Material Texts as Objects in Interaction – Constraints and Possibilities in Relation to Dialogic Reading Instruction

Marie Tanner⋆, Christina Olin-Scheller and Michael Tengberg
Karlstad University, Karlstad

Abstract

In this article we focus on the role of texts as material objects in the interaction between a teacher and her students in Swedish grade nine, working with critical reading of argumentative texts. With a Conversation Analysis approach, we investigate how texts are used as material objects in the organization of interaction between students and their teacher, as well as between students during group work. We also discuss what pedagogical implications the role of texts as material objects have for dialogicity in critical reading instruction. The result shows that texts as material objects are vital for the organization of interaction as they are used as resources in negotiating responsibility and primacy as well as for the distribution of turns between participants and to accomplish a representation of the answer to a reading task. A conclusion is that an intention to support dialogicity in reading instruction requires awareness of how dialogic and critical aspects of reading easily become subordinated to the aim of problem solving in classrooms as task work is organized around texts that are also material objects.

Introduction

Classroom instruction and teaching in general relies on a wide range of texts that are materialized in different ways: printed, screen based, on whiteboards, and as films. However, paper based sources of texts, for example textbooks, work instructions, or written notes, still dominate most classrooms (Gilje, Ingulfsen, Dolonen, Furberg, Rasmussen, Kluge, Knain, Mørch, Naalsund, & Granum Skarpaas, 2016). Texts as material objects are often treated as implicit parts of classroom interaction that bring with them connections to other contexts, whereas the text as an object in classroom interaction seldom has been analytically foregrounded (Guerrettaz & Johnston, 2013). In this article, however, this is the route that we take as we explore in detail two examples from reading instruction in Swedish year nine, taking the perspective

---

⋆Correspondence to: Marie Tanner, Institutionen för pedagogiska studier, Karlstads Universitet, 651 88 Karlstad. Email: marie.tanner@kau.se

of Conversation Analysis (CA) in our investigation. Our interest concerns what role texts as material objects play in the interaction between a teacher and her students, as well as between the students, in group discussions about argumentative texts aimed at enhancing students' critical reading.

Research on social interaction has shown how paper documents and texts of different kinds are ubiquitous and play a more or less explicit part as material objects in many domains of social life. Weilenman and Lymer (2014) focus on paper documents in journalistic work and identify a continuing scale from incidental to essential involvements of paper documents. They find that the use of paper documents is treated within a continuum from being just empty forms to being objects that play a vital part in the organization of interaction. Weilenman and Lymer conclude that it is not until paper documents become oriented to in a way that is essential to an activity that they could be talked about as objects in interaction. In many institutional settings, forms or written agendas are examples of texts that are oriented to as material objects and used as resources for negotiating and coming to agreement upon the agenda in a conversation as well as the distribution of responsibility between different parties (Mikkola & Lehtinen, 2014; Svennevig, 2012; Tanner & Pérez Prieto, 2014). The participants' joint orientation to such documents makes it possible for them to simultaneously conduct double activities, as they can both finish an ongoing topic and at the same time initiate an activity shift in their embodied orientation to a document, for example, lifting it up or putting it aside (Mikkola & Lehtinen, 2014). From a pedagogical perspective, Svinhufvud & Vehviläinen (2013) explore the role of texts in academic supervision encounters and show how these documents become part of an "implicit pedagogy" (p. 161) that limits the students' opportunities to influence the topical development of the encounter during the early stages of supervision.

In this article, we focus on texts as material objects in classroom interaction, which constitutes a specific kind of institutional setting including institutionally shaped expectations of the participants' roles in relation to their positions as teachers and students. In most classroom interactions, different learning materials and texts are used and to understand how they may support students' task work and institutional identities, a closer investigation of the interactional use of material objects is necessary. As shown by Jakonen (2015), the manual handling of textual documents during individual task work could be resources for actions as for example, doing requests or asserting information or drawing inferences of participants' knowledge and current understanding. Tainio (2012) has studied texts in classroom interaction and specifically the role of text books as material objects. She finds that they are often used for other purposes than to enhance students' literacy. Common activities like instructing students to take out a textbook from a schoolbag, to search for the right page, or teachers showing a book to the students as well as directives like closing and putting down a book are found to function as resources for the teacher to set the agenda during a lesson. According to Tainio, textbooks are artifacts that could be used to maintain classroom control and to ensure that students keep quiet and focused on certain teaching content. In line with this, Tanner (2014) shows in a

study of desk interactions in different school subjects how text references become resources in teacher-student interactions in a way that helps structuring and organizing learning content. However, actions of reading or reading strategies in themselves are seldom oriented to as a focus for learning (ibid.)

Previous research shows that texts as material objects in interaction, including classroom interaction, not only play a part as bearers of information about a learning content but also play a central role in the organization of social interaction. Hence they contribute to negotiations and formations of different relational aspects in classrooms. In this article we investigate interaction in a Swedish ninth grade classroom (students being 15 years old), where the teaching is explicitly intended to enhance students' critical reading using different worksheets with examples of argumentative texts as resources for learning and instruction. The aim of the study is to examine the role of these paper based texts as material objects in the organization of social interaction during group work. We seek to answer the following questions:

1. How are the texts as material objects oriented to and used in the organization of interaction between students and their teacher, as well as between students, during group work?
2. What pedagogical implications for reading instruction do texts as material objects have for dialogicity in reading instruction?

Analyzing texts as material objects in classroom interaction

The analysis is focused on a reading instruction segment in which the students read and discuss a sample of argumentative texts in order to practice critical reading, which in this case means that they learn how to discern the chain of claim, arguments and evidence in a text (c.f. Tengberg & Olin-Scheller, 2016; Toulmin, 1958). In conversation with the researchers during fieldwork, the teacher has declared a pedagogical aim to provide a dialogic instructional atmosphere that supports students' reading comprehension, which makes the selected lesson a relevant example to study in relation to the aim and research questions of the article. The notion of the bakhtinian term dialogicity (Bakhtin, 1981) as a quality of educational settings, and particularly of literacy instruction, has been developed for instance by Nystrand, Gamoran, Kachur, & Prendergast (1997) and applied further in a wide array of empirical research (Alexander, 2008; Wilkinson & Son, 2011). Our understanding of the concept of dialogicity and dialogic teaching is grounded primarily in two commonly used perspectives. First of all, the perspective developed by Nystrand and colleagues (1997), which emphasizes that teachers by foregrounding not one but several different interpretive perspectives on read texts, and by accentuating the contrasts between them, may promote a more nuanced and deepened text comprehension in students. Second, we draw on Mercer's (1996) concept *exploratory talk*, which refers to student interaction where speakers engage both critically and constructively with previously voiced positions. The perspectives by Nystrand et al. and Mercer have in common that

they value the idea of shared reflection, but also that instructional interaction should clarify the lines of conflict or contrast between different ways of understanding. In the study of classroom interaction, these perspectives are thus both practical and applicable.

Theoretically and methodologically, we approach the analysis from the stance of Conversation Analysis (CA). This means that we understand social interaction as constituted in face-to-face interactions, possible to investigate through the turn-by-turn sequential ordering of human cooperation in naturally occurring encounters between people in everyday life (Hutchby & Wooffitt, 2008; Schegloff, 2007; Sidnell & Stivers, 2012). This is a perspective that shares basic theoretical principles with dialogism concerning how communication, context and joint meaning-making are constituted through sequential organization, joint construction and interdependence between acts (Duranti & Goodwin, 1992; Firth & Wagner, 2007; Linell, 1998; Prior & Hengst, 2010). The study also takes a multimodal perspective on the organization of interaction as constituted within *participation frameworks* (Goodwin, 2000, 2007), i.e. constellations of language, environment, body, and action. Goodwin shows how it is of vital importance how participants coordinate talk, bodily stance, gestures, and material structures in the environment in relation to a shared focus of attention in order to achieve relevant social actions. Texts and documents can from this be understood as material objects as well as semiotic structures that are environmental resources that people can use to coordinate relevant actions in social interaction.

In the analysis we draw on emerging research within CA that has taken on a specific interest in the essential role that material objects play in a wide range of real-life settings in the moment-to-moment conduct of social interaction and activity (Nevile, Haddington, Heinemann, & Rauniomaa, 2014). In this line of research, the interactional ecology of material objects in interaction has been studied from two different aspects – objects as resources in interaction and objects as practical accomplishments through interaction. The distinction between these two aspects is defined as follows:

> As resources, objects are situated within and contribute to developing processes and trajectories of social interaction. As practical accomplishments, objects emerge and are established, perceived and understood, from processes and trajectories of social interaction. (Nevile et al., p. 17)

As we approach the study of the role of paperbased texts as material objects, we draw on this understanding of objects both as situated resources that participants draw upon and use in the organization of interaction and as emerging accomplishments and products that change during interaction. In the same line of thought, Mikkola & Lehtinen (2014) distinguish three different roles that written documents as material objects can play as resources in interaction. Firstly, they work as means to initiate and organize activity shifts in social interaction within participation frameworks. Secondly, they can make possible a double orientation for participants both to an

ongoing verbal turn-taking while at the same time initiating activity shifts by orienting to an object. Thirdly, documents are often used as structuring resources for setting the agenda. In this article, we use these findings from previous research to inform a detailed CA-analysis of selected fragments from the data in order to add to previous research about the role of texts as material objects in classroom interaction. In the next step, we use the results from the CA-analysis to inform our second question about the pedagogical implications that role of texts as material objects can have for dialogicity in reading instruction.

Empirical data

The empirical data consists of 12 hours of video recordings from eight lessons in a Swedish ninth grade classroom. The school is situated in a small town and the class consists of a total of 20 students (10 girls and 10 boys). Whole lessons have been recorded using three different cameras. One camera follows the teacher, and the other two cameras were directed towards two different groups of students sitting at their desks. For the purpose of the study, the selected data represents two situations where different debate articles, duplicated on paper sheets, take part in the inter-action between students and teachers. Both lessons that are selected were planned by the teacher as part of reading instruction aimed at enhancing critical reading, and the selected fragments were preceded by instructions that emphasized different strategies for critical reading.

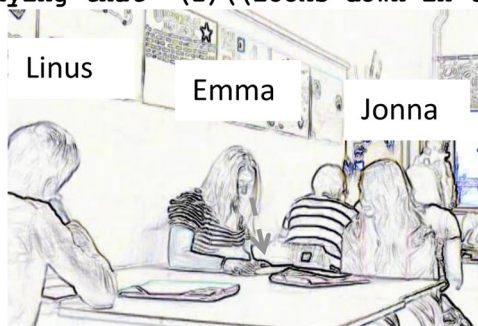## Working with argumentative texts as part of reading instruction

Example one: From resource in conversation to the answer as a product

In the first example three students work together with a task about identifying the claim and the arguments in a text that debates the closing of a critized Swedish boarding school, "Woolly lefties close down Lundsberg [Flumvänstern stänger Lundsberg]". The students sit facing each other around a group of desks, two girls (here named Jonna and Emma) on one side and a boy (named Linus) on the opposite side. After an introduction about argumentative text as a genre, the students are instructed to silently read the chosen text. The teacher hands out the text and instructs the students to read individually and then discuss in small groups to compare their readings about what the author's main point is. In the beginning of the group discussion, all three students participate in the discussion, referring to different parts of the debate article. They are making suggestions about different understandings of the writer's claim and what arguments he uses for this. During the course of events, one of the students is more and more positioned as being responsible for the task-solving, both in relation to peers and the teacher. In the following analysis we investigate in detail some fragments where the text is oriented to as a material object in interaction (for transcription key, see Appendix).

Excerpt 1: The text as a resource for organizing turn-taking
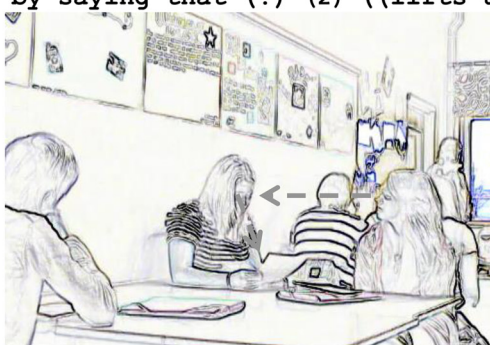
```
1   Emma:    han- han försvarar skolan liksom
             he- he like defends the school
2   Jonna:   mm
3   Emma:    genom å säga att- (1)((tittar i papperet))
             by saying that- (1)((looks down in the paper))
```

(1)


```
4   Jonna:   han gick säkert på den skolan
             I bet he went to that school
5   Emma:    ja. genom å säga att (.) (2) ((lyfter upp
             yes. by saying that (.) (2) ((lifts up
```

(2)


```
6            texten)) dom riskerar- (0.8) att de förstör tvåhundra
             the paper)) they risk- (0.8) that they ruin two
7            elevers skolgång typ↑((lägger ner papperet))
             hundred students schooling sort of↑((puts down paper))
8   Jonna:   mm då försöker han få're å låta så jättehemskt.
             mm then he tries to make it sound so very awful.
9   Emma:    ja
             yes
```

In excerpt 1 the students start talking about what they think is the writer's main point. Emma starts by claiming that he seems to defend the school (line 1), to which Jonna aligns with a minimal response (line 2). In line 3 Emma looks down at the sheet of paper and continues to expand her initial claim as she continues to say *by saying that-*. Before she is finished, she is interrupted by Jonna, who takes the floor making her own point of view about this *I bet he went to that school* (line 4). Emma responds to Jonna's comment with a short confirming *yes*, but then she holds up the

sheet of paper, visibly directing her gaze to it as she returns to develop her claim, recycling her previous pre-announcement *by saying that* (line 5). At that point Jonna looks up towards Emma, who makes a short pause as she looks down at the paper before she elaborates her reference to the text *that they ruin two hundred students' schooling sort of*. After this she puts down the paper, and Jonna takes the next turn (line 8). She aligns with Emma's claim and further confirms her interpretation by adding *he tries to make it sound so very awful* (line 8), to which Jonna shortly responds *yes* (line 9).

The conversation in excerpt 1 mainly involves Jonna and Emma, while Linus is sitting there rather passively. Verbally and through their focus on the paper they pick up examples from the text that they jointly assign meaning to. The examples they give are interactionally marked as references to the text surrounded by particles such as "*like*" or "*sort of*" (swe. "liksom" and "typ", lines 1 and 7). Even though they do not read the exact formulations from the text, they look at the paper to remind themselves and each other of the different examples that they all know they have a shared experience of. In relation to the task, the text here seems to work as a resource for reminding and making references to the text. But besides this content oriented role of the text, the analysis also shows how the text as a material object is used as a resource for negotiating turn-taking, for example as Emma takes back the floor so that she can elaborate her initial claim. The first time she starts doing this (line 3) she interrupts herself to look at the text. What happens next is that Jonna invites herself to the next turn to make her own reflection about the writer being a former student at the school. Emma confirms this, but then she holds the sheet of paper up so that it becomes more visible that she is oriented to the text, thereby getting Jonna's attention as she shifts the direction of her gaze to look towards Emma. By holding up the sheet of paper, Emma accomplishes a shift in their shared focus of attention that makes it possible for her to develop her reading of the text in relation to the task. Here, the text as a material object plays a part in how the turn-taking between the two students is organized, and how they accomplish a change in the participation framework using the material text as a resource in the distribution of turns. This could be understood in parallel with how Mikkola and Lehtinen (2014) describe how documents are used as resources for initiating activity shifts while participants simultaneously orient to the verbal turn-taking.

The conversation continues to evolve between the students for a while, where Jonna and Emma take on a more active part as compared to Linus. Some minutes later the teacher gathers the class to explain some words that she expects could be difficult to understand. She then gives the students an instruction about the next step in how to read the text critically. They are now supposed to identify the arguments that the writer uses to support his thesis. The three students start discussing the task again, and during this conversation Jonna points out and reads aloud what she thinks might be an argument in the text (not shown in data). At the outset of the next excerpt, Jonna has been reading from the paper following the lines with her finger, but her peers have their gaze directed elsewhere (fig. 1). Her rather extensive reading

is followed by a marked silence (line 1 below), after which Jonna asks for response from her peers with an explicit question:
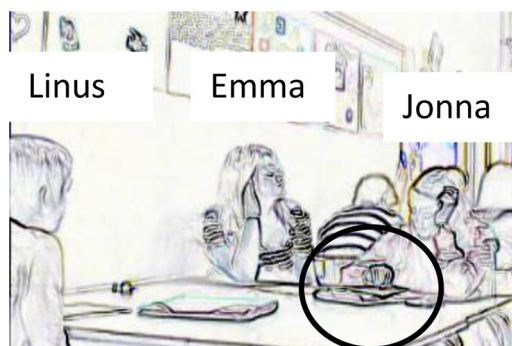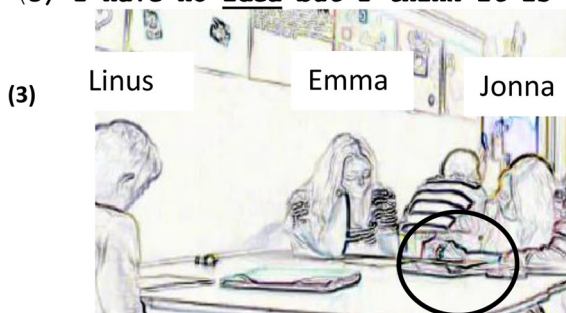

Figure 1. Jonna reads the text and follows the lines with her finger.

Excerpt 2: Division of responsibility through materialization of the answer in the text

```
1              (2.0)((marked silence after Jonna's suggestion))
2     Jonna:   är det ett- argument.((tittar upp mot Linus))
               is that an- argument. ((looks up at Linus))
3     Emma:    ((gäspar)) ja:
               ((yawns)) ye:s
4     Jonna:   för då säger han ju att det är inte tillräckligt många
               cause then he says that not enough people
5              som har skadats för att dom ska kunna lägga ner skolan.
               have been hurt for them to close down the school.
6     Linus:   °mm°
7     Emma:    mm:
8     Jonna:   (3)jag har ingen aning men jag tror att det är °så°
               (3) I have no idea but I think it is °like that°
```



```
(3)
9              ((markerar med pennan i texten))
               ((makes a mark in the text with her pencil))
```
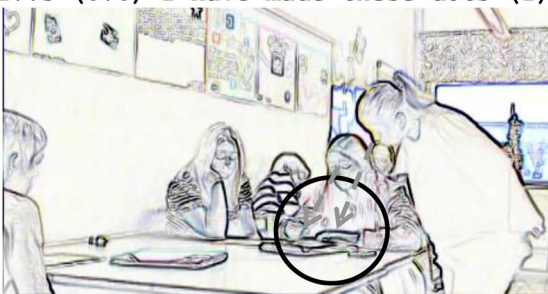
The marked silence in line 1 could be understood as an absence of response to Jonna's previous suggestion about what could be an argument. Instead of getting their response, Jonna takes the next turn herself to make a new request for confirmation from her peers *is that an- argument* (line 2). Emma yawns, and then answers *yes* which is displayed as a rather weak response, but shows to be enough for

Jonna to continue to expand her claim with a motivation *cause then he says that not enough people have been hurt for them to close down the school* (lines 3–4). Both Linus and Emma respond to this with short minimal responses *mm* (lines 6–7), and Jonna concludes that this is what she <u>thinks</u> even if she has *no idea* (line 8). Her friends' weak responses position Jonna as the one taking on responsibility in relation to the task, even though verbally she shows a low degree of certainty in relation to the question of arguments. This kind of positioning in relation to issues of knowledge could from a CA perspective be understood as epistemic stance in relation to the issue at hand. Epistemic stance (see Heritage, 2013) is a concept within CA research that is not about individuals mental or cognitive states of knowledge, but inter-subjectively and dialogically achieved positions to knowledge made in interaction (Kärkkäinen, 2006) and that also contains aspects of access, primacy and responsibility in relation to knowledge (Stivers et al., 2012). But at the same time as she makes this verbal claim, she also orients towards the paper and makes a mark in the text of the lines she referred to (line 9).

In excerpt two, Jonna takes on the responsibility to solve the assignment, while her friends take a more passive stance in their joint activity. This asymmetry of *epistemic responsibility* (Stivers et al., 2012, pp. 17–19) in the learning activity has evolved gradually during the group work and is now more palpable than earlier in the interaction. What is of specific interest here is how the paper plays a role in the organization of this division of responsibility. Goodwin (2007) shows how embodied participation frameworks around bodily stance, semiotic structures and verbal language can be used to create a shared focus that enables a cooperative stance in actions. But he also shows how a participant's refusal to align in the coordination of bodily stance can be used to make resistance into an action. In this case, Jonna explicitly focuses on the text with her gaze, pointing to the paper and her verbal reference to the text. But her friends do not fully align with this; instead they remain silent and look away from Jonna's paper and resist looking at their own papers. Jonna has to ask again to get at least minimal responses from the others so that she can develop her first suggestion to an answer. In the end of this excerpt, Jonna makes her suggestion materialized by putting a mark in her own text. The other two students, who also have the same papers, do not write anything. What happens in excerpt 2 is that Jonna's position as being the most active student is strengthened, while the other two students become more passive. The text as a material object becomes a resource for how the students position themselves and for the division of responsibility, both in how joint focus is not accomplished and in how their problem solving is transformed into a materialized form through the marks in the text. This double orientation towards Jonna as both being verbally modest in her claims while at the same time positioned as responsible is made possible through the coordination between talk, bodily stance and the text (c.f. Goodwin, 2007; Jakkonen, 2015; Mikkola & Lehtinen, 2014). As a material object, the text now changes from being a resource in the organization of the turn-taking, to also being transformed into an object that makes it possible to materialize the answer into a product that could be shown to the teacher, what Nevile et al. (2014) describe as a practical accomplishment in the

process of social interaction (p. 17). This becomes even more evident some minutes later, when the teacher approaches the students and Jonna calls for her attention:

Excerpt 3: The materialized answer changes the participation framework

```
1      Jonna:    alltså Anna?
                 well Anna?
2      teacher:  ja
                 yes
3      Jonna:    ä::r (0.6) ja har gjort såna prickar (1) så att jag
                 i::s (0.6) I have made these dots (1) so that I

       (1)
```



```
4                ska veta
                 should know
5      teacher:  mm hrm
6      Jonna:    Den
                 this
7                (1.6)
8      Jonna:    där.((pekar med pennan längs textraden))
                 there. ((points with her pencil along the text line))
9      teacher:  mm:
```

The excerpt begins with Jonna seeking and getting the teacher Anna's attention (lines 1–2). In line 3 Jonna starts with a question *i:::s*, but interrupts herself and makes a pause, followed by her showing the teacher how she has *made these dots so that I should know* (line 3). She points at the dots, and the teacher Karin puts her body in a position so that she can see what Jonna is pointing at. Jonna explicitly motivates the dots as a way for her to know where to find her answer to the task. The way that Jonna and the teacher position their bodies around Jonna's pointing gesture changes the participation framework (Goodwin, 2007) so that it excludes the other two students, who cannot share the same focus. In lines 6–8 Jonna again points out, this time with her pencil, more specifically certain parts of the text that she has marked, with deictic references like *this* (line 6) and *there* (line 8). The teacher responds with minimal verbal responses (lines 5 and 9) and shows with her bodily stance and the direction of her gaze that she is paying attention to the markings that Jonna shows her. This is followed by a longer evaluation and a continued discussion between Jonna and the teacher (data not shown).

Excerpt 3 displays how the text as a material object is given a different role, compared to the first excerpt when the text was used as a resource in the organization of turn-taking within a participation framework. The answer to the task has now been transformed from the students' verbal accounts into markings in certain parts of the text. In other words the task-solving has been preserved through the changed semiotic structure of the text. These markings function as the pivot on which the interaction between Jonna and the teacher is organized. As a consequence of being the one with the materialized "message" to the teacher about their answer Jonna becomes a representative of the whole group, and neither she nor the teacher invites the other two students to join in.

In the analysis of our first example, we have seen how the interaction between three students and their teacher evolves around a text as a material object in a learning activity. The analysis shows how this does not only involve aspects of content in solving the task. To a high degree the text as a semiotic structure organizes relational aspects of responsibility in the organization of epistemic stance (c.f. Stivers et al., 2012) so that one of the students becomes more and more responsible for the whole group work and the other students become more and more passive.

In this first example, the roles of the text as a material object change during the course of events and at different points of time in the group work. In the first fragment it is used as a resource in the organization of turn-taking as the students remind each other of phrases in the text and make different suggestions about how to understand the text. As the division of responsibility changes between the students, and one of them turns out as the one in charge of the task, the role of the text as an object changes into facilitating a materialization of the answer. When Jonna in the evolving interaction gets weaker responses from her peers, she starts to make inscriptions in the text to index where the answer could be found. This means that Jonna's text becomes different than the others, since her text now has transformed into a representation of the answer. Subsequently, when the teacher comes, these inscriptions are used to produce a message to the teacher which she can evaluate. In this part of the interaction, the text as a material object could be seen as an accomplishment that materializes and preserves the answer.

Hence, in the first example the role of the text as a material object changes from being a resource for organizing turn-taking that is "situated within and contribute to developing processes and trajectories of social interaction" (Nevile et al. 2014, p. 17), into being a practical accomplishment as it does "emerge and are established, perceived and understood, from processes of social interaction" (ibid. p. 17). This change of the role of the text, from being mainly a resource to becoming an accomplishment in the form of the materialization of the task solution, seems to constrain classroom dialogicity. The way that Jonna and the teacher create a shared focus of attention to the markings makes the discussion take on a direction that excludes the other students. Another consequence for dialogicity is that the discussion risk becoming primarily oriented towards an

evaluation of the marked answer as being correct or not, while the part of the task where the students are supposed to compare different readings is constrained. Instead of encouraging critical reading and joint meaning-making based on different students readings, the teacher-student interaction becomes oriented to problem solving and task-completion, a pattern that has also been described in previous research (Tanner, 2014).

Example two: A disciplining resource in problem solving

Our second example comes from a lesson a couple of weeks later, in the same class of students and with the same teacher but another small group of students. They work with another argumentative text. This time with a letter to the press about the presence of wolves near inhabited areas with the headline, "Help us get rid of the wolf [Hjälp oss bli av med vargen]". In the following example, the assignment for the students is to work in groups to investigate and discuss how the writer of this letter to the press builds up his argumentation. The group work has been preceded by a whole group discussion where the teacher has read the text aloud for the students, followed by a joint discussion. During this discussion one of the students, Klara, has made a comment about an intertextual reference to the classic fairy-tale by H.C Andersen, "The Emperor's New Clothes", that the writer of the debate article alludes to when asking "could not some three-year-old from the big city step forward and tell the politicians that the wolf-emperor is in fact totally naked (our translation)". The teacher responds that this is a very interesting observation that they should talk more about later, but at this point in time it is not further elaborated.

Later, when the students have started the group-work, the teacher approaches the desks where Klara is sitting together with her peers Alice[1] and Karin. Before the teacher starts moving towards them, the students have been rather unfocused, talking and making jokes about non-task related subjects. But as the teacher approaches their desks, they orient to the text, lifting up their pens and start to identify some examples. Hence, this interaction is not initiated by the students seeking for help but from the teacher who is moving around supervising the students. During the conversation the teacher refers back to the previous comment that Klara made during the read-aloud part of the lesson about "The Emperor's New Clothes", and all three students start to discuss rather animatedly what the metaphor in the text actually refers to. However, this possible opening for a deeper exploration of how this intertextual reference works in the text is not carried through. Instead, the teacher orients to the paper document and shows the students how they are supposed to underline all arguments that they can find in the text.

In the second example we analyze two fragments from this discussion, first when they orient back to the earlier comment from the whole class discussion and second as the activity shifts into underlining the arguments in the text.

---

[1]Alice is mostly not visible on the film as she sits behind the teacher.

Excerpt 4: An intertextual reference opens for exploratory talk

```
1      Klara:    =när ja när han trodde att han hade kläder på
                 = when yes when he thought he had clothes on
2                sig fast
                 but
3      teacher:  ja
                 yes
4      Klara:    = de var (1) osynliga
                 = they were (1) invisible
```



```
5      teacher:  ja


                 yes
6      Klara:    fast han hade inga [på sig      ]
                 but he didn't have [  any on    ]
7      Alice:                       [och så sa du] kungen så jag
                                    [and you said] the king so I
8                trodde du   [v- [ohörbart) ]
                 thought you [ (unhearable)]
9      Klara:                       [men han var ju] [   kungen    ]
                                    [  but he was  ] [  the king   ]
10     teacher:                                      [jag tänkte att] vi
                                                     [I thought that] we
11               kan prata lite om det sen innan vi ger oss
                 could talk a little about that later before we
12                                      för det är ju lite[spännande  ]
                 round it off   cause it is a little [interesting]
```

In the first line of excerpt 4 Klara responds to a reference that the teacher has made to her comment about the wolf-emperor earlier. Klara makes an account of how *he thought he had his clothes on but,* supported by the teacher's response in line 3, after which Klara continues *they were invisible*. Klara's account of the fairy-tale elaborated during the following turns (line 6 and 9) is supported by the teacher with frequent short continuers *yes* (line 5), making the narrative into a joint construction between the teacher and Klara. This cooperative stance is also shown in the way that Klara and the teacher lean towards each other over the desk, where the video shows how Klara directs her gaze towards the teacher. Karin and Alice (who is blocked by the teacher on the video) also look toward Klara. In line 7 Alice adds a comment on the reference to the naked emperor, displaying a different interpretation of how she thought Klara was referring to the Swedish king. In line 10 the teacher confirms that

the topic of the emperor is interesting, but then she initiates a shift of topic by saying that she thinks they could *talk a little about that later before we round it off cause it is a little interesting* (lines 10–12).

What we find interesting in this excerpt is how the participants here show a joint interest in a reference made by the writer of the letter to the press. He uses this reference to strengthen his argumentation as he writes:

> Is it perhaps the case that the wolf-emperor's new nature-romantic clothes seduce the big-city voters so that the politicians do not dare to see what we see? Cannot some three-year-old from the big city step forward and tell the politicians that the wolf-emperor in fact is totally naked (our translation).

From a dialogic perspective, these references to the classic fairy-tale could be understood as an inter-textual reference that the writer uses to make his point. In the excerpt above, all participants display an interest in this reference from their different positions. In terms of exploratory talk (Mercer, 1996), the way they engage in the previous voice of the author creates an opening for further exploration of their different readings of this intertextual reference and what it means for the argumentation in the text. However, even if the teacher explicitly orients to this possibility by saying that she thinks they should talk about this more (lines 10-12) it becomes postponed until later and they do not at this point in time follow that line of thought through. In the following turns (not shown in transcript) Alice continues to be amazed over how she thought they were talking about the Swedish king and Klara gives an animated account of the emperor's pose in the Disney-version of the fairy tale. In this part of the discussion Alice, Klara and the teacher have somewhat different projects going on. The students are still drawing on the intertextual reference, but the teacher takes the initiative in another direction by reminding them of the assignment and that they should look for arguments. Excerpt 5 starts as the teacher has referred to the thesis that is written on the white-board and instructs the students about the task:

Excerpt 5: An activity-shift through materialization of examples

```
1     teacher:   försök hitta va- vad är det som s- [stärker det]
                 try to find wha- what it is that s-[supports   ]
2     Karin:        (( lyfter pennan mot papperet))[hundar har]
                 ((lifts the pencil to the paper))[ dogs have]
3                dödats?
                 been killed?
4     teacher:   ja:↑ (.)väldigt tydligt stryk under
                 ye:s↑(.) very clear line under
5                (1.0)((Klara underlines in the text))
6     Alice:     £ska vi stryka ↑under£ ((med lekfull röst))
                 £should we line ↑under£ ((with a playful voice)
7     teacher:   ja: (.) du kan göra en rund ring runt också om
                 ye:s (.) you could circle it too if
8     Karin:     (unhearable)
9     teacher:   så allt som stödjer honom i det här om man
                 so everything that supports him in this
```

```
10                    om man skulle säga [  jamen varför vill du  ] det då
                      if you were to say [but then why do you want] that
11    Alice:                            [      får man döda alls     ]
                                        [are you even allowed to kill]
12    teacher:  =(3)jo därför att (4)det för det å
                =(3)yes because of (4)that of that and
```



```
13                    ((visar med en tydlig gest hur hon stryker under))
                      ((shows with an intense gesture how she underlines))
14    Klara:    ja
                yes
15              ((the teacher goes away)) (5)
```


In line 1 the teacher concludes her instruction by saying *try to find what it is that supports-*. As the teacher speaks, Karin has put the pencil on the paper and her and the teacher's statements overlap as she gives a first example *dogs have been killed* (lines 2-3). The teacher responds to this with an emphasized *yes*, with a rising intonation as if it was the first in a list of examples as described by Selting (Selting, 2007). After a noticeable silence she expands the confirmation and says that they could mark this in the text and *line under* (line 4). In the pause that follows (line 5), Klara also lifts her pencil to the paper. After this Alice comments on the teachers instruction *should we line under* (line 6). The way she puts the question she makes it sound both slightly ironic and astonished. The teacher plays along and responds *yes, you could circle it too if you like* (line 7). The teacher then continues to further explain the way for them to go on with their work. She leans over the desk, raises her hand with the pencil and makes an intense gesture that animates how they should seek out everything that supports the writer's point in the text. She encourages the students to think about what the answer to the question *why do you want that* (line 10) would be, and then shows with a vivid gesture how they should underline everything that responds to this *yes because that of that and-* (line 12), which could be seen as a way to continue the orientation to making a list or a certain number of examples of arguments in the text. The teacher's instruction overlaps Alice's comment on the argument that Karin gave, questioning if it is even allowed (line 11). But the teacher ignores Alice's verbal

reference to the argument in the text. Instead, Klara's short response *yes* (line 14) together with the students' changed bodily stance as they all three lean over their papers and start to underline, is treated as a sufficient confirmation for the teacher to conclude the interaction and move on to other students in the classroom.

In excerpt 5 we follow how the teacher at this point in time changes the topic for their conversation from the intertextual reference to the wolf-emperor to the topic of task-completion which she refers to as making list of examples. Tanner (2014) shows how lists in teacher-student interaction could be used as a resource for the teacher to economize the use of time in situations where many students need attention at the same time. The way the teacher here puts her question turns the task into finding a list of arguments and mark them in the text. Karin aligns with this request by giving a first example, that the teacher can use to explain in detail her instruction to find the arguments. This is done using bodily stance, gestures and verbal turns that put the text document on the desk in focus. As shown by Mikkola & Lehtinen (2014), this is also an example of how the text as a material object is used to organize an activity shift, as the teacher makes the task into a project that is about seeking out some phrases in the text that are considered to be arguments from the writer's point of view. The students display a shared understanding of this kind of approach. Alice's joke implicates that this is a recognizable routine practice. Compared to the discussion about the naked emperor that opened for a deeper exploration of the use of an intertextual reference, they now end up in a more constrained and limited definition of the task, identifying explicit arguments that do not include the kind of rhetoric that is represented by the example of the wolf-emperor. When the teacher leaves the desk, instead of joking and talking the students now display a visible focus on the text as they have started to underline examples that respond to the task. In this fragment, the text as a material object is used as a disciplining resource that supports an "implicit pedagogy" (Svinhufvud & Vehviläinen, 2013, p.158) that reflects certain taken-for-granted assumptions that the participants share about student behavior and task-completion. But at the same time this shift of activity from talking about the naked emperor to a materialization of the answer also means that the dialogical dimensions in this intertextual reference are not fully explored in this situation.

The analysis of the second example shows how the text has a role as a material object to organize the activity in a way that promotes problem solving over discussions based on critical reflection. The participants display to each other, verbally and through gestures, a shared orientation to underlining the answer as a routine practice in tasks like this. In the first excerpt, as the participants talk about the intertextual reference to the fairy-tale, the paper as a material object plays no part in the interaction but is merely an incidental form (Weilenman & Lymer, 2014) lying on the desks. As the activity shifts from discussing intertextual dimensions that could open for exploratory talk to accomplishing problem solving, the role of the text changes. It becomes an essential object (ibid.) that has a disciplinary role as it orders the rather animated discussion in the group.

Discussion

In this article, we contribute to previous research on material objects in social interaction and demonstrate how texts as objects are vital for the organization of participation and action formation in reading activities in classroom settings. The analysis shows how texts as material objects become resources in the organization of the interaction in several ways. They are used as resources for organizing turn-taking as well as for negotiating responsibility and primacy in group discussions about reading. Materializations in the text of problem solving and task-completion also takes part in the formation of participation frameworks, that affect students' epistemic positions in the group. The study also demonstrates how texts as material objects in the classroom setting may promote activity shifts from following up openings for exploratory talk to direct problem solving. As our analysis follows the process of student conversations in a reading assignment, it contributes to the understanding of the role of texts as material objects. Rather than being static, it takes a continuously changing part of the different activities and projects during the evolving interaction. Our result is in line with what Mikkola and Lehtinen (2014) has described about documents as structuring resources for setting an agenda, where the agenda in our case could be understood as the process of problem solving in an assignment. We have also shown that to accomplish relevant actions in these negotiations, the participants' use of the texts as objects is coordinated with talk, gaze and bodily stance in the moment-to-moment contingency of interaction (Goodwin, 2000, 2007). We have analyzed two different examples of student–teacher interactions during group-work aimed at enhancing critical reading. Building on the concept of dialogicity as described by Nystrand et al. (1997) and Mercer (1996), the assignments in our examples are based on an intention to support students' critical reading, where they are encouraged to compare each other's views to achieve a more reflexive reading of argumentative texts. Skovholt (2016) has suggested that there seems to be a dissonance between pedagogical ideals of dialogic teaching and the empirical findings from classroom studies in which exploratory talk appears to be rare. The pedagogical challenges of teaching and learning through text-mediated interaction suggested in our study may be part of the explanation for this.

In our two examples, two competing projects can be discerned. One project is the shared meaning-making and negotiations about text-interpretations that are the explicit intention of the task. The other project concerns problem solving as a routine practice in classrooms. Regarding the first of these two projects, in both examples there are pedagogical possibilities in the form of openings for exploratory talk as students refer to the text or make intertextual references. But in both examples we have shown how dialogicity becomes constrained as the activity shifts and the text as a material object primarily becomes a resource to preserve the answer into a new semiotic structure.

In the first example, the teacher's alignment with the positioning of one student as responsible for the problem solving does not open for dialogic discussions.

Instead her response to the student's request for help contributes to the exclusion of the other students. Also in the second example, the teacher's initiative to refer to Klara's previous comment about the emperor is not followed through, and is not realized later during the lesson either. The shift of stance into instructing the students to make underlining in the text contributes to the activity shift (see Mikkola & Lehtinen, 2014), that changes the agenda from discussion of the intertextual reference to an orientation towards task-completion and discipline (see also Tainio, 2012). In a study from Science lessons in secondary school, Furberg and Ludvigsen (2011) identified an orientation of fact-finding in students work, even if there could also be valid cognitive work behind. In our analysis it seems that the texts as material objects promote a kind of reading that could be characterized as fact-finding, or as a kind of treasure-hunt. The students are encouraged to look for detailed phrases that correspond to the task, in these two examples finding explicit arguments in the texts. When they find suitable phrases, they mark them in the text, until the problem could be considered as solved.

In both examples, the use of texts as material objects in the distribution of turns works as reminders of shared experiences from previous readings and discussions. The participants only have to do very short indexations by, for example pointing in the text or making short verbal references to a phrase to accomplish a shared focus of attention to their shared knowledge of the text. These moments are openings that could be used pedagogically to encourage exploratory talk from a dialogic stance through comparing interpretations of the text and asking students to articulate different readings. Instead, the conversations in our examples take other directions towards finishing the task.

In such situated interactions in reading instruction, the challenge for the teacher seems to be how to manage the two competing projects above, that is how to find ways to support dialogicity in relation to common classroom practices where problem solving is premiered (see also Tanner, 2014; Skovholt, 2016). Drawing on the dialogic perspectives of Nystrand and colleagues (1997) and Mercer (1996), a pedagogical challenge for the teacher is to find ways beyond how texts as material objects promote the organization of interaction into problem solving and distribution of responsibility. Instead the teacher could try to be aware of how to intervene in group discussions in a way that encourage all students to articulate and compare different readings. This requires teachers' awareness of actively grabbing hold of the openings for deeper explorations of texts that occur in the contingency of teacher-student discussions, to use these possibilities to model how to read texts critically and to avoid the easier way to let the text as a material object play the main part in classroom interaction in ways that work against dialogicity in reading instruction.

References

Alexander, R. J. (2008). *Towards Dialogic Teaching: rethinking classroom talk* (4th edition). New York: Dialogos.

Bakhtin, M. M. (1981). *The Dialogic Imagination. Four Essays by M.M. Bakhtin.* (M. Holquist Ed.). Austin: University of Texas Press.

Duranti, A. & Goodwin, C. (1992). Rethinking context: An introduction. In A. Duranti & C. Goodwin (Eds.), *Rethinking context: Language as an interactive phenomenon* (pp. 1–42). Cambridge: Cambridge University Press.

Firth, A. & Wagner, J. (2007). On discourse, communication, and (some) fundamental concepts in SLA research. *The Modern Language Journal*, *91*(5), 757–772.

Furberg, A. & Ludvigsen, S. (2008). Students' meaning-making of Socio-scientific issues in computer mediated settings: Exploring learning through interaction trajectories. *International Journal of Science Education*, *30*(13), 1775–1799. doi: http://dx.doi.org/10.1080/09500690701543617

Guerrettaz, A. & Johnston, B. (2013). Materials in the classroom ecology. *The Modern Language Journal*, *97*(3), 779–796.

Gilje, Ø., Ingulfsen, L., Dolonen, J. A., Furberg, A. et al. (2016). *Med ARK&APP. Bruk av læremidler og ressurser for læring på tvers av arbeidsformer*. Oslo: Universitetet i Oslo. http://www.udir.no/Tilstand/Forskning/Rapporter/Universitet-i-Oslo-IPED/ark-og-app-i-norske-klasserom/

Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics*, *32*(10), 1489–1522. doi: http://dx.doi.org/10.1016/S0378-2166(99)00096-X

Goodwin, C. (2007). Participation, stance and affect in the organization of activities. *Discourse & Society*, *18*(1), 53–73. doi: http://dx.doi.org/10.1177/0957926507069457

Heritage, J. (2013). Epistemics in conversation. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 370–394). Chichester: Wiley Blackwell.

Hutchby, I. & Wooffitt, R. (2008). *Conversation analysis* (2. uppl.). Cambridge: Polity.

Jakkonen, T. (2015). Handling knowledge: Using classroom materials to construct and interpret information requests. *Journal of Pragmatics*, *89*, 100–112. doi: http://dx.doi.org/10.1016/j.pragma.2015.10.001

Kärkkäinen, E. (2006). Stance taking in conversation: From subjectivity to intersubjectivity. *Text & Talk*, *26*(6), 699–731. doi: http://dx.doi.org/10.1515/TEXT.2006.029

Koole, T. (2012). The epistemics of student problems: Explaining mathematics in a multi-lingual class. *Journal of Pragmatics*, *44*(13), 1902–1916. doi: http://dx.doi.org/10.1016/j.pragma.2012.08.006

Linell, P. (1998). *Approaching dialogue: Talk, interaction and contexts in dialogical perspectives*. Amsterdam: John Benjamins Publishing.

Mikkola, P. & Lehtinen, E. (2014). Initiation activity shifts through use of appraisal forms as material objects during performance and appraisal interviews. In M. Nevile, P. Haddington, T. Heinemann & M. Rauniomaa (Eds.), *Interacting with objects. Language, materiality and social activity* (pp. 57–78). Amsterdam, Phi: John Benjamins Publishing Company.

Nevile, M., Haddington, P., Heinemann, T. & Rauniomaa, M. (2014). On the interactional ecology of objects. In M. Nevile, P. Haddington, T. Heinemann & M. Rauniomaa (Eds.), *Interacting with objects. Language, materiality and social activity* (pp. 4–26). Amsterdam, Phi: John Benjamins Publishing Company.

Nystrand, M., Gamoran, A., Kachur, R. & Prendergast, C. (1997). *Opening Dialogue: Understanding the Dynamics of Language and Learning in the English Classroom*. New York: Teachers College Press.

Prior, P. & Hengst, J. A. (2010). Introduction: Exploring semiotic remediation. In P. A. Prior & J. A. Hengst (Eds.), *Exploring semiotic remediation as discourse practice* (pp. 1–23). New York, NY: Palgrave Macmillan.

Schegloff, E. A. (2007). *Sequence organization in interaction. A primer in conversation analysis I*. Cambridge: Cambridge University Press.

Sidnell, J. & Stivers, T. (2013). *The Handbook of Conversation Analysis*. Chichester: Wiley-Blackwell.

Skovholt, K. (2016). Establishing scientific discourse in classroom interaction teacher students' orientation to mundane versus technical talk in the school subject Norwegian. *Scandinavian Journal of Educational Research*. doi: http://dx.doi.org/10.1080/00313831.2016.1212263

Stivers, T., Mondada, L. & Steensig, J. (2011a). Knowledge, morality and affiliation in social interaction. In T. Stivers, L. Mondada & J. Steensig (Eds.), *The morality of knowledge in conversation* (pp. 3–26). Cambridge: Cambridge University Press.

Svennevig, J. (2012). The agenda as resource for topic introduction in workplace meetings. *Discourse Studies*, *14* (1), 53–66. doi: http://dx.doi.org/10.1177/1461445611427204

Svinhufvud, K. & Vehviläinen, V. (2013). Papers, documents, and the opening of an academic supervision encounter. *Text & Talk*, *33*(1), 139–166.

Tainio, L. (2012). The role of textbooks in mother tongue and literature classrooms. In H. Lehti-Eklund, A. Slotte-Lüttge, B. Silén & R. Heilä-Ylikallio (Eds.), *Skriftpraktiker hos barn och unga* (pp. 11–33). Vasa: Åbo Akademi.

Tanner, M. (2014). *Lärarens väg genom klassrummet. Lärande och skriftspråkande i bänkinteraktioner på mellanstadiet*. Dissertation. Karlstad: Karlstad Universitet.

Tanner, M. & Pérez Prieto, H. (2014). In between self-knowledge and school demands: Policy enacted in the Swedish middle year classroom. *Discourse. Studies in the Cultural Politics of Education*, *35*(5). doi: http://dx.doi.org/10.1080/01596306.2013.871232

Tengberg, M. & Olin-Scheller, C. (2016). Developing critical reading of argumentative text. Effects of a comprehension strategy intervention. *Journal of Language Teaching and Research*, *7*(4), 635–645.

Toulmin, S. E. (1958). *The uses of argument*. Cambridge, UK: Cambridge University Press.

Vygotskij, L. S. (1978). *Mind and Society. The Development of Higher Mental Processes*. Cambridge, MA: Harvard University Press.

Weilenman, A. & Lymer, G. (2014). Incidental and essential objects in interaction: Paper documents in journalistic work. In M. Nevile, P. Haddington, T. Heinemann & M. Rauniomaa (Eds.), *Interacting with objects. Language, materiality and social activity* (pp. 319–338). Amsterdam, Phi: John Benjamins Publishing Company.

Wilkinson, I. A. G. & Son, E. H. (2012). A dialogic turn in research on learning and teaching to comprehend. In M. L. Kamil, P. D. Pearson, E. B. Moje & P. Afflerbach (Eds.), *Handbook of Reading Research, Vol. IV* (pp. 359–387). London: Routledge.

Appendix

((word))	Overlapping or simultaneous talk is indicated with brackets.
=	Equal signs ordinarily come in pairs – one at the end of a line and another at the start of the next line or one shortly thereafter.
(1.2) (.)	Numbers in parentheses indicate silence, represented in tenths of a second. dot in parentheses indicates a "micropause," hearable but not readily measurable.
., ¿?	The punctuation marks are not used grammatically, but to indicate intonation. The period indicates a falling, or final, intonation contour, not necessarily the end of a sentence. Similarly, a question mark indicates rising intonation, not necessarily a question, and a comma indicates "continuing" intonation, not necessarily a clause boundary. The inverted question mark indicates a rise stronger than a comma but weaker than a question mark.
: :::	Colons are used to indicate the prolongation or stretching of the sound just preceding them, more colons indicate longer stretching.
word	Underlining is used to indicate some form of stress or emphasis.
WORD	Upper case indicates even stronger emphasis.
°word°	Degree signs indicate markedly quiet or soft talk.
↑	Arrows indicate markedly rising intonation or pitch.
-	A hyphen after a word or part of a word indicates a cut-off or self-interruption.
:	Underlined colon indicates rising intonation contour.
>word<	compressed or faster talk
<word>	slower talk
.h	audible in-breath
((word))	Double parenthesis mark analyst's descriptions.
(word)	Single parenthesis marks uncertain hearings or inaudible hearings.
(1)	Cartonized pictures of participants' actions are numbered and marked in transcription of talk, and is not given a new line number.
◯	Circle indicates focus of gaze.
- - - -▶	Stretched arrow indicates gaze direction.
──────▶	Whole line or double arrows indicates movements.