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Reflective practices in collaborative writing of primary school students

Anke Herder^{a,b,*}, Jan Berenst^a, Kees de Gloppe^b, Tom Koole^{b,c}

^a NHL-Stenden University of Applied Sciences, Centre for Discourse and Learning, The Netherlands

^b University of Groningen, Centre for Language and Cognition Groningen (CLCG), The Netherlands

^c School of Human and Community Development, University of the Witwatersrand, Johannesburg, South Africa

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ABSTRACT

In this study we explore how reflective practices function in the process of collaborative writing of primary school students, performing writing tasks in the context of inquiry learning. Previous research has established that reflecting on the writing process and use of metalanguage are significant for developing writing proficiency. The Conversation Analysis-informed exploration displayed different practices. First, students reflect on appropriateness, in terms of redundancy, relevance and style, when accounting for the rejection of a proposal. Second, students reflect on correctness of spelling, punctuation and grammar, which becomes observable in recruitments, instructions and corrections. The findings suggest that students share a strong orientation to certain writing norms that are merely made relevant in a responsive manner.

1. Introduction

Collaborative writing has shown to be beneficial for developing writing proficiency of individual students. Writing in small groups or dyads helps learners to emulate and learn from each other's writing and regulation processes, may stimulate conceptual learning, and encourages critical reflection and a heightened sense of audience awareness (Klein, 2014; Nykopp, Marttunen, & Laurinen, 2014; van Steendam, 2016). Hence, joint writing tasks may stimulate the progression from a novice to a skilled writer, which has been characterized by Bereiter and Scardamalia (1987) as the transition from a knowledge-telling to a knowledge-transforming approach to writing: "the development of the ability to write [...] as involving moving the student from a natural oral conversationalist to a communicator who could generate a largely shared meaning in the absence of immediate audience" (Parr & Wilkinson, 2016, 217). The writing process of a skillful writer, can be characterized as a form of knowledge transforming, solving conceptual, metacognitive and rhetorical problems (Bereiter & Scardamalia, 1987; Deane et al., 2008; Galbraith, 2009; Hayes, 2006) and as a recursive cognitive process consisting of planning, translating and revising (Flower & Hayes, 1980; Hayes, 1996, 2006). Writing thus always requires decision-making about language and communication of meaning (Myhill & Jones, 2015) and accordingly, Chen and Myhill (2016) refer to writing as an act of selecting, shaping, reflecting and revising, thus being a form of metalinguistic activity. Analysis of the different foci in the interaction of young students writing together, demonstrates this cyclical and iterative processes of planning, writing and revising: creative content generation, planning of content, reviewing the generated content, transcription of generated content and process-orientated thinking (Rojas-Drummond, Littleton, Hernández, & Zúñiga, 2010; Rojas-Drummond, Albarrán, & Littleton, 2008; Vass, 2007). When students reflect on generated ideas, the emergence of new thoughts for text content is triggered, resulting in very short iterative cycles, as was observed by Vass, Littleton, Miell, and Jones (2008).

* Corresponding author at: NHL-Stenden University of Applied Sciences, Centre for Discourse and Learning, P.O. Box 1080, 8090 CB Leeuwarden, The Netherlands.
E-mail address: anke.herder@nhl.nl (A. Herder).

To become a skilled writer, children need to reflect on both the writing process and the written text: “Many studies on written composition assume there is an interrelation between the act of writing and conscious knowledge and control of the text production and verbal processes” (Camps & Milian, 2000:3). This implies that talking about writing, both concerning process and (intended) product, is a key factor in growth of writing proficiency. However, despite the importance of this aspect of writing, little research has been conducted on how metatalk (Parr & Wilkinson, 2016) may appear in the interaction of primary school students writing together, when no teacher is involved. This paper aims to explore how reflective practices function in naturally occurring peer interaction, in the context of collaborative writing events.

2. Background

To date, writing research from a socio-cognitive perspective on the analysis of metadiscourse, investigates spoken and written communication about language and language use in various contexts and with different methods (Grésillon & Perrin, 2014). Studies that were carried out in school contexts, focus for instance on products of reflective writing tasks to conceptualize student perceptions of writing in science education (Levin & Wagner, 2006), or reflections on the composition process, with use of stimulated recall interviews with students (Myhill, 2009). Empirical data on how collaborative writing can be favorable for developing writing skills, including consideration of the role of metatalk, is provided extensively in the context of Second Language learners writing together (Fernández Dobao, 2012; Gutiérrez, 2016; Storch, 2005; Wigglesworth & Storch, 2012). Studies that analyse verbal metatalk in the context of writing activities in regular school contexts, have primarily focused on guided teacher-student interaction, with a strong focus on teacher talk (Dolz & Erard, 2000; D'warte, 2012; Myhill, Jones, Lines, & Watson, 2012; Myhill, Jones, & Watson, 2013; Jesson, Fontich, & Myhill, 2016; Myhill et al., 2016), and on metalinguistic (Myhill & Jones, 2015) aspects of writing. The studies demonstrate that teachers' linguistic knowledge and their management of metalinguistic conversations are favorable factors in developing writing proficiency. However, the studies do not address in detail how children verbalize their reflections on the necessary choices they have to make as a writer.

Interaction about language use is commonly characterized as metadiscourse (Hyland, 1998, 2017; Ifantidou, 2005; Latawiec, 2012), metatalk (Dolz & Erard, 2000) or metalanguage (Jesson et al., 2016; Myhill & Jones, 2015). Parr and Wilkinson (2016) define ‘meta-talk’, being talk about writing, as a mechanism for deepening thinking about writing. Jesson et al. (2016) explore from a theoretical angle how metatalk related to writing, is a tool for learning about writing, and in particular for developing thinking about shaping meaning in writing. Drawing on Vygotsky (1986) theory of concept formation, grammatical terms are considered as scientific concepts: “For the student learning to write, metalinguistic concepts arguably increasingly function as scientific concepts as the student develops an understanding of the meanings in use, generalize their core features and develops systems of relationships between these concepts through mediated use” (Jesson et al., 2016:158). Likewise, the authors regard specific understandings, such as drafting, genres or reader awareness, also in the context of culturally-shaped ways of talking about writing.

Myhill et al. (2013) demonstrate that grammatical pedagogical content knowledge of teachers, allows them to foster the ability of students to discuss and talk about language in precision. The authors claim that metatalk creates a dialogic space (Wegerif, 2006, 2013) in which co-construction of knowledge can be considered as emerging from the process of participating. According to Wegerif, ‘dialogic’ assumes that meaning is never singular but always emerges in the play of different voices in dialogue together. Consistent with this idea, Jesson et al. (2016) consider a dialogic space in terms of different sources of dialogic talk which may inform development in writing: textual sources (concerning the multi-vocal nature of texts), the social interactions about text and writing in the classroom context, and the individual voices of students, talking about and reflecting on their writing (Jesson et al., 2016).

Camps, Guasch, Milian, and Ribas (2000) assert that a student must have adequate knowledge and be able to use specific terms to refer to the linguistic concepts, in order to engage in explicit metalinguistic activity in social interaction. Chen and Myhill (2016) comply with this idea, claiming that “metalinguistic understanding involves both recognizing and identifying patterns of language use, and being able to apply that understanding to regulate one's own language use and language choices” (Chen & Myhill, 2016:101). Nevertheless, Jesson et al. (2016) contend that the learning of concepts and procedures is not a pre-condition for engaging in reflective actions, but rather a consequence of it when these actions are shaped within a dialogic space. The focus of attention of recent studies on writing instruction is the role of such meta-reflections on writing choices from teachers and students, on the subject of different grammatical levels of narratives (Love & Sandiford, 2016), and metalinguistic knowledge. Myhill and Newman (2016) conducted an intervention study with instructional teacher materials that focused on metalinguistic discussion in the context of writing lessons. Observations focused on how the teachers' input linked grammar and writing and fostered high quality talk, and on how student responded in these conversations. The study showed that teachers were particularly modelling metatalk through signaling explicit connections between grammar and writing, and paying attention to writer choices and reader awareness. Yet, the teachers were not able to create dialogic spaces to enhance the students' own capacity to think reflect on their writing. The researchers consequently claim that teachers should learn how to adopt more open dialogic discourse roles.

Summarizing, metadiscursive activities are acknowledged to be conducive for learning to write, and according to Jesson et al. (2016), dialogic space (Wegerif, 2013) can be considered to function as sites for learning about using language for writing. Dialogue is not only a tool for reasoning, but a desirable pedagogical outcome in itself (Parr & Wilkinson, 2016). In collaborative writing, these dialogic spaces may occur in peer dialogue (Mercer & Littleton, 2013; Rojas-Drummond et al., 2010). However, little is currently known about the occurrence and function of reflective practices, regarding both text content and linguistic issues, in naturally occurring peer interaction of young writers during joint text production. Our paper will address this issue, from a socio-cognitive perspective on writing (Donahue & Lillis, 2014), based on data from primary school students writing various texts in the context of inquiry learning.

3. Method

3.1. Context

Video data for this study was taken from six primary schools in the north of The Netherlands, in grades 2–6 (age 8–12). Aside from one school with two locations in one of the main cities in the northern region, all schools are situated in small towns in mostly rural areas. The total number of students in these schools varies between approximately 40 and 210 students. The schools participated in a multiannual project (2012–2015) designed to acquire more understanding of how face-to-face peer interaction can contribute to both knowledge building and language proficiency. Teachers implemented small-scale projects for inquiry learning (Bereiter, 2002; Littleton & Kerawalla, 2012), in which students worked in pairs or small groups of different ages on their own research questions, for about three weeks in two periods each year. In these weeks, most students worked on their research projects on a daily basis, or otherwise at least three times each week, with variations in duration and intensity. The students followed a format for conducting their research in five phases and project themes were for instance: Superheroes, Clothing, Machinery and equipment, Sports and games and Local history. Whether or not students would write during the project, no matter what text, was not planned in advance but depended on choices made by the individual groups (see also Section 3.2). The overall research project was based on the principles of ‘educational design research’ (Plomp & Nieveen, 2007; Walker, 2006) in which specific pedagogical interventions were comprised, aiming at student learning and teacher professionalization, regarding inquiry learning, the use of exploratory talk (Mercer & Littleton, 2013) and collaborative reading and writing.

A total number of 74 students from middle grades (48 participants) and upper grades (26 participants) were involved in the different writing events in our dataset. The notion ‘middle grades’ refers to students from grades 2–4, aged 8–10 years old, and ‘upper grades’ refers to students from grades 4–6, aged 10–12 years old. The reason why grade 4 is represented twice in this distribution, is that the schools used different systems to arrive at a classification into groups. Very small schools need to combine more age groups into one classroom, for instance grades 2–3–4, than bigger schools. Combinations of grades 3–5 do not exist, so in our data a clear distinction can be made between middle grades and upper grades.

3.2. Data

Recordings were made of the small groups performing collaborative writing activities during all stages of their research project, using a digital camcorder, in some cases supplemented with an external microphone on the table. The term collaborative writing refers to “all activity and communication surrounding the construction of texts by multiple contributors, whether written or spoken, and whether planned or incidental” (Bremner, Peirson-Smith, Jones, & Bhatia, 2014, p. 151). The dataset for this study holds 28 video recordings of collaborative writing events, with a total time of 5 h and 54 min. In accordance with the description of speech events from an ethnographic perspective on communication (Hymes, 1972; Freebody, 2003), we regard a *writing event* as a series of goal-oriented communicative actions to create a text together. A writing event holds different writing activities, for instance generating content or writing down sentences, in which these actions are situated. The writing events vary from 2:30 min to 52:26 min, with an average of 11:26 min. This variability in time is not related to the nature of the writing activities. The shortest event was writing a reflection in a learning log, and the longest fragment shows a collaborative writing event of two girls who are generating and writing down interview questions.

The students worked together in dyads or in small groups of three or four students and all writing activities were conducted using pen and paper. Data from three types of events, namely the writing of a short informative text and two letters, were drawn from the small-scale pedagogical interventions (see Section 3.1). Table 1 provides an overview of the intended texts, main research activities and the number of events.

Teachers were not involved in the writing activities and no specific assignments were provided for the different text types. However, in cases where students wrote a letter, most teachers provided them with an instruction card holding basic information about the overall structure and the different components of a formal letter.

Table 1
Overview of the 28 writing events.

Written products	Main activity	Number of events
Plan of action	Articulating research questions in learning log	6
Reflection	Reflecting on activities or progress in learning log	2
Mind map	Exploring a research topic, activating prior knowledge	1
List of questions	Formulating questions for an interview with an expert	3
Letter	Writing a letter (to collect information)	6
Notes	Taking notes while reading source texts	4
Story	Writing a story about findings	2
Report	Writing an informational text about findings	1
Poster	Writing short texts or captions at pictures	3

3.3. Analysis

Our explorative qualitative study was primarily informed by the methodology of (applied) Conversation Analysis (Antaki, 2011; Schegloff, 2007; Schegloff, Koshik, Jacoby, & Olsher, 2002), henceforth CA, and designed as a collection study, focusing on the generalization of a cumulative series of single case analyses with respect to a single phenomenon (Mazeland, 2006). The central phenomenon for our study, metalanguage, derives from the research tradition of pragmatics (Ifantidou, 2005). From a CA perspective, we have analyzed the use of specific words and grammatical choices in utterances, generally designated as ‘metatalk’, ‘metadiscourse’ or ‘metalanguage’ (Dolz & Erard, 2000; Ifantidou, 2005; Jesson et al., 2016; Latawiec, 2012; Parr & Wilkinson, 2016; Tang, 2017), as “sets of resources which participants deploy, monitor, interpret, and manipulate as they design turns, sort out turn-taking, co-construct utterances and sequences, manage intersubjectivity and (dis)agreement, accomplish actions, and negotiate interpersonal trajectories as real-time talk and interaction unfold” (Schegloff et al., 2002, p. 15). CA follows an emic orientation, which means that the analysis is always grounded in the observable orientations of participants (Gosen & Koole, 2017). A key underlying premise of CA is that participants use language and concomitant forms of conduct to perform activities, not only to transmit information. CA aims to understand what actions are designed to accomplish by their speakers and understood to have accomplished by their recipients, and what practices implement that design.

To distinguish the different reflective practices in the collaborative writing events, we conducted the following steps. First, the video recordings of the collaborative writing events were transcribed using CA-conventions; see Appendix A. Second, we designated ‘all utterances that refer to other utterances or texts’, using *Atlas-ti*, software for qualitative analysis. Third, we analyzed when the utterances occurred, exposing particular moments in the writing process. This resulted in three main assortments: before the actual writing of a word or sentence, during the writing, and (instantly) after writing down new text. Fourth, to elucidate the function of these reflective utterances for the writing together process, we explored how they occurred, through a sequential analysis (Schegloff, 2007). A sequence is defined as an ordered series of turns through which participants accomplish and coordinate an interactional activity (Mazeland, 2006). By following this inductive procedure, we were able to compile several sub-collections of reflective practices. Finally, a further substantive analysis of the utterances was conducted to gain insight into the orientations of the participants: why is this being said at this moment? Moreover, the sequential analysis of the talk-in-interaction in the writing activities, also revealed how the oral and written mode in our data are interrelated.

4. Findings

All co-writing activities (Saunders, 1989) in the present context of inquiry learning, displayed the cyclical and iterative cycles of planning, translating and revising (Flower & Hayes, 1980; Hayes, 1996, 2011; Vass et al., 2008), although the length of these different aspects of writing varied, depending on the nature of the writing activity. For instance: when students were writing a letter or generating research or interview questions, they were involved in planning activities, being mainly creative content generation (Vass, 2007), relatively longer than when students wrote captions on a poster. In these events, students paid more attention to translating the generated content into written language. Revision of written text focused on linguistic errors. In all writing events, with the exception of a single case, the pairs or small groups constructed one joint text together, so only one student was holding a pen at a time. The other participants habitually observed how the writer performed his task, although not every co-writer was able to monitor the writing directly, due to the arrangement of the groups.

We found that the reflective utterances in our data occur in all writing activities, and are aimed at two main aspects of writing texts. When students generate ideas, comments on proposals of peers attend to matters of appropriateness, whereas during and after writing, the comments address aspects of correctness. With these remarks, the participants accomplish different conversational actions by means of distinctive practices, which we will discuss in two themed Sections: (4.1) Reflecting on appropriateness and (4.2) Actions following reflecting on correctness.

4.1. Reflecting on appropriateness

When children are engaged in generating ideas for the text, they bring forward proposals for content, usually verbalized in the desired linguistic construction (Herder et al., 2018). When other participants then question or reject this proposal (Houtkoop-Steenstra, 1987), the appropriateness (Hyland, 2010; Ifantidou, 2005; Latawiec, 2012) of an idea is frequently defied. We were able to compile a collection of 31 fragments in which reflecting on this issue is apparent. The comments are orientated to three aspects: the amount of information that is already given (10 examples), the suitability of word choices or style (6 examples), and the relevance of an idea (15 examples), that are subsequently described in the following three sub sections.

4.1.1. Commenting on redundancy of information

Mentioning the sufficiency of information that is already given, is a way to argue that the content of a proposal is not suitable. Most of these statements are constructed using the verb ‘have’ in combination with the adverb ‘already’, and perform a rejection to a proposal that is positioned as a First Pair Part (FPP) (FPP; Schegloff, 2007) of a proposal sequence. A rejection is a typical example of a non-preferred Second Pair Part (SPP) in a proposal sequence (Houtkoop-Steenstra, 1987). However, in our data the rejections were accepted without further discussion, which displays that participants do not treat these SPP’s as dispreferred responses. Excerpt 1 provides a representative example. Four students are generating research questions about farms in the past.

This fragment displays how a comment on redundancy functions as a valid argument to decline a proposal. In line 5–6, Jesse

1 Abby waa[:rv]oor (.) waar- (.) waarom hebben de (.) hebben
 for[:w]hat (.) for- (.) why do the (.) farmers
 2 boeren zoveel machines,
 have so many machines,
 3 Jesse [wat is]
 [what is]
 4 Owen om te- om [te-
 to- to [to-
 5 Jesse [wat is het wat is het beroemdste dier? wat is
 [what is the what is the most famous animal? what is
 6 het beroemdste dier voor=
 the most animal for=
 7 Liz → =dat hebben we al.
 =we already have that.
 8 (.)
 9 Jesse oh ja.
 oh yes.
 10 (.)
 11 Abby welk dier=
 what animal=
 12 Owen =welk dier >oh dat hebben we al.<
 =what animal >oh we already have that.<
 13 (.)

Excerpt 1. [4 students, grade 3–4].

proposes to ask what the most famous animal is, when he is interrupted by Liz saying, “We already have that”. In this manner, Liz rejects Jesse’s proposal for a research question, referring to the fact that this idea is already written down. Jesse acknowledges that this is the case, by saying “oh yes” with a falling intonation (line 9), in a sequence closing third. Note that in line 12 Owen performs a self-correction on the same grounds. The rejection of the proposal does not lead to any further uptake by the other participants, nor is this dispreferred response mitigated, attenuated, or accounted for. Instead, the participants start generating new ideas for their research project (not in the transcript). It seems that participants are orientated to the specific writing norms on redundancy.

We observed these comments on redundancy in all different writing events. In the next sub section, we will demonstrate that comments on proposals also address the relevance of an idea.

4.1.2. Commenting on relevance of information

Reflections on the suitability of proposals that display an orientation to relevance, focuses mainly on two different aspects of the writing event: (i) the topic of the research project and (ii) the relevance for the inquiry process that the students are engaged in. The examples in our data demonstrate that students generally regard ‘irrelevance’ as a valid argument to reject an idea, although these comments do generate some extended discourse in most cases, unlike the reflections on redundancy (Sub section 4.1.1). The comments on relevance are sequentially situated in a 2nd position (SPP), mostly initiated with ‘but’ or ‘yes, but’, as a response to a proposal for content from another participant. We will elaborate on our findings concerning reflection on relevance based on two representative excerpts.

Comments on the relevance of an idea concerning the main topic are for example: “we are talking about farmers, not about countries”, “but we have to think of questions to ask the blacksmith”, or in a more general manner: “but that’s not what we’re talking about now”, or “that’s not the topic of our text”. Our collection of comments questioning the relevance of a proposal for the text (13 instances) shows that students use both positive and negative declaratives, emphasizing what the actual topic is, and on the other hand stressing that what was said is not relevant to the topic. In general, this comment on another participants’ idea is treated as a valid argument to reject an idea, which indicates a shared orientation towards specific writing norms on relevance in these writing events. [Excerpt 2](#) displays an example of this phenomenon. Three students are constructing a mind map about horse riding, to activate prior knowledge on the subject. Previous to this fragment, Lauren shows the mind map to her peers and declares that the sheet is filled almost completely (which often proves to be an argument for considering a text as done). Ivy and Megan react joyfully and after a silence, Ivy brings forward a new idea (line 1).

After a short silence, Lauren questions the proposal (line 3), although in a soft voice, by declaring that this has nothing to do with horses (horse riding, the theme of the mind map). At this point, reflecting on relevance functions as a repair initiation ([Kitzinger, 2013; Schegloff, Jefferson, & Sacks, 1977](#)) to restore coherence in the conversation with regard to the main topic. In a post expansion, Megan agrees (line 6), and adds another argument for declining the proposal referring to the amount of ideas already collected in the mind map. After a silence, she initiates a new proposal sequence by introducing the idea of a hoof pick, which decisively ends the conversation on the previous idea.

The second criterion by which students reflect on the usability of an idea, concerns the relevance for the inquiry process that they are engaged in (6 episodes). Examples are “we already know that” or “but if we already know that, we don’t have to ask that”. In [Excerpt 3](#) Tracy and Nina overtly express the consideration why a proposal is not relevant from the perspective of doing research. The students are generating ideas for historical questions to ask children from a nearby village, together with two peers.

- 1 Ivy ze zijn heel erg ↑lief
they are really ↑sweet
(0.5)
- 2
- 3 Lauren → °maar dat eh (.) heeft niks met paarden te maken°((schudt
hoofd, kijkt even naar Ivy))
°but that uh (.) has nothing to do with horses° ((shakes head,
gazes at Ivy for a moment))
4 (3.1) ((Lauren gumt iets uit))
((Lauren erases something))
- 5 Lauren [((gumt))
[((erasing))]
- 6 Megan [°nee:° (.) maar misschien is dit het allemaal wel,
[°no:° (.) but maybe this is just it,
7 (2.4)
- 8 Megan een ↑hoevenkrabber
a ↑hoofpick
9 (0.5)

Excerpt 2. [3 students, grade 3–4].

- 1 Nina hadden ze vroeger::
did they have formerly::
- 2 Joni veel
a lot
3 (1.8)
- 4 Joni veel ↓huizen
a lot of ↓houses
- 5 Tracy → [ja >maar daar weten we het antwoord al op.<
[yes >but we already know the answer to that.<
- 6 Nina → [ja maar dat weten we al.
[yes but we already know that.
- 7 Tracy ja. niet zo heel ↓veel tenminste minder dan (.) nu (.)eh:
yes. not so very ↓many at least less than (.) now (.) uh:
- 8 Joni we doen gewoon eentje >die we wel weten< en dan uh:=
we just do one >that we do know< and then uh:=
- 9 Tracy =nee maar dan hebben we het voor niks gedaan
=no but then we did it for nothing
- 10 Nina [nee dus dan
[no so then
- 11 Tracy [dan hebben we een vraag die we al weten.
[then we have a question that we know already.
- 12 Nina ja
yes
- 13 Tracy uhm: (.) even een vraag voor een ↓huis dus dan.
uhm: (.) so just a question for a ↓house then.

Excerpt 3. [4 students, grades 3–4].

Although the example displays extended discourse on the question whether or not it is relevant to use a question of which the answer is already known, this comment does function as a decisive argument to reject the proposal. In lines 1–4 Tracy starts to formulate a question and Joni attributes the subject to this sentence. In line 5 Tracy says “yes but we already know the answer to

- 1 Nina of (.) ehm (.) hoe lang (.) doe je al aan dansen
or (.) uhm (.) how long (.) do you dance already
- 2 Lara [ja ((knikt))
[yes ((nods))
- 3 Caitlin → [ja dat kan (.) hoe lang doet u aan dansen
[yes that's possible (.) how long do you dance
- 4 >want je weet niet of het een menee:r of een mevrouw is
>because you don't know if it is a ma:n or a woman
- 5 Lara ja ik weet het [() ((kijkt naar Caitlin))
yes I know that [() ((gazes at Caitlin))
- 6 Caitlin [ja maar (.) ja maar kijk
[als we nou
[yes but (.) yes but you see
[when we will
- 7 Jade → [maar ↑u vind ik zo kle:fferig
[but I think ↑you is so so:ggish
- 8 [((Lara en Nina lachen))
[((Lara and Nina are laughing))
- 9 Caitlin [ja maar >tegen oude mensen moet je altijd< u ↓zeggen
[yes but >you always have to say you< to ↓old people
- 10 Jade ja maar ik denk niet dat er ↑heel veel ouwe ↓mensen dansen
yes but I don't think a ↑lot of old people ↓dance
- 11 (0.8) ((iedereen lacht))
((everybody is laughing))
- 12 Nina oké (.) doen we gewoon je.
okay (.) then we'll just use you.

Excerpt 4. [4 students, grade 5–6].

that”, and at the same time Nina similarly shows her rejection of the idea, also claiming that they already know what the answer will be. In both cases, the rejection is positioned as a Second-Pair Part (SPP) and syntactically constructed as a declarative, initiated with the words “yes but” that indicates both a recognition of the previous contribution, which implies a shared orientation, and an argumentative comment. Tracy accounts for her rejection in the next turn, line 7, demonstrating that she knows the answer to the question (Koole, 2010), thus proving the irrelevance of the question. However, Joni suggests asking the question anyway (line 8), which indicates that she is not yet convinced, but Tracy persists and claims that if they do so, it will be useless (line 9). In line 11 Tracy rephrases her position, which is agreed upon by Nina. Tracy then resumes the joint activity (line 13), continuing the topic that was introduced by Joni. Hence, Tracy expresses that ‘houses in former times’ is a relevant topic, although asking for an amount of houses is not meaningful here. She proposes to formulate a new question about a house (line 13). In the next section we will address the reflective practices of young writers when discussing word choices, which can also lead to extended discourse building on proposed ideas.

4.1.3. Commenting on the suitability of word choice

Decisions on linguistic packaging, in particular word choice or style, are regularly discussed with an orientation to the intended audience of the text. We observed these reflective practices when students were working on a written product with clear rhetorical goals: a letter, a narrative, an informational text (report), or a poster. In the following example (Excerpt 4) four girls are writing a letter to a dance teacher to collect information on their research theme Dancing.

The above example is representative for how students reflect on linguistic choices when writing together. In this case, the students discuss the use of the personal pronoun ‘you’, which has two forms in Dutch: *je*, which is the informal way to address another person, and *u*, which is the polite form used to address unknown and elderly people. In line 1, Nina proposes to ask the how long the addressee is dancing already, using the informal form of address. Lara shows agreement and in line 3, Caitlin accepts the proposal, but rephrases the proposed question, replacing the informal *je* by the formal *u*, thus performing an embedded correction (Jefferson, 1987) on style. This may be characterized as a reformulation accompanied by linguistic comments (Camps et al., 2000). Caitlin stresses the word *u*, to enforce this correction, and then gives an account in line 9, which, strictly speaking, does not apply since being a man or a woman is not relevant. Yet, Lara elaborates on this issue and seems to argue she knows the gender of the addressee (line 5), and after Caitlin initiates a new proposal sequence (line 6), Jade interrupts to decline the suggestion for using *u* instead of *je*. She thus treats the correction to the personal pronoun *u* as an argumentative statement, which she challenges by claiming that the use of that personal pronoun is soggy (pronounced in a playful manner). Caitlin responds with another argument to support her position (line 9), now expressing a valid rule for the use of this specific personal pronoun: you have to use *u* when you address elderly people. However, Jade declines this argument as well, by expressing her doubts about the applicability of that claim with regards to the intended recipient of the letter. She claims that there will not be a lot of old people who dance, an argument that convinces Nina who suggests that they

may just use the informal form of address (line 12). This conclusive statement ends this proposal sequence.

Reflective comments on appropriateness in terms of style, is situated after the participants have reached agreement on the content of a proposal. The idea for content may be discussed and accepted explicitly, or agreement on the idea may be reached implicitly, in cases where a proposal combines both content and translation and participants do not challenge the contents. This is different from reflective practices related to redundancy and relevance (Sub sections 4.1.1 en 4.1.2), in which the content of a new idea is under negotiation. In addition, the reflection concerning style, seems to call on more general knowledge, like courtesy in addressing and writing conventions. At another point in the conversation from the above example, the four students discussed how many questions are appropriate to ask in a letter. At that point, the one student was reading the step-by-step instructions for writing a formal letter, and then proposes to provide a sub heading 'questions' in the letter and to subsequently number the questions. Another student responded to this by asking how many questions they should be asking. Hence, the reflective activity was responsive to the reading activity.

In this section, we demonstrated how proposals for the text are discussed for their appropriateness, from three angles: the redundancy of information that is already given, the relevance of an idea, and the suitability of language choices. Considering all examples, we noticed that the intended text type is not relevant, since we observed these patterns in all different writing events. Likewise, the role of a participant, being a writer or non-writer, appears not to be relevant for these types of reflective practices, because the students are cooperatively generating and discussing ideas. However, this is not the case when children start to write. When the agreed content and packaging is actually written down, particular students comment on the work of others to provide for correctness in different ways. In the next section we will demonstrate how students monitor correct use of written language and punctuation, in order to create a proper text together.

4.2. Actions following reflecting on correctness

Students value the correct orthography or spelling of words, including their own names, and thus a significant amount of the comments on linguistic issues concerns correct spelling (our collection holds 24 examples). Besides orthography, students also comment on punctuation (16 instances) and in 3 cases the grammatical structure of a written sentence was discussed. When students are engaged in the actual writing of an agreed word or sentence, two different practices for solving problems with correctness can be discerned when the students are writing down new content, depending on the role of the participant at that point in the collaborative writing event: recruitments by the writer (Sub section 4.2.1) and instructions by a non-writing co-reader (Sub section 4.2.2). In Sub section 4.2.3 we will demonstrate which practice occurs when a text is written down.

4.2.1. Asking for assistance on the right spelling

The first manner targets solving a potential spelling or grammar problem of the 'writer' and can only be initiated by this student. The writer then reflects on the correctness of the word or sentence he is about to write down, and recruits his peers (Kendrick & Drew, 2016) to assist him with solving his approaching problem. This request for help can occur at two different points in the writing: just after the students reach agreement on the intended words verbally and the writer wants to start writing the words, or during the writing when the author is about to write down a word. In both positions the discourse about the linguistic issue precedes the actual writing, although in the first option (spelling or grammar) the recruitment may be situated in a pre-sequence, whereas in the second option (spelling or punctuation) the recruitment is located as a First-Pair Part (FPP) of an insertion sequence. This insertion sequence, in the oral mode, interrupts the main activity in the written mode, just briefly. An example can be found in *Excerpt 5*, a fragment of a writing event in which Rebecca and Alison alternately write captions on their wall paper (poster) with pictures from a visit to a mill. The students are gazing at a photo and Rebecca proposes to write down that you can see the sails of the windmill really well on the picture. Alison accepts the proposal and once she is writing, she calls for assistance in line 4 concerning the correct orthography of the word 'sails'.

The recruitment on the spelling issue (line 4), is a pre sequence to the writing activity, which is picked up in line 7. Alison's recruitment is designed as a suggestion: she provides an idea for the correct spelling herself and then asks for consent. Rebecca confirms that the intended word should be written that way, and provides an account by bringing up a spelling rule (although not adequate or applicable).

Recruitments concerning the correct spelling of a word, executed during the actual writing, are designed in different ways provoking specific uptakes by the other participants. The first, and most common manner is when a student asks his peers for the correct spelling of a word he is about to write down. Examples of this interrogative format are "how is Dylan written?", or "How do you write woman again?" Other participants respond to these kinds of recruitments by articulating the required word syllable by syllable. The second practice was illustrated in line 11 in the previous excerpt: the writer asks for assistance, accompanied by his own suggestion for the correct spelling. In similar cases, writing students spell out a word completely, to display what they believe is the correct spelling. These declarative question formats seem to expose that a writer particularly seeks confirmation for his ideas. The recruitments are generally responded to by confirming or refuting the possible suggestion. Third, a recruitment concerning spelling issues is performed using a simple declarative, for instance: "I really don't know how to write Nijlander". Other participants respond in the same way as in cases of an interrogative, that is by spelling out the word. On occasion, participants who respond to the recruitment, give an account displaying knowledge of spelling rules, as was demonstrated in the previous excerpt (lines 12–13).

In sum, the formation of a recruitment by the writer evokes various responses: both a declarative format in which the writer names which word is troublesome, and an interrogative format, evoking other students to spell out the intended word. A suggestion for the correct spelling of the problematic word by the writer himself, leads to a confirmation by a peer. In some cases, the response or

1 Rebecca [((*lachje*)) (.) zet je een raam open, ((*naar kind in ander groepje*))
 [((*little laughter*)) (.) can you open a window, ((*to a child in another group*))
 2 Alison [((*schrijft*))
 [((*writing*))
 3 (.) ((Alison stopt met schrijven))
 ((*Alison stops writing*))
 4 Alison → wieken schrijf je toch met één K,
 *sails write you yet with one K,
 sails is written with one L right,
 5 Rebecca wie:ken (.) ja (.) want wieke (.) schrijf je ook met
 sai:ls (.) yes (.) because saill (.) *is also written with*
 6 één K (.) °°(volgens mij)°°
 one L (.) °°(I guess)°°
 7 (4.0) ((Alison schrijft))
 ((*Alison is writing*))

Excerpt 5. [2 students, grade 5–6].

assistance is accompanied by an account referring to spelling rules. This is salient in different contexts, so not dependent on the action formation (Levinson, 2013) of the writer. When the correct spelling is verbally established, it is put into practice in written language.

The talk on correct spelling, situated in a side sequence, consequently interrupts the progressivity of the writing. This is less the case in the second type of reflective comments on correctness we found in our data. In those cases one student gives the writing peer instructions during the actual writing.

4.2.2. Giving spelling instructions

The second practice for monitoring the correct spelling of a word during writing, is performed by a student who is not the writer. He or she is monitoring the actual work of the writer, and as becomes observable in the impending action, reflecting on the correct spelling of words. In these practices the student keeps a close eye on what is written down, and gives unsolicited spelling instructions to the writer, on words that are about to be written down. Regarding the sequential position of these actions, remarks on the correct spelling precede the actual writing of that word. Moreover, in these cases the writing of a word or sentence is not or only to a very small extent interrupted by the verbal comments on correct spelling. [Excerpt 6](#) provides an example. Three students are working on their research theme ‘the police’. Two of them are capturing research questions in their learning log, and the third student (Fiona) is working somewhere else in the classroom. Sophia is writing.

Unlike the cases we characterized as recruitments, the correct spelling of a word is articulated here without any request from the writer. Another difference is that this action almost does not interrupt the writing activity. In line 1 Luna verbalizes the final proposal ('how did they make police suits') and then Sophia starts writing (line 2), thus expressing her agreement nonverbally (Nissi, 2015). Luna is watching closely how Sophia writes, and before the words 'police suits' are written down, Luna gives a spelling instruction for those words (one word in Dutch). Sophia then continues writing, and the fact that Luna pronounces the words 'police suits' in a dictating manner, using stretched sounds in a soft voice (line 7), indicates that these words are written down as instructed. While Sophia writes, Luna takes off to see what the third group member is doing, thus ending this conversation. The example illustrates how monitoring of a non-writing co-reader can lead to both verbal instructions on correct spelling, preceding the actual writing, and to articulating the words, which can be considered as a form of hands-on instruction as well. In the latter case verbally spelling out words is conducted simultaneously with the actual writing of the words.

The reflective practices presented in this section, display an orientation to scholastic, conventional knowledge of spelling and punctuation. A reflection on correctness also becomes manifest in correction-sequences related to the actual writing. The next section will provide more insight into these conversational practices and demonstrate that these actions are also conducted by specific participants at particular moments in the collaborative writing event.

4.2.3. Initiating corrections of written text

Repair refers to practices for dealing with problems of hearing, speaking, and understanding talk (Schegloff et al., 1977). Other-initiated repair can be constructed through various means and usually involves a short sequence which suspends the otherwise ongoing action in which the participants are engaged (Kitzinger, 2013). In our study with a focus on use of metalanguage, we nominated repair trajectories that accomplish reparation for errors of linguistic production (Dalton-Puffer, 2007; Kääntä, 2010), which is characterized better as corrections (Macbeth, 2004). This term is commonly understood to refer to the replacement of an

- 1 Luna nee: eh ja nee (.) hoe werden pol[↑]itiepakken gemaakt
 no: uh yes no (.) how were pol[↑]ice suits made
- 2 (2.3) ((Sophia schrijft, Luna kijkt mee))
 ((Sophia is writing, Luna is monitoring))
- 3 Sophia [((schrijft))
 [((writing))
- 4 Luna → [pakken met twee keer de k
 *suits with two times the K
 [suits with a T and a S
- 5 (6.0) ((Sophia schrijft, Luna kijkt mee))
 ((Sophia is writing, Luna is monitoring))
- 6 Sophia [((schrijft))
 [((writing))
- 7 Luna [°(hoe werden) po:li:tie: pa:kke::n[↑]° ((kijkt mee))
 [°(how were) po:li:ce: sui:ts::[↑]° ((monitoring))
- 8 (2.4) ((Sophia schrijft))
 ((Sophia is writing))
- 9 Sophia ik ga even bij °fiona° kijken hoor[↑] ((staat op en loopt weg))
 I will just check out what °fiona° is doing okay[↑] ((gets up
 and walks away))

Excerpt 6. [2 students, grade 3–4].

‘error’ by what is ‘correct’ (Schegloff et al., 1977). Following Macbeth (2004), we consider repair and correction as two ‘co-operating organizations’ of classroom talk-in-interaction, that can be at work at the same time, at best in the same unfolding activity sequence.

The correction-initiations in our data that are related to writing conventions, are performed by a non-writing student who reads words or sentences that have just been written down. Reflecting on the correctness of the spelling, he then signals an error and performs an other-correction, which is in all cases instantly executed by the writer. The First-Pair Part (FPP) of this correction sequence (comment) is thus performed verbally, whereas the SPP (correction) is accomplished non-verbally. Excerpt 7 provides an example. Two students are generating ideas for interview questions for the owner of a bar annex camping. They take turns in writing and at this point Hannah is holding the pen. They agreed to write down the question ‘how many people are there now’. Esther is reading aloud the text Hannah has written.

This fragment illustrates how reading of the text so far, leads to correction initiations of non-writing peers that subsequently lead to a self-correction of the writer. In line 3 Esther reads aloud the text, and after this she takes a closer look (line 4). She then performs a correction in line 5: “you should (use) one N”. Hannah first seems to deny and argue this correction, claiming that she knows the correct spelling (line 7) but in line 8 she confirms that one N needs to be deleted from the word, which is then executed in the written mode (in line 9). Esther gives a positive evaluation of the writing of Hannah and then dictates the spelling of the last word “nu” (now) in line 11, being a demonstration of what we characterized earlier as an instruction (see Section 4.2.2). In addition, we observed the same pattern when participants perform corrections concerning punctuation. For instance when one student is monitoring what his peer is writing, and notices that the text lacks dots. The other-correction is then conducted both verbally and non-verbally by pointing out the exact location of the intended punctuation marks and articulating simultaneously the word “dot” at all points where this punctuation mark should be placed.

The prescriptive way to comment on each other’s writing seems to display a resilient orientation to certain written standard, and in most cases, other-initiated corrections aim spelling or punctuation issues, as presented in the above examples. Additionally, in three cases students reflected on the grammatical structure of a written sentence, commenting on the way a research question was designed. Excerpt 8 illustrates that these conversations follow the same pattern as those commenting on spelling or punctuation. Three students are evaluating for which research questions in their learning log they have collected sufficient information, and for which questions they may need to take some action.

Eileen reads aloud research questions that were written down earlier, at the start of the research project. From our data it is not clear if Macy was the author of that sentence, but being the writer now, she adjusts the sentence (starting in line 6), after Eileen’s comment on the structure of the sentence (line 4). The fragment thus shows how an other-correction of a peer, conducted in the oral mode, leads to a self-correction of the writer in the written mode.

Reflecting on correctness of written text is focused on what is already written down. The other-corrections are initiated by a non-writing student, who reads (aloud) what is written down, and then points out verbally (in some cases supported non-verbally) what

- 1 Hannah de duhde de! ((draait papier en zet potlood op papier))
the thedu the! ((turns paper and puts pencil on paper))
- 2 (.)
- 3 Esther >rust- wacht even< (.) <hoeveel mensen zijn> (.) e:r nu,
>quiet- hold on< (.) <how many people are> (.) the:re now,
- 4 → (1.0) ((Esther kijkt op papier))
(1.0) ((Esther looks at the sheet))
- 5 Esther → je moet één N.
je must one N.
- 6 (.)
- 7 Hannah nee. (.) >ik weet het< maar hier (.) dit hoort die (.)
no. (.) >I know that< but here (.) this should be that (.)
- 8 o:† die n moet weg.
o:† the N must be deleted.
- 9 (.) ((Hannah begint te schrijven))
(Hannah starts to write))
- 10 Hannah [((schrijft))
[((writing))
- 11 Esther [ja zo is goed. (.) en dan (.) N. (.) en één uh
[yes that is right. (.) and then (.) N. (.) and one U
- 12 (.) ((Hannah stopt met schrijven))
(Hannah stops writing))

Excerpt 7. [2 students, grade 3–4].

- 1 Simon [(nee dat antwoord)
[(no that answer)
- 2 Macy [nee we moeten allee:n (.) hoe lang bestaat de afsluitdijk
al ((wijst aan))
[no we o:nly need to (.) how long does the closure dyke
exist already ((points out))
- 3 Simon °dat ze die klaar hebben° (.) ((knikt)) ()
°that they finished it° (.) ((nods)) ()
- 4 Eileen → nou hoe ((wijst aan)) hoe het ontstaan van de afsluitdijk
(.)da's (>niet echt een<) vraa:g ((afkeurende blik))
well how ((points out)) how the **emergence of the closure**
dyke (.) that's (>not really a<) que:stion ((disapproving
frown))
- 5 (2,0) ((Macy leest in logboek))
(Macy reads in learning log))
- 6 Macy °hoe° (.) hoe
°how° (.) how
- 7 (7.0) ((Macy schrijft))
(Macy is writing))

Excerpt 8. [3 students, grade 5–6].

the writer needs to correct in the text. This concerns the incorrectness of the spelling of a word, the absence of punctuation marks or the grammar of a sentence. We noticed that this practice (other-initiated self-correction) and giving instructions (Sub section 4.2.2) was particularly present when peers of different age groups work together. In those cases, the older child tends to correct or instruct another student recurrently. In all practices that were demonstrated in this section, the comments on correctness are provided in the oral mode, now and then supported nonverbally, and in all cases responded to in the written mode.

5. Discussion

Main goal of the current study was to determine how reflective practices function in the process of collaborative writing of primary school students. The results show that these practices play a part in deciding on text content and packaging, and in monitoring correctness of spelling, punctuation and grammar. When generating ideas, students address the appropriateness of a proposed word or sentence, shaped through comments on redundancy, relevance, and style of a proposal. During and after the actual writing, students are particularly concerned with accuracy and correctness, which is observable in different conversational actions that reveal reflections on correct spelling, grammar and punctuation.

Comments on *redundancy* are situated as a Second Pair Part (SPP) in response to a proposal that initiates the sequence. When students comment on redundancy, we noticed that these utterances are not treated as dispreferred: they do not provoke any discussion and students generally do not give or ask for an account. This strongly implies a shared orientation to what is appropriate, with regards to the amount of information in the intended text. Comments on the *relevance* of proposals are also positioned as a SPP in a proposal sequence, and address two aspects: relevance for the main research topic and relevance for the research process the students are engaged in. These reflective practices evoke some extended discourse, although the irrelevance of an idea is still treated as a conclusive argument to reject a proposal. Comments that address the *style* of a proposal for the text, are positioned as an argumentative response, and occur as embedded corrections of an accepted proposal. When students reflect on the appropriateness, it is interesting to notice a similarity with the so-called Cooperative Principle of conversation (Grice, 1975; Abdi, Rizi, & Tavakoli, 2010). This communicative principle has been formalized into four maxims, three of which are traceable in our data: give as much information as is required, and no more (Maxim of quantity), be clear, be orderly, and avoid ambiguity (Maxim of manner) and be relevant (Maxim of relation).

Reflecting on appropriateness is shaped by comments on proposals of peers, and thus becomes observable in these comments. This means that expressing reflective thoughts on what was said, is the action that declines a proposal or leads to an uptake in which the proposal is discussed. This is different from moments in which students reflect on correctness. In those cases, reflecting on linguistic issues *leads to* conversational actions that have an impact on the text the students are writing together.

Once an idea for the text is accepted, one of the students will write down the word(s) and utterances that expose reflecting on the written language, then address correctness: spelling, punctuation and grammar. Students' reflections on correctness become observable in three different conversational practices. The first practice is a request: the writer asks his peers for the correct orthography of a word before he starts to write the word. This recruitment is conducted in both declarative and interrogative formats, and is positioned as a First Pair Part (FPP) of an insertion sequence. Other students respond to these calls for assistance by spelling out the intended word. The second practice is an (unsolicited) instruction: a non-writing student gives verbal instructions to the writer, just before a word is written down. Regarding writing as the main activity at that phase in the writing together process, the instructions in the oral mode are succeeded by an execution in the written mode, which displays the multimodal character of these events. This is similar to how talking and writing are intertwined in the third practice, which is an other-correction. In this reflective practice, a non-writing student reads what was already written down and suggests a correction.

Metatalk during and after the writing, appears to focus predominantly on correctness, and students then display a quite scholastic orientation to writing activities. In addition, the conversational practices in which these utterances are embedded bear a noticeable resemblance to interaction patterns of typical teacher talk (Koole & Berenst, 2008; Koole, 2010). These findings further support the claim of Jesson et al. (2016) that in school, learners are writing in culturally determined contexts, which are powerful influences on the writing produced and how it is valued. Students perceive the writing events, although functionally situated in the context of inquiry learning, as typical scholastic writing tasks, in which assessment of writing performance generally focuses on text quality. It could conceivably be hypothesised that this is a consequence of how writing of students is assessed in Dutch schools, with a strong focus on handwriting, (errors in) overall accuracy (spelling) and stylistic faults (Bonset & Hoogeveen, 2015).

Linguistic knowledge and knowledge of writing conventions is exposed explicitly when students respond to a proposal, account for their response to a recruitment, give instructions to a writing peer, and correct a fellow student who is writing. Considering the sequential organization of these reflective practices, one of the more significant findings to emerge from this study is that explicitly reflecting on appropriateness and correctness, is responsive in nature. With the exception of instructive practices, comments that display a reflection on the different issues, occur as an immediate response to what was said or written down, and are consequently discussed in side sequences or expansion sequences. This implies that students mainly reflect on decisions relative to the writing process and the intended text, when a specific problem arises and is made relevant by one of the participants.

Although the current study is based on a small sample of participants, the analysis of reflective practices provides more insight into how these practices function in the process of writing together, and to what kinds of writing conventions, knowledge and specific norms students are oriented. Our findings suggest that collaborative writing in the functional context of inquiry learning, provides a fruitful context for creating dialogic spaces (Wegerif, 2011) to enhance conditions for developing writing proficiency of primary school children. The naturally occurring metatalk (Parr & Wilkinson, 2016) related to writers' choices, may be a key starting point to orient primary school children more explicitly to for instance connections between grammar and writing (Myhill & Newman, 2016).

Reflective utterances concerning the intended reader or style, may provide the grounds for elaborating on the register of different genres (Hyland, 2005; Heuboeck, 2009; Martin, 2009), which may enhance students' awareness of the fact that all text echoes traces, associations and influences of other texts in an on-going chain of meaning (Jesson & Rosedale, 2016). Further studies on the current topic are needed, to optimize conditions for stimulating reflective practices in dialogical collaborative writing.

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 seconds)
.	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
text	emphasis
:	extension of the sound that follows (0.2 seconds 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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