## Literacy, Language and Social Interaction in Special Schools

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#### **ABSTRACT**

The present study is a follow up study to a quantitative intervention study where two intervention programs, Reciprocal Teaching and Inference Training, were practiced. This study aims at capturing the potentials benefits and qualitative aspects of one of the programs evaluated, Reciprocal Teaching. More specifically, I have investigated the video recordings from the sessions included in the intervention program. Moreover, an analysis was made of transcriptions of talk, usage of strategies, and question types and distribution of learning opportunities. The study suggests that the findings challenge the common perception that reading comprehension is an impossibility for people defined as intellectually disabled.

#### INTRODUCTION

In 1842, the Swedish parliament introduced a four-year primary school for children, *Folkskola*. However, not all children had access to Folkskolan. The parliament found it important to be able to separate the children who seemed to be educable from those who did not. It was not until 1968 that uneducable children were allowed to attend school. Today schooling for children who are regarded as intellectually disabled is organized in a special form of school called *Särskolan*. According to Swedish law, Särskolan are for students who, due to intellectual disability, are assessed as unable to reach the academic level required in the compulsory school.

The education is adapted to the capabilities of every student and shall foster the growth of knowledge and values, contribute to personal development and social togetherness, and give a good foundation for active participation in society. It includes education in specific subjects or within subject areas, or a combination of these. The education can also include subjects in accordance with the curriculum of the compulsory school. The school is governed by the same comprehensive steering documents as the rest of the school system (Swärd & Florin, 2011).

#### **EDUCATION OR CARE?**

In a report the Swedish Schools Inspectorate (2010) expressed their deep concern when they observed the very limited effort made by special schools for the intellectually disabled to provide instruction in reading comprehension. Consequently, the special schools did not fulfill their societal responsibilities since reading is certainly the foundation upon which we must build well-being in our society. Not only is reading critical to learning all other subjects at school but reading also enables people to enjoy the full benefits of citizenship. A good reading ability opens the door to better living conditions, improved health, and expanded opportunities. It also empowers people to build more secure futures for themselves and their families (Lundberg, 2012).

Unfortunately, it is often assumed that students with intellectual disabilities will not be able to acquire necessary literacy competence for full participation in societal and professional life. This preconception of intellectual disabilities has been reflected in the instructional practice in special schools. Thus most instruction has been focused on the social, emotional and ethical aspects of the curriculum. However, this emphasis has simultaneously implied low intellectual aspirations and de-emphasis of traditional basic skills in reading and mathematics. The safety of intellectually disabled students has thus been perceived as an argument for not engaging in high aspirations and cognitively challenging instruction. However, this claim has to be challenged. There are reasons to believe that their cognitive potential is often seriously underestimated and that students diagnosed as intellectually disabled may have an unexpected capacity to understand written texts if they are given proper stimulation and instruction (Lundberg & Reichenberg, 2011).

Very few studies—none of them from Sweden—have been published on how reading comprehension can be improved among students with intellectual disabilities. Notable exceptions are studies by Varnhagen and Goldman (1986), Alfassi, Weiss, and Lifshitz, (2009) and van den Bos, Nakken, Nicholay, and van Houten (2007). These studies demonstrated the need of scaffolding in order to increase reading comprehension. Pressley (2002) defines scaffolding as:

The scaffolding of a building under construction provides support when the new building cannot stand on its own. As the new structure is completed and becomes freestanding, the scaffolding is removed. So it is with scaffolded adult-child academic interactions. The adult carefully monitors when enough instructional input has been provided to permit the child to make progress toward an academic goal, and thus the adult provides support only when the child needs it. If the child catches on quickly, the adult's responsive instruction will be less detailed than if the child experience difficulties with the task. (p. 97f)

In an initial quantitative study Lundberg and Reichenberg (2011) compared the learning outcomes and effects of structured text talks in which students with intellectual disabilities participated. Two programs were used. In one of them Reciprocal Teaching (RT), four reading strategies were practiced. The other program, Inference Training was used for comparison and control purposes. This program is a more teacher monitored model, where the main focus was on inference making (IT). (See the Reciprocal Teaching section below for a more elaborate description of the program.) However, the initial study did not capture the qualitative aspects of learning and teaching in text talk. More specifically, the initial study did not address how the four strategies in RT—initiating questions, clarifying difficult passages in the text, making predictions and summarizations—were performed in the classes. This highlights the importance of a follow-up study.

With relevance to the topic of this paper, the overall aim of this follow-up study was to investigate *if* the four strategies in Reciprocal Teaching (RT) can be used as scaffolding to encourage students with intellectual disabilities to make meaning from texts read. The two following research questions were focused on:

- 1. How did the teachers scaffold students' learning and how did the students respond?
- 2. How were learning opportunities in terms of talk distributed between the teacher and the students in RT?

# CO-CONSTRUCTING LITERACY, SOCIAL INTERACTION AND COLLABORATIVE ACTIVITIES

Reading is indeed a complex activity basically consisting of word decoding and comprehension. To be able to decode with automaticity students need to read constantly (Torgesen, 1982). Reading comprehension is the product of three factors: (1) texts with a high degree of readability, (2) the compatibility of the reader's knowledge and the text content, and (3) the active strategies the reader employs to enhance understanding and retention, and to circumvent comprehension failures (Palincsar & Brown, 1984).

Comprehension will increase if the texts read have a high degree of readability. That is, they follow a familiar structure and their syntax, style and clarity of presentation, and coherence reach an acceptable level. In other words, they are reader-friendly. From grade 4 on there is an increasing emphasis on expository texts in Swedish schools. These texts are not easy for the students to comprehend. Expository texts differ from narratives and make different demands on the reader: While narrative texts are personal and include such elements as theme, actors, plot and conflict, expository texts present facts, opinions, problem solving and are mostly impersonal (Lundberg & Reichenberg, 2009). Thus expository texts present the students with unique challenges because they often require the application of more complex cognitive operations in order to extract meaning during reading than is the case with narrative texts. Comprehension is also influenced by the extent of the overlap between the reader's prior knowledge and the content of the text. Then there are the strategies, processes for increasing comprehension and overcoming comprehension failures.

One dilemma is that many teachers seem to believe strongly that if students constantly just read texts silently by themselves, they will also become good at comprehending texts. However, there is no reason to believe that students will automatically discover how to read between the lines, clarify difficult passages in texts etc. They need to be instructed (Dole, 2003).

A second dilemma is that many teachers often assume that students will know exactly what to do when they are asked to 'discuss' a topic, or 'talk and work together' to carry out a talk or solve a problem. Students are left to somehow work out what is required and what constitutes good, effective discussion, but they rarely succeed in doing so. Consequently, group-based activities are only likely to be beneficial if certain conditions are met (Mercer & Howe, 2012). Without guidance, instruction, and encouragement from a teacher, many students may not gain access to some very useful ways of using language for reasoning and working collaboratively because those 'ways with words' are simply not a common feature of the language of their out-of-school communities (Heath, 1983; Slavin, 2009; Mercer & Howe, 2012).

During the last thirty years researchers have demonstrated the role of language and social interaction in the comprehension of texts. This interest relates to the function of language in both teacher-student encounters and in peer-group activities. There is a well-established field of research on teacher-student interactions in classrooms especially within the sociocultural field. Some of the studies have been concerned with the efficiency of teachers' interactional strategies for assisting students' learning and development (Beck, McKeown, Sandora, Kucan, & Worthy, 1996; Alexander, 2006, p. 28; Mercer, 1995, 2012; Slavin, 2009).

Research has demonstrated that instruction increases students' reading comprehension (for a review see Gajria, Jitendra, Sood, & Gabriell, 2007). Such instruction has taken several forms, including programs for structured text talk in the classroom (Palinscar & Brown, 1984; Beck et al., 1996; Saunders & Goldenberg, 1999; Santa, 2006; Reichenberg, 2008). Descriptions

of how students can learn through participation in collaborative discussions led by an adult can be traced to Vygotsky's notion of the zone of proximal development (Vygotsky, 1962).

In structured text talk the text is usually read segment by segment. Teachers segment the text in advance at the points where they expect their students to have difficulties. The students stop reading at these places and carry out a collaborative construction of meaning. Stopping to discuss an expository, as well as a narrative, text also allows the readers to consider different alternatives. Making meaning during reading gives students the opportunity to learn from one another, to question, and consider alternative possibilities, and to test their own ideas in a safe environment (Beck et al., 1996, p. 387; Palincsar & Brown, 1984).

This is very different from reading a whole text silently in the classroom and then discussing it. The latter way of reading assumes either that students have been able to make sense of the text on their own, or if they have encountered difficulties in the expository text they can articulate them when it is discussed in the classroom.

## **Reciprocal Teaching**

One program for structured text talk is Reciprocal Teaching (RT). RT refers to an instructional activity that takes place in the form of a dialogue between teacher and students regarding segments of text. The teacher and the students take turns assuming the role of teacher in leading this dialogue. RT is thus a group activity, in which students read a passage of expository text, paragraph by paragraph (Beck et al., 1996, p. 387; Palincsar & Brown, 1984). The dialogue in teacher-led small groups is structured by the use of the four strategies:

- (a) *Prediction:* This occurs when students hypothesize what the author will bring up next in the text. In order to do this successfully, students have to activate the relevant background knowledge that they already possess regarding the topic.
- (b) Generating Questions: When students generate questions, they first identify the kind of information that is significant enough to provide the substance for a question. They then present this information in question form and self-test to ensure that they can indeed answer their own question. This is an important strategy for active reading. Many students with comprehension difficulties read texts in a passive way, unaware that as readers they are expected to question what they read.
- (c) Clarifying: When the students are asked to clarify some aspects of the text, their attention is called to the fact that there may be many reasons why the text is difficult to understand (e.g. new vocabulary, unclear reference words, and unfamiliar and perhaps difficult concepts). This is an activity that is particularly important when working with students who have a history of comprehension difficulty. These students may believe that the purpose of reading is to say the words correctly; they may not feel particularly uncomfortable about the words, and in fact the whole passage, not making sense.
- (d) *Summarizing* provides the opportunity to identify and integrate the most important information in the text. Text can be summarized across sentences, across paragraphs, and across the passage as a whole.

The rationale for RT is derived from both developmental and cognitive theory and research. The strategies are examples of the kinds of cognitive activity that successful learners engage in while interacting with text (Palincsar & Klenk, 1992). There is nothing unique about the four strategies themselves. What is unique is the context in which these strategies are taught during the reciprocal teaching dialogues (Palincsar & Klenk, 1992; Bereiter & Bird, 1985).

Furthermore, RT is based on three theoretical principles that were prominent in the work of Vygotsky (1978).

First, the origins of all higher cognitive processes are first social; that is, mental functioning occurs first between people in social interactions. Second is the zone of proximal development (i.e., the distance between the actual developmental level and the level of potential development under adult guidance or in collaboration with more capable peers). The assistance provided the learner has been compared to scaffolding, in that both temporary and adjusted support is provided (see also Cazden, 2001). What RT does is that it tries to operationally define the metaphor of scaffolding by its four strategies. Third, psychological processes are acquired in contextualized, holistic activity, that is, the strategies are not broken into component skills, nor are they practiced in isolation (Palincsar & Klenk, 1992). RT is thus very structured. The researchers have demonstrated the need of structure for poor learners (Slavin, 2009; Chizik, Alexander, Chizik, & Goodman, 1993).

Since the introduction of the reciprocal teaching program (Palincsar & Brown, 1984) numerous studies have been conducted to examine its efficacy. These studies have revealed an improvement in the students' comprehension (Rosenshine & Meister, 1994, Lederer, 2000, Takala, 2006; Andreassen & Bråten, 2011).

## **Participants**

Participants were selected from four Swedish special schools. A total of 40 students, 26 boys and 14 girls ranging from 13 to 18 years old, participated in the initial study (Mean=15.3, SD=1.16). Half of them practiced RT and were selected from four Swedish special schools. All students were identified as mildly intellectually disabled (cf. AAMR, 2002). A few had additional diagnoses such as ASD, ADHD or Turner's syndrome. All volunteered to serve as participants in this study.

In the special schools, the students from grade 6 and onwards are not divided into separate classes but are all taught together in the same group. Before the study, the teaching of reading primarily included independent reading of self-selected books and materials with no explicit instructional ambition above stimulating the students to retell what they have read sometimes accompanied by informal discussions. Some teachers also read stories aloud to the students.

#### **Intervention Texts**

The students' comprehension was tested before (pretest) and after the intervention (posttest). The test instruments covered word recognition, sentence comprehension, fluency, reading comprehension of connected passages, and listening comprehension. The results demonstrated that students' comprehension increased significantly after the intervention. In the main study (Lundberg & Reichenberg, 2011) there is a detailed quantitative analysis of results on pre and posttest.

For the text talks twenty-two texts were selected to be read during the intervention. They were all rather brief, varying between 18 and 124 words in length. In the initial sessions the texts were basically narrative in nature whereas the later sessions had mostly expository texts. The expository texts were selected from an easy-to-read newspaper, called 8 *sidor* (8 pages). The passages included a wide range of topics. For example, "Experts want to increase the price of

candies and soft drinks", "Pigs were killed by boiling water", "A five year old boy was bitten by a dog", "Child soldiers in Sudan", "The schools on Haiti will be opening", and "Ships got stuck in the ice in the Baltic".

#### Procedure

Before the intervention started the author observed several lessons in the classrooms. In order to put theory into practice the author spoke to the teachers on several occasions about reading comprehension, texts readability etc. The teachers also received written information about RT. Without a theoretical understanding of reading comprehension and the different models available for enhancing reading comprehension, teachers are unlikely to retain or to use models effectively or reliably (Dole, 2003).

All students participated for 8 weeks in two weekly, 30-minute video-recorded sessions of text talks delivered to groups of 2-4 students at a time. Since the author wanted the students to feel safe with her the video recording only started in the third session. In accordance with Palincsar and Brown (1984) the author wanted to model text talks for both teachers and students. Consequently, the first five sessions were led by the author with the teacher beside her. Afterwards the text talk was discussed both with the teacher and the students.

The author sat beside when the teacher led some of the text talks and afterwards we discussed the outcome of the text talks. In accordance with Palincsar and Brown, Van den Bos et al. (2007), and Alfassi et al. (2009), one strategy at a time was introduced. In order to adapt the strategies four characters were introduced: the fortune-teller (predict), Curious George (initiate questions), Sherlock Holmes (clarify) and Lucky Luke (summarize) (Oczkus, 2006; Alfassi et al., 2009). The characters represented a concrete way of helping the students to understand the reading strategies.

## **Methods of Analysis**

The teachers' use of scaffolding was investigated by examining how they supported the students in their thinking and use of the strategies. To find out what type of questions the students asked the total number of 'why' and 'how' questions was calculated. Talking with the teacher and with other students is probably the most important means for ensuring a student's engagement in a series of activities (Mercer, 1995). The total amount of talk for the teacher and for all the students was therefore investigated.

## **Transcription**

In all the transcripts, standard punctuation has been used to represent the grammatical organization of the speech, as interpreted by the researcher. Non-verbal actions and other information judged relevant to the interpretation of the dialogue are presented in italics.

## **RESULTS**

The present study reports the results of the qualitative analysis in two sections. Firstly, the teachers' use of scaffolding and secondly the amount of talking time are presented.

## How did the teachers scaffold students' learning and how did the students respond?

Three of the seven teachers in the study practiced RT. Let us have a look how two of them scaffolded the students' learning. We will start with teacher Louise.

## **Segmentations**

Let us scrutinize the text below and see how the teacher has segmented it.

The Royal Wedding (segment 1)

The leader of the Left Socialist Party, Lars Ohly, does not want to attend the royal wedding of Crown Princess Victoria to Daniel Westling...

"I am against the monarchy. Consequently I think it would be wrong to accept the invitation" Ohly says. Nor will he or his party give the royal couple a wedding gift...(segment 2). The Social Democrats also want Sweden to be a republic... Mona Sahlin, leader for the Social Democrats will attend the wedding and will give the royal couple a wedding gift (segment 3) (8 pages).

The text comprises 124 words and the teacher Louise has done three segmentations. The segmentations have been done where she expects the students to have difficulties to understand. There is a lot of implicit information contained in the text, for instance we are not told: (a) why Lars Ohly does not intend to give the royal couple a wedding gift, (b) why he is against the monarchy, (c) why the Social Democrats are republicans or (d) why Mona Sahlin intends to give a gift. Let us have a look how teacher Louise starts with the first segment that contained only the heading.

Teacher Louise: Here is the heading. The Royal Wedding. What do you think this will be

about. ...

Philip: The Crown Princess.

Ronny: Yes exactly.

Teacher Louise: The Royal Wedding.

From the text excerpt above we can see how Philip and Ronny activate their background knowledge when the teacher asks them what they think the text will be about.

## Characters as Scaffolding

The teachers used the four characters symbolizing the reading strategies frequently. In the text excerpt below the teacher Louise uses Curious George to encourage the students to initiate questions.

Teacher Louise: Well, let us formulate Curious George questions.

Phillip: I want.

Nancy: Who will start?

Ronny: Why did not Lars Ohly accept the invitation?

Nancy: I have the same question.

Phillip and Linda: Me too.

Linda: You can get different answers to the same question.

. . .

Ronny: Why does Lars Ohly not want to give the Royal Couple a gift?

Phillip: Who will have your question?

Nancy: He opposes the Royal Family - so the text said- of course you can't give a gift

then. [*The teacher nods*.] Phillip: Maybe not a good idea.

Nancy: No, no. [She giggles.]

Phillip: That would not be nice to give a present without thinking they are worth having

one.

. . .

Nancy: Why are the Social Democrats opponents of the Royal Family?

Philip: Are everyone against them?

Let us have a look at teacher Louise's second group:

Jeremy: There are some names in the text I want to ask about.

Teacher Louise: Yes.

Jeremy: Is Lars Ohly leader for the Left Socialist Party in real life?

Teacher Louise: That is true.

Jeremy: Crown Princess Victoria is she really our princess?

Teacher Louise: She will succeed our King. She cannot become a king but she can

become a queen when our old king will retire or decease...

Jennie: Do you think it was good that anyone visited the Royal Wedding?

Jeremy: Yes. Robert: No.

Teacher Louise: More words, Jeremy.

Jeremy: Why? Good I think.

Teacher Louise: OK.

Jennie: Why did you say no?

Robert: Because she does not mean anything to Sweden. There are other persons that

mean more.

Teacher Louise: Who are the others? Robert: We pay for them with our taxes.

Teacher Louise: OK. Do you think they cost too much?

Robert: Then she wants to have a dress for 15 000 (Swedish crowns). What about if they

ask for more money?

...

Teacher Louise: Do you want to abolish the Royal Family?

Robert: Yes. I think they should change places during one month with a commoner to

realize how difficult it is to get enough money. Teacher Louise: What is your opinion about that?

Jennie: I don't think we shall abolish them. What do you think Anne?

Anne: I really don't know.

Teacher Louise: What about you, Jeremy? [And so they continue talking for a while.].

The students were very involved when they were talking and asked different questions. Some of them were really crucial to answer since the students had to read between and beyond the lines to be able to answer them. The students initiated so many questions that teacher Louise had to intervene. She realized the importance of having a balance in the text talk (Nystrand, 1997). Without balance there is a risk of "moving away from the text". In order to get a balance she said:

<sup>&</sup>quot;Let us return to the text". The strategy worked.

Philip: If the King has to abdicate. What then it?

Ronny: What about the Queen?

. . .

Lilian: He has been a king for far too long.

Nancy: The crown princess will have her birthday in July?

Teacher Louise: Let us return to the text.

Even when the students read a narrative text they initiated many questions.

Larry, 6 years old, is going by train to visit his grandmother and grandfather all by himself (segment 1). His mom has followed him to the train in Kristianstad, and grandmother going to pick him up from the train in Lund (segment 2). Larry was given a Donald duck comic to read and some candy for a snack. He enjoys the train trip, snuggling up in his seat and making it comfortable for himself (segment 3). Larry did not get off the train in Lund. (segment 4)

The text comprises 64 words and the teacher Caroline has done four segmentations. The first segmentation is done after the first sentence. Although it is a short text there is a lot of implicit information in it. We are not told (a) why Larry is going to visit his grandparents, b) where Lund and Kristianstad are situated, (c) why Larry is going alone, and (d) why Larry does not get off the train. However, there are clues in the text. Let us investigate how teacher Caroline used prediction.

Teacher Caroline: What do you think will happen in the story?

John: I think he will miss to get off in Lund. Teacher Caroline: Why do you think so?

John: Maybe he will fall asleep.

Geoffrey: My grandmother missed the stop when she went by train. ...

Teacher Caroline: Well, you think that he will go to sleep and miss the train. We will see

what is going to happen.

. . .

Let us now have a closer look at some of the questions the students initiated.

Jennifer: If Larry does not get off the train in Lund. Where does he get off then?

. . .

Geoffrey: How old is Larry?

Jim: Do you think Larry will get to his grandmother?

Geoffrey: No. He will fall asleep on the train.

Jim: I mean if he gets off at another stop. Will he get to his grandmother then?

The excerpt above indicates that the students found several gaps in the text and posed questions in order to obtain the missing information. Jim did not think that Geoffrey's answer was sufficient and he posed consequently a follow-up question. However, not all the missing information was elicited. Teacher Caroline used the strategy of reminding the students to provide some relevant knowledge from their own practical experience (c.f., Mercer, 2000).

Teacher Caroline: Do 6-year-old kids usually travel by train alone?

The strategy worked and there was a discussion about the necessity of getting assistance from the staff on the train.

*How many questions were initiated by the students?* 

An important step in the analysis has been to investigate the number of students' questions during the text talks. A question here means an utterance by the students that requires some kind of response from the students. Another step in the analysis was to investigate the number of *why* and *how*-questions. To be able to answer such questions the reader needs to read between and beyond the lines (c.f., inference questions [see Cain & Oakhill, 1999; & Reichenberg, 2008, for a further discussion of inferences]).

**Table 1.** Frequencies of 'Why' and 'How' Questions in RT Sessions

Texts	Number of Words	Questions
	in Text	
"Pam was out picking blueberries".	34	1(1)
"The schools on Haiti will be opening"	38	3(3)
"Ships got stuck in the ice in the Baltic"	50	1(2)
"Larry six years old goes by train"	64	2 (11)
"A five- year- old boy was bitten by a dog"	71	2(8)
"Pigs were killed by boiling water"	82	10(24)
"The Little Red Riding Hood"	83	8(19)
"The Royal Wedding"	124	9(25)

*Note.* Total number of questions in brackets.

From Table 1 can be seen that initially the students were a little careful and just asked a few questions. The first text talks were dominated by *factual questions*, where the students just have to retrieve information from the text to be able to answer the question. e.g., "How old is Larry?" (for a further discussion see Reichenberg, 2008). However, after some text talks they initiated many questions. Furthermore several of these questions were *why* and *how* questions.

## New words as scaffolding

New words (clarification). In previous studies the author has tried various strategies for dealing with unknown words. Letting the teachers ask whether the students understood all the words was unsuccessful, as they almost always answered that they had understood all the words, although we knew that this was not correct (Reichenberg, 2010). The author therefore suggested that the teachers asked: "Were there any new words in the text?" This strategy seems successful as the students in the text excerpt below said "opponent" immediately. The students managed to make out the meaning of the word by themselves.

Teacher Louise: Let us look at new words in the text. Are there any new words? ...

Ronny: Opponent. I want to know what that word means.

Nancy: That is a person you meet [in a football match].

Ronny: Yes. Philip: Really?

Nancy: The other team is your opponent.

Teacher Louise asks Ronny: Are you pleased with Nancy's explanation?

Ronny: Yes.

## Adverbs as scaffolding

Adverbs. According to the teachers the students found *summarizing* the most difficult strategy to use. However, Teacher Louise's scaffolding, repeating the words to use when summarizing, meant that the students managed to apply this strategy.

Teacher Louise: We have talked for a long time, now we will make a summary. When we summarize it will help to think: First that happened, then that happened and lastly that happened.

Anne: Firstly, he would not attend Victoria's wedding. Secondly, he will not give her a gift. Thirdly... The leader for the Social Democrats Mona Sahlin will attend the wedding.

Let us also have a look at how the students summarized in teacher Caroline's group.

Teacher Caroline: Let us do as Lucky Luke usually does: summarize the text with one or two sentences.

John: It is about Larry who goes by train to visit his grandmother and grandfather in Lund ... and goes too far.

Teacher Caroline: Geoffrey would you summarize in the same way as John?

Geoffrey: He should leave the train in Lund but he went too far and went to Denmark and then back to Sweden again.

John: I don't think he is capable of speaking Danish.

Teacher Caroline: Interesting and you concluded that much from these few lines.

This kind of summary where the students recap and reformulate is often used by teachers who are leading a talk (Mercer, 1995). Allowing the students to summarize means that they get used to consolidating what they have just read.

## How were learning opportunities in terms of talk distributed among the teachers and students in RT?

Talking with the teacher and with other students is probably the most important means for ensuring a student's engagement in a series of activities (Mercer, 1995). To find out this the total amount of talk for the teacher and all the students was investigated.

**Table 2.** Percentage of the available talking time for students and teachers during RT sessions.

Texts	Students	Teachers
"The Little Red Riding Hood"	53	47
"Larry six years old goes by train"	58	42
"Pigs were killed by boiling water"	56	44
"A five-year-old boy was bitten by a dog"	64	36
"The Royal Wedding"	62	38
"The schools on Haiti will be opening"	55	45
"Ships got stuck in the ice in the Baltic"	53	47
"Pam picked blueberries"	50	50

The even distribution illustrates that "thinking together" is "thinking together" and not an individual effort (c.f., Mercer, 1995; Mercer & Sams, 2006; Mercer & Howe, 2012).

## DISCUSSION AND SOCIAL AND PEDAGOGICAL IMPLICATIONS

The low readability of many expository texts underlines the importance of text talk in order to facilitate comprehension (Lundberg & Reichenberg, 2009). However, it has also been emphasized that text talk alone is not sufficient enough to facilitate comprehension. There is also a need for structure in the text talk (Mercer & Howe, 2012).

One of the research questions was "How did the teachers scaffold students' learning and how did the students respond?" The teachers segmented the texts. Thus the text was discussed before, during and after the reading. Dealing with a complex expository/narrative text in the course of reading may be particularly effective for poor comprehenders. The teachers reminded the students to use their prior knowledge to fill in the gaps in the texts, to look for new words and to keep to the text. The teachers' strategies scaffolded the students' comprehension processes by providing opportunities for them to reflect upon events and ideas, and to scrutinize connections as they are encountered in the expository text being read (see also Beck et al., 1996; Sandora, Beck, & McKeown, 1999; Slavin, 2009).

The teachers also consistently repeated the four strategies by saying "Let us ask some Curious George questions" etc. This probably helped the students understand the reading strategies and how to use them. Scaffolding helped the readers to accomplish a strategy which they would not have been able to use on their own.

Structured text talk is, of course, time consuming but the intention is to instill in the reader the competence to use the strategies on their own. By participating in text talk structured by the teacher, students will probably internalize the relevant strategies and use them on their own e.g. the processing carried out between students and the teacher in the group will also be carried out with individual students, in accordance with the Vygotskian view that individual cognitive development develops from participation in social groups (Vygotsky, 1962).

Previous RT studies have demonstrated that students have difficulties initiating "why" questions (Palincsar & Brown, 1984; Alfassi et al., 2009). However, this was not the case in this study. One explanation may be that the teachers encouraged Curious George questions. The results are in accordance with those of Alfassi et al. (2009). The participants in their study generated more relevant questions and manifested better summaries than the control group.

The second research question was: How were learning opportunities in terms of talk distributed among teachers and the students in RT? Letting the students talk is essential in text talk and the teachers in this study really let them do so. The distribution of speech was even. The findings also indicate the educational benefits of the sociocultural model of comprehension instruction for students with intellectual disability. They challenge the common perception that reading comprehension is an impossibility for people defined as intellectually disabled (c.f., Alfassi et al., 2009). Our analysis demonstrates that students with mild intellectual disabilities can be cognitively active, creative, and show commitment and that they can enjoy reading provided they are invited to do so by the use of appropriate texts and adequate teaching.

To sum up the results of the qualitative analysis indicate that students' possibilities to actively make meaning in text talk seem to depend on teacher's (a) frequently using scaffolding (b) encouraging students to make long responses (c) following up (e.g. recapping and eliciting the students 'answers or questions). It would be interesting to replicate this study with more intellectual disabled students and lengthening the duration of the study. It would also be particularly interesting to see if a longer training session produces higher performances in RT compared to control groups.

The study demonstrates that teachers need practice to be able to teach students reading comprehension. This emphasizes the need to focus on the teaching of reading comprehension in teacher education, and in particular teacher in special needs education, including reading strategies, metacognitive strategies and structured text talks involving fiction as well as expository texts, etc. This is essential as otherwise we run the risk of educating students to be uncritical and passive readers of textbooks and newspapers.

Students who cannot meet the demands made on them also run the risk of failing, both in school and later on in working life and society. This is why structured text talk may nourish a reading competence necessary to engage in societal matters. It also implies that schools have an alternative for supplying their students with adequate instruction and thus meet up to their responsibilities as a societal institution.

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