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Published in:
Linguistics and Education

DOI:
[10.1016/j.linged.2018.04.005](https://doi.org/10.1016/j.linged.2018.04.005)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Herder, A., Berenst, J., de Glopper, K., & Koole, T. (2018). Nature and function of proposals in collaborative writing of primary school students. *Linguistics and Education*, 46, 1-11.
<https://doi.org/10.1016/j.linged.2018.04.005>

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Nature and function of proposals in collaborative writing of primary school students

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ARTICLE INFO

Article history:

Received 23 December 2016

Received in revised form 14 April 2018

Accepted 26 April 2018

Available online 11 June 2018

Keywords:

Collaborative writing

Proposal practices

Peer interaction

Conversation analysis

ABSTRACT

The nature and function of proposals in collaborative writing of primary school students was studied from a sociocultural, interactional perspective, using data from 33 writing events in the context of inquiry learning. Five main targets of proposals were identified: content, procedure, translation, text structure and layout. We demonstrate how proposals are designed in different declarative and interrogative constructions. The objective of a proposal appears to be related to both the syntactical design, and the ways in which participants respond to proposals. Proposals for content and translation generate extensive discourse, in contrast to procedural proposals. Writing down the agreed words or sentences occurs in various sequential positions and consequently performs a different function in the joint construction of text. The results enhance our understanding of how primary school students collaboratively write texts.

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1. Introduction

According to Rojas-Drummond, Littleton, Hernández, and Zúñiga (2010), writing is a sociocultural process, with learning taking place in specific cultural contexts and institutional settings. From a sociocultural point of view, education and cognitive development are considered as cultural processes, whereby knowledge and meanings are ‘co-constructed’ in the classroom, as joint interactional accomplishments, that cannot be separated from the cultural practices of a community (Tynjälä, Mason, & Lonka, 2001), that are shaped by cultural and historical factors (Littleton & Mercer, 2010). Analyzing peer interaction of primary school students (aged 8–12 years old) who are writing together, may consequently contribute to understanding how students participate in this learning process. “Ethnographic observations involve an approach that focuses on understanding what members need to know, do, predict and interpret in order to participate in the construction of ongoing events of life within a social group, through which cultural knowledge is developed” (Freebody, 2003:76).

Collaborative writing is a form of cooperation in which participants work in pairs or small groups to produce a jointly written

text, sharing responsibility for the whole process and the final product (Saunders, 1989). To generate ideas for the text, expression of task relevant knowledge (Fischer, Bruhn, Grasel, & Mandl, 2002) is required and when a participant contributes an idea, he expects a response from his co-authors (Nyköp, Marttunen, & Laurinen, 2014). In the course of writing together, participants discuss the relationship between ideas for content and react on each other's suggestions and explanations (Vass, Littleton, Miell, & Jones, 2008). In the same manner, participants handle issues regarding procedural aspects and linguistic issues (Storch, 2005), like formulation, writing conventions and text structure. Writing in small groups or dyads may consequently promote writing skills, conceptual comprehension, understanding of content knowledge and reflective thinking (Nyköp et al., 2014). What becomes clear from these studies, is that collaborative writing may be considered to be primarily a process of joint decision-making. Creating one text together requires participants to take numerous shared decisions. And although extensive research has been carried out on the content and coordination of the talk during writing together, less attention was paid to interactional practices students display as they negotiate for consensus (Siitonen & Wahlberg, 2015). Such negotiations are generally provoked by a proposal (Couper-Kuhlen, 2014; Houtkoop-Steenstra, 1987) that is expressed by one of the participants. Thus, studying how students proffer and handle proposals to take shared decisions may generate insightful knowledge on collaborative writing, that can be deployed to optimize conditions for this activity. This paper reports on a study on the nature

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and function of proposals in collaborative writing, informed by Conversation Analysis (Sacks, Schegloff, & Jefferson, 1974) which has enabled us to analyze interaction in great detail. Before proceeding to our research, we will provide a theoretical background on both collaborative writing and on proposals in the next section.

2. Background

Processes and products of collaborative writing have been studied from different theoretical backgrounds, related to learning-to-write, including writing in a second language, and writing-to-learn in environments with and without computer support for writing (Nyköpp et al., 2014; Van Steendam, 2016). Both qualitative and quantitative studies have been conducted on writers collaborating to produce text, using a variety of methodological approaches. In a review, Van Steendam (2016) reports that the majority of these studies has shown beneficial effects of learning to write and writing to learn collaboratively. Writing together helps learners to learn from each other's writing and regulation process, and encourages critical reflection, the pooling of resources and a heightened sense of audience awareness, which all may have a positive effect on individual writing. Studies on peer interaction in collaborative writing were conducted from two main perspectives: learning to write and writing to learn.

Studies on collaborative writing from the perspective of learning to write, focus on the cognitive perspective of writing as a process consisting of three recursive phases of planning, translating and revising (Flower & Hayes, 1980; Hayes, 1996, 2011), and models of writing as a form of solving conceptual, metacognitive and rhetorical problems (Bereiter & Scardamalia, 1987; Galbraith, 2009; Hayes, 2006). A significant amount of these studies was conducted in the context of second language learning of adults and focus on self-directed or other-directed speech, interaction patterns, the role of peer feedback, attitudes and perceptions of collaborative writing or on comparison of individuals and pairs on text accuracy (Nyköpp et al., 2014; Van Steendam, 2016). Storch (2005) studied adult L2 students writing together and distinguished task clarification, generating ideas, language related interaction, structure, interpreting given information and reading/re-reading as different activities that were determined by examining the conversation of the students. These descriptions resemble the so-called episodes, consisting of specific activities (by the authors referred to as speech turns), that Marttunen and Laurinen (2012) observed in L1 collaborative writing of university students: steering the group's performance, planning the text, writing and revising the text, topic-related discussion, evaluation, and off-task discussion. Quite similar conversational topics were found in data of primary school children writing together (L1 writing). Vass (2007) distinguished five different foci in the interaction of young writers in primary school. Four were centred around the text: creative content generation, planning of content, reviewing the generated content and transcription of generated content. The fifth focus, labelled process-orientated thinking, is related to practical aspects of the writing together, for instance management issues, strategies for collaboration, or the use of technical equipment. An earlier study on collaborative writing of primary school children was conducted by Saunders (1989), who studied different tasks for collaborative writing and focused on the interactive structure, labelled as roles and responsibilities the students assume as co-writers, in relation to the writing task. Vass et al. (2008) studied the discourse of collaborative creative writing, and focused on the role of emotions in creative content generation, where among an analysis of overlaps and interruptions in turn-taking. In all studies mentioned above, writers use pen and paper to write their text. A few other studies focused on peer interaction in collaborative writing with use of a

computer. Rojas-Drummond, Albarrán, and Littleton (2008) expose the cyclical and iterative processes involved in children's collaborative planning, writing and revising their stories, in the context of creating multimodal productions from texts. The interplay between talking, writing and computer devices was studied by Gardner and Levy (2010) who analyzed the temporal synchrony and 'matching points' between talking and writing, in the collaborative writing of a multimodal text for a website. The researchers were able to display different patterns in the coordination of talk and action, in which the computer was regarded as a participant in the interaction.

The second line of research on peer interaction in collaborative writing is related to studies on writing to learn (Klein, 2014; Van Steendam, 2016). Chen (2011) studied 5th graders in a science classroom from a knowledge building perspective, in different conditions of using talk and writing: separately, in sequence or simultaneously (see also Rivard & Straw, 2000). The conversation and written arguments were analyzed from the perspective of cognitive processes, using categories such as express, report, share, describe, elaborate, organize, compare, integrate and defend. Overall, studies that focus on the role of knowledge building discourse in the context of collaborative writing, are strongly rooted in the tradition of sociocultural research on learning (Littleton & Mercer, 2010; Tynjälä et al., 2001). From this viewpoint, peer interaction in collaborative writing is mainly analyzed from the perspective of writing as a mediational tool for learning, drawing on the methodology of sociocultural discourse analysis (Mercer, 2004). Characteristics of the interaction are defined in terms of social modes of talking, like cumulative or exploratory talk (Thompson & Wittek, 2016), co-construction and collaborative creativity (Rojas-Drummond et al., 2008) and dialogical interactions (Rojas-Drummond et al., 2010). Rojas-Drummond et al. (2016) studied talking, reading and writing of primary school children, and found that the student's ability to co-construct knowledge and produce a coherent synthesized summary piece of writing, was highly dependent on their ability to talk and think together. The students worked together in small groups to write an integrative summary of three related textual sources. The analysis of the discourse distinguished different episodes of talk, including: inviting elaboration of reasoning, expressing or inviting ideas, reflecting on dialogue or activity, positioning and coordination, and making reasoning explicit.

Analysis of the interaction in all studies mentioned above, focuses on roles of participants and on content and function of discourse, but do not clarify how the students negotiate for consensus on fundamental issues regarding procedure, text content and linguistic issues. In conversation, such negotiations generally start with a proposal, being an initiating action that involves the speaker attempting to bring about some future action, event or situation (Couper-Kuhlen, 2014; Houtkoop-Steenstra, 1987). After a proposal is uttered by the first speaker, a recipient can accept or decline the proposal, or ask for clarification (Houtkoop-Steenstra, 1987; Siitonen & Wahlberg, 2015; Yasui, 2013). The recipient needs to deal with the contents of a proposal and also with his willingness to accept it (Houtkoop-Steenstra, 1987; Stevanovic, 2012; Stevanovic & Svennevig, 2015). Participants thus orient to two sets of deontic rights: the right to propose and the right to accept and/or reject the proposal. Once a proposal is accepted, the participants may discuss further details or the ability to perform the idea (Houtkoop-Steenstra, 1987). Acceptance can be expressed both verbally and non-verbally, and with or without adding something to the initial proposal (Yasui, 2013). When a second speaker declines a proposal he may proffer an alternative (counterproposal). The ways in which participants handle proposals, have consequences for the sequential organization of the talk.

Several studies have been carried out to examine design and sequential characteristics of proposals in interaction (Houtkoop-Steenstra, 1987; Siitonen & Wahlberg, 2015; Zinken

& Ogiermann, 2011) and to determine how specific constructions have consequences for the uptake by other participants (Couper-Kuhlen & Etelämäki, 2015; Stivers & Sidnell, 2016). Studies on how proposals are accomplished in the context of collaborative writing are limited. Nevertheless, Nissi (2015) studied the role of proposals during practices of shared text production in multiparty meeting interaction in a Finnish city organization with project members and a facilitator, set up to reorganize the municipality service sector. Analysis focused on proposals concerning textual changes and the facilitator's proposal concerning the final entry in the text. In terms of participation, the study displayed that the interaction generated different roles, rights and responsibilities for the meeting attendants. The activity of shared text production unfolded as two recurrent sequences, in which the construction of the text was accomplished through the interplay between verbal, embodied and material resources of the setting.

Although the study of Nissi (2015) enhances our understanding of the function of proposals in the process of jointly constructing a text, the circumstances differ strongly from those of primary school children engaged in a collaborative writing task. Hence, proposals in the collaborative writing process of children may have different design features. In this study we focus on the nature and role of proposals, and the ways in which participants handle these proposals, to understand how shared text production is brought into being by primary school students.

3. Material and methods

3.1. Context

Data for this study was taken from six primary schools in The Netherlands, in grades 3–6 (children aged 8–12 years old), in the period 2012–2014. The schools were participating in a multiannual project carried out by the Centre for Discourse and Learning (NHL University of Applied Sciences) to acquire more understanding of how, in the context of inquiry learning (Bereiter, 2002), peer interaction can contribute to both knowledge building and language proficiency. The overall research project was based on the principles of 'educational design research' (Plomp & Nieveen, 2007; Walker, 2006), which implies that it included specific pedagogical interventions. The schools conducted projects for inquiry learning, in which students worked in pairs or small groups on their own research questions, for about three weeks in two periods each year. Students followed a format for conducting their research in five phases. Overall project themes were for instance Superheroes, Clothing, Machinery and equipment, Sports and games and Local history. Video recordings were made of the small groups performing writing activities during all stages of their research project, using a digital Sony camcorder, in some cases supplemented with an external microphone on the table.

3.2. Data

The dataset consists of video recordings and holds 33 collaborative writing events, with a total time of 6 h and 13 min. In accordance with the description of speech events from an ethnographic perspective on communication (Freebody, 2003; Hymes, 1972), we regard a *writing event* as a series of goal-oriented communicative actions to create a text together. The events vary from 1.27 min to 52.26 min, with an average of 10.39 min. Students worked in dyads or small groups of three or four students and were mostly free in their choices concerning the use of writing during their research process. Teachers were not involved and no specific instruction or assignments were provided. However, students used a learning log, which invited them to write down research

Table 1

Overview of writing events in inquiry learning.

Written products	Main activity	Number of events
Plan of action	Articulating research questions in learning log	3
Reflection	Reflecting on activities or progress in learning log	3
Mind map	Exploring a new research topic	3
List of questions	Formulating questions for an interview	3
Letter	Writing a letter to collect information	7
Notes	Taking notes while reading (online) source texts	8
Story	Writing a story about research findings	1
Report	Writing an informational text about findings	2
Poster	Writing short texts or captions at pictures	2
PowerPoint	Writing short texts in a presentation	1

questions, plans of action and reflections on the inquiry process. In cases where students wrote a letter, teachers provided them with an instruction card holding information about the overall structure and the different components of a formal letter. With the exception of a single case, where four children were writing a list of interview questions, all groups produced one single text together. In order to gain a clear overview of the different writing events the students were engaged in, we categorized all video data in terms of the intended written products. Table 1 provides an overview.

In 7 cases students used a word processor or presentation program on a desktop computer: for writing notes (5 events), a report (1 event) and for creating a PowerPoint presentation. Regardless of whether students wrote with pen and paper or with a computer, the interactions can be characterized as face-to-face peer interaction and all events aim at the joint production of a text. For that reason, our analyses of proposal sequences does not distinguish between computer and pen-and-paper writing.

3.3. Analysis

The method was primarily informed by the methodology of (applied) Conversation Analysis (Antaki, 2011; Mazeland, 2003; Schegloff, 2007) and designed as a collection study, focusing on generalization of a cumulative series of single case analyses with respect to a single phenomenon (Mazeland, 2006). The basic methodological principle of Conversation Analysis (CA) is that the meaning of an utterance is established in the course of the interaction following that utterance (Kooze & Elbers, 2014). The inductive analysis focused on utterances that function as a proposal, which is reflected in the uptake of the participants. The first speakers' plans or intentions are not binding, but are contingent on the recipients' approval (Stevanovic & Peräkylä, 2012).

To enable fine-grained analysis of the interaction, video recordings were transcribed; see Appendix A for an overview of the transcription conventions. We then used ATLAS-ti, software for qualitative data analysis, to create collections of fragments with different practices to bring forward proposals. A *practice* can be defined as the observable means by which an action is implemented in interaction (e.g. word selection, grammatical form, prosody, embodied behaviour). Following these steps, we were able to identify different targets and syntactical constructions of proposals in collaborative writing, and related patterns of proposal sequences, including the position of writing down new content.

4. Results

4.1. Targets of proposals in collaborative writing

When primary school students write together in the context of inquiry learning, proposals target different aspects of both the

writing product and the writing process. We identified a total of 494 proposals in our data (not counting reformulations of previously expressed proposals by the same speaker). The following main targets of proposals were distinguished: (1) content of the text, (2) procedures (task management), (3) translation of clauses, (4) text structure, and (5) layout. A total of 264 (53%) proposals and counterproposals targeted ideas for content (whether or not combined with translation of the ideas; see Section 4.3), and 159 proposals (32%) were related to the procedure of the writing task, for instance the order in which activities should be carried out or division of labour. The remaining 15% of the proposals were related to text structure, layout and translation. Proposals regarding translation include grammar and spelling matters as well as writing conventions. Students propose for instance the use of an exclamation mark at the end of a sentence, the use of the past tense or present tense of a verb, or the use of formal or informal language with reference to choices in the use of abbreviations, or the use of specific personal pronouns for the addressee of a letter. Proposals for text structure were hardly present in the data. We noticed how students make much more use of *suggestions* or *commands* (Couper-Kuhlen, 2014; Searle, 1979) when addressing text structural issues.

An illustration of different practices to bring forward proposals can be found in Excerpt 1. Four girls are working on their research theme about local history and at this point they are generating ideas for a letter to children of a nearby school, to ask for information about the past. The teacher provided them with an instruction card that holds information on the different components of a letter. The fragment starts when student B reads aloud from this card (marked boldly in the transcript), claiming that providing a reason for writing the letter is now the first thing they have to do (line 52). Note: in lines 55 one student completes the utterance of another student (line 54), and since the sentence is structured in a different way in English than in Dutch, we also present a literal word-for-word translation for these lines (italicized), besides the translation into English colloquialisms (gloss), as further applied in the transcripts.

Excerpt 1

Four students write a letter to collect information on local history (1).

Line	Student	Transcript
52	→ B	uhm:: dan kunnen we waarom je de brief gaat schrijven moeten we eerst uhm:: then we can why you are writing the letter we should attend
53		doen ((leest hulpkartaat)) that first ((reads instruction card))
54	→ C	°wij schrijven deze brief omdat wij informatie° °we write this letter because we information° °we write this letter because we are looking for°
55	→ B	ZOEken over verleden (.) over het verleden <i>LOOKing for about past (.) about the past</i> inforMation about past (.) about the past
56	→ C	ja >bijvoorbeeld< dan moeten we eerst even legge- zeggen waar we waar yes for instance then we first just have to lay- say what we what we we het over hebben °dus uhm:° are talking about °so uhm:° (1.2)
57		
58		
59	→ B	wij doen het over uh het verleden uh kunnen jullie ons helpen >°om°< we are working on uh the past uh can you help us >°to°< informatie op te zoeken look for information
60		
61	→ C	wij doen een project over het verle:den we are working on a project about the pa:st
62	B	ja yes
63	A	oké= ((C begint te schrijven)) okay= ((C starts to write))

64	B	=°dus wij doen een project over het verleden° (.) >°schrijf maar op°< =°so we are working on a project about the past° (.) >°write that down°< 65 (3.5) ((C schrijft)) ((C is writing))
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Student B articulates a procedural proposal concerning the sequence of the different tasks (line 52), explicitly referring to the instruction card. In line 54 student C subsequently brings forward a proposal for content, that is completed by student B in line 55. In the following line (line 56), student C expresses a proposal for text structure. She claims that first they have to make clear what the letter is about and after having said this, she resumes her initiative to propose an opening sentence for the letter. In line 61 student C pronounces another proposal. Note that this proposal, as well as the jointly constructed sentence in lines 54–55, is not only a proposal for new content, but at the same time a proposal for the translation of that content (see also section 3.3). Student C then proposes a reformulation of the idea (line 61), replacing “it” with the more specific word “project”, thus performing an embedded correction (Jefferson, 1987).

Only when students work together on a report, a poster or a PowerPoint presentation, proposals for layout were observed. In cases of writing a letter, the draft version was written with pen and paper and layout was not an issue because the letter would be typed in Word at another moment. When writing in a learning log, students enter text at specific pre-designed places in the document, so layout was neither an issue. As regards the creation of a poster, proposals for layout mainly concerned the amount of text that could be placed on the document. Proposals for layout were mostly present when working in Word or PowerPoint. Proposals for layout can be found in Excerpt 2, a fragment of a conversation between three boys who are working on their research project about clothing. The students have assembled relevant information in a Word document and now they want to make a summary. In the meantime, student B is working on a poster. Student C operates the keyboard and mouse.

Excerpt 2

Three students are working on a text document on clothing (1).

Line	Student	Transcript
157	A	ik ga even bij tom kijken ↑ ja I will just go and check on tom ↑yes
158		(18.0) ((A loopt naar B, ze praten onhoorbaar door andere gesprekken in de klas. C selecteert tekst en experimenteert met lettergroottes)) ((A walks towards B, they talk inaudible because of background noise from other students. C selects text fragments and is experimenting with font sizes))
159	→ C	↑he timo wat vind jij hiervan, ((vestigt aandacht op tekst op scherm)) ↑hey timo what do you think of this, ((draws attention to text on screen))
160		(3.8) ((A loopt terug naar de computer)) ((A walks back to the computer))
161	C	↑zo ((A kijkt op scherm)) like ↑this ((A looks on screen))
162	A	ja yes (2.5)
163		
164	B	dat zou wel ↓kunnen that's a ↓possibility
165	C	zo (moet ie een) beetje groter like this (it should be a) bit bigger
166	→ A	ja: of misschien twaalf (.) nah dat wordt iets te groot yea:h or maybe twelve (.) nha that becomes slightly too large

167	C	↑twaalf (.) nee dat is ↑hartstikke goed want anders (.) kijk voor ↑twelve (.) no that is ↑very good because otherwise (.) you see for	101	C	alleen dat hoort bij ↓geschiedenis but that belongs to ↓history
168		iemand die het niet zo goed kan eh someone who is not very able to eh	102		(0.8) ((C verwijderd tekst uit inhoudsopgave)) ((C deletes text from table of contents))
169		(0.6)	103	c→ A	ja: ja waar vieren ze het allemaal (.) nou ja dan is (.) dan houden we ye:s yes where they celebrate it all (.)
170	A	jah (.) dat is ook wel goed (.) [°op zich° yeah (.) that is also quite good (.) [°in itself°	104		well then it (.) then we will het zo denk ik (.) anders krijgen we ook <u>te</u> veel keep it like this I think (.) otherwise we will get <u>too</u> much
171	C	[uh: wat () [uh: what ()	105	C	maar de hoofdvraag moet even ↑hierboven (.) hier even ((wijst aan met muis)) but the main question should just be above ↑here (.) just here ((points to it with mouse))
After a long silence (line 158), in which student C experiments with font size, he conducts non-verbally a proposal for the layout and tries to find consent for his idea, when verbally drawing the attention of student A (line 159). In line 161 student C demonstrates the proposed action and student A displays explicit agreement (line 162). In lines 166–170 a final proposal for the layout issue is brought forward and accepted. In lines 167–168 student C starts accounting for his idea, although he doesn't finish his argument. It is also apparent how both verbal and material actions co-occur spatio-temporally to construct a proposal, and how the computer is integrated in this practice (see also Gardner & Levy, 2010).			106	A	ja maar dat is geschiedenis van Halloween yes but that is the history of Halloween
In this subsection we demonstrated that proposals of students in collaborative writing have varying targets. The excerpts also display different practices for designing proposals. In the next subsections we will elaborate on these varying constructions and different means to accept or reject proposals of peers. We will focus on the two kinds of proposals that are most common in our data: proposals for procedure (Section 4.2) and for content (Section 4.3).			107	D	°ja dat is geschiedenis van° °yes that is the history of°
4.2. Construction of procedural proposals			108	B	Halloween Halloween
The most common syntactic constructions used for doing procedural proposals are built of declaratives with the personal pronoun 'we', accompanied by different auxiliary verbs expressing future actions: 'will', 'shall', 'may' or 'should' and an independent verb related to the writing activities. Another observed declarative form is a construction with 'I will', followed by an independent verb and closing with a tag question, soliciting agreement or consent. Besides declarative sentences, students use interrogative constructions, starting with the auxiliary verb 'shall' plus 'we' or 'I' and an independent verb. Table 2 provides an overview of the different syntactical constructions for procedural proposals. The symbol + means a composition of grammatical elements, and +/– means that a construction has two options: with or without the following element.			109	A	dus dat ↓is het dan so ↓that's it then () ((verwijderd een regel uit de inhoudsopgave)) () ((deletes a line from the table of contents))
To illustrate categories a and c in context, Excerpt 3 is presented. Four students are gathered around two desktop computers, working on their research theme Halloween. Their learning log, opened at the page with their research questions, is lying on the keyboard of student C who is operating the mouse and keyboard to create a PowerPoint presentation. During this conversation, he writes down the headings of the presentation (the contents). The students are looking for information on a Wikikids web page on Halloween, using another desktop computer that is operated by student B. The fragment starts when student A reads aloud from screen showing the table of contents. At this point students are discussing the selection of relevant topics for their presentation.			110	C	
Excerpt 3			111	a→ B	dan >moeten we nog even< eh leu- eh mooi plaatje zoeken then we >just have to look< for uh ni- uh beautiful picture (0.6)
Four students are gathering information on Halloween.			112		ja een dikke zombie yes a fat zombie (0.3)
Line Student Dutch original			113	C	
98 A hoe komen ze aan de naam dat is ook wel= how did they come up with the name			114		↑nee: ↑no:
99 B =ik vind deze heel schattig =I find this one very cute			115	B	
100 (1.4) ((leerlingen praten door elkaar)) ((students are talking to each other))					

In lines 103–104 student A says “[. . .] then we will keep it this way, I think, otherwise we will get too much”. Student A accounts for her proposal (Houtkoop-Steenstra, 1990), referring to the amount of information that is suitable to use for their final written product. Student C accepts non-verbally by performing the proposed action (line 110). Nevertheless, he performs a subsequent action, moving text parts in order to change the structure of the text. In line 109 student A says “so that's it then”, reaffirming her earlier account for the proposal. In line 111, a second procedural proposal is uttered, again using the *we should/have to* format: “then we just have to look for uh ni- uh beautiful picture”. Student C accepts the proposal and he immediately gives a concrete interpretation of the idea (line 112), which is then explicitly declined by student B (line 113).

As displayed in Table 2 and illustrated in Excerpt 3, procedural proposals can be designed in different ways and we found that students generally use specific constructions in different conditions. First, constructions using modal verbs of obligation, category a, are predominantly present in proposals that are explicitly motivated by requirements of the writing task or the intended text. These proposals are frequently uttered after a student reads aloud an instructional text. An illustration of this phenomenon can be found in Excerpt 1, lines 52–54: “uhm:: then we can (.) **why you are writing the letter** ((reads aloud instruction card)) we should attend that first”. Secondly, procedural proposals using a construction with the personal pronoun ‘I’ (category d), are only present when a proposal concerns a (physical) action that can only be performed by the speaker. For instance writing down new content, when the students share one pen together, or asking the teacher for assistance. These proposals are often constructed using a tag question, asking for consent.

Procedural proposals constructed as format a or b (Table 2), encounter little resistance and are thus easily accepted by the other participants. This is to a lesser extent the case in the other formats (b, d and e) where proposals are designed as an interrogative, or as a declarative with auxiliary verbs expressing an option among

Table 2
Construction of procedural proposals.

Syntactical design	Examples
a	Declarative: personal pronoun 'we' or 'I' + auxiliary verb expressing necessity (must/should/have to/shall) + independent verb related to the writing activity - haha WELL ((<i>slams her fist on the table</i>)) we really must go on now (.) what is the first question we can think ↑off -.. a closing in which you already thank for the effort ((<i>reads instruction card</i>)) (.) we should do this momentarily - o:h then we can print this! - but we could use the backside >for the campsite< (.) ↑yes
b	Declarative: personal pronoun 'we' or 'I' + auxiliary verb expressing possibility (may/could/can) + independent verb related to the writing activity - and <u>now</u> we will go for the dress - then we will <u>keep</u> it this way >I think< otherwise we will get too much
c	Declarative: personal pronoun 'we' +/– auxiliary verb 'will' + independent verb related to the writing activity - I will do the <u>writing</u> ↑yes - I will go and check on Tom ↑yes
d	Declarative: personal pronoun 'I' +/– auxiliary verb 'will' + independent verb related to the writing activity, +/– tag question, asking consent - shall I ask the teacher? - this is a draft (.) shall we make this the draft ↑version
e	Interrogative: auxiliary verb 'shall' + personal pronoun 'we' or 'I' + independent verb related to the writing activity

others. In these cases, recipients more often only conditionally accept a proposal (not-yet-accepting, Houtkoop-Steenstra, 1987), asking for clarification, or decline a proposal. However, the way in which participants handle procedural proposals does not generate much discussion or elaboration on the topic. For that reason, interaction in the context of procedural issues can be characterized best as 'quick consensus building' (Weinberger & Fischer, 2006), which means that contributions of peers may be accepted in order to move on with the task.

4.3. Construction of proposals for text content

Within the category of proposals for content, both declarative and interrogative constructions were found. A notable distinction was observed in the design of proposals between two different conditions: contexts in which students are generating ideas for a text with or without (online) textual resources. Informational recourses that students use when collecting information on their research subject, are mainly informative text books or web pages that are accessed through searching results in Google.

A proposal for content that is based on a source text, is designed as an assessment of a relevant text fragment, in view of the text to write. This is done in a characteristic way: by drawing attention of other participants to the fragment, in most cases accompanied by reading out loud (part of) the fragment. For instance: "hey: **when you think of streetdance you mostly think of the videos you see on TMV** ((*reading out loud from screen*)) (0.8) ye:s! that one is quite good". These proposals for content referring to (online) source texts can be designed with a positive *assessment* of a text fragment, as in the example above. In contrast, a student can express a negative *assessment*, which then results in a proposal to disregard or delete certain information. Assessments address the usability or relevance of the proposed text, which seems to be determined on the basis of both substantive questions regarding the research questions, and considerations about the amount of text that is suitable. Excerpt 4 provides an illustration of a negative *assessment*. This fragment displays another part of the conversation that was already introduced in Excerpt 2. At this point, two boys are reviewing information they collected in a Word document, on the history of the tuxedo. In lines 172–173 student A claims that a part of the text he just read out loud, can be deleted. This proposal is constructed both verbally and non-verbally (pointing at the screen). Student B accepts the proposal (Houtkoop-Steenstra, 1990), after asking for confirmation (line 175) and receiving additional information from student A (line 176).

Excerpt 4

Three students are working on a text document on clothing (2).

Line	Student	Transcript
170	A	((<i>hardop voorlezend van scherm</i>)) dat in Engeland door heren ((<i>reading aloud from screen</i>)) that was put on in England by men
171		van stand na het diner werd aangetrokken (.) ze trokken zich of position after dinner (.) they then withdrew without
172	→	dan zonder hun dames terug in een aparte rookkamer (.) nou their ladies in a separate smoking room (.) well
173		dat stuk kan eigenlijk wel weg (.) ↓dit ((<i>wijst naar tekst op scherm</i>)) that part can be deleted actually (.) ↓this ((<i>points to text on screen</i>)) (1.6)
174	B	zo ↑dit ((<i>bewerkt de tekst</i>)) so ↑this ((<i>edits the text</i>))
175		nee dit (.) tot hier (.) <u>kijk</u> van die rookkamer ((<i>wijst exact regels aan</i>)) no this (.) till here (.) <u>look</u> about that smoking room ((<i>points out exactly the lines</i>)) (0.4)
176	A	↓>oh ja< ↓>oh yes<
177	B	
178		

A second practice to express a proposal for content referring to a source text is an interrogative that is also regularly combined with reading out loud a text fragment. An example from a transcript of two students working on their research report on robots, reviewing the collected information on a desktop computer, is: "**around 1980 the first model came to Europe when the factories in The Netherlands** ((*stops reading aloud*)) (.) people will find that interesting (1.3) so:: shall we keep ↑this becau:se (.) people will find this interesting I guess". By saying 'shall we keep this', with a rising intonation, the student invites his peer to evaluate the usability or suitability of the selected text. When students express a proposal for content in a condition with the presence of source texts, a proposal occurs as a form of reported speech (Nissi, 2015). In most cases, these proposals are accepted without any further discussion. When students generate ideas without the presence of textual resources, they exchange ideas from their own knowledge and experience. Excerpt 5 provides an example of the use of an interrogative construction to propose a new topic for the text. This fragment is a continuation of the conversation that was already presented in Excerpt 1. Now, the four students are generating ideas for the content of the letter.

Excerpt 5

Four students write a letter to collect information on local history (2).

Line	Student	Transcript
153	B	uhm: umm:
154		(1.5)
155	→ B	uhm:: kunnen we iets met de natuur doen, uhm: can we do something with nature,
156	C	°djaa° °mmyeah°
157	B	gewoon een vraag van de natuur just a question about nature
158		(3.7)
159	C	uhm: umm:
160		(4.6)
161	B	°over de natuur uhm:° °about nature uhm:°
162		(3.5) ((A rolt pen over tafel)) ((A rolls pen on the table))
163	B	maar we kunnen ook doen >↓ ja maar dat weten we al< (.) dus (.) dat but we can also do >↓ yes but we already know that< (.) so (.) that
164	B	(ik weet) (.) heel veel vragen maar dat weten we ↓al (I know) (.) a lot of questions but we already know that

In line 155 a proposal for content is uttered by student B: “uhm:: can we do something with nature?”. The use of an interrogative displays an orientation to an approval or rejection of the idea by the other participants, and the use of an interrogative initiates also a new topical sequence (Park, 2012). In line 156 student C produces a weak acceptance form (Houtkoop-Steenstra, 1987), and then in line 157 student B reiterates her proposal, adding the modal particle ‘just’, signifying that the proposed topic ‘nature’ is not a very special idea, which leads to a mitigated proposal. The long silence in line 160 indicates an implicit rejection of the proposal. Student C shows she is thinking about a new topic for the text and then student B again repeats her idea, this time in a soft voice (line 161). Once again there is a relatively long silence, in which a preferred response is absent, and finally student B seems to initiate a new proposal, that at the same time is questioned by herself. Excerpt 5 also provides an illustration of the way students predominantly express a rejection of a proposal. In contrast to what can be seen in expert 3, line 114 (where the idea of a picture of a fat zombie was declined strongly), students tend to reject proposals for content quite implicitly. In response to interrogative constructions for proposals, other participants keep silent or express a weak acceptance form. When proposals are constructed as declaratives, students reject or conditionally accept these proposals through uttering an alternative, for instance in the form of an embedded correction.

Declarative constructions to bring forward a proposal for content have two main characteristics: the proposal is expressed in a passive form, lacking an explicit indication of an intended operator/actor, unlike procedural proposals that explicitly refer to ‘we’ or ‘I’, and furthermore the proposal is recurrently provided directly in the form of the preferred translation. An example of how students combine both a proposal for content with a proposal for translation, was already presented in Excerpt 1. After reading the instruction card, a student immediately formulates a sentence for the letter, proposing both content and translation: (A) “°we write this letter because we are looking for°”(B) “inforMAtion about past (.) about the past”. Excerpt 6 shows how two boys are writing captions at photos on a poster they created, in response to visiting a mill. The fragment starts when both students gaze at the poster, thinking about the next phrase to write.

Excerpt 6

Two students write captions at photos on a poster.

Line	Student	Transcript
66		(3.0) ((leerlingen kijken naar de poster))
67		((students are gazing at the poster))
68	→ B	ehm (.) toen gingen we naar= uhm (.) then we went to= =ehm toen ging we [naar =uhm then we went [to
70	B	[het krui [the whee
71	→ A	toen gingen we naar (.) toen toen then we went to (.) then then he
72		deed 'ie voor hoe je moest kruien showed how you had to wheel
73		(2.2) ((B schrijft)) ((B is writing))
74	→ B	((stopt met schrijven)) toen ↓zei hij (.) hoe we moesten kruien ((stops writing)) then he ↓said (.) how we had to wheel
76		(2.0) ((A knikt, B schrijft verder)) ((A nods, B continues writing))
77	A	ja ((B schrijft)) yes ((B is writing))
78		(6.2) ((B schrijft)) ((B is writing))

In lines 68–70 students A and B jointly construct the final sentence by combining their ideas for content and translation of the caption: “then he showed how you had to wheel” (lines 71–72). In lines 74–75 student B reformulates the clause, making it more precise. Student A displays his agreement both non-verbally by nodding (line 76) and then verbally by saying “yes” (line 77). Excerpt 6 displays how a second speaker responds to the idea of the first speaker by completing the sentence. This can be characterized as collaborative completion (Nykopp et al., 2014) or jointly constructed utterances (Vass, 2007), which was only observed when students discuss content and translation. These utterances as well as simultaneous and overlapping speech may be indications of a *collaborative floor*, which is characteristic of personal discourse, or of a strategy used to maintain shared focus and work towards a mutual goal (Vass, 2007).

Proposals for content and translation bring about extensive uptakes that consist of multifaceted responses, counterproposals and elaborations. In addition, our analysis of how proposals are done and how other participants handle proposals, showed that writing down the agreed content can occur in different sequential positions, performing different functions. In the next subsection we will elaborate this issue.

4.4. The sequential positioning of writing down new content

The sequence organization of a conversation is the way in which turns are linked to each other as a coherent series of interrelated communicative actions (Mazeland, 2006). In our data, writing down words or sentences during generating ideas, occurs in different sequential positions in the talk. This location reflects the function of the actual writing, in relation to acceptance of proposals. We discerned two main patterns concerning the ways in which the sequential positioning of writing down new content occurs.

The first pattern reveals how writing down can accomplish the position of a second pair part (SPP), non-verbally expressing acceptance of a proposal for both content and translation. Students then switch between the modes of talking and writing: the first pair-part (FPP) of a sequence (Sacks et al., 1974) is conducted orally, whereas the SPP is performed in writing. This was predominantly observed in the setting of dyads writing together, but also in small groups of children. Writing down is then understood as a valid turn in the conversation. Excerpt 6 provided an illustration of this

Fig. 1. Sequential organization with writing as a SPP.

Fig. 2. Sequential organization with writing in a sequence closing third.

phenomenon. Student A constructed the final idea for a sentence, by combining their proposals for content: “then he showed how you have to wheel”. After this, student B starts writing, thus expressing non-verbally his consent. Writing seems to seal the decision made (Nissi, 2015). This form of acceptance can only be performed by the student who is holding the pen or operating the keyboard, in response to the proposal of another participant. Sequences in which writing occurred as a SPP were recurrently closed by a minimal post expansion (Schegloff, 2007), in which another student confirms that the actual writing is done and refers to the next step in the writing event, thus articulating a procedural proposal. This can also be done by the student who is writing, accompanied by reading aloud the written text so far, and then this action is part of the SPP. Proposals for content and translation generate forms of extended discourse, as well as collaborative turn sequences (Lerner, 1994), that are located in insertion sequences. The sequential structure of this basic pattern is displayed in Fig. 1.

In the second pattern we identified, writing down new content follows reaching agreement verbally on both content and translation, thus closing the whole sequence. In this basic sequential structure, the actual writing occurs in a post expansion after verbal acceptance of a proposal for content and translation by all participants in the SPP of the sequence. See Fig. 2 for a graphical representation of this structure. Regarding the participants, ‘all’ means that all students have to express agreement with the idea, including the student who is writing. The writer may also be student A.

An alternative of this sequential structure occurs when participants reach agreement on content and subsequently on the translation. In this case, the agreement on the text to be written down, is established in two subsequences, after which the writing occurs in a fifth position receipt. Excerpt 7 exemplifies this. Four students are generating and writing down interview questions for a hammer smith. All students have their own pen and paper. Student C introduced the idea of asking if the hammer smith produces dogs trays. Student B shows he doesn't believe that's a relevant question, after which student C clarifies that a hammer smith uses a round plate to make such bowls, to support his own idea. Student C then proffers to write down the question, but student B again questions the proposal.

Excerpt 7

Four students formulate interview questions for a hammer smith

Line	Student	Transcript
160	B	°wat stelt het eigenlijk ↓voo:r° °what does it mea:n ↓actually°
161	C	wat stelt het ↑voo:r((krabt op achterkant hoofd)) what does it ↑mea:n((scratches on back of his head))
162	B	want je weet gewoon dat ze hondenbakjes maken want een smid because you just know that they make bowls as a blacksmith
163		maakt alles wat van ijzer is makes everything from iron
164	D	hondenbakjes kunnen ook van ijzer ↑zijn dogs trays can also be iron
165	C	ja ↑en van steen yes ↑and made of stone
166	B	ja steen yes stone
167	C	ik ken alleen maar hondenbakjes die van plastic of van steen zijn I only know dogs trays that are made of plastic or stone
168	B	maar ik weet wel dat ze daar hondenbakjes maken °maar dat but I do know that they make dogs trays there °but that
169		maakt niet uit° doesn't matter°
170	D	of van een bal [dat kan ook or of a ball [that's also possible
171	C	[ja ↓dat gaan we doen (.) zullen we dat ↑opschrijven [yes ↓that's what we'll do (.) shall we write that ↑down
172	→ A	nou (.) hoe moeten we dat ↑opschrijven well (.) how should we write that ↑down
173	C	ehm (.) ehm welke vraag was het ook ↑alweer ((naar B)) uhm (.) uhm what question it was ↑already ((addressing B))
174	B	hoe maken ze hondenbakjes (.) maken ze ook hondenbakjes how do they make dogs trays (.) do they make dogs trays
175	A	oké okay
176	D	↑maken ze ook hondenbakjes do they ↑make dogs trays
177		(.) ((alle leerlingen gaan schrijven)) (all students start writing))

After discussing several ideas, student A proffers the idea of asking the hammer smith if he produces dogs trays. After the students verbally reach agreement on this idea for a question, student A asks: “well (.) how should we write that ↑down” (line 172). Student B proposes the translation for the question and after a verbal agreement

by student A (line 175) and student D, reiterating the proposed sentence (line 176), all participants start writing down the proposed question.

Summarizing, the patterns display how *writing down* can be part of the decision-making process regarding proposals for content and for translation: as a means to accept a proposal or as a practice to secure a joint decision.

5. Conclusions and discussion

The main goal of the current study was to determine the nature and function of proposals in collaborative writing of primary school students, in the context of inquiry learning. Our study has identified five main targets of proposals: content of the text, procedure (task management), translation of generated content, text structure, and layout. The extent to which these different types of proposals play a role in the writing together process, is dependent on the nature of the writing event. When students take notes, write short texts for presentations or when they write or review referring to (online) textual sources, procedural proposals and proposals for layout are dominant. Only in the context of writing a letter, story or report, proposals for text structure were observed. In events where students have to generate new ideas for their text (letter, story, report, interview questions, mind map), proposals are primarily focused on content and translation, and on procedural issues.

The second major finding is that the objective of a proposal seems to be related to both the syntactical design, an interrogative or a declarative construction, and the way in which the proposals are treated interactionally. We focused on proposals for procedure and proposals for content, being the categories that are dominant in the writing events. First of all, *procedural proposals* are generally built as declaratives with the personal pronoun 'we', accompanied by an auxiliary verb expressing future actions: 'will', 'shall', 'should', 'have to', 'must' and an independent verb related to the writing activity. Constructions with modal verbs of obligation are dominant in procedural proposals. This kind of proposals encounter little resistance and are thus embedded in simple sequential structures. While working on a text using a PC, students constructed proposals using both verbal and non-verbal (embodied and material) actions. For instance by pointing to specific text parts on the screen, or by immediately performing a proposed action. The multi-modal ways in which these proposals are constructed, is restricted to this specific context.

Proposals for content are also constructed predominantly as declaratives, and notable differences were identified between events in which students generate ideas from own knowledge, or events in which students use (online) source texts. (a) When students generate ideas from personal knowledge and experience, proposals for content are recurrently combined with a proposal for translation. These proposals for content and translation bring about extensive uptakes that consist of multifaceted responses, enclosing collaborative completion, embedded corrections, counterproposals and elaborations on the topic (extended discourse). Proposals that are articulated as an interrogative construction provoke less discussion on the proposal, which may be attributable to the observation that these proposals are (partially) rejected quite implicitly. (b) When students express a proposal for content referring to available (online) source texts, proposals include a fragment of that text (reported speech). In a declarative construction, this fragment is accompanied by an assessment regarding the usability or relevance of the proposed text. In an interrogative construction, the student invites his peers to evaluate the selected information. An additional characteristic of this category of proposals is that a participant can also propose a negative selection, suggesting not to use certain content. Proposals for content that

explicitly refer to source texts are barely discussed or elaborated upon.

The third key outcome of our study is that *writing down* the agreed content and translation occurs in various sequential positions. We distinguished two main structures. The first pattern reveals how writing down accomplishes the position of a preferred second pair part (SPP), non-verbally expressing acceptance of a proposal for both content and translation. Students then switch between the modes of talking and writing: the first pair-part (FPP) of a sequence is conducted orally, whereas the SPP is performed in writing. In the second pattern we identified, writing down new content follows after reaching agreement verbally on both content and translation. This can be done simultaneously (when a proposal for content and translation are combined) or subsequently, when participants first verbally agree on the proposal for content and then on the proposal for translation. In this pattern, writing down the sentence closes the whole sequence.

The findings enhance our understanding of how primary school students perform collaborative writing activities. Students participate as co-writers (Saunders, 1989) and proposals play an important role in all phases of the writing process. Moreover, the present analysis of proposals shows *planning* and *translation* (Hayes & Flower, 1987) to a great extent as intertwined rather than as separate activities. In other words: creative content generation and transcription of generated content (Vass, 2007) are strongly interconnected in the task execution of young writers. Process-orientated thinking was observed in procedural proposals, although these proposals were mainly related to the intended written product, and hardly to groups' performance (Marttunen & Laurinen, 2012) or strategies for collaboration (Vass, 2007). When proposals for content (with or without translation) were discussed during generation of ideas, different manifestations of elaboration, reasoning, reflecting, building on and connecting ideas (Rojas-Drummond et al., 2016) were observed. Such expressions of knowledge building discourse emerge when a proposal is rejected or conditionally accepted. At this point, small-group writing activities may increase learning, since knowledge and meanings are 'co-constructed' as joint interactional accomplishments (Rojas-Drummond et al., 2010), in a process that can be characterized as creative interthinking (Mercer & Littleton, 2013; Vass et al., 2008).

Studying proposals in different writing events of primary school students, also displayed specific ways in which students construct procedural proposals. The characteristic translation of procedural proposals, using auxiliary verbs that stress necessity, seems to display an orientation to an 'organizational agenda' (Boden, 1994) and to the institutional setting in which the writing activity takes place. Although the students are working on their own research questions in the context of inquiry learning (Bereiter, 2002), intended to bring about for instance forms of creative thinking and exploratory talk (Mercer, 2004), the discourse is embedded in specific cultural activities (Hasan, 2002), that is the educational setting. The observation that students seem to be orientated to required outcomes of the writing event, may be an indication of how learning activities, including writing, cannot be dissociated from the context or the artefacts (tools, signs, symbols) that mediate them (Rojas-Drummond et al., 2008; Tynjälä et al., 2001). A strong focus on procedural issues, that is raised by ideas about requirements of the intended written product, may reflect children's mental dispositions (Hasan, 2002), manifesting in assumptions about what is worth attending to and what actions are considered to be important (Wells, 2007). Hence, it could conceivably be hypothesized that similar assumptions play a role when students generate ideas for the text, even though proposals for content evoke manifestations of cumulative talk and to some extent exploratory talk (Mercer, 2004; Mercer & Littleton, 2013). This is an important issue for future research, since creativity and reasoning together are vital aspects

of collaborative writing (Vass, 2007) and joint knowledge building (Vass et al., 2008). To optimize conditions for collaborative writing activities as described in this article, teachers may orient students more explicitly on substantive aspects of the writing activity.

Acknowledgements

We wish to thank the reviewers for the insightful and constructive comments on the paper. The research project on inquiry learning and language proficiency, with project number PRO-3-29 (2012), was financed by the National Board of Practice-Oriented Research SIA (SIA Board), which is part of the Netherlands Organisation for Scientific Research (NWO).

Appendix A.

Transcript notation, based on Jefferson (1984) and Have ten (2007).

bold	printed text that is read aloud
[text	overlapping speech; point at which an ongoing utterance is joined by another
[text	utterance
text=	break and subsequent continuation of contiguous utterances
=text	
(0.4)	pause (in seconds)
(.)	micro pause (less than 0.2 s)
.	stopping fall in tone (not necessarily at the end of a sentence)
,	continuing intonation (not necessarily between clauses of sentences)
?	rising inflection (not necessarily a question)
!	animated tone (not necessarily an exclamation)
↓	marked falling shift in intonation
↑	marked rising shift in intonation
°	talk that is quieter than surrounding talk
TEXT	talk that is louder than surrounding talk
<u>text</u>	emphasis
:	extension of the sound that follows (0.2 s for every colon)
>text<	speech is delivered at a quicker pace than surrounding talk
<text>	speech is delivered at a slower pace than surrounding talk
(text)	transcriber is in doubt about the accuracy of the transcribed stretch of talk
()	transcriber could not achieve a hearing for the stretch of talk
((text))	description of a phenomenon, of details of the conversational scene or other characterizations of talk

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