John Benjamins Publishing Company

This is a contribution from *Pragmatics and Society* 6:3
© 2015. John Benjamins Publishing Company

This electronic file may not be altered in any way.

The author(s) of this article is/are permitted to use this PDF file to generate printed copies to be used by way of offprints, for their personal use only.

Permission is granted by the publishers to post this file on a closed server which is accessible only to members (students and faculty) of the author's/s' institute. It is not permitted to post this PDF on the internet, or to share it on sites such as Mendeley, ResearchGate, Academia.edu.

Please see our rights policy on <https://benjamins.com/#authors/rightspolicy>

For any other use of this material prior written permission should be obtained from the publishers or through the Copyright Clearance Center (for USA: www.copyright.com).

Please contact rights@benjamins.nl or consult our website: www.benjamins.com

Shared reading at kindergarten

Understanding book content through participation

Myrte N. Gosen,* Jan Berenst** and Kees de Glopper*

* University of Groningen / ** NHL University of Applied Sciences
Leeuwarden

This paper presents a single case-study of a longitudinal shared reading programme that took place in Dutch kindergartens with first language speakers of 4 to 6 years old. As will be shown, children participate both in a traditional instructional structure and in a participation framework characterised by a more or less free discussion. These structures establish an optimal learning environment both together and in relationship to each other. Our case study demonstrates how the teacher and the pupils participate in these successive frameworks and how this supports the construction of conceptual knowledge. It will be shown that participation during shared reading of picture books at kindergarten is directly linked to interactional learning opportunities.

Keywords: children's conversations, classroom interaction, knowledge construction, participation framework

1. Introduction

Shared reading of picture books is a common activity in kindergarten. As kindergarten often is a child's first contact with education and since shared reading in a classroom differs from the one-to-one type of shared reading done at home, children have to learn to participate in the shared reading activity and the accompanying interactions at school.

This paper illustrates the kind of interactional structures young children may encounter during shared reading and how their participation in two different participation frameworks (Goffman 1981; Goodwin and Goodwin 2004) contributes to their development. As will be shown in this contribution, these two participation frameworks establish an optimal learning environment, both in conjunction and in their mutual relationship.

Teachers using an interactive reading style (see, e.g., Greene Brabham and Lynch-Brown 2002) provide room for whole-classroom interaction about the books before, during, and after the shared reading session. Participation in whole-classroom interaction during shared reading activities has been shown to support the language and literacy development of children (e.g. Mol et al. 2008; What Works Clearinghouse 2007). The present contribution will show how participating in the two distinct but related participation structures during shared reading may support the development of knowledge related to topics, concepts, and situations presented in the books.

2. Background

Learning has been seen as an interactive process since Vygotsky (e.g. 1978), who claimed that *intermental* (social) activity promotes *intramental* (individual) development. Context is thought of as essential for learning. This view is widely acknowledged by sociocultural researchers who consider learning as taking place by participation in social practices in a cultural community (Rogoff 1990), in which learning happens more or less incidentally (Lave and Wenger 1991; Wenger 1998).

Within this perspective, knowledge is constructed in exchange and in collaboration with other members of the community. When members vary in skill and status, learning can take place through guided participation (Rogoff 1990; 2003). This is based on Vygotsky's concept of the *Zone of Proximal Development* (ZPD), described as the difference between what a child is able to do on its own and what a child can do with the help of a more experienced member (Vygotsky 1986). It is assumed that a more experienced member and a less skilled participant co-construct interaction, whereby the latter participant gradually develops the ability to do or say things without help. This process is more specifically described by Vygotsky as *scaffolding*: the skilled participant controls the elements of (inter)action that are too difficult for a child so that the child can concentrate on elements that are within its range of competence (Wood, Bruner and Ross 1976). Scaffolding in a broader sense points at strategies of experts that help novices accomplish a task they could not have done alone.

In a school environment, one tends to think of the teacher as the one who assists pupils in performing tasks they could have not done alone or in participating in interactions they would have not started themselves. A well-known and intensively studied interactional structure that teachers bring into the classroom is the routinised three-part-exchange. This *Initiation-Response-Evaluation* (IRE) structure (Mehan 1979a) consists of rounds of *Initiation* moves, which are predominantly occupied by a known information question (Mehan 1979b), followed

by Responses by one or more pupils, which are then *Evaluated* by the teacher in third position.¹ When pupils enter an educational environment, they learn to participate in this structure, in which the teacher dominates and in which their role is limited (as summarised by Mehan 1998). Pupils are only capable of participating when assisted by the teacher, who initiates the interaction and ends it by providing feedback on their answers.

However, teachers not only assist pupils in participating in these educational structures; they also use the structures to make knowledge public and witnessable to the whole class (Macbeth 2003). It could be said that pupils' role in this structure is limited to providing the answer the teacher requires; by doing so, they contribute to the teacher's routinised way of getting the information across to the whole class. Although one can obtain insight in pupils' existing knowledge by their responses to known information questions, these kinds of interactions do not show pupils' developing knowledge. In a similar vein, the *access* to knowledge obtained by participating in and by witnessing the IRE-structure does not automatically lead to the *development* of knowledge.

Additionally, children should be encouraged to participate in interactions that challenge them to *use* knowledge: by putting their ideas into words, knowledge can be incorporated into their view of the world (Barnes 2008). Teachers may provide opportunities for more extended participation in interaction by expansion of the IRE structure. In initial position, teachers might pose an authentic question or give their own view concerning challenging issues and topics in order to open the floor for pupils to practice their own ideas (Clark et al. 2003; Nystrand and Gamoran 1991). In addition, when the third position is not used to close the initiation-response sequence, but to elaborate on it, this is found to open up opportunities for extended participation (Lee 2007; Nassaji and Wells 2000; Tabak and Baumgartner 2004; Wells 1993).

Through extended participation, pupils get a chance to participate in language practices that are less school-like in the sense that they do not reflect the authoritative structure in which the teacher is the leading force. Gutiérrez, Baquedano-López and Tejeda (1999) for instance illustrate that in more formal school contexts, pupils also participate in what they call 'hybrid language practices' that are more closely related to mundane interactions. Similarly, Sterponi (2007) illustrates different forms of participation and accompanying language practices in an educational reading context in which pupils incorporate interaction in their individual reading practices without being explicitly invited to do so,

1. This structure is also known as the *Initiation-Response-Feedback (IRF)* exchange as described by Sinclair and Coulthard (1975).

thereby incorporating mundane ways of interacting in the reading practices that assist them in their meaning-making practices.

Participation in interactions amongst peers is likewise found to be closely related to the development of knowledge. Studies investigating peers discussing challenging issues or tasks show that these interactions may be more or less constructive in terms of reasoning and knowledge development. Children's collaborative group work in interaction is for instance addressed in terms of 'constructing shared understanding' (Elbers and Streefland 2000), 'making new meaning' (Furberg and Arnseth 2009), 'agreed discoveries' (Karlsson, Ivarsson and Lindström 2013) and 'thinking together' (Mercer and Littleton 2007). Such studies, ranging from primary school to university students, do not always explicitly claim that individual knowledge has been developed; they do show that the development of knowledge becomes visible in interactions amongst peers. Having studied an after-school programme in which peers collaborate and talk together, Nicolopoulou and Cole conclude that investigating the "social dimension" of individual development" (1993:312) provides more insight in learning in a dynamic, collaborative environment than may be obtained by looking at the individual child or interactional pair.

Studying how children participate in an interactional setting may thus reveal how knowledge becomes visible in interaction. Teachers' and pupils' participation can be addressed by describing their respective participation status. These statuses of participants "in a gathering at a particular moment" (Goffman 1981:137) constitute what Goffman calls a *participation framework*. In this paper we will, more precisely, take a closer look at participation in two intertwined participation frameworks during one specific activity: the shared reading of picture books.

This setting is particularly interesting because young children who have just entered school are still learning to participate in an educational environment, while also learning in a more content-specific sense of the word. Because of their unfamiliarity with interactions in an educational environment, it is expected that they will need for the teacher to provide more scaffolding in order for them to develop their knowledge in interaction. The activity of shared reading seemed to be a particularly interesting interactional environment because of the topics, concepts, and situations presented in the reading material that are expected to promote the conceptual construction of knowledge.

There has been extensive research centred on shared reading interactions (e.g. Dickinson and Smith 1994; Greene Brabham and Lynch-Brown 2002; Pantaleo 2007; Reese and Cox 1999; Reese et al. 2003; Wiseman 2011); however, these studies do not focus on the development of knowledge as it becomes visible in interaction, as they did not investigate interactions in relation to participation and concept knowledge in close detail. By contrast, the aforementioned study by

Sterponi (2007), in which older pupils engage in meaning-making practices while reading, nicely illustrates the relationship between interactional reading and the co-construction of knowledge; the author shows in detail how interactions about books enhance an understanding of the texts and of the world that is represented by the texts. This raises the question how younger children, who cannot yet read by themselves, participate in a *shared* reading environment and how their participation in these interactions contributes to their understanding.

In the current paper, we will show that children at this age are already competent at recognising participation frameworks and participating in these specific interactional structures during the shared reading of picture books. We will discuss children's participation in the challenging forms of discourse that are most often related to knowledge construction, but in addition we will argue that one should not underestimate the value of participation in a more instructional-type IRE framework, when this framework follows upon a more or less free discussion. Our close analysis of one particular shared reading fragment will reveal that book-related knowledge is constructed by participating in these two different, successive interactional structures.

3. Method

3.1 Participants and setting

Data were collected in a longitudinal shared reading programme in which three Dutch kindergarten teachers read two picture books a week for a period of twelve weeks. Each week, one shared reading session was videotaped in each of the kindergarten classes. For the video recordings, two cameras were used that videotaped the teacher and the children from two different angles. The teachers wore an external microphone. The whole database consists of 36 shared reading sessions (roughly 18 hours of video material).

In the Netherlands, kindergarten is integrated within primary school and consists of the first two grades of primary school (for 4 to 6 years old children; for children 2 to 4 years old, there are optional preschools). The picture books were selected with a special focus on three distinct developmental domains: the socio-emotional, the mathematic, and the literary. In addition, the selected books were accompanied by instructions developed to stimulate constructive discussions about the socio-emotional, mathematic, and literary content of the books.²

2. The picture books and instructions used in this study are respectively selected and developed within the Picture Books and COnccept Development (PICO) project; a cooperation between the Freudenthal Institute Utrecht, the University of Tilburg and the University of Groningen.

The books were read to the entire class of around 20 first language speakers, with the books being placed on a stand so that children could continuously look at the illustrations. Teachers read the text from a separate set of papers, which included a copy of each page and the accompanying shared reading instructions.

3.2 Data analysis

The whole database was transcribed according to transcription conventions based on Jefferson (1984; see the Appendix) by means of the computer program Transana (Fassnacht and Woods 2004). The shared reading sessions were analysed in detail in accordance with the qualitative methodology of Conversation Analysis (e.g. Ten Have 2007). This methodology focuses on participants' interactional moves in order "to discover how participants understand and respond to one another in their turns at talk, with a central focus being on how 'sequences of actions' are generated" (Hutchby and Wooffitt 1998: 14). By studying participants' sequential moves, one gains insight into their understanding of the ongoing event, as well as insight into their contributions to the same event by their own actions. This *next-turn-proof procedure* ensures that "analyses explicate the orderly properties of talk as oriented to accomplishment of participants, rather than being based merely on the assumptions of the analyst" (Hutchby and Wooffitt 1998: 15). Using such an *emic* perspective, we got a closer look at how participants themselves interpret and design the interaction and as a consequence, how they interpret and design the overarching activity. At the same time, we obtained a better understanding of the activity and the organisation of the activity.

During the last decades, several conversation analytic studies have specifically investigated the design and the organisation of activities in which knowledge is constructed; the aim was to study learning as it occurs in interaction. A close sequential analysis of interactions in classroom practices, for instance, generates insight in the activity of learning (Szymanski 2003) or in the activity of instructing and being instructed (Margutti 2010: 344). As a result of these sequential analyses, these studies show learning opportunities that are created locally.

As mentioned above, the present study focuses on the shared reading activity in kindergarten. To obtain a closer insight in how pupils participate in interactions during this activity and how this is related to opportunities for learning, we thoroughly studied one shared reading fragment. This enabled us to illustrate the participation in interactional detail in relation to the topic discussed, and the possible construction of knowledge about this topic. By doing so, we were able to give a complete overview of the participation in one episode as it happened, without risking jumping to conclusions.

Figure 1. The Giant's Castle (from the book *Ssst!/Shhh!* by Sally Grindley and Peter Utton (1999/2001))

The selected fragment originates from a shared reading session of the picture book *Ssst!* (a translation of Grindley and Utton's *Shhh!*, 1999/2001). The book is about a castle belonging to a giant. The reader is taken deeper into the castle page by page and is advised to keep silent in order not to awaken the dangerous giant. This makes it a very exciting book for children. Additionally, the shared reading programme uses this to discuss the mathematical concept of 'perspective' with the children.

The fragment of the shared reading session is centred around one page and one topic (namely, the size of the towers). As the picture used is of the giant's castle, the illustration in the book takes a bottom-up perspective to give the reader the impression that the castle is very big and that the reader is small. On the second page of the book (see Figure 1), the towers of the giant's castle therefore look smaller than they actually are. This is something we expected children to learn by looking at the picture and by talking and thinking about it. Before discussing this page, the teacher and the children had been talking about the giant's big footprint on the cover. However, they had not discussed the mathematical concept of 'perspective' before.

4. Findings

Our study demonstrates that children are able to participate in several interactional structures that together establish a learning environment. It is the combination of a more or less free discussion, with room for extended participation by the children, followed by a more instructional, teacher-led structure, that makes the interaction suitable for knowledge construction.

Initially, the children brainstorm about the ‘mathematical perspective’, focusing on ‘why do the towers look that small?’. Next, the situation switches to a more *instructional framework* in which they are stimulated to use the right mathematical terminology to address the perspective chosen in the book and to answer their questions from the foregoing discussion. The study demonstrates how teacher and pupils participate in these frameworks and how their participation in these two successive frameworks can be related to the construction of knowledge.

4.1 Participation in a discussion framework

Before starting the discussion of the fragment, the teacher has read the whole text to the class. Next, she focuses on the illustration, as can be seen in Excerpt (1). This is the start of a *discussion framework* (Gosen et al. 2009), in which the teacher and the pupils participate in a discussion about the book’s content without the teacher being the leading force. Here, the study will show the practices the teacher uses to create this interaction, and how the children adapt to their role as participants in the discussion.

The first three excerpts illustrate the establishment of an assessment that elicits the participation in a *discussion framework*. As one will see, the establishment of a first assessment elicits a second assessment. The assessment sequences, taken as a whole, occasion further explanations. These explanations form the start of the discussion in which the teacher and the children participate.

In Excerpt (1), the teacher explicitly asks the pupils to have a look at the house and the towers in lines 1–2 and 5–7 (and twice again in the continuation of the interaction, which is not included in this excerpt). By doing so, she indicates that she wants to talk about the illustration, not just the story line (Dutch *torentjes* translates as *little towers*).

Excerpt (1) Incomplete statement, 1–13

	Speaker	Transcript	Dutch original
1	→ Teacher	would you have a ((points and looks	wil je es naar ((points and looks at
2		at book)) (0.4) ↑look at that house	book)) (0.4) dat huis ↑kijken,

3	(.)	(.)
4	Rick yes=	ja=
5	→ Teacher =((points at book)) and ↓have a look	=((points at book)) en ↓kijk es naar
6	at those ((moves finger back and	die ((moves finger back and forth))
7	forth)) (0.9) little <u>towers</u> up[there?	(0.9) <u>torentjes</u> daarbo[ven?
8	Rick [those are	[die zijn <u>ook</u>
	<u>also</u> bi:g	groot
9	→ Teacher I THInk those little <u>towers</u> are actu-	IK VInd die <u>torentjes</u> eigenlijk een
10	ally a bit ((questioning look))	beetje ((questioning look))
11	(0.5)	(0.5)
12	→ Daniel [sma:ll	[klei:n
13	→ Rick [scary	[eng

The teacher starts a first assessment (Pomerantz 1984) in line 9, referring to the picture that is displayed in the book. The teacher's assessment, however, is incomplete. Margutti has described this questioning practice as an *Eliciting Completion Device* (ECD, Margutti 2006) – an interactional practice that gives pupils the opportunity to participate in the interaction by completing an incomplete statement (chorally). This is a clear example of the guided participation (Rogoff 1990, 2003) that is typical for a learning environment. Besides the use of an ECD, the teacher's questioning look and her silence (line 13) also invite pupils to complete the sentence.

The fact that two pupils do so by filling in two different options simultaneously, as can be seen in lines 12 and 13, indicates that even young pupils know how to respond to such an ECD, as previously illustrated by Margutti in the case of 7 to 8 years old children. Here, Daniel adds *small* (line 12), while Rick adds *scary* in line 13. Once the ECD is completed, the first assessment functions as another open invitation for the pupils to come up with a further assessment. In Excerpt (2), it can be seen that Rick indeed offers a second assessment.

Excerpt (2) Scary or small?, 15–19

Speaker	Transcript	Dutch original
15 → Teacher	↑yes ((points at book))	↑ja ((points at book))
16	(0.7)	(0.7)
17	↑have a look u:pwards (.) at those	↑kijk maar es naar bo:ven (.) naar die
18	little towers	torentjes
19	(.)	(.)
20 → Rick	I ↓don't think they are scary. ((shakes	ik vind ze ↓niet eng. ((shakes head))
21	head))	

The teacher responds to the two contributions that end the ECD by means of a confirming *yes* in line 15. Since she is looking at her paperwork, it is not clear whether she confirms the contribution of either Rick or Daniel. Obviously, however, she confirms the completeness of the first assessment and offers room for a second assessment in line 16. When a second assessment does not follow immediately, she readdresses the referent of the assessment in lines 17–18. Hereafter, Rick aligns with the interactional assessment project. However, instead of preferably agreeing with the first assessment, he gives his own, contrastive, opinion.

His different opinion on the towers reveals confusion as to whether the towers look *small* or *scary*. The teacher asks Rick for clarification and when she finds out he is talking about scariness, she stresses that she meant small, as can be seen in Excerpt (3) (the repair sequences are omitted here). This does not elicit an explicit second assessment. However, by providing an explanation, Rick shows that he agrees with the teacher that the towers are small indeed.

Excerpt (3) Possible explanation, 35–40

Speaker	Transcript	Dutch original
35 → Teacher	I said <u>small</u>	ik zei <u>klein</u>
36	(1.9)	(1.9)
37 → Rick	<u>yes that's because</u> the (0.3) giant	<u>ja dat komt omdat</u> (0.3) t reuzen-
38	castle (0.3) (ca)stle is <u>tha:t</u> big	kasteel (0.3) (ka)steel zo: groot is
39	((hand up flat)) that you ((points	((hand up flat)) dat je die ((points
40	up)) al (0.3) most (0.3) can't see: that <u>tower</u>	up)) <u>toren</u> bij- (0.3) na (0.3) niet kunt zie:n

The repair in line 35 is formulated in an interesting manner: the teacher says that she *said* small, even though she actually started the ECD without uttering the word *small*. Her formulation here (implying that she had said *small* herself), indicates she was aiming for the ECD to be completed with *small*. Following the repair ending in line 35, the assessment is now completed in the right direction. This assessment is not followed by an explicit second assessment; however, Rick implicitly agrees with the teacher by providing an explanation.

With her observation (framed as an assessment), the teacher seems to set an example to the pupils that giving one's opinion about the picture in the book is legitimate. By doing so, the teacher opens the floor for discussion. That 'giving one's opinion about the picture' is indeed taken up as an open elicitation to contribute to the discussion, is again shown by Rick, in lines 37–40. Here, Rick self-selects and spontaneously comes up with a possible explanation as to why the towers look so small, which he illustrates by aligning gestures. His contribution takes a

typical form (indicated by the box around it in this and following excerpts) that regularly occurs with discussion contributions (Gosen, Berenst and de Glopper 2013; these contributions typically contain a causal conjunction). In this case, the conjunction *because* is preceded by *yes*, which signals the relation with the previous contribution.

Rick's spontaneous use of an explanation is interesting, as it contrasts with his earlier contribution in lines 20–21, where he gives his opinion concerning whether or not the towers look scary. The explanation indicates that Rick (instead of just proffering his second assessment) understands that the towers' downsizing needs further clarification; in this way, the pupils are invited to discuss the matter in more depth. This demonstrates that these young children are pupils that are oriented to specific participation structures and adapt to a *discussion framework* without being explicitly asked to do so.

Besides setting a good example by giving an opinion about the picture, the teacher also avoids explicit evaluations. This implicitly shows that pupils are invited to participate in a joint discussion on the question 'why do the towers look that small'. As shown later in the present article, the teacher knows why the towers look that small; she also has the right terminology for describing this. Therefore, she would be in a position to evaluate the answers. However, here the teacher acts like any other participant who knows no more about the topic than do the pupils: she does not yet reveal 'why the towers look that small', or how to address the implicit question.

Among other things, she treats pupils' contributions as possible solutions instead of evaluating them as correct or incorrect. For instance, she reacts to Rick's explanation in Excerpt (3) by asking a question that leaves the accuracy of his solution undecided, as shown in Excerpt (4).

Excerpt (4) Avoiding explicit evaluations, 41–45

	Speaker	Transcript	Dutch original
41	→ Teacher	would <u>that</u> be it?	zou <u>dat</u> t zijn?
42		(1.0)	(1.0)
43	→ Robert	↑yes=	↑ja=
44	→ Teacher	=>how would that be possible,<	=>hoe zou dat nou kunnen,< ((looks
45		((looks at book))	at book))

Although Rick's contribution is already a contribution in the right direction, the teacher only takes it as a starting point for a more elaborate discussion, allowing also for contributions of other pupils who speculate about why the towers look so small. They discuss this without offering alternative 'correct' answers. Instead,

they complement each other’s contributions in an exploratory manner (comparable to what Mercer, 1995, has described as *Exploratory Talk*). The teacher accommodates this by treating pupils’ turns as contributions to a discussion, rather than as correct or incorrect answers.

The teacher sets a trend by not evaluating the first contribution (line 37–40). Instead, she asks *would that be it* (line 41). By doing so, she acts as if the information (the explanation why the towers look that small) is not available to her either. Interestingly, however, the question in line 41 is taken up as a request for confirmation by Robert in line 43. This indicates that Robert understands that a *discussion framework* is relevant here: he accepts that he, in addition to the teacher, could be the one to confirm whether something is correct or incorrect. However, the teacher does not respond to Robert, but stimulates further discussion on the issue of the small towers by asking another question in line 44.

The teacher also reacts to possible explanations by using facial expressions, like a frown or raised eyebrows (common expressions of surprise or amazement). Excerpt (5) (which follows on the previous quote) shows an example of such a facial expression in context.

Excerpt (5) Surprised expression, 48–52

Speaker	Transcript	Dutch original
48 → Tim	because that is <u>to</u> the ((<i>points up</i>))	want dat is <u>tot</u> de ((<i>points up</i>))
49	clouds=	wolken=
50 → Teacher	=((<i>surprised expression, points at</i>	=((<i>surprised expression, points at</i>
51	<i>book, nods</i>))	<i>book, nods</i>))
52	(2.3)	(2.3)

In lines 48–49, Tim gives another possible explanation as to ‘why the towers look that small’, after the open question in line 44 of Excerpt (4). This also displays that he understands that the teacher and the class are still operating within a discussion framework. His use of *because* indicates that he is elaborating on previous contributions and the teacher’s open question by providing an argument.

His possible explanation is taken up (lines 50–51) non-verbally by the teacher’s pointing, nodding and surprised expression (see Figure 2). Herewith, she acknowledges Tim’s contribution and confirms the discussion framework, in which participants are allowed to come up with possible explanations and in which self-selection is permitted. The teacher’s surprised expression indicates that she is not evaluating the contribution, but merely accepts it as a new, possible explanation. Her facial expressions show that she had not thought of the question in those terms; here, she acts like any other participant who is thinking along.

Figure 2. Teacher’s surprised expression

The fragment’s continued discussion shows the pupils maintaining *participant status* (Goffman 1981) in the discussion. In Excerpt (6), pupils also frame their contributions in a hypothetical manner and the teacher encourages the discussion by her non-evaluative acceptations. The excerpt starts with Tim, who elaborates on his own contribution in lines 48–49 of Excerpt (5).

Excerpt (6) Maybe, 53–67

Speaker	Transcript	Dutch original
53 → Tim	°maybe to the moo:n°	°misschien tot de maa:n°
54	(0.3)	(0.3)
55 → Teacher	may [be ↑yes ((looks at Dries))	mis[schien ↑wel ((looks at Dries))
56 → Dries	[ma- (.) maybe the st- ((hands	[me- (.) misschien zijn de st- -
57	somewhat apart)) (.) towers that	((hands somewhat apart)) (.) torens
58	stand there	die daar op staan
59	(0.3)	(0.3)
60	[are very bi:g	[wel heel groot
61 → Kyra	[((brings hand upwards))	[((brings hand upwards))
62	(0.4)	(0.4)

63	Teacher	[[<i>((nods))</i>]	[[<i>((nods))</i>]
64	→ Dries	[only (.) >maybe it is< so <u>big</u> (.) that	[alleen (.) >misschien i:s ie< zo <u>groot</u>
65		you •h can't <u>see</u> them	(.) dat je •h ze niet kunt <u>zien</u>
66		(.)	(.)
67		[[<i>((hands apart))</i>] how <u>big</u> they are	[[<i>((hands apart))</i>] hoe <u>groot</u> ze zijn

Both Tim and Dries frame their contributions in Excerpt (6) in a non-straightforward manner. Their use of the adverb *maybe* (lines 53, 56, 64) indicates that rather than straightforward answers to a question, these are tentative contributions to a discussion in which such input is allowed. In addition, the softer tone of voice (Tim's in line 53) and the relatively long silences and hesitations (Dries' in lines 56–60) likewise display a level of uncertainty and thinking-aloud that is allowed during a discussion. The teacher's acceptance of Tim's contribution by repeating *maybe* in line 55 shows that she is (again) not explicitly evaluating Tim's contribution, but accepts his suggestion from line 53. She also indicates that self-selection is accepted within this participation framework, since she gazes towards Dries (line 55) when he creates overlap with the teacher in line 56.

The use of *maybe* shows that children bring in hypotheses that can be reacted to, and that they contribute cumulatively to the general discussion. Even

Figure 3. Kyra lifting her hand

Kyra, who is not contributing verbally, appears to think about the general issue in line 61 of Excerpt (6) by lifting her hand when they talk about big towers (as shown in Figure 3).

That children also react to the other children's contributions verbally can be seen in Excerpt (7). This excerpt illustrates that pupils explore and discuss together, instead of offering alternative answers to a traditional, *known information question* – something which is characteristic for the discussion framework. Excerpt (7) starts with Dries' contribution from Excerpt (6), repeated here to display Tim's follow-up from line 69 till the end of this excerpt. As in the previous excerpts, the teacher remains in the background.

Excerpt (7) Yes because, 64–78

Speaker	Transcript	Dutch original
64 → Dries	[only (.) >maybe it is< so <u>big</u> (.) that	[alleen (.) >misschien i:s ie< zo <u>groot</u>
65	you •h can't <u>see</u> them	(.) dat je •h ze niet kunt <u>zien</u>
66	(.)	(.)
67	[((hands apart)) how <u>big</u> they are	[((hands apart)) hoe <u>groot</u> ze zijn
68 Teacher	[((nods, points at Dries))	[((nods, points at Dries))
69 → Tim	[yes because] we are totally ((hand	[ja want] wij zijn helemaal ((hand
70	low)) <u>down</u> [looking	low)) <u>beneden</u> [aan t z:ien
71 → Teacher	[((surprised expression,	[((surprised expres-
72	points at Tim))	sion, points at Tim))
73 → Tim	•h and the little towers are ve::ry	•h en de torentjes zijn hee::l hoog
74	high ((hand up)) [because that castle	((hand up)) [want dat kasteel is
	is a very	
75 → Teacher	[((nods)) °look°=	[((nods)) °kijk°=
76 Tim	h- ((both hands up)) big	een heel gr- ((both hands up)) groot
77	buil[di:ng,	ge[bou:w,
78 → Teacher	[((nods, looks in book))	[((nods, looks in book))

When the teacher nods and points at Dries in line 68 (thereby accepting his contribution), Tim is speaking in overlap (lines 69–70). This *possible completion on-set overlap* (Jefferson 1986), which occurs when Dries' turn constructional unit (TCU) is completed, shows that Tim adds something to Dries' explanation. Tim's use of *yes because* also indicates that Tim is building on Dries' contribution. Tim starts his explanation by self-selecting while the teacher is still focused on the previous speaker, Dries. As before, the teacher clearly accepts his self-selection and, acting as a discussion leader, points at Tim in lines 71–72. Again, her surprised facial expression indicates that she treats this as information that is new to her: the teacher is not evaluating, but accepting the contribution as input to the

discussion. Her contributions in line 75 and 78 function in the same way (*look* is not an imperative here, but renders a Dutch phrase used to express surprise, comparable to ‘I see’).

Interestingly, Tim uses the formulation *yes because*, as it is regularly used to frame a discussion contribution. In this case, Tim’s use of *yes because* clearly establishes a link between Dries’ earlier contribution and his own input. This shows a form of exploratory talk, in which pupils build critically but constructively on each other’s contributions. In this particular case, Tim is constructively building on another pupil’s contribution as he gives an argument in addition to Dries’ statement. *Exploratory Talk* (Mercer 1995) is described as a useful form of speech for reasoning and discussing together in peer interaction. Here, children reason together as participants in a discussion within a whole-classroom discussion framework, while the teacher is present more or less as a bystander.

The discussion framework is coming to an end with Excerpt (8), in which Tim refers to the book’s continuation as possible confirmation of what they have just been discussing. Simultaneously, Dries seems to think about a possible solution for looking at the towers, as is shown by his non-verbal movements (see also Figure 4).

Excerpt (8) Maybe we will come up too, 79–83

	Speaker	Transcript	Dutch original
79 →	Tim	[and uh and if- (0.4) maybe we will	[en eh en als- (0.4) misschien komen we
80 →	Dries	[((forms a ‘telescope’ with hands and looks upwards))	[((forms a ‘telescope’ with hands and looks upwards))
81			
82	Tim	come ↑up too and then those towers	ook nog ↑boven en dan zijn die
83		will ↑also be very bi:g	torens ↑ook heel groo:t

As to Tim, he carries his explanation, started in Excerpt (7), on to the next passage. Once again, Tim uses the adverb *maybe*. In this case, however, *maybe* is used to predict what might happen next. By doing so, he almost postpones the issue of the small towers until the factual solution is shown by the picture book itself. This can be seen as a sign that Tim acknowledges the fact that even the teacher does not have the solution to the problem, but that the book might possibly help to clear up the uncertainty in their joint hypothesising during the ongoing discussion. As will be shown in Section 4.2, below, the teacher follows up on Tim’s contribution by asking a more instructional-type question that starts the second, instructional, framework.

Figure 4. Looking through a telescope

Before going into this framework, it should be noticed that Excerpt (8) also shows an intriguing non-verbal movement by Dries in lines 80–81 (see also Figure 4). Although his gestures are not taken up by any of the other participants, they show that he is still contributing adequately by ‘looking upwards through a telescope’. It could be said that this is an elaboration of his contribution in lines 64–67 of Excerpt (6) and (7), in which he says that the towers might be big, but that they could not be seen. Dries’ looking through a ‘telescope’ indicates that he is thinking of a solution to his own formulated problem of ‘not being able to see the towers’. As Koschmann and LeBaron (2002) have shown, gestures can be seen as embodying thinking-in-interaction. This means that although Dries is not contributing in a verbal manner, his contribution to this *discussion framework* may still display that he is thinking along.

4.2 Instructional interaction

So far, we have seen that both pupils and teacher accept their respective status as discussion participants and discussion leader, and act in accordance with these in a discussion framework. However, as we will see in the following, this is not the only framework that is relevant in our fragment: children adapt just as easily to the *instructional framework* that is more typical for traditional classroom interactions, and is built around IRE structures. The next excerpts will show how children follow the teacher’s switch to this framework in a shared reading setting.

In addition, it will be shown how the combination of the two different successive participation frameworks contributes to the children’s learning possibilities.

In Excerpt (9), the teacher does not continue with the possible solution proposed by Tim in Excerpt (8). Instead, she asks a *known information question*. This excerpt follows after Tim’s proposal and functions to mark a turn to a more *instructional framework* in which the terminology used to describe the perspective chosen in the book plays a central role.

Excerpt (9) Turning point, 84–95

	Speaker	Transcript	Dutch original
84 →	Teacher	°yeah° (0.3) because [how do- (0.3)	°jah° (0.3) want [hoe kij- (0.3)
85 →	Dries	[maybe even	[misschien nog grot-
86		bigger than school ((two fingers up))	er dan de school ((two fingers up))
87	Teacher	how do we look at it Tim,	hoe kijken wij d'r tegen aan Tim,
88 →		(0.6)	(0.6)
89 →	Tim	strai:ght	re:cht
90		(0.5)	(0.5)
91	Teacher	↑not totally ↓straight	↑niet heemaal ↓recht
92		(.)	(.)
93 →	Tim	[((('slanting' gesture)) a bit slanti:ng	[((('slanting' gesture)) 'n beetje schui:n
94 →	Rick	[slanti:ng	[schui:n

Interestingly, the teacher uses the conjunction *because* in her question (line 84), implicating that she builds on an earlier contribution (which could be the one in Excerpt (7)). However, here the word seems to function as a sequential linking to the next phase of the fragment.

The question in lines 84 and 87 is addressed to a pupil (here, to Tim) for the first time in this shared reading session. In interactions involving the whole classroom, teachers are normally the ones who direct speakership (McHoul 1978). In the *discussion framework*, however, the teacher does not select pupils for a turn as she does in line 87. This is why this question can be seen as indicating a switch from the *discussion framework* to a more traditional *instructional framework*. The use of *how* in combination with *we* also characterises the question as a *known information question*. In particular, the use of *we* indicates that the teacher is in search of something that belongs to general knowledge rather than representing an opinion or a hypothesis.

The switch between frameworks is confirmed by the teacher’s treatment of Dries’ contribution. Apparently, it is not clear to Dries yet that the framework is switching to a more instructional one, as can be seen in lines 85–86. He adds another contribution to the previous discussion, again using *maybe* to hypothesise

Figure 5. Slanting perspective

further on the size of the towers. For the first time in the fragment, this is not taken up by the teacher as she did before. The lack of acceptance of his contribution (instead, there is a relatively long silence in line 88) could serve as an indication that the participation has changed into one suitable to an instructional framework.

Tim and Rick adapt to this changed framework by participating as respondents instead of as participants in a discussion in lines 89, 93 (see also Figure 5) and 94. Both Tim and Rick contribute to the discussion by means of elaborated hypotheses. But in this framework, their responses are kept brief, which indicates that they understand that another ‘game’ is being played here. The teacher indicates that Tim’s answer is not completely correct, and in doing so, she starts a correction sequence (Macbeth 2004), which is typical for traditional whole-classroom interaction. This sequence is responded to by Tim and Rick simultaneously. As shown in Figure 5, Tim first produces a gesture indicating the ‘slanting perspective’, then immediately follows up with a brief verbal affiliation.

Together with his non-verbal contribution, Tim’s verbal contribution displays that he is still thinking along (Koschmann and LeBaron 2002). This was also the case with Dries in Excerpt (8). However, Tim’s and Rick’s answers are not taken up, as seen in Excerpt (10).

Excerpt (10) What did you say just before, 96–107

	Speaker	Transcript	Dutch original
96	→ Teacher	[((points at Tim)) we are- yes uh we	[((points at Tim)) wij zij- ja eh wij
97		↓are (.) what did you say just be[fore	↓zijn (.) wat zei jij net [al,
98	→ Rick		[in
99		the classroom	[in de klas

100	(0.4)	(0.4)
101 → Teacher	we ↓are [no: ((points at book))	wij ↓zijn [nee: ((points at book))
102 → Kris	[small ((flat hand from top to	[klein ((flat hand from top
103	bottom))	to bottom))
104 → Teacher	<u>no</u> ((points at book)) we ↓are (.) here-	<u>nee</u> ((points at book)) wij ↓zijn (.)
105	when we ↓look here	hier- als we hier naar ↓kijken
106 →	(0.4)	(0.4)
107 → Tim	°yes°=	°ja°=

In Excerpt (10), the *instructional framework* continues; the teacher is obviously in search of a specific answer and scaffolds Tim to help him discover the terminology she is searching for. She nominates Tim by pointing and encouraging him to answer her initial, instructional question by focusing, in lines 96–97, on what Tim said earlier during the discussion. Normally, such a move functions as a request to repeat what was said before. However, as this excerpt shows, Tim does not respond to the request immediately with the preferred response. As we have seen, he has contributed to the discussion in several turns, so the reason might be that Tim is not clear as to what the teacher is aiming for now. Nevertheless, he seems to understand that he has been selected to provide the answer. This can be seen in line 107, where he joins in with a soft-voiced *yes*, after another hint from the teacher in lines 104–105 and after a relatively long silence of 0.4 seconds (line 106).

When Tim does not respond at all, Rick and Kris try to fill-in the ‘*we are* sentence’ in lines 98–99 and 102–103. The teacher evaluates both contributions negatively with a prolonged *no* in line 101 and a stressed *no* in line 104. Although their contributions do not appear to be what the teacher requires, Rick and Kris participate in the instructional sequences correctly since they understand that they are asked to complete the sentence starting with *we are*.

When Tim finally adapts to his role as a selected respondent, he does not come up with a repetition of what he had said earlier; instead, he shows that he knows how to function within the instructional sequence by acknowledging that he previously alluded to something that might be relevant. So, all three of these pupils participate without knowing the requested information. Excerpt (11) shows that Tim remains aware of his role as a selected respondent.

Excerpt (11) Be-ne-den, 108–114

Speaker	Transcript	Dutch original
108 → Teacher	=you [↑said it just before,	=je [↑zei t net al,
109 Rick	[do-	[bene-
110	(0.4)	(0.4)

111	Rick	below=	beneden=
112	Simon	=[slanting	=[schuin
113 →	Teacher	[be]low ye:s ((nods))	[bene]den ja: ((nods))
114 →	Tim	[low	[neden

By once again focusing on what Tim had said in line 108, the teacher repeats her indication that she is aiming for a specific contribution. Although Tim contributed in the turn before the teacher's turn, and she is gazing at Tim, only Rick and Simon acknowledge this instructional elicitation by coming up with potential, short answers. When the teacher acknowledges Rick's answer *below* by repeating it and adding a prolonged *yes* in line 113, Tim creates overlap in line 114 by completing the teacher's repetition. It should be mentioned that the Dutch for *below* is a three-syllable word (*be-ne-den*); this makes it possible to realise a joint completion; actually, Tim joins in by producing only the last two syllables of the word (*ne-den*). This completion suggests that Tim still aims to give the expected answer.

That the teacher indeed is looking for a specific expression to address the issue of 'why the towers look so small' can be seen in Excerpt (12). In this part of the interaction the teacher gives a clear-cut description, since the children did not come up with the 'terminology' she was looking for in the preceding instructional sequences.

Excerpt (12) You know how we also say that?, 115–124

	Speaker	Transcript	Dutch original
115	Teacher	and be]low,	en bene]den,
116 →	Max	[and that tower is ↑above	[en die toren is ↑boven
117		((hand above his head))=	((hand above his head))=
118 →	Teacher	=>yes< (.) that one is very tall heh	=>ja< (.) die is heel hoog heh
119		(0.3)	(0.3)
120 →		>yes< because you look from- you	>ja< want je kijkt er- weet je
121		know [how we also say that?	[hoe dat ↓ook wel heet
122 →	Walter	[I can't see: anything	[ik kan niks zie:n
123 →	Simon	ye:s=	ja:=

In line 116, Max self-selects and contributes with *above* (the opposite of the earlier *below*), accompanied by raising his hand. The teacher acknowledges his contribution by her *yes* in the first position and subsequently by rephrasing Max's contribution (line 118). This, then, she uses as the point of departure for characterising the book's perspective.

The teacher clearly introduces this characterisation in lines 120–121. After her response to Max' previous contribution in line 118, there is a silence of

0.3 seconds. Then, she links this to the upcoming, explicit instruction by her use of *yes* followed by a sentence starting with *because you look from...?* However, she restarts in line 120 by posing a question *you know how we also say that?* – possibly a pre-announcement that some instruction on the characterisation of the small towers will be forthcoming. However, the pupils’ contributions in lines 122–123 appear to be unrelated to the teacher’s question; this lack of relevant contributions indicates that the pupils suppose they are not expected to answer here.

In Excerpt (13) (lines 125–126), the teacher’s very quick response to her own question confirms that the pre-sequence did not serve as a question to the pupils, but as an announcement of an upcoming instruction.

Excerpt (13) Look up at it from down below, 125–132

Speaker	Transcript	Dutch original
125 → Teacher	=you look up at it from <do:wn> (0.4)	=je kijkt er van <o:nder af> (0.4)
126	below>	tegenaan>
127	(0.9)	(0.9)
128 → Rick	yes [because]	ja [want-]
129 → Dries	[when you-	[als je-
130 → Teacher	[and then it just ↑looks like	[en dan ↑lijkt het net ((wijst
131	((points at Tim)) what you said	naar Tim)) wat jij al zei, (.) of die
132	before, (.) as if those [little towers	[torentjes ↓heel ↑klein zijn
	are ↓very ↑small	

The instruction *look up at it from down below* (lines 125–126) is marked by a slowing down, a relatively long silence, and by stress on a part of the Dutch phrase *van onder af tegenaan* (*at it from down below*) – all indicating that this phrase is found to be important (something which was already indicated by the pre-sequence announcing this characterisation).

This emphasis on characterising the towers makes it plausible that Rick and Dries spontaneously, after a relatively long silence in line 127, start elaborating, in a discussion-like manner, on what they took to be as a statement requiring the pupils’ reactions (lines 128–129). Especially Rick’s turn is interesting in this respect, since the start of his turn (*yes because*) is typical for discussion contributions. However, the teacher interrupts them in line 130, and by doing so she takes control of the instructional framework. The fact that neither of the two pupils finish their started contributions indicates that they recognise that the *instructional* participation framework, not the discussion one, is relevant here.

With the teacher’s instruction (*looking up at it from down below*), the interaction concerning this page comes to an end. In the continuing interaction (Excerpt (14)), the teacher focuses, in line 133, on the illustration, as she did in the

beginning of the fragment as a whole. Her *you see* makes the children focus on the picture and stimulates a discussion (as also has been shown in the case of Excerpt (1)). We also see how Dries reverts to his utterance in line 135, taking it as a starting point to reopen the issue of the small towers. However, his contribution in lines 135–136 is even more interesting as a case of knowledge development. With this contribution, he ‘summarises’ what they have been discussing before: do the towers only seem to be small, or are they small in reality?

Excerpt (14) But that is not true, 133–141

	Speaker	Transcript	Dutch original
133 →	Teacher	=((looks at book)) you [see?	=((looks at book)) zie [je dat?
134	Rick	[I: said that	[dat zei I:k
135 →	Dries	[but that <is	[maar dat <is
136		not true>	niet waar>
137		(0.3)	(0.3)
138	Rick	I: said that=	dat zei i:k=
139 →	Teacher	=I <u>think</u> it is ↓not true	=het is <u>denk</u> ik ↓niet waar
140	Rick	°I: [said that°	°dat [zei i:k°
141 →	Teacher	[right exactly ((turns page))	[klopt precies ((turns page))

Dries complements the teacher’s contribution (lines 130–132 of Excerpt (13)) by adding *but that is not true* (lines 135–136). Doing so, he *demonstrates* acquired knowledge (Koole 2010) by displaying his understanding that the towers only *seem* to be small. While this indicates that Dries has learnt something, it should be noted, too, that no information is provided as to whether he understands why the towers look so small (*because we look upwards at it [the picture] from below*).

In line 139, the teacher responds to his contribution by uttering *I think* (with emphasis on *think*). Normally, this expression is used to display uncertainty, so this makes it look as if she too is uncertain about the book’s perspective. By doing so, she again acts like a regular, unknowing participant, just as she did during the *discussion framework* period. However, she immediately counters this impression by offering a clear positive evaluation in line 141, where she appears to revert to her behaviour during the period of the *instructional framework*.

Meanwhile, however, and in overlap with the teacher’s initial positive evaluation, yet another pupil, Robert, spontaneously takes a next step by hypothesising why the towers only seem small, but in reality are big (Excerpt (15)); doing so, he too acts like a discussant and *demonstrates* knowledge.

Excerpt (15) Ending of the fragment, 142–151

	Speaker	Transcript	Dutch original
142 →	Robert	[I know why that [tower	[ik weet waarom dat die [toren
143	Rick	[that said-	[dat zei-
144	Kris	beuh ((<i>sound with hands as a horn</i>	beuh ((<i>sound with hands as a horn</i>
145		<i>in front of mouth</i>))	<i>in front of mouth</i>))
146 →	Robert	is that bi:g=	zo groo:t is=
147	Rick	=I said that (.) not [Tim	=dat zei ik (.) niet [Tim
148 →	Teacher	[well	[nou
149		[we- we carry on further ((<i>turns</i>	[we- we gaan es even <u>ver</u> der ((<i>turns</i>
150		<i>page</i>))	<i>page</i>))
151	Robert	[(because) a giant lives in there	[(want) d'r woont een reus in erin

As did Dries, Robert too shows (lines 142 and 146) that he understands the essence of the fragment, namely that the towers are not small, but big. However, the teacher does not use this to re-open the discussion framework, but makes it clear that the interaction on the subject of the towers ends here. She does not respond to Robert, but turns the page, expressing verbally that now they will read on (lines 149–150), and actually starts to read the next page (not included in the excerpt). In this way, the fragment dealing with the small towers definitely comes to an end.

5. Conclusion and discussion

The fragment from the reading session discussed above serves as an example of the interaction that takes place during shared reading. In this interaction, the teacher takes an illustration from the book as her point of departure. She focuses the pupils’ attention on a particular topic: the small size of the towers, as shown in the picture. Our analysis of this fragment has uncovered two different participation frameworks for the pupils to participate in.

Initially, teacher and pupils participate in a *discussion framework*. The teacher contributes to this participation framework by the use of open questions, by creating room for complex contributions, and by not assessing the children’s contributions. Children adapt to this structure by spontaneously offering hypotheses on ‘why the towers look so small’, using the modality adverb *maybe*. These hypotheses are often built on previous contributions of other children, illustrated by contributions framed by introductions like (*yes*) *because*. That means that some children are really reasoning in this discussion framework.

However, the role of the teacher is still different from that of the children. Only the teacher is in charge of turn allocation; however, she does not necessarily do this in advance, but indicates who made an interesting contribution by looking at or pointing to the children during or after their turns. In this way, she is the only one who *acknowledges* the pupils' hypothesising; she assesses their contributions depending on suitability and interest and does this, amongst other things, by her facial expressions and her pointing. This indicates that the teacher does not completely withdraw from her traditional classroom role and participation status as teacher; rather, she extends her status to being a discussion leader within this discussion framework. In other words, she 'guides participation' (Rogoff 1990; 2003) to enable the pupils to discuss within their ZPD (*Zone of Proximal Development*; Vygotsky 1986).

In the participation framework following the discussion framework, the focus changes slightly to the terminology describing 'how come the towers look so small'. As we saw from the interaction, the teacher is in search of a specific expression for describing the perspective chosen in the book. She guides the pupils towards this expression within a participation framework that is best described as an instructional framework.

The pupils' participation in this *instructional framework* mainly consists in their coming up with short answers that can be characterised as non-hypothesising. The teacher's participation consists in working towards this characterisation during the interaction, by formulating *known-information questions*, by focusing on a specific phrase, by evaluating the pupils' contributions, and by paying special attention to what a particular pupil said during the discussion. Here, the teacher does not just lead the discussion, but guides the interaction step by step in an instructional manner.

What this shows is that pupils, even at this relatively young age and with little experience of an educational setting, contribute to, and participate in, different interactional structures. It further illustrates the pupils' understanding of interactional structures and confirms their "understanding in matters of education as outcomes", as Macbeth has expressed it (Macbeth 2011:4). Within the sociocultural perspective on learning in a school context, participation in classroom interaction is the first, important step towards learning content. The analysis of this fragment shows that even young pupils are able to negotiate this step in different frameworks.

This insight that learning is an interactional activity and that pupils' knowledge construction becomes visible by their participation in interaction is not new. In particular, pupils' participation in extended forms of interaction has been hailed as contributing to their construction of knowledge (e.g. Lee 2007; Nassaji and Wells 2000; Tabak and Baumgartner 2004; Wells 1993). In light of this, the

pupils' extended participation in the *discussion framework* during shared reading is expected to be especially promising.

However, the analysis of our fragment has also shown that it is not the discussion *per se*, but the combination of several frameworks that leads to solving the problem of 'why the towers look so small'. In other words, it is not the extended participation framework that by itself leads to potential knowledge development; rather, the instructional framework (based on the IRE structure) contributes to this in its own right.

The ensuing instruction in the IRE format starts from an already existing, joint point of departure. When the teacher starts her instruction with the words 'how we can also say that', the children have already turned their minds to the issue, as is clear from their verbal and non-verbal contributions during the discussion. Having struggled with the mathematical aspects of the problem, the children may be expected to be more receptive to a formulation of the explanation that is offered in a question-answer manner by the teacher.

The conclusion from our research is that the (IRE-formatted) instructional sequences in the context of a previous discussion are what provides the basis for a successful knowledge construction, as they allow the children to come up with their own questions, and their own solutions to the problem at hand. In this way, the soil is prepared to receive the instruction sequences that will bring the children up to the next level.

Acknowledgements

We thank Oskar Lindwall for his comments on an early draft of this paper. Additionally, we are thankful for the constructive feedback of two anonymous reviewers of *Pragmatics and Society* and all the help of the Editor-in-Chief, Professor Jacob L. Mey.

References

- Barnes, Douglas. 2008. "Exploratory Talk for Learning." In *Exploring talk in schools. Inspired by the work of Douglas Barnes*, ed. by Neil Mercer and Steve Hodgkinson, 1–15. London: Sage. DOI: 10.4135/9781446279526.n1
- Clark, Anne-Marie, Richard C. Anderson, Li-Jen Kuo, Il-Hee Kim, Anthi Archodidou, and Kim Nguyen-Jahiel. 2003. "Collaborative Reasoning: Expanding Ways for Children to Talk and Think in School." *Educational Psychology Review* 15 (2): 181–198. DOI: 10.1023/A:1023429215151
- Dickinson, David K., and Miriam W. Smith. 1994. "Long-term Effects of Preschool Teachers' Book Readings on Low-income Children's Vocabulary and Story Comprehension." *Reading Research Quarterly* 29 (2): 105–122. DOI: 10.2307/747807

- Elbers, Ed, and Leen Streefland. 2000. "Collaborative Learning and the Construction of Common Knowledge." *European Journal of Psychology of Education* 15 (4): 479–490.
DOI: 10.1007/BF03172989
- Fassnacht, Chris, and David K. Woods. 2004. *Transana* [computer software]. Available from <http://www.transana.org>.
- Furberg, Anniken, and Hans C. Arnseth. 2009. "Reconsidering Conceptual Change from a Socio-cultural Perspective: Analyzing Students' Meaning making in Genetics in Collaborative Learning Activities." *Cultural Studies of Science Education* 4: 157–191.
DOI: 10.1007/s11422-008-9161-6
- Goffman, Erving. 1981. *Forms of Talk*. Oxford: Basil Blackwell.
- Goodwin, Charles, and Marjorie Harness Goodwin. 2004. "Participation." In *A companion to linguistic anthropology*, ed. by Alessandro Duranti, 222–244. Malden, Mass.: Blackwell Publishing.
- Gosen, Myrte N., Jan Berenst, and Kees de Glopper. 2009. "Participeren tijdens het voorlezen van prentenboeken in de kleuterklas. Een pilot-study." *Toegepaste Taalwetenschap in Artikelen* 82 (1): 53–63. DOI: 10.1075/ttwia.81.06gos
- Gosen, Myrte N., Jan Berenst, and Kees de Glopper. 2013. "The Interactional Structure of Explanations during Shared Reading at Kindergarten." *International Journal of Educational Research* 62: 62–74. DOI: 10.1016/j.ijer.2013.06.006
- Greene Brabham, Edna, and Carol Lynch-Brown. 2002. "Effects of Teachers' Reading-aloud Styles on Vocabulary Acquisition and Comprehension of Students in the Early Elementary Grades." *Journal of Educational Psychology* 94 (3): 465–473.
DOI: 10.1037/0022-0663.94.3.465
- Gutierrez, Kris D., Patricia Baquedano-López, and Carlos Tejada. 1999. "Rethinking Diversity: Hybridity and Hybrid Language Practices in the Third Space." *Mind, Culture, and Activity* 6 (4): 286–303. DOI: 10.1080/10749039909524733
- Hutchby, Ian, and Robin Wooffitt. 1998. *Conversation Analysis*. Cambridge: Polity Press.
- Jefferson, Gail. 1984. "Transcript Notation." In *Structures of Social Action. Studies in Conversation Analysis*, ed. by John M. Atkinson and John Heritage, ix–xvi. Cambridge: Cambridge University Press.
- Jefferson, Gail. 1986. "Notes on 'Latency' in Overlap Onset." *Human Studies* 9: 153–183.
DOI: 10.1007/BF00148125
- Karlsson, Göran, Jonas Ivarsson, and Berner Lindström. 2013. "Agreed Discoveries: Students' Negotiations in a Virtual Laboratory Experiment." *Instructional Science* 41 (3): 455–480.
DOI: 10.1007/s11251-012-9238-1
- Koole, Tom. 2010. "Displays of Epistemic Access. Student Responses to Teacher Explanations." *Research on Language and Social Interaction* 43 (2): 183–209.
DOI: 10.1080/08351811003737846
- Koschmann, Timothy, and Curtis LeBaron. 2002. "Learner Articulation as Interactional Achievement: Studying the Conversation of Gesture." *Cognition and Instruction* 20 (2): 249–282. DOI: 10.1207/S1532690XCI2002_4
- Lave, Jean, and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511815355
- Lee, Yo-An. 2007. "Third Turn Position in Teacher Talk: Contingency and the Work of Teaching." *Journal of Pragmatics* 39 (6): 1204–1230. DOI: 10.1016/j.pragma.2006.11.003

- Macbeth, Douglas. 2003. "Hugh Mehan's "Learning Lessons" Reconsidered: On the Differences between the Naturalistic and Critical Analysis of Classroom Discourse." *American Educational Research Journal* 40 (1): 239–280. DOI: 10.3102/00028312040001239
- Macbeth, Douglas. 2004. "The Relevance of Repair for Classroom Correction." *Language in Society* 33: 703–736. DOI: 10.1017/S0047404504045038
- Macbeth, Douglas. 2011. "Understanding Understanding as an Instructional Matter." *Journal of Pragmatics* 43 (2): 438–451. DOI: 10.1016/j.pragma.2008.12.006
- Margutti, Piera. 2006. "Are You Human Beings? Order and Knowledge Construction through Questioning in Primary Classroom Interaction." *Linguistics and Education* 17 (4): 313–346. DOI: 10.1016/j.linged.2006.12.002
- Margutti, Piera. 2010. "On Designedly Incomplete Utterances: What Counts as Learning for Teachers and Students in Primary Classroom Interaction." *Research on Language & Social Interaction* 43 (4): 315–345. DOI: 10.1080/08351813.2010.497629
- McHoul, Alec. 1978. "The Organization of Turns at Formal Talk in the Classroom." *Language in Society* 7 (2): 183–213. DOI: 10.1017/S0047404500005522
- Mehan, Hugh. 1979a. *Learning Lessons: Social Organization in the Classroom*. Cambridge/London: Harvard University Press. DOI: 10.4159/harvard.9780674420106
- Mehan, Hugh. 1979b. "'What Time is it, Denise?': Asking Known Information Questions in Classroom Discourse." *Theory into Practice* 18 (4): 285–294. DOI: 10.1080/00405847909542846
- Mehan, Hugh. 1998. "The Study of Social Interaction in Educational Settings: Accomplishments and Unresolved Issues." *Human Development* 41 (4): 245–269. DOI: 10.1159/000022586
- Mercer, Neil. 1995. *The Guided Construction of Knowledge: Talk Amongst Teachers and Learners*. Clevedon: Multilingual Matters.
- Mercer, Neil, and Karen Littleton. 2007. *Dialogue and the Development of Children's Thinking. A Sociocultural Approach*. London/New York: Routledge.
- Mol, Suzanne E., Adriana G. Bus, Marta T. de Jong, and Daisy J. H. Smeets. 2008. "Added Value of Dialogic Parent-child Book Readings: A Meta-analysis." *Early Education & Development* 19 (1): 7–26. DOI: 10.1080/10409280701838603
- Nassaji, Hossein, and Gordon Wells. 2000. "What's the Use of 'Triadic Dialogue?': An Investigation of Teacher-Student Interaction." *Applied Linguistics* 21 (3): 376–406. DOI: 10.1093/applin/21.3.376
- Nicolopoulou, Ageliki, and Michael Cole. 1993. "Generation and Transmission of Shared Knowledge in the Culture of Collaborative Learning: The Fifth Dimension, its Play-World, and its Institutional Contexts." In *Contexts for Learning: Sociocultural Dynamics in Children's Development*, ed. by Ellice A. Forman, Norris Minick, and C. Addison Stone, 283–313. New York: Oxford University Press.
- Nystrand, Martin, and Adam Gamoran. 1991. "Student Engagement: When Recitation becomes Conversation." In *Effective Teaching: Current Research*, ed. by Hersholt C. Waxman and Herbert J. Walberg, 257–276. Berkeley, Calif.: McCurhan Publishing Company.
- Pantaleo, Sylvia. 2007. "Interthinking: Young Children Using Language to Think Collectively during Interactive Read-alouds." *Early Childhood Education Journal* 34 (6): 439–447. DOI: 10.1007/s10643-007-0154-y
- Pomerantz, Anita. 1984. "Agreeing and Disagreeing with Assessments: Some Features of Preferred/Dispreferred Turn Shapes." In *Structures of Social Action Studies in Conversation Analysis*, ed. by J. Maxwell Atkinson and John Heritage, 57–101. Cambridge: Cambridge University Press.

- Reese, Elaine, and Adell Cox. 1999. "Quality of Adult Book Reading Affects Children's Emergent Literacy." *Developmental Psychology* 35 (1): 20–28. DOI: 10.1037/0012-1649.35.1.20
- Reese, Elaine, Adell Cox, Diana Harte, and Helena McAnally. 2003. "Diversity in Adults' Styles of Reading Books to Children." In *On Reading Books to Children: Parents and Teachers*, ed. by Anne van Kleeck, Steven A. Stahl, and Eurydice B. Bauer, 37–57. Mahwah, N.J.: Lawrence Erlbaum.
- Rogoff, Barbara. 1990. *Apprenticeship in Thinking: Cognitive Development in Social Context*. New York: Oxford University Press.
- Rogoff, Barbara. 2003. *The Cultural Nature of Human Development*. Oxford: Oxford University Press.
- Sinclair, John McHardy, and Malcolm Coulthard. 1975. *Towards an Analysis of Discourse: The English Used by Teachers and Pupils*. Oxford: Oxford University Press.
- Sterponi, Laura. 2007. "Clandestine Interactional Reading: Intertextuality and Double-voicing under the Desk." *Linguistics and Education* 18 (1): 1–23. DOI: 10.1016/j.linged.2007.04.001
- Szymanski, Margaret H. 2003. "Producing Text through Talk: Question-answering Activity in Classroom Peer Groups." *Linguistics and Education* 13 (4): 533–563. DOI: 10.1016/S0898-5898(03)00003-2
- Tabak, Iris, and Eric Baumgartner. 2004. "The Teacher as Partner: Exploring Participant Structures, Symmetry, and Identity Work in Scaffolding." *Cognition and Instruction* 22 (4): 393–429. DOI: 10.1207/s1532690Xci2204_2
- Ten Have, Paul. 2007. *Doing Conversation Analysis. A Practical Guide*. London: Sage.
- Vygotsky, Lev S. 1978. *Mind in Society. The Development of Higher Psychological Processes*. Cambridge, Mass./London: Harvard University Press.
- Vygotsky, Lev S. 1986. *Thought and Language*. Cambridge, Mass./London: MIT Press.
- Wells, Gordon. 1993. "Reevaluating the IRF Sequence: A Proposal for the Articulation of Theories of Activity and Discourse for the Analysis of Teaching and Learning in the Classroom." *Linguistics and Education* 5 (1): 1–37. DOI: 10.1016/S0898-5898(05)80001-4
- Wenger, Etienne. 1998. *Communities of Practice. Learning, Meaning and Identity*. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511803932
- What Works Clearinghouse. 2007. *WWC Intervention Report: Dialogic Reading*. U.S. Department of Education: Institute of Education Sciences.
- Wiseman, Angela. 2011. "Interactive Read Alouds: Teachers and Students Constructing Knowledge and Literacy Together." *Early Childhood Education Journal* 38: 431–438. DOI: 10.1007/s10643-010-0426-9
- Wood, David, Jerome S. Bruner, and Gail Ross. 1976. "The Role of Tutoring in Problem Solving." *Journal of Child Psychology and Psychiatry* 17: 89–100. DOI: 10.1111/j.1469-7610.1976.tb00381.x

Picture book

- Grindley, Sally, and Peter Utton. 2001. *Sssst!* Amsterdam: Altamira Jeugd/Uitgeverij Sjaloom. (Dutch translation of Grindley, Sally and Peter Utton. 1999. *Shhh!* London: Hodder Children's Books.)

Appendix. Transcription symbols (based on Jefferson 1984)

[text	overlapping speech; point at which an ongoing utterance is joined by another utterance
=	break and subsequent continuation of contiguous utterances
(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)
-	halting, abrupt cutoff
↓	marked falling shift in intonation
↑	marked rising shift in intonation
°	talk that is quieter than surrounding talk
TEXT	talk that is louder than surrounding talk
<u>text</u>	emphasis
:	extension of the sound that follows (0.2 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
hhh	audible aspiration
·hhh	audible inhalation
(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
[...]	deletion of part of original transcript

About the authors

Myrte N. Gosen is an assistant professor at the Center for Language and Cognition Groningen at the University of Groningen, the Netherlands. She holds a PhD as well as an MA and a BA in Dutch Language and Culture from the same university. She defended her thesis entitled *Tracing learning in interaction. An analysis of shared reading of picture books at kindergarten* in 2012. Hereafter, Myrte N. Gosen worked as a researcher at the NHL University of Applied Sciences in Leeuwarden and as a lecturer at the University of Groningen, where in February 2013, she was appointed assistant professor. Her research interests include conversation analysis, language- and literacy development and learning. Currently, she is carrying out work to explore the interactional characteristics of (the development of) understanding of mathematics in primary education.

Jan Berenst is professor of Discourse & Learning at the NHL University of Applied Sciences in Leeuwarden, the Netherlands. Previously, he worked as a senior lecturer and researcher at the Center for Language and Cognition of the University of Groningen. He published (among other things) on intercultural communication, medical interaction, teacher meetings, classroom interaction, children's conversations, literacy development and language pedagogy. His recent

research relates to the role of classroom interaction in the process of children's knowledge construction, and concerns especially the characteristics of peer interaction in inquiry-based learning in schools.

Kees de Glopper is full professor at the Center for Language and Cognition Groningen at the University of Groningen, the Netherlands. He teaches courses in literacy, language education and research methodology. His research interests and international (and national) publications deal with literacy development, interaction and learning, reading and writing education and literacy at the workplace. He holds a BA in Dutch Language and Culture, an MA In General Linguistics and a PhD in educational research. Between 1980 and 2001 Kees de Glopper worked at the Kohnstamm Institute, the educational research centre of the University of Amsterdam, as a senior researcher and as full professor of Educational Sciences. In 2001 he was appointed full professor of Speech Communication and Discourse Analysis in the Faculty of Arts of the University of Groningen. Between 2006 and 2012 he was active as director of the Center for Language, Education and Communication (Etoc), the R&D centre of the Faculty of Arts.

Addresses for correspondence

Myrte N. Gosen/Kees de Glopper
University of Groningen
Center for Language and Cognition Groningen (CLCG)
Faculty of Arts, Department of Dutch
Oude Kijk in 't Jatstraat 26
PO Box 716, 9700 AS Groningen
The Netherlands
m.n.gosen@rug.nl, c.m.de.glopper@rug.nl

Jan Berenst
NHL University of Applied Sciences
Institute for Education and Communication
Rengerslaan 10
PO Box 1080, 8900 CB Leeuwarden
The Netherlands
j.berenst@nhl.nl

Corresponding author: Myrte N. Gosen, m.n.gosen@rug.nl