative was demonstrated. For instructive texts, students learned single-word and multiple-word indicators of time, as well as the use of tense, analogous to what was learned for narratives. In addition, students were made aware that using a fixed chronological textual order by the use of words such as “first,” “thereafter,” and “finally” is an efficient way of telling the reader how to proceed.

In the second lesson pair (for narratives and instructive texts), the focus was on the use of indicators of place. Students were shown that they can use single words to indicate places (“there,” “above”), or descriptions with more words (“on the corner of the street”). In addition, for narratives, an explanation was given of changing places within a relatively small area (“small place changes”) or between remote places (“big place changes”). For instructive texts, students learned single-word and multiple-word indicators of place, analogous to these functions for narratives. In addition, students learned that indicators of place are important for a precise description of what the reader has to do to follow the text. For instance, an itinerary consists of a detailed description of landmarks (“on the other side of the white hotel, called Parkview”).

In the third lesson pair of each genre, the focus was on the use of indicators of time and place in combination, making use of the knowledge about the functions of indicators of time and place provided in the previous lessons.

General aspects of communicative writing. In the writing assignments and instructions for writing conferences in condition 2 (GACW), students were made aware of the differences in general purpose between narratives and instructions and learned to write in each genre with a clear goal in mind and directed to the interests of readers. Regarding the writing of narratives, students learned that their purpose is to entertain the reader and that this can be achieved by using exciting content, by providing vivid descriptions of thrilling events, by choosing recognizable persons, or by giving detailed descriptions of time and place. In the case of instructive texts, students learned that their purpose is to clarify what exactly the reader must do. They were instructed to take care that their description is precise and intelligible. In addition, students learned that intelligibility can be attained by providing complete information without being redundant and by indicating when or where something must be done. However, in contrast to students receiving instruction in specific genre knowledge, they did not receive instruction in the use of linguistic features (indicators of time and place, as explained in the previous paragraph). However, example texts, instructions for writing conferences, and writing assignments were identical in the two conditions.

Control group. The students in the control group received no experimental instruction, but followed the regular language curriculum at their school provided by

Table 1. Instructional Components in the Three Conditions

Condition	Analyzing Model Texts	Peer Response	Principles for Interaction	GACW	SGK
SGK	+	+	+	—	+
GACW	+	+	+	+	—
Control	—	—	—	—	—

their usual classroom teacher. In these classes, writing with peer response did not occur. Writing education in grade 6 in the Netherlands consists of 1–2 writing assignments per month, each administered in one lesson of 40–50 minutes (Dutch Inspectorate, 2010). In addition, most attention in writing instruction is paid to conventions (spelling and grammar) (Dutch Inspectorate, 2010; Franssen & Aarnoutse, 2003; van Gelderen & Blok, 1991). The teachers in our study indicated that their writing instruction did not differ substantially from this general practice. Table 1 provides an overview of instructional components in the three conditions.

Procedure

The students in the two experimental conditions received instruction in separate classrooms and wrote using computers. Students in the control group remained in their classroom with their own teachers, working without computers. The lessons in the experimental conditions were given successively (first students from condition 1 were taken to a separate classroom, then students from condition 2). Teacher effects were controlled by taking care that each experimental teacher supervised one group of students in condition 1 and one group in condition 2 (see below). Instructional time allocated for the two experimental groups was the same because each lesson in the two conditions took the same amount of time.

A week before the lessons started, students in the two experimental conditions received an introduction. They were informed about the objective (learn to write different kinds of texts). In addition, the central theme was introduced: farewell to primary school. The theme was linked to the students' current situation, which is an important ingredient for good writing (DeGroff, 1987; Graves, 1983; McCormick Calkins, 1986; McCutchen, 1986). Students also watched an interview with a popular author, who wrote a book about the theme. Students were also informed that books would be compiled from their texts at the end of the lessons. After finishing the lesson series, students would read their texts to the class. A jury of students would evaluate their presentations and award prizes. These measures were taken to provide optimal motivation for students to spend effort writing and revising their texts. Before the lessons started, all students took tests for Dutch vocabulary and metacognitive knowledge (used as covariates).

All students in the experimental conditions received the 12 lessons in an uninterrupted period of 6 weeks. Each week, one pair of lesson was given on the same day. During the first lesson in the morning (60 minutes), the students received instruction and wrote first drafts. In the second lesson (60 minutes), after lunch break, the writing conferences and revision sessions took place. For the two experimental conditions, the students' regular teachers were replaced by teachers who had received instruction in carrying out the lessons from the first author. The teaching team

consisted of four teacher educators who had just finished their in-service training for primary school. The fifth teacher was one of the researchers with an academic degree in language arts teaching. The first author, supported by four trained teachers, formed the teaching team, each member taking care of all experimental lessons in both condition 1 and 2 in one of the five classrooms.

The trained teachers had an important supervising role. They made sure that students spent the intended time on each exercise or assignment, observed the students while they worked in pairs, answered questions for clarification, kept order, circulated materials, collected workbooks to evaluate students' participation, and encouraged students to complete all exercises and assignments. In addition, the teachers had to instruct the students on how to interact during the writing conferences. To support the trained teachers, a protocol with detailed general as well as specific instructions for each lesson pair was made available. This protocol was used for training, and the trained teachers used it for preparing each lesson. The teachers were trained during two sessions of 2, 5 hours on one day. The protocol with instructions was discussed. In addition, they received instructions for modeling writing conferences.

The four posttest writing assignments were scheduled on 2 days in the week following the last lesson. All students (both experimental and control) were informed that the texts for these assignments would be published in books for the school library. The students took two assignments in one day. The assignments were timed. During the morning sessions, students wrote the first drafts of two assignments (15 minutes for each assignment). During the afternoon sessions, they revised both texts (10 minutes for each assignment). The four assignments were administered in a fixed order. The time allowed for completion of these assignments was based on pilots showing that all students (in three separate classrooms) finished writing within 25 minutes. Students who had missed posttest sessions (3 condition SGK, 4 condition GACW, 2 control condition) were offered extra sessions. All students completed the posttest assignments within 3 weeks after the last lesson.

Treatment Fidelity

The two first lessons of all experimental teachers were observed by the first author in order to help them optimize their performance. All teachers kept logbooks of the execution of the lessons, and all student workbooks were collected to evaluate students' participation. In addition, the trained teachers reported personally to the first author about the lessons they had supervised directly after they were completed. All these data (oral reports, logbooks, and student workbooks) were used to determine treatment fidelity. From observations of the lessons, logbooks, and personal reports, it appeared that the experimental teachers succeeded in carrying out the lessons in an orderly way and in line with the protocols. In addition, they succeeded in instructing students on how to carry out writing conferences according to the specifications for each experimental condition. It also appeared that the teachers successfully differentiated between instruction in the SGK condition and the GACW condition in line with the contents of students' instruction books. All workbook assignments were fully completed by all assisting students. Additionally, we registered students' lesson attendance. Only two students missed more than two of the 12 lessons (respectively, three lessons in condition 1 and four in condition 2).

Finally, in order to evaluate students' appreciation of the lessons, brief questionnaires about the usefulness of the lessons were administered after each lesson pair (six in total). The students answered four multiple-choice items (e.g., "revising my text after a writing conference I found: very useful, a little bit useful, not very useful, not useful at all"), and one open question ("Generally I found this writing lesson quite useful/not useful because . . ."). The percentage of students that considered the lessons useful ranged from 72.5% to 85.7%. When asked about the specific objectives of the six lesson pairs (24 in all), the percentage that regarded these objectives as useful ranged from 85% to 94.3%.

Instruments

Posttest writing assignments. In this study, students' writing was assessed using four posttest writing assignments. Four assignments were used because writing proficiency is preferably measured with several writing tasks (Schoonen, 2005; van Gelderen, Oostdam, & Van Schooten, 2011). In addition, we needed to assess writing in the two genres involved. Two assignments involved the writing of a narrative, the other two involved the writing of an instruction. The four assignments were as follows: a story about an impressive person, how to make candy, a story involving mischief, and how to trick someone. In each assignment, students first read a model text illustrating the genre and its characteristics, then wrote a first draft and a revision (see App. B). Required text length was about 150 words.

Vocabulary and metacognitive knowledge tests. Dutch receptive vocabulary and metacognitive knowledge of reading and writing were used as covariates. Both tests were based on tests developed by the Nelson Project for Dutch students in grades 8–10 (van Gelderen et al., 2003, 2004, 2007; Schoonen et al., 2003). We used adaptations of these tests in the Salsa Project, which targets younger students (grades 7–9) in the lowest tracks of Dutch secondary education (Trapman et al., 2012; see also <http://www.salsa.socsci.uva.nl/>). The difficulty of these adaptations was more in line with the proficiency range of our target group.

The vocabulary test consisted of 73 items. Each item contained a neutral carrier sentence with a stimulus word in bold print. Students had to choose among Dutch synonyms for the stimulus words (nouns, verbs, adjectives, and adverbs). The test was of average difficulty ($M = 54.77$, $SD = 8.77$, maximum = .73). Reliability, measured by Cronbach's alpha, was .88, which is sufficiently high for our purposes.

The metacognitive knowledge test contained 45 items and consisted of three parts: knowledge of texts, knowledge of writing strategies, and knowledge of reading strategies. All questions consisted of statements that were either correct or incorrect. Students decided whether they agreed with a statement (yes or no). An example of an incorrect statement is, "It is sensible to include in your text everything you know about the topic." An example of a correct statement is, "It is sensible to think about the people who will read your text and what they know, while you are writing." The test was rather difficult for the students ($M = 31.09$, $SD = .510$, range = 19–44, maximum = 45). Reliability, measured by Cronbach's alpha, was .70. Although this indicates that the homogeneity of the test is less than optimal, it is still sufficiently high for the purpose of controlling for possible differences between metacognitive knowledge between conditions, although the power of this analysis may be limited.

Observation and scoring of peer collaboration. In order to study the attention peers give to different aspects of a text, we videotaped writing conferences in a selection of lessons. In each of the four schools, one writing conference in each experimental group was videotaped. In total, 60 recordings were made (30 in condition 1 and 30 in condition 2). Each of the students in the two experimental conditions was observed once. In these recorded sessions, students discussed each other's texts in pairs or groups of four students.

Students' verbal interaction was scored by two different observers. One trained observer scored on the spot while making the video recording, and the second observer scored on the basis of the video registration. Scores were based on observers' estimations of the number of minutes spent on each observational category. The following categories were scored: (1) indicators of time and place, (2) global text contents (subject, title, structure, goal and audience orientation, meeting the assignment, comprehensibility), (3) conventions (spelling, grammar, punctuation, layout), (4) coordination of actions (utterances about the task, allocation of tasks, the time available etc.), and (5) actions diverting from the task. Students' perceived attitudes during writing conferences were also scored (positive, neutral, negative). Interobserver agreement for each of these categories was high for most categories, ranging from .95 (diversion from task) to .67 (writing conventions). We decided to use only the video observations for the final analysis because these observations were made in a more favorable situation with no distractions, whereas the observer on the spot had to deal with several issues going on in the classroom.

Scoring

Writing quality was assessed using a procedure based on Lloyd-Jones (1977). This procedure, called primary trait scoring, defines criteria for text quality based on the requirements of each specific writing assignment. In order to enable interval-level interpretation of the scores, a procedure based on Blok (1986) and adopted in Schoonen et al. (2003) and van Gelderen et al. (2011) was used. On the basis of random samples of 40 texts for each assignment, scales were constructed for each of the four assignments consisting of five examples, indicating the 10th, 25th, 50th, 75th, and 90th percentiles of the samples. For scale construction, trained raters (the first author and one of the trained teachers) scored the 40 texts for each assignment, comparing the texts with a "neutral" target text (a text without remarkable characteristics). The target text received an arbitrary score of 100 and the raters' task consisted of deciding how much better or worse each of the texts was. For example, a text twice as good received the score 200, and a text half as good received the score 50. The raters worked independently and blind for the condition from which the texts originated. As support for deciding on the global (primary trait) writing quality of each text, four main criteria were used: (1) presence of genre characteristics, (2) sufficient content, (3) clarity of structure, and (4) correct language. While these criteria are quite generic, their definition (with the exception of correct language) was dependent on the specific assignment.

For each of the selected texts indicating one of the five scale points per assignment, a description was given of positive and negative qualities in terms of the above-mentioned criteria for text quality. Scores ranged from 10 (scale point 1) to 90 (scale point 5). Appendix C presents an example of these (task-specific) descriptions for a

narrative selected to indicate the 50th percentile of text quality (on average score). The appendix also shows the use of the scoring tool to support the raters' judgment of text quality. (An additional criterion was added for this assignment because it also asked for making a "caricature").

After this scale-construction procedure, the two raters mentioned previously used the rating scales for the assessment of all texts written. Again, they worked independently and blind for the condition from which the texts originated. Correlations between the scores of the two raters ranged from .80 (tasks 2 and 4) to .88 (task 1 and 3). Relatively large discrepancies between the two raters (discrepancies of more than 1 scale point) were identified and discussed. Each rater could refer to her scoring tool as a reminder how she arrived at her judgment, facilitating this discussion. In case one rater (or both) came to the conclusion that she had judged too harshly or too leniently, scores were adapted accordingly. Finally, writing quality was calculated as the mean score of the two raters.

Analyses

For the first research question, MANCOVA analysis was used with experimental condition as factor (1–3), writing quality on each of the four assignments as dependent variables, and vocabulary knowledge, metacognitive knowledge, and gender as covariates. We added gender because it is known that it can explain some of the variance in writing proficiency. First, we tested whether each of the covariates had a significant effect on the dependent variables. Covariates that did not contribute significantly were removed from the analysis. In addition, we checked for the main assumptions of MANCOVA (equality of covariance matrices with Box's test and equality of error variances with Levene's test). Both assumptions appeared to hold. For the second research question, ANCOVA analyses were carried out for each of the separately coded activities during peer collaboration with the two experimental conditions as factor (the control condition did not involve peer response). Total duration of peer collaboration was used as covariate in order to control for differences in the duration of the writing conferences.

Results

Posttest Writing Quality

Table 2 presents the means and standard deviations for the four posttest writing tasks in each of the three conditions. For all four assignments, the mean writing quality in condition 1 (SGK) was the highest, while the means in conditions 2 (GACW) and 3 (control) did not seem to deviate very much from each other.

To test the differences in writing quality between the three conditions, MANCOVA analysis was used. Of the covariates, only vocabulary knowledge and gender had significant effects. Therefore, metacognitive knowledge was not included in the final analysis. The results of the MANCOVA showed a significant multivariate effect of the factor condition, Wilks's lambda $F(8, 264) = 7.66, p = .000$, partial $\eta^2 = .188$. This value of partial η^2 indicates a strong effect of the factor condition. As mentioned, there were also significant effects of vocabulary (Wilks's lambda $F(4, 132) = 16.72, p = .000$, partial $\eta^2 = .336$) and for gender (Wilks's lambda

Table 2. Means and Standard Deviations of Writing Quality per Assignment for Each of the Three Conditions ($N = 140$)

Condition	<i>M</i>	<i>SD</i>
Assignment 1:		
1. SGK	59.95	24.76
2. GACW	39.32	21.26
3. Control	32.60	23.99
Assignment 2:		
1. SGK	59.26	20.58
2. GACW	47.05	23.14
3. Control	40.56	22.18
Assignment 3:		
1. SGK	62.71	20.47
2. GACW	46.31	21.35
3. Control	41.84	23.40
Assignment 4:		
1. SGK	64.15	24.03
2. GACW	43.35	25.53
3. Control	42.81	24.07

$F(4, 132) = 3.02, p = .02$, partial $\eta^2 = .084$). For each of the four writing tasks, there were significant effects of condition (task 1: $F(2, 135) = 20.91, p = .000$, partial $\eta^2 = .237$; task 2: $F(2, 135) = 11.67, p = .000$, partial $\eta^2 = .147$; task 3: $F(2, 135) = 15.17, p = .000$, partial $\eta^2 = .183$; task 4: $F(2, 135) = 17.07, p = .000$, partial $\eta^2 = .202$). The partial η^2 values indicated that for each of the four tasks, condition had a large to very large (tasks 1 and 4) effect (Cohen, 1988). Post-hoc tests showed that in all cases the differences in writing quality between condition 1 (SGK) and the two other conditions were significant, while the differences between condition 2 (GACW) and 3 (control) were not. Significant p -values ranged from .003 (two comparisons) to .000 (the remaining 14 comparisons).

Coded Activities in Writing Conferences

Table 3 presents the means and standard deviations of the coded activities on the basis of video recordings of the writing conferences. In total, a selection of 60 conferences were observed, 30 from condition 1 (SGK) and 30 from condition 2 (GACW). In each of the writing conferences, peers were commenting on the first drafts of each other's text during one of the lessons (see App. D for an example). Table 3 shows the mean time spent on the whole conference (total minutes writing conference), on indicators of time and place, on task-related issues (calculated as all activities minus activities coded as diversion), on global text contents, on conventions (such as spelling, punctuation, and grammar), and finally on the interaction process itself.

The differences between the time spent on each of the coded activities in the two conditions were tested using ANCOVA analysis. In total, five ANCOVA analyses were carried out using the total time in writing conference as a covariate. By doing this, we controlled the effects of condition for differences in duration of the writing conferences. Not surprisingly, total time in writing conference had a strong significant effect on the time used for most of the activities (except for time spent on writing conventions). Nevertheless, the difference between total time in writing conference

Table 3. Means and Standard Deviations of Coded Activities in Writing Conferences ($N = 60$)

Activities Coded	<i>M</i>	<i>SD</i>
Total minutes in writing conference: ^a		
SGK	8.63	3.25
GACW	7.08	3.10
Minutes spent on indicators of time and place:		
SGK	3.70	2.48
GACW	.27	.57
Minutes spent on task-related issues:		
SGK	8.03	3.15
GACW	6.78	3.20
Minutes spent on global text contents:		
SGK	3.43	2.38
GACW	5.40	2.77
Minutes spent on writing conventions:		
SGK	.45	.68
GACW	.73	.74
Minutes spent on interaction process:		
SGK	.45	.76
GACW	.38	.63

Note.—The duration in minutes is summed over the two discussions about the texts of participating students.

^aThis is the actual time the students were on task, excluding non-task-related issues, such as getting together, social talk, or getting materials in place.

between the two conditions was not significant, indicating that students in both conditions did not differ much in the time they took in responding to each other's texts ($F(1, 58) = 3.58, p = .064$). Results of the ANCOVA analyses showed a significant effect on the time spent on indicators of time and place in the two conditions ($F(1, 58) = 49.71, p = .000$, partial $\eta^2 = .466$). The value of partial η^2 indicates that the difference between the use of indicators of time and place between the two conditions is very large. While students in condition 1 on average spent almost 4 minutes (3.7) in their writing conferences on discussing the use of these indicators (almost half of the total time of the observed conferences), students in condition 2 on average did not spend more than 16 seconds on these indicators (0.27 minute = 16.2 seconds). In addition, a significant effect of condition was found for the time spent on global text contents (subject, title, structure, goal and audience orientation, meeting the assignment, comprehensibility) ($F(1, 58) = 44.40, p = .000$, partial $\eta^2 = .438$), again a very large effect (Cohen, 1988). This time, the students in condition 2 (GACW) spent much more time discussing global text contents on average (5.4 minutes) than students in condition 1 (3.43 minutes) (see Table 3). Although the amount of time spent on global text contents by students in our condition SGK is certainly not negligible, it is clear that the attention of students in condition GACW is much more focused on discussing issues such as the subject, the title, and the text structure. For this reason, we may conclude that the focus on specific genre knowledge has substantially determined the contents of peer interaction in the writing conferences. For none of the other coded activities in the writing conferences, significant differences were found for the two conditions (total task-related issues: $F(1, 58) = 1.01$, conventions: $F(1, 58) = 2.41$, collaboration: $F(1, 58) = .07$). These results indicate that dif-

Table 4. Perceived Attitudes of Students toward Writing Conferences
(*N* = 60)

Condition	<i>M</i>	<i>SD</i>
SGK	2.53	.90
GACW	2.60	.93

Note.—The attitudes were rated by observers separately for the discussion of each text on a 3 point scale (1 = positive, 2 = neutral, 3 = negative). Since for each pair of students there were two texts to discuss, two attitude scores were given. These two attitude scores were summed for each pair, resulting in a scale of 2 (both positive) – 6 (both negative). Therefore the mean of 2.6 indicates that in almost all cases attitudes were perceived as positive toward the task of peer response.

ferences in on-task behavior or in attention to conventions or to the interaction process between the two experimental groups were quite small.

Students' Attitudes toward Writing Conferences

Finally, in order to get more insight into the degree of engagement between students in the two experimental conditions in their writing conferences, we analyzed the scores given by the observers on students' attitudes in the observed conferences. Table 4 presents the mean attitude scores and their standard deviations in the two experimental conditions. The means for task attitude indicate that in almost all cases attitudes were perceived as positive (see explanatory note accompanying Table 4). In addition, no significant difference was found for task attitudes in an ANOVA analysis with experimental condition as factor ($F(1, 58) = .08$).

Discussion

This study probed the effects of instruction in specific genre knowledge and in general aspects of communicative writing for peer response on the quality of writing of sixth-grade students. On theoretical grounds, we predicted that instruction in specific genre knowledge results in better writing than does instruction in general aspects of communicative writing because it gives students a more concrete focus to concentrate on while writing and while commenting on each other's drafts. In addition, we compared the two experimental conditions to a control group receiving language instruction according to the normal curriculum, not involving peer response. We expected that students in the GACW condition would produce texts of superior quality than those of the control students. Results revealed that the first prediction was confirmed, but the second was not. The SGK condition produced better texts than both the GACW condition and the control group on each of the four (narrative and instructive) posttest writing tasks. However, no differences were found in text quality between the GACW condition and the control group on any of the posttest writing tasks.

Given that results were systematically the same for each of the four posttest writing tasks and for the two genres involved (narrative and instructive), and that effect sizes found were large or very large, we may conclude that the evidence favoring instruction in specific genre knowledge is quite impressive. It leaves very little doubt that for these sixth-grade students instruction in the use of indicators of time and

place was much more helpful in producing good narrative and instructive texts than instruction focusing on general aspects of communicative writing (general purpose of narrative and instructive texts and goal- and audience-oriented writing). In addition, findings relevant to our second research question (regarding the attention students gave in their writing conferences to different aspects in the two experimental conditions) clearly showed that students in the SGK condition paid much attention to discussing the use of indicators of time and place, while students in the GACW condition did not. Of the total average time spent in observed writing conferences in the condition SGK, 43% of the time was spent on talking about the use of indicators of time and place. Time spent on these indicators in writing conferences in the GACW condition was only 4%. These findings strongly support the assumption that specific genre knowledge is not only useful for students' writing but is also used in peer interaction for commenting on each other's text and (presumably) also for improving first drafts on the basis of these comments. In posttest writing, however, peer response did not occur. Students in the SGK condition should have internalized their knowledge about indicators of time and place in order to use it in posttest writing and revision. The above results give support to the assumption that this actually is what happened as a result of the lessons.

Our finding that instruction in general aspects of communicative writing did not result in better text quality in comparison to the control group is quite surprising in view of previous research pointing to positive effects (Corden, 2002, 2007; Sims, 2001). However, as mentioned previously, almost all of these studies combined several instructional aspects in addition to general aspects of communicative writing, such as instruction in writing strategies, modeling and discussing of strategies, instruction in metalinguistic knowledge, and sometimes also the use of linguistic features (Englert et al., 1991, 1992; Graham et al., 2005; Kos & Maslowski, 2001). The present study suggests that peer response with instruction in general aspects of communicative writing is not sufficient for achieving positive effects on writing quality. First, we can exclude explanations such as differences in instructional time allocated, engagement of students in the two experimental conditions during the peer-response sessions, or the involvement of the students with the lessons in general. Instructional time allocated (for the two experimental conditions) was experimentally controlled. In addition, there was no significant difference in the observed attitudes toward writing conferences during the response sessions between students in the two experimental conditions, as shown in Table 4.

The observations of peer collaboration showed that writing conferences in the GACW condition were as expected, that is, mainly oriented toward the global text contents of the first drafts. On average, 76% of the time in these conferences was spent discussing global aspects of the text, such as the title, the global structure, and goal and audience orientation. Although students in the SGK condition also spent substantial time on these aspects (about 40%), the difference is significant and supports the assumption that the use of general aspects of communicative writing in peer response was not sufficient to improve text quality.

Students' evaluation of the lessons was probed with a questionnaire about their perceived usefulness. Students rated different aspects of the lessons (the role of text models, planning texts together, discussing texts together). After each lesson pair, all students answered a questionnaire (e.g., "Discussing my text with a peer partner was: useful, a little bit useful, not very useful, not useful at all"). The results revealed that

students in both experimental conditions were quite positive about the usefulness of the lessons, and no significant differences between the students in the two experimental conditions were found. Therefore, the better results of the students in the SGK condition are not likely the consequence of more favorable attitudes toward the lessons.

In addition, students in the GACW condition did not outperform students in the control condition, who did not receive any systematic instruction in genre knowledge and did not receive peer response. The fact that our GACW condition did not result in superior writing suggests that the additional knowledge did not help students to produce better texts or to give valuable commentaries on their peers' texts.

From our theoretical vantage point, the results can be explained by pointing to the fact that instruction in general aspects of communicative writing does not provide concrete linguistic tools for formulation or revision. For that reason, students who want to apply genre-appropriate formulations or revisions in their narratives or instructions are left to their own existing resources to do so. They do not learn how to focus on specific aspects of sentence construction, such as choice of words or making descriptions more specific or exciting by their framing in time and place. In addition, they do not learn to use a variety of linguistic phrases for realizing these functions. In view of this lack of concrete focus that instruction in general aspects of communicative writing provides for young writers, it is plausible that it doesn't simplify the complexity of the writing task and therefore forces them to persist in their normal "knowledge telling" routine for writing and revision (Bereiter & Scardamalia, 1987; van Gelderen, 1997).

It is important to emphasize that in our lessons instruction in specific genre knowledge was systematically supplied in all parts. In all stages of the writing process (planning, formulating, discussion of first drafts, revision including all assignments and exercises), students were focused on specific use of indicators of time and place in model texts and in their own writing. This systematic focus on specific functions in writing is seldom found in studies of writing with peer response, but may be responsible for the robustness of the effects found in our study. At least, it is important to emphasize that in our study specific genre knowledge was a major part of the whole lesson series and was not restricted to checklists for peer response or revision only. We believe that this systematic focus is an important condition for achieving the effects on writing quality observed.

It is appropriate to point to some limitations of this study and the analyses reported. First, we were not able to include pretest writing proficiency measures as covariates because of time limitations in the schools' schedules. Instead we have used vocabulary and metacognitive knowledge measures as proxies. Although our design was experimental, and students' assignment to conditions was strictly randomized (within classrooms), controlling for preexisting writing proficiency may provide an additional guarantee that groups are comparable on the main outcome variable. Second, our analysis of posttest performance did not include linguistic measures such as the appropriate use of indicators of time and place as instructed in the SGK condition. Such analysis is certainly a valuable addition to the more global analysis of writing as reported because it can provide more certainty about the direct effects of the given instruction in this specific type of genre-specific knowledge.

Implications for Future Research

Given the promising results of this study of instruction in specific genre knowledge, it will be worthwhile in the future to study the effects of instruction in specific knowledge of other genres and other types of genre-specific knowledge. For example, for argumentative genres, instead of indicators of time and place, other linguistic features may be relevant, such as the use of repetitive phrases for emphasis, auxiliary verbs to add voice or mood to the main verb (must, can, do), or the use of indicators for the structure of the arguments (first, second, in addition, moreover, et cetera) (see Halliday & Matthiessen, 2004). For expository genres, such as reports, features such as clarity and brevity can be demonstrated by the use of unambiguous words, systematic terminology, and transparent syntax. Finally, genre-specific features of narratives and instructive texts that might be usefully brought to the attention of young writers are not confined to the use of indicators of time and place. Other features, such as the use of direct speech or personal pronouns for shifting perspective in stories, or the use of specific adjectives or adverbs to clarify attributes of objects in an instruction, may also prove useful to focus students' attention to specific functions in their writing process. It is quite difficult to decide in advance whether such specific genre knowledge can be usefully taught to young writers in the last years of elementary school and whether these students are able to apply this knowledge in their writing. For that reason, we recommend experimental research into all the different variables involved: the age of the students, the specific genres for writing, and the accompanying linguistic features focused upon. A research base of these different aspects of specific genre knowledge and writing instruction (with peer response to assure that revision is taken seriously) can make a further contribution to the practice of writing instruction in the late elementary and early secondary years.

Implications for Educational Practice

Results of this study indicate that peer response accompanied by instruction in specific genre knowledge for students at the end of primary school is feasible and effective in increasing their writing proficiency. Therefore, we would like to summarize the most important implications for writing instruction. First, as mentioned above, it seems important that students be systematically focused on the same functions throughout all stages of their writing process (planning, formulating, revising). In the planning stage, students can be presented with texts exemplifying the target functions of writing in a specific genre and the specific linguistic features for realizing them. During the formulating stage, students' attention can be drawn to the use of linguistic features for realizing their own genre-specific writing goals such as making their narrative exciting or imaginative, their arguments convincing, or their exposition clearly understandable. During the writing conference preceding revision, these same functions combined with their target linguistic features should remain in focus by having students explicitly pay attention to these features in each other's texts. This will necessitate that students also become accustomed to revising the target structures, making them more familiar. In any case, it is important that students learn to perceive linguistic features as tools for achieving genre-specific functions and not as objectives in themselves.

Second, although this was not part of our present research project, it is appropriate to remind the reader that the lessons in both experimental conditions were embedded in a thematic frame that was intended to make the different writing assignments meaningful and motivating for the students. We believe that such attempts to embed writing into a larger and meaningful theme, combined with opportunities for students to actually publish their writing for an audience, are important conditions for any writing intervention to succeed. Sadly, such conditions contrast sharply with what we know from studies exploring the organization of regular writing instruction in many schools (e.g., Gilbert & Graham, 2010).

Appendix A

Analyzing a Sample Text: The Use of Indicators of Time

The Secret Shack

At eight o'clock Rosa arrives on her bike. Suddenly she sees Sacha and Lidwien waiting at the bushes next to the playground, as they had agreed. Once the playground had been their meeting point. In the time they attended primary school they had a club. . . .

Read the explanation about the story you just read:

The writer uses words indicating *when* something happens. We call this *indicators of time*. Sometimes the writer uses **one word** (for instance: *once*). Other times the writer indicates time using **more words** (for instance: *in the time they attended primary school. . . .*

Even the **tense of verbs** shows if something happens at present (for instance: *sees*) or in the past (for instance: *had agreed*).

Appendix B

Example of a Writing and Revision Assignment

Part 1. Writing assignment: A story about an impressive person

Read the following text:

In this piece Roald Dahl describes his remembrances of the saleswoman he bought sweets from when he was at primary school:

The candy store of Mrs. Patchett was on the corner of the street next to our school. For us it was what a pub is for a drunk. From our class, we could clearly see who went inside. After school, we went there ourselves. There was one big drawback to that shop: Patchett was a horror. She was a skinny little old bag with a moustache on her upper lip and a mouth as sour as a green gooseberry. Near her nose was a mole, with a hair growing out. She never smiled when she stood behind her wooden counter. The most horrible was her filthiness. Her apron which came down from her hips, was grubby and dirty. Remains of her breakfast clung to her blouse. Her hands were the worst; they looked like those of a coalman. With these hands she grabbed in the jars with candy when we asked for liquorice.

Complete the following writing assignment (15 minutes):

Write a story about someone in the time that you attended primary school and who made a big impression. Make your text vivid by precise descriptions of the place and the changing of places. You may exaggerate a little to make your text funny. Write your text in about 150 words (as in the example text).

Part 2. Revision assignment: Improvement of your story

Complete the following assignment (10 minutes):

Read your story well as if you read it *for the first time*. Check whether your text is funny and intelligible for the reader who doesn't know who you are describing. Did you clarify for the readers *what* you mean exactly and *where* things are happening. Take also care that your text is carefully edited. Put lines in the text at places you are not contented with. Then you know exactly where you want to change something.

Appendix C**An Example Text at the 50th Percentile and the Positive and Negative Qualities Used for Scoring**

Tarik Ruel

Tarik is a boy whom I see often. Plays outside often. And he is a very smart boy. But he frequently shows off. He does so particularly at school. He is pretty tall, has black hair and can play soccer well. I think it is strange of him that he doesn't stand up for himself very often. His best friend is his father. He has a little brother. He himself admits himself that he is bad in everything except SOCCER. His favorite subject is MATH. Has small feet. Big hands, and can hear well. Makes jokes during gym often. Is a cute boy to talk with to play with and a lot more. His pupils are black (so black eyes for who don't understand). He often laughs about nearly all jokes. Bijna is his friend impressed the teachers already in the first grade. Have been to camp with him.

Positive:

- Genre: it is a narrative (behavior and characteristics of the person are being described)
- Content: the setting is primary school, description makes clear what impression the person made
- Language use: relatively careful (punctuation, few spelling errors)

Negative:

- Structure: unclear because of chaotic switches between the description of characteristics; no coherent image of the person; structure is enumerative instead of narrative
- Content: few details
- Language use: several incomplete sentences, the sentence "Bijna . . ." is not intelligible.
- Caricature: not really

Scoring Tool: Genre + Content +/– Structure – Language +/– Caricature –

Appendix D**Fragments of a Student's Text and a Protocol of a Writing Conference About These Fragments**

1. *Student's text, "Ginny and the first grade"*

Fragment 1

"1 . . . 2 . . . 3!! We are going to start now," teacher Lars shouts. Ginny has to do a solo in the musical. Actually she doesn't have the nerve, but everyone says she can sing so well.

That’s why she thought “why not” so now she does a solo for the whole school and her parents of course. She starts to sing . . .

Fragment 2

“Well done!” Samira says. “I wish I could sing so well.”

“Thanks,” Ginny says. She takes a sip of water.

She thinks that after the musical she only has a few more weeks left and then it’s over with the old familiar primary school.

They used to play tag and hide-and-seek. And you went around the classes on your birthday . . . they won’t do that anymore either.

“Hey, I asked you to move from my bag!” Ginny looked into Mitch’s eyes.

“Oh yes. Sorry.”

2. Protocol Writing Conference

	<i>(Students read principle 5 for writing conference: “give tips for improving the description of time”)</i>
Peer	. . . tips, well you might add some more flashbacks . . . back in time and . . . perhaps something about time in it, for instance in the past, or now and then. (about fragment 1) And . . . with the . . . musical for instance that eh the whole school and her parents could see her that she . . . sang, but that for instance you . . . could also grade one . . . that for instance you . . . could have said grade one, grade two, or something. Or just grade one to grade eight. Instead of . . . “the whole school,” that could also be. And . . . for instance while eh, (about fragment 2) while . . . dreaming away, he was eh, he was sitting on the bag. That you added that in the text . . . that he in advance, that he already had said to move from eh . . . from . . . the bag, because now you write “hey, I asked you to move from my bag.”
Writer	But . . . But it is the way that she hadn’t heard it and that you don’t put it in the narrative, you know? Do you understand?
Peer	Yes, oh yes, yes. Well this is all, I guess.

Note

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References

Beach, R., & Friedrich, T. (2006). Response to writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 222–235). New York: Guilford.

Beck, S. W., & Jefferey, J. V. (2009). Genre and thinking in academic writing tasks. *Journal of Literacy Research*, 41(2), 228–272. doi:10.1080/10862960902908483

- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Erlbaum. doi:10.1177/0741088307305976
- Blok, H. (1986). Essay rating by the comparison method. *Tijdschrift voor Onderwijsresearch* [Journal for Educational Research], 11, 169–176.
- Boscolo, P., & Ascorti, K. (2004). *Effects of collaborative revision on children's ability to write understandable narrative texts*. In G. Rijlaarsdam, L. Allal, L. Chanquoy, & P. Largy (Eds.), *Studies in writing: Vol. 13. Revision: Cognitive and instructional processes* (pp. 157–172). Norwell, MA: Kluwer.
- Bourke, L., & Adams, A. (2011). Is it difference in language skills and working memory that accounts for girls being better at writing than boys? *Journal of Writing Research*, 3(3), 249–277.
- Buss, K., & Karnowski, L. (2002). *Reading and writing nonfiction genres*. Newark, NJ: International Reading Association.
- Carter, R. (2003). Language awareness. *ELT Journal*, 57, 64–65. doi:10.1093/elt/57.3.251
- Christie, F. (1992). Literacy in Australia. *Annual Review of Applied Linguistics*, 12, 142–155.
- Christie, F., & Derewianka, B. (2008). *School discourse: Learning to write across the years of schooling*. London: Continuum. doi:10.1177/1362168811401154
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). New York: Academic Press.
- Cope, B., Kalantzis, M., Kress, K., & Martin, J. (1993). Bibliographical essay: Developing the theory and practise of genre-based literacy. In B. Cope & M. Kalantzis (Eds.), *The powers of literacy: A genre approach to teaching writing*. Pittsburgh: University of Pittsburgh Press. doi:10.1080/09500780108666814
- Corden, R. (2002). Developing reflective writers in primary schools: Findings from partnership research. *Educational Review*, 54(3), 250–276. doi:10.1080/003191022000016310
- Corden, R. (2007). Developing reading-writing connections: The impact of explicit instruction of literary devices on the quality of children's narrative writing. *Journal of Research in Childhood Education*, 21(3), 269–289. doi:10.1080/02568540709594594
- Daiute, C. A. (1986). Do 1 and 1 make 2? Patterns of influence by collaborative authors. *Written Communication*, 3, 382–408. doi:10.1177/0741088386003003006
- Daiute, C. A., & Dalton, B. (1993). Collaboration between children learning to write: Can novices be masters? *Cognition and Instruction*, 10(4), 281–333. doi:10.1207/s1532690xc1004_1
- DeGross, L. C. (1987). The influence of prior knowledge on writing, conferencing, and revising. *Elementary School Journal*, 88, 105–116.
- Donovan, C. A., & Smolkin, L. B. (2008). Children's understanding of genre and writing development. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. New York: Guilford.
- Dutch Inspectorate. (2010). *Het onderwijs in het schrijven van teksten: De kwaliteit van het schrijfonderwijs in de basisschool* [Writing instruction: The quality of writing instruction in primary education]. Utrecht: Dutch Inspectorate.
- Englert, C., Raphael, T., & Anderson, L. (1992). Socially mediated instruction: Improving students' knowledge and talk about writing. *Elementary School Journal*, 92(4), 411–445.
- Englert, C., Raphael, T., Anderson, L., Anthony, H., & Stevens, D. (1991). Making strategies and self-talk visible: Writing instruction in regular and special education classrooms. *American Educational Research Journal*, 28(2), 337–372. doi:10.3102/00028312028002337
- Fitzgerald, J. (1987). Research on revision in writing. *Review of Educational Research*, 57, 481–506. doi:10.3102/00346543057004481
- Flower, L., & Hayes, J. R. (1980). The dynamics of composing: Making plans and juggling constraints. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 31–50). Hillsdale, NJ: Erlbaum.
- Franssen, H. B. M., & Aarnoutse, C. (2003). Schrijfonderwijs in praktijk [Writing instruction in practice]. *Pedagogiek*, 23(3), 185–198.
- Gelderen, A. van (1997). Elementary students' skills in revising: Integrating quantitative and qualitative analysis. *Written Communication*, 14(3), 360–397. doi:10.1177/0741088397014003003
- Gelderen, A. van, & Blok, H. (1991). De praktijk van het stelonderwijs in de groepen 7 en 8 van de basisschool: Observaties en interviews [The practise of writing instruction in the upper primary grades: Observations and interviews]. *Pedagogische Studiën*, 69(4), 159–175.

- Gelderen, A. van, Oostdam, R., & Schooten E. van (2011). Does foreign language writing benefit from increased lexical fluency? Evidence from a classroom experiment. *Language Learning*, **61**(1), 281–321. doi:10.1111/j.1467-9922.2010.00612.
- Gelderen, A. van, Schoonen, R., Glopper, K. de, Hulstijn, J., Simis, A., Snellings, P., & Stevenson, M. (2003). Roles of linguistic knowledge, metacognitive knowledge and processing speed in L3, L2, and L1 reading comprehension: A structural equation modeling approach. *International Journal of Bilingualism*, **7**(1), 7–25. doi:10.1177/13670069030070010201
- Gelderen, A. van, Schoonen, R., Glopper, K. de, Hulstijn, J., Simis, A., Snellings, P., & Stevenson, M. (2004). Linguistic knowledge, processing speed and metacognitive knowledge in first and second language reading comprehension: A componential analysis. *Journal of Educational Psychology*, **96**(1), 19–30. doi:10.1037/0022-0663.96.1.19
- Gelderen, A. van, Schoonen, R., Stoel, R., Glopper, K. de, & Hulstijn, J. (2007). Development of adolescent reading comprehension in Language 1 and Language 2: A longitudinal analysis of constituent components. *Journal of Educational Psychology*, **99**, 477–491. doi:10.1037/0022-0663.99.3.477
- Gilbert, J., & Graham, S. (2010). Teaching writing to elementary students in grades 4 to 6: A national survey. *Elementary School Journal*, **110**, 494–518. doi:0013-5984/2010/110004-0004.
- Gillespie, A., Olinghouse, N. G., & Graham, S. (2013). Fifth-grade students' knowledge about writing process and writing genres. *Elementary School Journal*, **113**(4), 565–588.
- Glaser, C., & Brunstein, J. C. (2007). Improving fourth-grade students's composition skills: Effects of strategy instruction and self-regulation procedures. *Journal of Educational Psychology*, **99**(2), 297–310. doi:10.1037/a0024622
- Graham, S. (2007). Strategy instruction and the teaching of writing: A meta-analysis. In C. A. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 187–207). New York: Guilford.
- Graham, S., & Harris, K. R. (2003). Students with learning disabilities and the process of writing: A meta-analysis of SRSD studies. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323–344). New York: Guilford.
- Graham, S., Harris, K. R., & Mason, L. (2005). Improving the writing performance, knowledge, and self-efficacy of struggling young writers: The effect of self-regulated strategy development. *Contemporary Educational Psychology*, **30**(2), 207–241. doi:10.16/j.cedpsych.2004.08.001
- Graham, S., McKeown, D., Kiuahara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, **104**(4), 879–896. doi:10.1037/a0029185
- Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, **99**(3), 445–476. doi:10.1037/0022-0663.99.3.445
- Graves, D. H. (1983). *Writing: Teachers and children at work*. Portsmouth, NH: Heinemann.
- Halliday, M. A. K., & Matthiessen, C. (2004). *An introduction to functional grammar* (3rd ed.). London: Arnold.
- Harris, K. R., Graham, S., & Mason, L. (2006). Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support. *American Educational Research Journal*, **43**(2), 295–340.
- Hayes, J. R. (1996). A new framework for understanding cognition and affect in writing. In C. M. Levy & S. Randel (Eds.), *The science of writing: Theories, methods, individual differences and applications* (pp. 1–27). Mahwah, NJ: Erlbaum.
- Hayes, J. (2011). Kinds of knowledge telling: Modeling early writing development. *Journal of Writing Research*, **3**, 73–92.
- Hillocks, G. (1986). *Research on written composition*. Urbana, IL: National Conference on Research in English, and Eric Clearinghouse on Reading and Communication Skills. doi:10.1177/0741088308317815
- Hoogeveen, M., & van Gelderen, A. (2013). What works in writing with peer response? A review of intervention studies with children and adolescents. *Educational Psychology Review*, **25**(4), 473–502. doi:10.1007/s10648-013-9229-z
- Kos, R., & Maslowski, C. (2001). Second graders' perceptions of what's important in writing. *Elementary School Journal*, **101**(5), 567–584.
- Kress, G. (1994). *Learning to write* (2nd ed.). New York: Routledge.

- Lewis, M., & Wray, D. (1995). *Writing frames: Scaffolding children's non-fiction writing in a range of genres*. Exeter: University of Exeter. doi:10.1111/j.1467-9345.1996.tb00161.x
- Lloyd-Jones, R. (1977). Primary trait scoring. In C. R. Cooper & L. Odell (Eds.), *Evaluating writing: Describing, measuring, judging* (pp. 33–66). Urbana, IL: NCTE.
- MacArthur, C. A., Schwartz, S., & Graham, S. (1991). Effects of a reciprocal peer-revision strategy in special education classrooms. *Learning Disabilities Research & Practise*, *6*, 201–210. doi:10.1177/002221940303600204
- Martin, J., Christie, F., & Rothery, J. (1987). Social processes in education—a reply to Sawyer and Watson (and others). In I. Reid (Ed.), *The place of genre in learning: Current debates*. (Typer-reader Publication No. 1). Geelong: Centre for Studies in Literary Education, Deaking University Press.
- McCormick Calkins, L. (1986). *The art of teaching writing*. Portsmouth, NH: Heinemann.
- McCutchen, D. (1986). Domain knowledge and linguistic knowledge in the development of writing ability. *Journal of Memory and Language*, *25*, 431–444. doi:10.1016/0749-596X(86)90036-7
- McCutchen, D. (1995). Cognitive processes in children's writing: Developmental and individual differences. *Issues in Education*, *1*, 123–160.
- Olson, V. B. (1990). The revising proces of sixth-grade writers with and without peer feedback. *Journal of Educational Research*, *84*(1), 22–29.
- Prater, D. L., & Bermudez, A. B. (1993). Using peer response groups with limited English proficient writers. *Bilingual Research Journal*, *17*, 1 & 2, 99–116.
- Prior, P. (2006). A sociocultural theory of writing. In C. S. McArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 54–67). New York: Guilford.
- Rose, D. (2009). Writing as linguistic mastery: The development of genre-based literacy pedagogy. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 151–166). London: SAGE. doi:10.1016/j.jslw.2011.03.001
- Schleppegrell, M. J. (2007). The linguistic challenges of mathematics teaching and learning: A research review. *Reading & Writing Quarterly*, *23*, 139–159.
- Schoonen, R. (2005). Generalizability of writing scores: An application of structural equation modelling. *Language testing*, *22*, 1–30. doi:10.1191/0265532205lt2950a
- Schoonen, R., Gelderen, A. van, Gloppe, K. de, Hulstijn, J., Simis, A., Stevenson, M., Snellings, P., et al. (2003). First language and second language writing: The role of linguistic fluency, linguistic knowledge and metacognitive knowledge. *Language Learning*, *53*(1), 165–202. doi:10.1177/13670069030070010201
- Sims, D. (2001). *Improving elementary school students' writing using reading and writing integration strategies* (ERIC Document Reproduction Service No. ED454502).
- Stein, N. L., & Glenn, C. G. (1979). An analysis of story comprehension in elementary children. In R. Freedle (Ed.), *New directions in discourse processing* (pp. 113–155). Hillsdale, NJ: Erlbaum.
- Sutherland, J. A., & Topping, K. J. (1999). Collaborative creative writing in eight-year-olds: Comparing cross-ability fixed role and same-ability reciprocal role pairing. *Journal of Research in Reading*, *22*(2), 154–179. doi: 10.1111/1467-9817.00080
- Toth, G. M. (1997). *The effect of cross-age peer grouping on the writing achievement of sixth and first grade students* (Eric Document Reproduction Service No. 405593).
- Trapman, M., Gelderen, A. van, Steensel, R. van, Schooten, E. van, & Hulstijn, J. (2012). Linguistic knowledge, fluency and metacognitive knowledge as components of reading comprehension in adolescent low achievers: Differences between monolinguals and bilinguals. *Journal of Reading Research*. doi:10.1111/j.1467-9817.2012.01539.x
- Wyatt-Smith, C. (1997). Teaching and assessing writing: An Australian perspective. *English in Education*, *32*(3), 8–21.