The dynamics of writing and peer review at primary school

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Abstract: The object of this research is a learning method that uses email correspondence to promote the development of narrative writing skills in year 4 and year 5 students. Focusing on the written production of episodes of adventure novels and peer review, this learning method was applied to four classes in the Paris region over a 1-year period. The classes were paired in such a way that some students were required to read and analyze texts produced by correspondents (advice givers) while others carried out revisions using peer advice and suggestions (advice receivers). To describe the dynamics of writing, revision and learning, a qualitative analysis of the texts and suggestions given or received by the student partners is carried out. A statistical analysis comparing the texts produced by students in both groups is used to corroborate the findings of the initial analysis. Students showed an increasing awareness and consideration of the key characteristics of the practiced genre, resulting in an improvement of the quality of the texts in the course of the revision process and throughout the year. The texts produced by the advice givers improved more than the texts produced by the advice receivers. The findings are attributed to greater self-reflection and successive reformulations fostered by the elaboration of advice and suggestions.

Keywords: collaborative learning; didactics; genres; interaction; literacy practices


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1. Research objectives and framework

The research focused on the collaborative review and revision of fictional texts by primary school students aged 9 to 11. The students were required throughout the year to write several episodes of an adventure novel, which they then exchanged via email and subsequently revised. The aim of the study was to understand the effects of a collaborative tutoring method involving peer feedback. The texts produced by the tutors (the ‘advice givers’) were compared with the texts written by students who received advice (the ‘advice receivers’). The texts were then linked with the peer feedback included in the written exchanges. The aim was to study the dynamics of writing in relation to the dynamics of student interactions.

The dynamics of writing and the dynamics of learning are closely intertwined at this stage. The notion of dynamics implies the issue of writing and learning time (Plane, Alamargot, & Lebrave, 2010), student development over time, and the succession of different moments. Analyses of texts by students involve two distinct temporal dimensions:

- A short-term temporal dimension, i.e. revision — changes and alterations between the first and second versions of a text following a revision or rewriting task;
- A longer-term temporal dimension, i.e. the development of texts in the course of a school year and the consolidation of writing skills.

This description will focus on certain key aspects of the dynamics of learning — specifically aspects relating to progress toward “elaboration writing”.

Secondary genres, elaboration writing and critical distance

Learning to write includes the acquisition of various resources used by expert writers in the writing process (Hayes, 1996). However, learning to write does not only involve acquiring knowledge and skills specific to written language that are used to encode spoken language, spelling, syntax, punctuation, the use of page space and “text grammar”. Writing is also a “cognitive transformer” (Lahire, 2008; Olson, 2008); as suggested by Goody (2000), in literacy there can be a significant cultural gap between students who are simply able to transcribe oral discourse and high-ability students who are able to use the possibilities provided by writing to preserve what has been produced, to link it with other texts, to alter it, to abstract and generalize, and, in the case of literary texts, to create fictional worlds and effects on their readers. Learning how to write involves understanding how to use genres embedded in specific social and intellectual practices, particularly secondary (or second-type) genres (Bakhtin, 1984), such as the novel, a play, or scientific discourse, requiring a cognitive and linguistic elaboration that extends beyond the immediacy of conversation. According to Bakhtin, secondary genres (the most complex type of genre) absorb and transform the simplest utterances produced in the context of a spontaneous verbal exchange; for
example, a line of dialogue in a novel can be examined in terms of its relationship with the novel as a whole, as having an intended aesthetic effect and as presenting specific genre characteristics that have shaped the nature of exchanges in particular cultural, professional or linguistic communities. Hence, it is important to study the development of genre awareness in students (Chapman, 1995; Kamberelis, 1999), including through analyses of “authentic” writing situations aimed at teaching different genres in linguistic communities in a school context (Allal, 2004; Jaubert, 2007; Purcell-Gates, Duke, & Martineau, 2007).

By learning these practices, students change their relation to language by “secondarizing” it (Bautier, 2004) and are able to develop the critical distance required for most school learning. The notion of secondarization emphasizes the cognitive activity of students in engaging with and practicing the discursive genres examined at school; objects of knowledge, experience of the world and language itself are decontextualized, and previous knowledge is re-organized and incorporated into new knowledge: learning (particularly language learning) involves not only “language and linguistic resources, but also a positioning of the self in relation to linguistic and non-linguistic objects, in relation to the activity itself, to its object and aims” (Bautier, 2004, p. 54; translated from the French). The aim is to ensure that students develop a “full literacy” that extends beyond the ability to use technical tools and everyday writing, and also includes uses “that help to weave together different voices of diverse origins” to elaborate general rules or laws (Bautier, 2009, p. 13; translated from French). The development of a learning strategy aimed at enabling students to achieve full literacy is particularly important for struggling students, since low-ability students tend to be those who benefit the least from school learning (in the specific case of reading, see for example Stanovich, 1986).

This study extends previous research on the metacognitive dimensions of writing learning (Goldin & Ashley, 2012; Harris & Graham, 1996), but also builds on research which, following Bakhtine (1981), has focused on the construction of interdiscourse among learner writers (Jaubert, 2007), based on the assumption that all discourse is polyphonic and contains the traces of related exchanges and influences. The analysis of how students learn to use a secondary genre (in this case the adventure novel) will highlight several traits used as a basis for defining the concept of “elaboration” writing.

- First, the study will seek to identify the characteristics of the novel genre (specifically the adventure novel genre) in the written work produced by the students. These characteristics are presented below.
- The study will also examine how young writers express and “orchestrate” different voices in their texts and will focus on the textual traces of interactions with other texts and partners encountered in the course of learning. Using the discourse of others to develop and re-develop texts is an integral part of the skills that young writers must develop.
Finally, the study examines the development of a more critical or distanced relation to writing and the ability to generalize writing and revision procedures — i.e. the ability to define procedures in abstract terms and to re-use them in other tasks.

Peer tutoring and the construction of knowledge about texts

The acquisition of writing skills should not be analyzed globally or independently of the didactic practices and situations in and through which it is constructed (Reuter, 2006). The aim of this paper is to identify the features that signify a development toward secondary genres and elaboration writing in the texts produced by students, and to do so in connection with the description of a specific learning system and peer-tutoring method.

Learning to write requires writing a lot and often. The time devoted to learning in class is one of the main factors of learning efficiency, as shown by Berliner (1985) in the context of grade 2 reading and mathematics, although the relationship between the time devoted to learning and the acquired knowledge and skills is not linear (Stalling, 1980). But while there is evidence to suggest that this is a necessary condition, it is not a sufficient condition — at least if the aim is elaboration writing. It might be assumed that asking novice writers to rewrite their first drafts not only improves students’ texts in the short term but also shows students that a text can be rewritten and how it might be rewritten. Yet teachers insist that young students are often reluctant to redraft their texts. Research indicates that later drafts show no evidence of significant improvement without any learning or teaching between drafts (Crinon & Legros, 2002) so long as writers have not acquired the necessary knowledge about genres and adapted “task schemas” (Hayes, 1996, 2004). The system used in this research structures and supports revision-rewriting tasks using distance peer collaboration. The study required students of the same age drawn from different classes and involved in a common writing and publication project to communicate in writing in order to revise and redraft their texts. Thus, the emphasis is laid on the relation between a writing practice elaborated in a specific disciplinary area — literature — and the critical distance developed in relation to this practice: the designed writing situation involves alternating between periods during which students write fragments of novels and periods in which students assess texts for the purposes of revision.

Peer support enables learner writers to improve their writing (see the meta-analysis carried out by Graham and Perin, 2007). A study involving year 5 students by Allal, Mottier Lopez, Lehraus, and Forget (2005) showed a significant increase of the number of textual alterations during pair work compared with the revisions carried out by authors individually. MacArthur and colleagues used peer response groups to help struggling writers to revise their texts; the results indicated a significant increase of the quantity and quality of revisions (Stoddard & MacArthur, 1993). In such cases, collaboration is often based on the idea that in the constituted discursive community (Bernié, 2002; Wenger, 1998), the figure of the reader is embodied in real rereading.
partners (Boscolo & Ascorti, 2004; Nystrand, 1986). However, research has also highlighted the metacognitive effects of revision based on peer feedback in the context of an increased awareness of assessment criteria (MacArthur, Schwartz, & Graham, 1991). Previous studies have also provided evidence of progress in the understanding of success criteria among 4th and 5th graders required to write expository texts after science lessons and to revise their work based on a peer tutoring system. The quality of the texts produced by students, especially the lowest-ability students, appears to increase throughout the year (Crinon & Marin, 2010b).

In this study, communication technologies (e-mailing) were used to enable written peer collaboration aimed at providing young writers with a real audience of readers and commentators (Rijlaarsdam, Couzijn, & Van den Bergh, 2004) and at objectivizing success criteria. The students were required at different stages of the learning process to produce a written narrative, to provide and/or follow advice in the form of suggestions or more general criteria, and to revise their initial text, a process that resulted in new critical advice. Reformulation is a key principle of language learning and plays a key role in the development of syntactic complexity in young speakers (Martinot, 2010). Here, it is assumed that generalizing advice and reformulation contribute to the acquisition of the key skills required to understand and use a “secondary” genre.

This paper argues that reader feedback is not the most important factor in the dynamics of creation and learning, but that reformulations and the process of objectifying the genre criteria of a successful text play an important role.

2. Design and method

Participants

Four French classes (101 students) in the Paris region (grades 4 and 5) participated in this research in 2008-2009. Participants were native French-speaking students aged between 9 and 11 from diverse social backgrounds. The sample population covered a wide range of ability levels. 64 students were included in the quantitative analyses to ensure that every group contained the same number of high-achieving and low-achieving students (see below). The level of students was assessed at the beginning of the school year using reading comprehension tests, reordering tasks, and assessments of the relative importance of different pieces of information. According to the teachers, this level reflected the general level of school results achieved by students.

A system of narrative writing and collaborative review

Their assignment was to write several episodes of an adventure novel designed to be published on a website. From October to April, the students produced four episodes in the course of four writing sequences structured around four sessions:

1. Students read a passage from an adventure novel that will eventually incorporate the episode which students are required to write.
2. Individually students write a first draft of the episode. The writing task is prompted by an adult reading several examples of a similar episode.
3. Students engage in distance-learning peer collaboration for the purposes of review and revision.
4. Students revise and rewrite their texts individually.

The four sessions of each sequence were spread over two weeks. The assignment instructions refer to stereotypical episodes of the practiced literary genre: – Will the hero lost in the Siberian forest withstand hunger and the cold? The hero ensures his survival. – The hero confronts a wild animal. – The hero braves a storm. – The hero tries to escape pursuers.

Peer collaboration (third sessions) is asymmetrical and conducted via email. Students from two of the participating classes were assigned the role of instructors (or tutors), received the texts written by correspondents and issued criticisms and suggestions. The students from the two remaining classes received peer advice, criticisms and suggestions and responded in writing by identifying relevant and irrelevant comments (back review). Unlike many previous studies on collaborative peer revision, the students were not grouped in pairs; instead, every student corresponded with three or four working partners of different levels (weaker and stronger). Each student from the advice-receiving classes was required to send their texts to several advice-givers partners, who were then asked to read the texts produced by several partners and to provide individually tailored critical feedback. The project was based exclusively on written collaboration. Email correspondence was used to conduct written exchanges within a limited time frame.

In the first sequence, participants in the four classes were also introduced to textual revision (the students were taught to revise their text in such a way that the texts would produce the same type of effect on their readers as the texts of the same genre read by the teacher) and methods for producing written peer advice and suggestions.

The sessions were conducted by a member of the research team and by the usual classroom teacher. Work sessions bringing together members of the research team and classroom teachers were conducted prior to the sessions to reach an agreement over a protocol designed to ensure that the work carried out in class and the nature of the interventions made by adults were as similar as possible in all four classes. In sequences two, three and four, students worked independently and were merely reminded of the initial instructions and given encouragement by the teacher. There was no teacher intervention and the different sequences invariably had the same objective: to write and revise an episode from a novel. It is important to note that while this study examines the construction of explicit knowledge about a particular genre, its purpose is not to assess the explicit teaching of the genre, which is an altogether different issue (Klein & Kirkpatrick, 2010). After session 2 (completion of the first draft), spelling and punctuation were corrected by adults before sending the texts to correspondents (i.e. learning partners).
In addition to those sequences, students also read several other adventure novels throughout the year. During collective reading sessions, students identified the characteristics of the genre with the help of teachers. The discovery and learning process was informal and was not based on systematic, formal instruction.

**A genre – the adventure novel**

Students were required to engage with a specific genre – the adventure novel – and to appropriate the chief characteristics (and devices) of the genre through writing and critical exchanges.

Some of the characteristics of the genre are common to all narratives. The first objective of the assignment is to develop an overall narrative coherence to ensure that every piece of information is clearly defined and related to other pieces of information in a finalized action plan: characters succeed or fail to reach their goal (Black & Bower, 1980). The second objective is to ensure that the narrated episode can be incorporated in the novel without any contradictions and that it correctly reflects the assignment instructions.

Other genre characteristics are specific to adventure novels. These include a specific relation between fiction and reality determined by the plausibility criterion, a significant and salient setting that performs an important narrative function, and the use of devices designed to capture the reader’s interest in a character exposed to mortal dangers. These are effects of reader expectation produced by a slowed or quickened narrative pace, an alternation between failure and success, the manipulation of narrative perspective, the inclusion of descriptions, effects of identification with a character, adoption of the character’s viewpoint, evaluative comments, modalization, interior monologues, mimetic effects produced by the use of dialogue, onomatopoeias (Petitjean, 1994).

**Corpus analysis**

The texts produced by students were analyzed based on the characteristics of the practiced genre. An initial, qualitative analysis will serve to highlight the dynamics of writing and learning by examining the development of the texts produced by students throughout the four writing situations and their written interactions with working partners. Two individual cases studies are presented below. The first case study focuses on a good student who provided feedback (a tutor), while the second case study examines a good student who received feedback.

The second (statistical) analysis shows that the case studies produced findings that apply to all participants. The statistical analysis is presented after the qualitative analysis.
3. The gradual appropriation of the words of others

The case of Julien

The majority of participants were able to learn the characteristics of the genre in the course of the year through rewriting and the production of new texts, though to varying degrees and at different paces. The following example considers the texts written by Julien, who belonged to the group of students required to issue criticisms and suggestions.

The first text written by Julien is a short piece.

Vassioutka goes looking for twigs. He took some matches and lights the fire. He takes a piece of wood, takes a bit of fire, and goes looking for food and sees a shadow. He takes his gun and shoots. He has killed a wild boar. He returned to the fire and puts the animal on the fire. Then he has gone looking for something to build a shelter. And he ate and went to sleep.

From the very outset, Julien was able to produce a coherent text (which was the case for all participants) and to include all the relevant information (the young hero, who became lost in the taiga looking for cedar berries, has matches and a gun). The student correctly focused on the episode in which the hero “settles” in a hostile and solitary environment (unlike other students intent on ending the novel in the very first episode). While the level of geographical accuracy is not high (are there really wild boars in the Siberian forest?), the main deviation from the genre is the “skeletal” nature of the text. As a simple sequence of actions narrated in chronological order in which every endeavour of the character is successful, the text fails to produce mimetic illusion—which creates a universe of reference imitating reality—, emotion, and narrative suspense. To this extent it is also representative of the majority of texts written at the beginning of the year, including texts produced by good students (such as Julien). For Julien, writing a text at this stage merely involves producing a minimal piece, a synopsis.

In subsequent work, the teacher insisted on details that could be used to create effects similar to those observed in the adventure novels that students were reading at the time. Julien gave the following advice to his partners:

You don’t say whether Vassioutka eats the grouse. How does he manage to light the fire, build the shelter, and find water? How does he manage to kill the bear? (To Alican)

You don’t say how he managed to light a fire or how he managed to find food or how he sleeps. What does he eat? (To Henda)

You didn’t say he was hungry. Will he get some sleep? (To Anthony)

Julien’s suggestions centre on the clarification of the narrative, indicating that in order to capture the reader’s attention, he is becoming increasingly aware of the need to
show the scene. This dual concern can be seen at work in the revised version of Julien’s own text.

Vassioutka goes looking for twigs and small pieces of wood. He took some matches and (lights) lit the fire. He was able to light the fire because he had learnt a technique at school. He thought that the smoke would attract animals to kill.

He (takes) took a piece of wood and (takes) took a bit of fire. He thinks that the smoke will attract animals to kill. (and he goes looking for food and sees a shadow). He heard a noise. He (takes) took his gun and shot in all directions. He (has killed) killed a wild boar. He returned to the fire and (puts) put the animal on the fire. Then he (has gone looking) went looking for something to build a shelter. He cut some branches for the mattress and the tent. He took the wild boar off the fire and ate it. (and) He (goes) went to sleep in the tent.

The next day, he said to himself: “I will eat”, then he went hunting to find food for the evening and the afternoon.

Because of the inclusion of new genre characteristics, the first draft of the following text shows a significant development. The following episode involves a confrontation with a wild animal.

Vassioutka heard something. He went out armed. He examined the surrounding area. He saw the fierce beast: “A lynx!”.

The lynx leapt at him. Vassioutka ran into his tent to hide from the beast.

Vassioutka is shaking. He could hear the lynx prowling around. Vassioutka said to himself: “I’m so scared”.

The lynx was opening the tent with its claws. Vassioutka left the tent and ran away and the lynx chases him.

Vassioutka climbed up into a tree. The lynx leapt from branch to branch.

Vassioutka went head to head with the lynx. Vassioutka saw his gun at the bottom of the tent.

He leapt out of the tree and took his gun and shot at the lynx.

He said: “Cool, I’ve got something to eat”. He put the fire out then went to bed.

The narrative is more complex since the main character experiences difficulties before emerging unscathed. Julien is thus also conveying the mental states of the character (both directly and indirectly). The student even takes a stand by seeking to influence the reader through the use of evaluative vocabulary (“fierce”).

The advice given to Julien’s partners in this sequence highlights another important characteristic of the adventure novel genre – the importance of locating the narrative in
a plausible universe. Julien also underlined the importance of applying instructions correctly: the point is to describe a fight — a fight against a dangerous and ferocious opponent.

He can’t see his mother. You didn’t talk about a fight between Vassioutka and the bears. (To Alican)

You’re very clear when the animal appears. There’s no fight. They can’t possibly sleep together because the animal is too fierce. (To Henda)

Don’t make the animals talk. Is a grouse dangerous? (To Anthony)

In version 2 of the episode, the level of complexity of Julien’s narrative is heightened to draw out the tension, and the lengthy addition to the first paragraph suggests that the student has learnt how to use a new device.

Vassioutka heard something. He went out armed. He examined the surrounding area. In the shadows he saw two long pointed ears and a long hairy nose and on its paws long claws as sharp as a sword. He looked a second time and saw black spots. He saw the fierce beast even closer: “A lynx!”.

The lynx leapt at him. Vassioutka ran into his tent to hide from the beast.

Vassioutka (is) was shaking. He could hear the lynx prowling around. Vassioutka said to himself: “I’m so scared”.

The lynx was opening the tent with its claws. Vassioutka left the tent and ran away and the lynx (chases) chased him.

Vassioutka climbed up into a tree. The lynx leapt from one branch to another.

Vassioutka went head to head with the lynx. Vassioutka grabbed a stone and threw it at it, but missed. Vassioutka saw his gun at the bottom of the tent.

He leapt out of the tree and took his gun and shot at the lynx.

He said: “Cool, I’ve got something to eat”. He put the fire out then went to bed.

The new tension generated by the first paragraph is created by a skillful use of the character’s point of view. The reader discovers the threat at the same time as the character. The description of the animal and the emphasis on disquieting descriptive elements (claws “as sharp as a sword”) come before the moment when Vassioutka (and indeed the reader) is able to identify the precise nature of the threat: “A lynx!” In the rewritten passage, the expression “the ferocious beast” operates as an anaphora encapsulating what was previously revealed, and its implications for the narrative: the hero is in difficulty. Julien was thus able to hold the reader in suspense, developing what had seemed interesting to him in Henda’s text, i.e. the arrival of the animal, and applying to his own text the advice he had given to his partners — i.e. the importance of staging the fighting and of showing the ferociousness of the hero’s opponent.
In the following sequence, Julien (like the majority of participants) produced a shorter and less successful text, while using some of the devices used previously.

There was a very strong wind uprooting trees. Vassioutka saw the Yenisei River in the distance. The wind was blowing like a hurricane, carrying Vassioutka all the way to Yenisei Lake.

He shouted: “Help!”. He was very scared. Vassioutka felt a bolt of lightning brush against his cheek. The thunder burned the trees. A heavy rain was falling. He ran all over the place.

The written advice sent to correspondents is underpinned by the same criteria as in sequence 2.

Rewrite the last sentence. Why does he push the branch? (To Alican)

Ghosts don’t exist. Where do the waves come from? (To Henda)

Say what light it is. What’s the string for? (To Anthony)

The revised version is relatively undeveloped. The rest of the action is closer to a minimal narrative than the narrative written during the second sequence.

There was a very strong wind uprooting trees. Vassioutka saw the Yenisei River in the distance. The wind was blowing like a hurricane (carrying Vassioutka all the way to Yenisei Lake).

He shouted: “Help!”. He was very scared that a tree would fall on him. Vassioutka felt a bolt of lightning brush against his cheek. The thunder The lightning burned the trees. A heavy rain was falling. He ran all over the place.

He reached Yenisei in one piece. He saw a house and went in.

It would appear that the acquired knowledge and skills are still in need of consolidation. Showing the confrontation of the character with the elements appears to be more difficult than showing the character fighting against an animate being. In a new writing situation in sequence 4, Julien sought once again to create the specific pleasure of reading an adventure novel.

Jeremy continues to run. He would like to go faster. Jeremy stops, climbs up into a tree and swings from branch to branch. Suddenly, he sees a snake and falls to the ground with it. The snake was in an attack position. Jeremy threw a stone at the snake’s head and ran away. The three guards were just metres behind Jeremy. The dog handler said to the two other guards: “Come on, we’re closing in on the prey”.

Jeremy arrived at another backwater. He crossed it easily, climbed out of the backwater and went deep into the forest and ran on. Jeremy stopped and went to sleep on a bed of leaves.
The mastiff arrived in front of Jeremy. The barking dog woke Jeremy up. The dog handler said to Jeremy: “Dirty (kid) bastard, you’re going back to (prison) hell”. (Jeremy) The fugitive said: “I won’t go back...” and before he had even finished talking he started to run away.

Once again the student resorted to devices used previously. By alternating between the viewpoint of the pursuers and the viewpoint of the pursued, the chase scene involves a skilful use of narrative perspective, thus creating expectation. In an unprecedented development, Julien “theorizes” the intention to create narrative suspense in the advice given to his peers.

You didn’t do the chase scene between Jeremy and the guard. Does Jeremy leave or does he stay with the guards? You could have said: “the guards want to catch the fugitive”. (To Alican)

Where does the meeting take place? You’ve written a good piece. It could do with more suspense. You could say: “Will he be caught by the enormous guards?”. You could say Jeremy is “terrified”. (To Henda)

It’s the dog handler who’s barking. Why doesn’t Jeremy leave? You could say that Jeremy tries to escape. (To Anthony)

In the course of revision, the scope of the chase scene is further developed by increasing the threats hanging over the character and by seeking to communicate the fear of being pursued even more effectively, in line with the advice he gave to Henda.

Jeremy continues to run. He would like to go faster. Jeremy stops, climbs up into a tree and swings from branch to branch. Suddenly, he sees a snake and falls to the ground with it. (Jeremy threw a stone at it and ran away.) He backs away trembling with fear then finds a stone and throws it at random. The three pursuers chasing him were just metres behind Jeremy. The dog handler said to the two other guards: “Come on, we’re closing in on the prey”.

Jeremy arrived at another backwater. He crossed it easily, climbed out of the backwater and removed some leeches. While he was removing them, a crocodile came out of the water. Scared to death Jeremy said: “My last hour has come!”, escaped from the claws of the crocodile “Phew! That was close” and went deep into the forest and ran. Jeremy stopped and went to sleep on (a bed of leaves) a bush.

The mastiff arrived in front of Jeremy. The barking dog woke Jeremy up. The dog handler said to Jeremy: “Dirty [kid] bastard, you’re going back to (prison) hell”. (Jeremy) The fugitive said: “I won’t go back...” and before he had even finished talking he started to run away determined not to go back to prison.
Night fell and Jeremy climbed up into a tree to go to bed for the night. The guards stop and set up camp. The next day, the escapee set off first with the sun in his flight.

How might we assess the development of the texts written by the student? It appears that Julien quickly understood that writing literary narratives not only involves producing a coherent story but that it must also give pleasure to its readers. Words and devices borrowed from others (fiction writers, but also possibly fellow students) serve to achieve this aim. Several characteristics of the adventure novel genre (outlined above) were gradually appropriated and used. The modifications invariably observed in redrafting were mostly designed to produce a specific effect. The search for effects (in the final sequence) was observed in the very first draft. The importance of rewriting also shows that Julien is engaged in a process of constant textual elaboration. In short, he is not merely transcribing ideas “as they come”.

The advice given to peers reflects and clarifies the process of “literary” elaboration designed to create pleasure. It might be hypothesized that by alternating between a personal writing practice, reading texts and the explicit articulation or reformulation of success criteria, the advice contributed to the construction and development of the success criteria. At the same time, there was clear evidence of a developing ability to write texts complying with these criteria.

The case of José

Julien was a high-achieving student belonging to a group of advice-givers. The same dynamic was observed in other students within the group. The development of the texts produced by weaker students giving advice shows the same tendencies, though less clearly (see below). However, a different learning dynamics was observed among students receiving advice, as shown by the analysis of the work written by José, a good student receiving advice.

Like the majority of other students, José’s first text is coherent though limited to a brief synopsis.

Vassioutka is starving. He goes out to hunt, kills a wolf and eats it with his bread. He lights a fire with some dry branches and his matches. He makes a calendar to mark each day by carving notches and builds a shelter. Vassioutka thinks about his family. He is sad and feels lonely.

José was given a set of suggestions by advice-givers encouraging him to develop the scene, commending him for emphasizing the character’s feelings at the end of the text, and asking him to develop the character’s feelings.

You didn’t say how he lit the fire. (Ryan)

Vassioutka is suffering from hunger but you didn’t explain how he found food. (Robin)
You need to say how Vassioutka warms himself up. (Jasmine)

The last sentence is quite good. (Vuong)

You need to say if Vassioutka is afraid or not. (Jasmine)

Seeking inspiration from previously read authors – the added elements were borrowed from texts read in class – José proceeded to incorporate a series of secondary actions and descriptive information specifying the mental state of his character:

After several unsuccessful attempts, he managed to light the fire... He learned how to roast his grains...

However, in the second writing situation, the first version of José’s text was again limited to a sequence of actions expressed without any attempt at incorporating particular effects, despite the textual possibilities offered by his first draft: the ‘thing’ that threatens is at first indistinct, and there are various twists and turns in the course of the fight.

The thing approached the fire, and its head became visible. Vassioutka realized that it was a bear. The bear approached Vassioutka and snatched the gun out of his hands. Vassioutka stood up and tried to punch the bear. The bear scratched Vassioutka’s arm. Vassioutka took a piece of burning wood from the fire and burned the bear’s paw. Defeated, the bear walked away. To protect himself from wild animals, he made a circle of fire around the clearing.

The advice given to José was designed to make full use of the possibilities of his initial text and to help him instill fear and tension in his readers, concerned about the fate of his character in peril.

Your description of the fight was good. You didn’t describe the animal. (Jasmine)

You didn’t describe the bear: what the bear looked like, whether it had fur or pointed ears. You said that the first thing Vassioutka saw was the bear’s head, but it should have been the eyes. (Ryan)

You spoke about the fight really well but you shouldn’t say “the bear” directly. (Robin)

Taking account of the advice given by his work partners, José made several alterations to his text.

The thing approached the fire. (Its head became visible) You could see its eyes, then its whole head and finally its entire body. (Vassioutka realized it was a bear) It was an enormous hairy bear with its fur standing on end, rounded ears and sharp claws. (The bear approached Vassioutka and snatched the gun out of his hands. Vassioutka stood up and tried to punch the bear. The bear scratched...
Vassioutka aimed his gun at the bear clawing at his arm. He let go of his gun. The pain forced him to drop it. (Vassioutka took a piece of burning wood from the fire and burned the bear’s paw. Defeated, the bear walked away.) *The bear, afraid of the fire that Vassioutka had taken from the bonfire, carefully drew back. It walked into the fire and left with a burnt paw.*

(To protect himself from wild animals, he made a circle of fire around the clearing) *Vassioutka protected himself from wild animals with circles of fire in the clearing.*

Yet to what extent can it be said that José truly appropriated the knowledge subtending the advice he applied? To what extent did he really understand the suggestions? When Robin advised him not to say “the bear” directly and Ryan recommended revealing the eyes then the head of the animal gradually, José sought to modify his text accordingly. However, he failed to create suspense, unlike Julien (for example).

It appears that José did not appropriate the new knowledge since the following sequence shows that he failed to transfer the knowledge into his new text. The same applies to his final text, during a sequence in which students were required to write a chase scene set in a tropical forest.

After having eaten, the guards set out again on their hunt. Jeremy found a stick shaped in a semi-circle, took a creeper and made a bow and arrows. He went hunting and found a snake and killed it. It was big, yellow and black, it was a cobra, with a pointed tongue, and sharp, shining teeth. He had found it in a pile of leaves and it was ready to jump on him.

Meanwhile the guards had found him. Jérémy heard the dog as he was roasting his snake. Suddenly the dog leapt at him. The guards caught him and took him back to the plantation where every day he worked two hours longer than anyone else.

As in the bear fight episode, only the descriptive elements designed to create fear (‘a cobra with sharp, shining teeth’) show that José used devices that are specific to the genre, as recommended by his correspondents. Rather than describing it, José tended to summarize the chase. As a result, he failed to instill fear in the reader over the fate of the young hero hunted by his pursuers, just as he was unable to create concern over the outcome of the fight between the boy and the bear.

Once again, José’s work partners emphasized elements designed to increase the reader’s interest, descriptions aimed at imitating or reflecting reality, the importance of communicating the feelings of the hunted character, and the importance of a happy ending for a hero who ‘must escape unscathed’, with the reader having been so afraid for him.

You didn’t talk about the river. What are Jeremy’s feelings? (Jasmine)
You could talk about feelings: ‘his panting...’. You didn’t explain how he made
the arrows and what he made them with. (Ryan)

The guards can’t take Jeremy to the plantation because he is the hero. (Vuong)

The story is too short. You need to say more about the chase. (Robin)

On this occasion, José ignored most of the suggestions given by his work partners,
merely replacing ‘and arrows’ with:

_He looked for a stone and found two, he sharpened bits of wood to make
arrows._

Throughout the revision process, José often followed the advice given to him by his
work partners in the various sequences, though in a somewhat localized manner. As a
result, José failed to produce a text that complied to a significantly greater extent with
the requirements of the adventure novel genre. Throughout the year, José appears not to
have gone beyond his initial representation of the text to be written, conceived merely
as a coherent succession of the character’s actions. At most, it could be said that José
understood that it was necessary to provide some details, but he evidently struggled to
understand that every element of the text needs to contribute to the depiction of a
character faced with a series of perils, to the creation of expectation and surprise, and
to the production of fear and tension in the reader before providing some reassurance.

4. **Extending the analysis: some statistical results**

The cases of Julien and José are representative of the analyzed corpus, the former
illustrating the group of advice-givers, while the latter illustrates the group receiving
advice. A quantified analysis of texts using the characteristics presented above yields
statistical results consistent with the analysis (n=64).

All of the texts written by students were analyzed based on semantic propositions
(Kintsch, 1974). The propositions were categorized based on the following criteria,
which systematize the categories presented above as characteristics of the genre (see
section “A genre – the adventure novel”).

- External plausibility: plausible vs. implausible (e.g. the presence of a lion in the
  Siberian forest is improbable).
- Internal plausibility: non-contradictory vs. contradictory (e.g. the encounter
  between Vassioutka, lost in the immensity of the taïga, and his parents
  contradicts the events that preceded this episode).
- Coherence: isolated information – i.e. information without any semantic
  connection to the rest of the text (e.g. in the middle of a series of actions relating
  to the construction of a shelter, the author alludes to the character cutting a
  piece of bread) – vs. causal or sequential relation – i.e. information connected
  explicitly or implicitly to other information in a chronological and causal
  sequence of actions and/or events (e.g. Vassioutka is starving. He goes out to
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hunt’) – vs. descriptive coherent information – states and attributes to which the
author ascribed a role in the narrative were coded: characters’ mental states,
reference to natural elements… (e.g. ‘a cobra, with a pointed tongue, and sharp,
shining teeth’).

- Referential suitability to the topic (e.g. the story of the character’s return home is
not suitable since the episode which the students were required to write
involved the character trying to survive alone).

Enunciative and textual characteristics were also coded as indications of an
author’s awareness of the reader:

- ‘Devices aimed at producing an effect’ include all attempts at including or
achieving particular effects, metaphors, effects of imitation, manipulations of
narrative point of view… (e.g. the gradual revelation of the identity of the
animal at the beginning of Julien’s text quoted above [sequence 2]).

- Modalizations provide indications of the presence of the author in the text (e.g.
‘by chance, he touched the right paw of the animal’, ‘he thought he had got rid
of the animal’).

- Dialogues, monologues and the presence of characters’ sensations and feelings
were also taken into account.

Finally, the types of alterations made in the course of revision (i.e. addition,
suppression, substitution, displacement) were coded.

The corpus was coded independently by two members of the research team. A third
coder intervened in the event of a disagreement between the two other coders. Analysis
of Variance (ANOVA) was conducted on the quantified data, firstly in order to
compare the first and second versions of every text and secondly to assess the
development of student skills and performance between each sequence. The
comparisons focused on the amount of information produced (dependent variable) and
were conducted based on student groups (production of critical feedback vs. reception
of critical feedback) and ability levels (poor readers vs. strong readers) (independent
variables). In the following analyses, relevant information is defined as fulfilling all of
the following criteria: external and internal plausibility, coherence and suitability to the
subject.

The initial levels

The analysis began by examining the quantity of information produced by students in
the first version of their text (sequence 1), followed by the quantity of relevant
information, and finally the quantity of irrelevant information, based on student group
(G1: students giving critical feedback, G2: students receiving critical feedback) and
ability level (RL1: poor readers, RL2: good readers).

Very few differences were found between the different groups, which can be
explained by the way in which the groups were set up: every group contained the same
number of good and poor readers. However, no statistically significant differences were
Table 1. Analysis of variance comparing the amount of information produced in the first version of sequence 1 texts as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1 poor readers giving feedback</td>
<td>68.19</td>
<td>20.93</td>
</tr>
<tr>
<td>G1 RL2 good readers giving feedback</td>
<td>69.69</td>
<td>19.10</td>
</tr>
<tr>
<td>G2 RL1 poor readers receiving feedback</td>
<td>60.50</td>
<td>18.69</td>
</tr>
<tr>
<td>G2 RL2 good readers receiving feedback</td>
<td>70.75</td>
<td>33.46</td>
</tr>
<tr>
<td>Overall</td>
<td>67.28</td>
<td>24.17</td>
</tr>
</tbody>
</table>

Table 2. Analysis of variance comparing the amount of relevant information produced in the first version of sequence 1 texts as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1 poor readers giving feedback</td>
<td>49.19</td>
<td>28.46</td>
</tr>
<tr>
<td>G1 RL2 good readers giving feedback</td>
<td>58.75</td>
<td>24.73</td>
</tr>
<tr>
<td>G2 RL1 poor readers receiving feedback</td>
<td>51.50</td>
<td>18.19</td>
</tr>
<tr>
<td>G2 RL2 good readers receiving feedback</td>
<td>52.25</td>
<td>29.78</td>
</tr>
<tr>
<td>Overall</td>
<td>52.92</td>
<td>25.93</td>
</tr>
</tbody>
</table>

Table 3. Analysis of variance comparing the amount of irrelevant information produced in the first version of sequence 1 texts as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1 poor readers giving feedback</td>
<td>19.00</td>
<td>22.57</td>
</tr>
<tr>
<td>G1 RL2 good readers giving feedback</td>
<td>10.94</td>
<td>13.06</td>
</tr>
<tr>
<td>G2 RL1 poor readers receiving feedback</td>
<td>9.00</td>
<td>12.73</td>
</tr>
<tr>
<td>G2 RL2 good readers receiving feedback</td>
<td>18.50</td>
<td>31.41</td>
</tr>
<tr>
<td>Overall</td>
<td>14.36</td>
<td>21.84</td>
</tr>
</tbody>
</table>
found based on ability levels, a counter-intuitive result: at the beginning of the year, the average length of texts (poor readers: 64.34; strong readers: 70.22), the quantity of relevant information (poor readers: 50.34; strong readers: 55.50) and the quantity of irrelevant information (poor readers: 14.00; strong readers: 14.72) varied little according to ability level (tables 1, 2, and 3).

**The revision process: from version 1 to version 2**

An initial statistical analysis aimed to relate the difference between the quantity of information contained in the first versions and the quantity of information contained in the second versions to key factors: student group (G1: students giving critical feedback, G2: students receiving critical feedback) and ability level (RL1: poor readers, RL2: good readers) (Table 4).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>26.98</td>
<td>25.56</td>
</tr>
<tr>
<td>poor readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 RL2</td>
<td>23.54</td>
<td>26.27</td>
</tr>
<tr>
<td>good readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL1</td>
<td>16.96</td>
<td>19.27</td>
</tr>
<tr>
<td>poor readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL2</td>
<td>14.50</td>
<td>19.89</td>
</tr>
<tr>
<td>good readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>20.49</td>
<td>23.51</td>
</tr>
</tbody>
</table>

Students in group G1 (giving feedback) added more information in the revision process than students in group G2 (receiving feedback) \( F(1.188)=8.09, \ p<.01 \). The influence of the ‘reader level’ variable is not significant.

A second statistical analysis was performed on the quantity of relevant information (Table 5).

Students in ‘giving feedback’ group added more relevant information in the revision process than students in ‘receiving feedback’ group \( F(1.188)=7.37, \ p<.01 \). The influence of the ‘reader level’ variable is not significant.

No significant factor was highlighted based on the third analysis examining the quantity of irrelevant information.
Table 5. Analysis of variance comparing the amount of relevant information produced (Version 2—Version 1) as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>23.48</td>
<td>24.20</td>
</tr>
<tr>
<td>poor readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 RL2</td>
<td>22.27</td>
<td>23.78</td>
</tr>
<tr>
<td>good readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL1</td>
<td>14.50</td>
<td>17.66</td>
</tr>
<tr>
<td>poor readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL2</td>
<td>14.27</td>
<td>19.39</td>
</tr>
<tr>
<td>good readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>18.63</td>
<td>21.86</td>
</tr>
</tbody>
</table>

The following analyses examine different quality criteria used in the analytical framework. Differences between groups G1 and G2 were highlighted by several of the criteria (quantity of coherent descriptive information, devices aimed at producing an effect, modalizations), although there is no significant difference in the number of revisions made by different groups.

Table 6. Analysis of variance comparing the amount of coherent descriptive information produced (Version 2 – Version 1) as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>6.40</td>
<td>9.19</td>
</tr>
<tr>
<td>poor readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 RL2</td>
<td>8.13</td>
<td>12.23</td>
</tr>
<tr>
<td>good readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL1</td>
<td>2.90</td>
<td>5.53</td>
</tr>
<tr>
<td>poor readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL2</td>
<td>3.40</td>
<td>6.60</td>
</tr>
<tr>
<td>good readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>5.20</td>
<td>9.04</td>
</tr>
</tbody>
</table>

Note. The Group factor is significant ($F(1.188)=10.32, p<.01$).
Table 7. Analysis of variance comparing the amount of “effects created” (Version 2 – Version 1) as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>4.60</td>
<td>5.99</td>
</tr>
<tr>
<td>poor readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 RL2</td>
<td>7.60</td>
<td>10.44</td>
</tr>
<tr>
<td>good readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL1</td>
<td>3.06</td>
<td>5.13</td>
</tr>
<tr>
<td>poor readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL2</td>
<td>4.25</td>
<td>7.89</td>
</tr>
<tr>
<td>good readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>4.88</td>
<td>7.82</td>
</tr>
</tbody>
</table>

Note. The Group factor is significant (F(1.188)=4.83, p<.05).

Table 8. Analysis of variance comparing the amount of modalized information produced (Version 2 – Version 1) as a function of Group and Level

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>1.10</td>
<td>3.25</td>
</tr>
<tr>
<td>poor readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 RL2</td>
<td>1.21</td>
<td>5.16</td>
</tr>
<tr>
<td>good readers giving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL1</td>
<td>-0.17</td>
<td>2.79</td>
</tr>
<tr>
<td>poor readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 RL2</td>
<td>0.19</td>
<td>2.15</td>
</tr>
<tr>
<td>good readers receiving feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>0.58</td>
<td>3.57</td>
</tr>
</tbody>
</table>

Note. The Group factor is significant (F(1.188)=4.98, p<.05).

Developing writing skills: from sequence 1 to sequence 4

To what extent is the increase in the quantity of information (in particular the quantity of relevant information), as a result of textual revisions accompanied by learning, assessed based on increasingly long and more relevant texts produced throughout the year? A comparative analysis of the first versions produced in each sequence is provided below.

A comparative analysis of the texts produced in the first and second sequences highlights a significant increase in the quantity of information produced (13.84 on average) and above all of the quantity of relevant information (21.19 on average). No influence of the Group factor or Level factor was found based on the statistical analysis. In this respect, all students showed evidence of progress on this front.
Based on the comparative analysis of the first and third sequences (-0.63 elements of information produced, +8.84 elements of relevant information), there is again no evidence of any influence of group and ability level factors.

However, a significant effect of the group factor is found when comparing the final sequence with the first sequence. The following analyses examine the difference between the quantity of information produced in sequence 4 and the quantity of information produced in sequence 1 (Table 9), and the difference between the quantity of relevant information produced in sequence 4 and the quantity of relevant information produced in sequence 1 (Table 10).

Table 9 shows that between the first version of sequence 1 and the first version of sequence 4, the quantity of new information added by members of ‘giving feedback’ group was greater than the quantity of new information added by members of ‘receiving feedback’ group (F(1,60)=6.27, p<.05).

**Table 9.** Analysis of variance comparing the amount of information produced in Version 1 (Sequence 4 – Sequence 1) as a function of Group and Level

<table>
<thead>
<tr>
<th>Group</th>
<th>Verbal Ability</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>poor readers giving feedback</td>
<td>28.38</td>
<td>37.25</td>
</tr>
<tr>
<td>G1 RL2</td>
<td>good readers giving feedback</td>
<td>42.38</td>
<td>38.25</td>
</tr>
<tr>
<td>G2 RL1</td>
<td>poor readers receiving feedback</td>
<td>15.38</td>
<td>32.07</td>
</tr>
<tr>
<td>G2 RL2</td>
<td>good readers receiving feedback</td>
<td>8.13</td>
<td>38.18</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>23.56</td>
<td>38.79</td>
</tr>
</tbody>
</table>

Table 10 shows the amount of relevant information produced in Version 1 (Sequence 4 – Sequence 1) as a function of Group and Level

**Table 10.** Analysis of variance comparing the amount of relevant information produced in Version 1 (Sequence 4 – Sequence 1) as a function of Group and Level

<table>
<thead>
<tr>
<th>Group</th>
<th>Verbal Ability</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>poor readers giving feedback</td>
<td>37.44</td>
<td>40.26</td>
</tr>
<tr>
<td>G1 RL2</td>
<td>good readers giving feedback</td>
<td>41.75</td>
<td>36.79</td>
</tr>
<tr>
<td>G2 RL1</td>
<td>poor readers receiving feedback</td>
<td>21.19</td>
<td>25.92</td>
</tr>
<tr>
<td>G2 RL2</td>
<td>good readers receiving feedback</td>
<td>24.00</td>
<td>27.41</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>31.09</td>
<td>34.28</td>
</tr>
</tbody>
</table>
The quantity of new information added by members of ‘giving feedback’ group was also greater than the quantity of new information added by members of ‘receiving feedback’ group (F(1,60)=3.94, p<.05).

Is a similar development of writing skills also apparent when considering the other criteria used to assess text quality? Based on the criterion ‘quantity of coherent descriptive information produced’, the members of ‘giving feedback’ group achieved a significantly higher performance than members of ‘receiving feedback’ group in view of the level of improvement and development from sequence 1 to sequence 2 (Table 11) and the level of improvement and development from sequence 1 to sequence 4 (Table 12).

**Table 11.** Analysis of variance comparing the amount of coherent descriptive information produced in Version 1 (Sequence 2 – Sequence 1) as a function of Group and Level

<table>
<thead>
<tr>
<th>Group</th>
<th>Level</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>poor readers giving feedback</td>
<td>7.38</td>
<td>10.78</td>
</tr>
<tr>
<td>G1 RL2</td>
<td>good readers giving feedback</td>
<td>13.56</td>
<td>22.73</td>
</tr>
<tr>
<td>G2 RL1</td>
<td>poor readers receiving feedback</td>
<td>-0.69</td>
<td>12.44</td>
</tr>
<tr>
<td>G2 RL2</td>
<td>good readers receiving feedback</td>
<td>0.69</td>
<td>18.38</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>5.23</td>
<td>17.72</td>
</tr>
</tbody>
</table>

*Note.* The Group factor is significant (F(1,60)=5.84, p<.05).

**Table 12.** Analysis of variance comparing the amount of coherent descriptive information produced in Version 1 (Sequence 4 – Sequence 1) as a function of Group and Level

<table>
<thead>
<tr>
<th>Group</th>
<th>Level</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 RL1</td>
<td>poor readers giving feedback</td>
<td>4.69</td>
<td>14.76</td>
</tr>
<tr>
<td>G1 RL2</td>
<td>good readers giving feedback</td>
<td>10.75</td>
<td>19.06</td>
</tr>
<tr>
<td>G2 RL1</td>
<td>poor readers receiving feedback</td>
<td>-3.06</td>
<td>10.61</td>
</tr>
<tr>
<td>G2 RL2</td>
<td>good readers receiving feedback</td>
<td>-7.31</td>
<td>13.30</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>1.27</td>
<td>16.31</td>
</tr>
</tbody>
</table>

*Note* The Group factor is significant (F(1,60)=11.48, p<.01).
However, based on other criteria, it appears that it was above all the high-achieving students in the group giving advice (G1 RL2) who increased their performance levels. These differences are significant in the case of the criteria ‘effects created’ (sequence 4) and ‘sensations-feelings’ (sequence 2, sequence 4) and represent notable trends in the case of other criteria.

**Synthesis of results**

The texts produced by all of the students become gradually longer, more “relevant” and more in keeping with the characteristics of the genre – they make use of an increasing number of interwoven descriptive and narrative elements, include a greater degree of subjectivity, and use enunciative devices – following revisions and between the beginning and the end of the school year. These alterations are significantly more noticeable in students who performed the role of tutors (such as Julien) than among those who received and used the criticisms of their peers (such as José). Contrary to the conclusions yielded as a result of observing the production of explanatory scientific texts using a similar system (Crinon & Marin, 2010b), students who improved their texts were primarily good students.

The findings based on the quantitative analysis corroborate the interpretation of the cases of Julien and José. A key element in learning to produce written texts is the ability to understand the challenges, demands and implications of writing, particularly the need to elaborate a text on the basis of an intended effect on readers. Articulating suggestions about texts written by others in a “discursive community” (Bernié, 2002) enables students to experience a reader’s perspective (Rijlaarsdam et al., 2009); it is a contributing factor to the development of “secondarization” (Bautier, 2004), metacognitive detachment and the ability to adjust the relation to written language. Applying the criteria of the genre is part of the learning process: the learner writer appropriates resources and borrows from others in the service of intentions. Conversely, the students receiving advice tend not to elaborate success criteria, and merely accept (or reject) the suggestions received from peers.

Student progression also depends on student level. In the group of participants giving advice, good students in particular show signs of improvement on several criteria. This observation corroborates a common result found in research on learning – namely that initial knowledge is a predictive factor of successful learning (Stanovich, 1986). The strategy of collaborative review and peer teaching is therefore not enough to reduce inequality between students. In literary writing – an area in which the required knowledge is vast and difficult to determine precisely in a particular work sequence – the provision of greater scaffolding appears to be particularly important.
5. Conclusion

To conclude, it is important to emphasize the extent to which this study improves our understanding of why previous research frequently highlighted the effects of peer feedback, tutor-partnership and collaborative work on the performance of young writers (Allal, Mottier Lopez, Lehraus, & Forget, 2005; Rijlaarsdam et al., 2008). These results are not merely explained by a situation of authentic communication and by increased audience awareness. It is posited that the alternation between writing and reading and the explicit articulation and reformulation of criteria and knowledge accompanying the practice of writing contribute significantly to the observed effects. The repetition of the same phases of activity results in increasingly complex approaches to the genre and a gradual consolidation of the applied knowledge.

Caution is advised in generalizing the results to other discursive genres. It seems reasonable to assume that the obstacles encountered by students are specific to individual genres – an assumption that will need to be confirmed by further research on student learning based on other genres. However, this study confirms that practitioners are right to assign the roles of advice-giver and advice-receiver to all students in peer review situations. Above all, the study highlights the importance of encouraging and helping students to express and articulate critical advice and feedback in writing in the context of collaborative methods aimed at producing texts that are designed to be read by others.

Furthermore, the specific didactic context of the observations needs to be considered in seeking to understand the dynamics of writing in young writers. It is important to take account of the complexity of the determining factors that shape student development. To omit this factor would entail the risk of naturalizing what pertains essentially to learning conditions as part of child development and family language socialization. The paper emphasized the written interactions involved in the peer revision process. However, some factors were not controlled for. Possible differences between teacher interventions and adventure novel reading sessions outside the writing sequences may have played a role, although they were not examined. Teacher interventions and interactions with the novels read by students were two potentially important factors in this context and will be the object of further analyses of similar writing situations.

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Notes
1. This research is part two of a larger research project. Part one focused on explanatory scientific texts (Crinon & Marin, 2010b).
2. Even if, in educational contexts, “the primary goal is the skills set of the participants” (Goldin, Ashley, & Schunn, 2012).
3. Victor Astafiev, Perdu dans la taïga [Lost in the Taiga], Flammarion Castor Poche for the first three sequences, and Jean Ollivier, Le Cri du kookabura [The Cry of the Kookaburra], Casterman for the fourth sequence.
4. The adventure novel has sometimes been described, following Jules Verne, as a “geographical” novel.
5. The student’s writing has been translated from French to English. See the appendix for the original French texts.
6. Students were given support by the teacher in the first sequence, though not in subsequent sequences.
7. Revisions are coded as follows: addition, (deletion), (substitution) substitution, [displacement] >displacement].
8. The statistical results that follow are drawn from Crinon & Marin, 2010a.
9. Hector software was used (A. Dubus, University of Lille 3).
10. As noted above, length is measured based on the number of semantic propositions, to which the quantity of information is assimilated.
11. As noted above, relevant information is defined as plausible, coherent, non contradictory and appropriately reflecting the topic.
12. For sequences 2, 3 and 4. Sequence 1, i.e. an initiation sequence during which students were given help, was not taken into account.
13. However, the categories Dialogue, Monologue and Sensations-Feelings are not differentiating.
14. And correlatively a decrease of the quantity of irrelevant information.
15. A similar scaffolding process was presented in previous research by the author using a method that involved a systematic use of resource texts to enable students aged 8 to 11 to improve their narrative writing. The method was shown to be particularly supportive of weaker students (Crinon, 2006; Crinon & Legros, 2002).
16. It is important to note, however, that the asymmetric collaboration situation distinguishing the two roles was primarily designed to facilitate the study.

References


Appendix

Julien's texts
Note: Original spelling has been corrected.

Sequence 1
Version 1

Vassioutka va chercher des brindilles. Il prit des allumettes et allume le feu.

Il prend un bout de bois et il prend un peu de feu et il part chercher à manger et il voit une ombre. Il prend son fusil et tire. Il a tué un sanglier. Il retourna au feu et le met sur le feu. Puis il est parti chercher pour faire une cabane. Et il mangea et va dormir.

Conseils aux partenaires

Tu ne dis pas si Vassioutka mange le tétras. Comment fait-il pour allumer le feu, construire la cabane, boire de l’eau. Comment il tue l’ours ? (à Alican)

Tu n’as pas dit ni comment il fait du feu ni comment il mange ni comment il dort. Que mange-t-il ? (à Henda)

Tu n’as pas mis qu’il avait faim. Est-ce qu’il va dormir ? (à Anthony)

Version 2

Vassioutka va chercher des brindilles et des bouts de bois. Il prit des allumettes et (allume) alluma le feu. Il réussit à allumer le feu car il avait appris une technique à l’école. Avec la fumée, il pensait qu’il allait faire venir des animaux pour les tuer.

Il (prend) prit un bout de bois et il (prend) prit un peu de feu. Avec la fumée, il pense qu’il va faire venir des animaux pour les tuer. (et il part chercher à manger et il voit une ombre.) Il entendit un bruit. Il (prend) prit son fusil et tira dans tous les sens. Il (a tué) tua un sanglier. Il retourna au feu et le (met) mit sur le feu. Puis il (est parti) partit chercher pour faire une cabane. Il coupait quelques branches pour le matelas et la tente. Il retira le sanglier de la fournaise et il le mangea. (et) Il (va) alla dormir dans sa tente.

Le lendemain, il se dit : « Je vais manger » puis il partit à la chasse pour avoir à manger le soir et l’après-midi.

Sequence 2
Version 1

Le lynx sauta sur lui. Vassioutka courut dans sa tente se cacher de la bête.

Vassioutka tremble. Il entendit le lynx rôder. Vassioutka se dit : « J'ai trop peur ».

Le lynx avec ses griffes ouvrit la tente. Vassioutka sortit et courut et le lynx le poursuit.

Vassioutka grimpa dans un arbre. Le lynx sauta de branche en branche.

Vassioutka était en tête à tête avec le lynx. Vassioutka vit son fusil en bas de la tente.

Il sauta de l’arbre et prit son fusil et tira sur le lynx.

Il dit : « Cool, j’aurai à manger ». Il éteignit le feu puis alla se coucher.

Conseils aux partenaires

Ce n’est pas possible qu’il voie sa mère. Tu n’as pas fait un combat entre Vassioutka et les ours. (à Alican)

Tu expliques bien quand l’animal arrive. Il n’y a pas de combat. Ce n’est pas possible qu’ils dorment ensemble car il est féroce. (à Henda)

Évite de faire parler les animaux. Un tétras est-il dangereux ? (à Anthony)

Version 2


Le lynx sauta sur lui. Vassioutka courut dans sa tente se cacher de la bête.

Vassioutka (tremble) tremblait. Il entendit le lynx rôder. Vassioutka se dit : « J’ai trop peur ».

Le lynx avec ses griffes ouvrit la tente. Vassioutka sortit et courut et le lynx le poursuit.

Vassioutka grimpa dans un arbre. Le lynx sauta de branche en branche.

Vassioutka était en tête à tête avec le lynx. Vassioutka prit une pierre et lui lança, il le rata. Vassioutka vit son fusil en bas de la tente.

Il sauta de l’arbre et prit son fusil et tira sur le lynx.

Il dit : « Cool, j’aurai à manger ». Il éteignit le feu puis alla se coucher.
**Sequence 3**  
*Version 1*

Un très fort vent soufflait qui arracha des arbres. Vassioutka vit de loin le fleuve l'Ienisseï. Le vent soufflait comme un ouragan qui emporte Vassioutka jusqu’au lac de l'Ienisseï.


**Conseils aux partenaires**

Récris ta dernière phrase. Pourquoi il pousse la branche ? (à Alican)

Les fantômes ça n’existe pas. Les vagues, elles viennent d’où ? (à Henda)

Dis de quelle lumière il s’agit. À quoi sert la ficelle ? (à Anthony)

*Version 2*

Un très fort vent soufflait qui arracha des arbres. Vassioutka vit de loin le fleuve l’Ienisseï. Le vent soufflait comme un ouragan (qui emporte Vassioutka jusqu’au lac de l’Ienisseï).


**Sequence 4**  
*Version 1*

Jérémy poursuit sa course. Il voudrait aller plus vite. Jérémy s’arrête, monte dans un arbre et se balance de liane en liane. Et d’un seul coup, il tombe sur un serpent et tombe avec par terre. Le serpent se mit en position d’attaque. Jérémy lui lance une pierre dans la tête puis partit. Les trois gardiens n’étaient plus qu’à quelques mètres de Jérémy. Le maître chien dit aux deux autres : « En avant, nous ne sommes pas très loin du gibier ! »

Jérémy arriva à un autre marigot. Il le traversa facilement, sortit du marigot et s’enfonça dans la forêt et courut. Jérémy s’arrêta et s’endormit sur un lit de feuilles.


**Conseils aux partenaires**
Tu n’as pas fait la poursuite entre Jérémy et les gardiens. Jeremy part-il ou reste-t-il avec les gardiens ? Tu pourrais mettre : « les gardiens veulent rattraper le fugitif » (à Alican)

Où se passe la rencontre ? Ton texte est bien. Il faudrait que tu mettes plus de suspense. Tu pourrais mettre : « Sera-t-il rejoint par les énormes gardiens ? » Tu peux dire que Jérémy est « terrorisé » (à Henda)

Ce n’est pas le maître qui aboie. Pourquoi Jérémy ne part-il pas ? Tu peux dire que Jérémy prend la fuite. (à Anthony)

Version 2

Jérémy poursuit sa course. Il voudrait aller plus vite. Jérémy s’arrête, monte dans un arbre et se balance de liane en liane. Et d’un seul coup, il tombe sur un serpent et tombe avec par terre. Le serpent se mit en position d’attaque. (Jérémy lui lance une pierre dans la tête puis partit.) Il recule en tremblant de peur puis trouve une pierre, il la lance à l’aveuglette. Les trois (gardiens) poursuivants n’étaient plus qu’à quelques mètres de Jérémy. Le maître chien dit aux deux autres : « En avant, nous ne sommes pas très loin du gibier ! »


La nuit tomba et Jérémy gravit un arbre pour se coucher pour la nuit. Les gardiens s’arrêtent et posent leur camp. Le lendemain, l’évadé partit en premier avec le soleil dans sa fuite.

José’s texts

Sequence 1

Version 1

Conseils des partenaires

Tu n'as pas dit comment il a allumé le feu. (Ryan)

Vassioutka souffre de la faim mais tu n’expliques pas comment il trouve de la nourriture. (Robin)

Dis comment Vassioutka se réchauffe. (Jasmine)

La dernière phrase est plutôt bien. (Vuong).

Dis si Vassioutka a peur ou pas. (Jasmine)

Version 2 (ajouts)

Après quelques vaines tentatives, il réussit à allumer le feu... Il apprit à rôtir ses graines...

Sequence 2

Version 1

La chose approchait du feu sa tête devenait visible. Vassioutka put constater que c’était un ours. L’ours s’approcha de Vassioutka et lui arracha le fusil des mains. Vassioutka se relève et donne des coups de poing. L’ours lui griffa le bras. Vassioutka prit de son feu un bout de bois enflammé et brûla l’ours à la patte. L’ours partit vaincu. Pour se protéger des animaux sauvages il fit un cercle de feu autour de la clairière.

Conseils des partenaires

Tu as bien décrit le combat. Tu n’as pas décrit l’animal. (Jasmine)

Tu n’as pas décrit l’ours : comment l’ours était, si il a une fourrure ou des oreilles pointues. Quand tu dis que c’est la tête que voit Vassioutka en premier, c’est plutôt les yeux. (Ryan)

Tu as bien parlé du combat mais tu ne dois pas dire “l’ours” directement. (Robin)

Version 2

La chose approchait du feu. (Sa tête devenait visible) On voyait ses yeux puis sa tête entière et enfin son corps. (Vassioutka put constater que c’était un ours) C’était un énorme ours velu au poil hérissé, aux oreilles arrondies et aux griffes acérées. (L’ours s’approcha de Vassioutka et lui arracha le fusil des mains. Vassioutka se relève et donne des coups de poing. L’ours lui griffa le bras.) Vassioutka pointa son fusil sur l’ours qui lui griffait le bras. Il lâche son fusil. La douleur le poussa à se débarrasser de lui. (Vassioutka prit de son feu un bout de bois enflammé et brûla l’ours à quatre pattes. L’ours partit vaincu.) L’ours qui...
avait peur du feu que Vassioutka prit du foyer l'ours recula prudemment. Il marcha dans le feu et partit la patte brûlée. (Pour se protéger des animaux sauvages il fit un cercle de feu autour de la clairière) Vassioutka se protège des animaux sauvages avec des cercles de feu dans la clairière.

**Sequence 4**

**Version 1**

Après avoir mangé, les gardiens se remettent à la chasse. Jérémy trouva un bâton en forme de demi-cercle, il prit une liane et fit un arc et des flèches. Il partit à la chasse et trouva un serpent, il le tua. Il était gros, jaune et noir, c'était un cobra, une langue pointue, les dents brillantes et acérées. Il avait trouvé dans un tas de feuilles et prêt à lui sauter dessus.

Pendant ce temps les gardiens l’avaient retrouvé. Jérémy entendait le chien alors qu’il rôtissait son serpent. Soudain le chien lui saute dessus. Les gardiens le récupèrent et le ramènent à la plantation où il travaillait deux heures de plus que les autres chaque jour.

**Conseils des partenaires**

Tu ne parles pas de la rivière. Quels sont les sentiments de Jeremy ? (Jasmine)

Tu peux dire le ressenti : « les halètements de sa respiration... » Tu n’expliques pas comment il fait des flèches et avec quoi. (Ryan)

Les gardiens ne peuvent pas ramener Jeremy à la plantation car c’est le héros. (Vuong)

L’histoire est trop courte. Parle plus de la poursuite. (Robin)

**Version 2**

Après avoir mangé, les gardiens se remettent à la chasse. Jérémy trouva un bâton en forme de demi-cercle, il prit une liane et fit un arc (et des flèches). Il chercha une pierre et en trouva deux, il tailla des bouts de bois en flèches. Il partit à la chasse et trouva un serpent, il le tua. Il était gros, jaune et noir, c'était un cobra, une langue pointue, les dents brillantes et acérées. Il avait trouvé dans un tas de feuilles et prêt à lui sauter dessus.

Pendant ce temps les gardiens l’avaient retrouvé. Jérémy entendait le chien alors qu’il rôtissait son serpent. Soudain le chien lui saute dessus. Les gardiens le récupèrent et le ramènent à la plantation où il travaillait deux heures de plus que les autres chaque jour.