DIALOGIC SPACE IN NORWEGIAN EARLY-YEARS LITERACY EDUCATION

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Abstract

This study explores and analyses conditions for student participation in Norwegian Year Two classrooms. It is inspired by the concept of dialogic space (Wegerif, 2013) and by Segal and Lefstein’s (2016) model for the realization of student voice. Six classrooms were observed for one week. This yielded field notes and summaries from 105 lessons across all subjects and video data from all 47 Norwegian (L1) lessons. Our analyses show that there is practically no pair or group work and that station work is predominantly silent, leaving whole-class teaching as the most prominent space for dialogue. Our analyses aim to identify events in whole-class teaching with dialogic potential, i.e., where the interaction displays features that might indicate a shift from recitation to conversation (Nystrand & Gamoran, 1991). In these conversational events, we find increased teacher dominance when dealing with disciplinary content. When students are given the floor, the focus tends to be on non-disciplinary content. Students’ talk about texts and disciplinary ideas is suggested as a productive ground for creating dialogic space in early-years literacy education.

Keywords: early-years literacy education, student participation, student voice, dialogic space, classroom interaction
1. INTRODUCTION

Educational researchers and politicians worldwide increasingly acknowledge the need for changes in our approach to education, emphasizing student engagement and problem-solving skills needed for the 21st century (Pellegrino & Hilton, 2013). These current trends are well aligned with a long tradition of general progressive pedagogy (Biesta, 2013; Dewey, 1938; Freire & Macedo, 1987), and more specifically with a long tradition of research into the use of language in the classroom and dialogic aspects of education (Mercer et al., 2019). In this field of research, student participation is mostly associated with access to language (talk, writing, and other semiotic resources) as a key tool of thinking and learning. This emphasis on language is rooted in an understanding of learning as a process of interpretation and adaptation rather than transmitting knowledge (Barnes & Shemilt, 1974; Vygotsky, 1986). Bellack et al. (1966), inspired by Wittgenstein’s philosophy of language games, considered the classroom to be a particular game with particular roles for teachers and students. Hoetker and Ahlbrandt (1969) suggested that an appropriate name for this game was recitation, and the title of their article, “The Persistence of Recitation,” remains a meme in educational research (cf. Alexander, 2008, 2020).

Transmission-oriented teaching is closely related to the “persistence of recitation” which has been identified again and again (Alexander, 2008, 2020; Hoetker & Ahlbrand, 1969), whereas interpretation-oriented teaching entails substantially engaged students (Nystrand, 1997) talking to learn (Britton, 1969) and thus working on their understanding (Barnes, 2008) of the problem at hand. To open up dialogue (Nystrand, 1997) or to create dialogic space for authentic student participation (Wegerif, 2013), it seems wise for the teacher to establish a dialogic stance towards the students (Boyd & Markarian, 2011). These features of instructional discourse are generally acknowledged across research traditions as associated with student achievement (Klette et al., 2017; Nystrand, 2006). In Norway, the government’s engagement in educational practices over the past 20 years is increasingly aligned with the quest to change the rules of the game played in Norwegian classrooms. This study is motivated by a concern that we need to critically examine, understand and acknowledge the distribution of roles in everyday life of classrooms if we are to support a transition from the transmission game to the interpretation game in educational practice (cf. Barnes & Shemilt, 1974).

It is well known that the practices of schools and classrooms tend to be resistant to change (Cuban, 2013; Gage, 2009; Goodlad, 2004; Hoetker & Ahlbrandt, 1969). Also, new ideas introduced through curriculum reforms are often adapted to existing frameworks for understanding what education is and should be like (Argyris & Schön, 1978; Barnes & Shemilt, 1974; Postholm, 2012). Research into dialogic education has shown that even if teachers acknowledge the dialogic approach, they do not necessarily change their approach to teaching (Nystrand, 2006) or their understanding of knowledge and learning (Wilkinson et al., 2017). Large-scale implementation of dialogic principles for teaching has tended to result in a superficial emphasis on talk in
itself (Lefstein, 2008; Segal & Lefstein, 2016), which does not represent a substantial step away from the persistence of recitation.

In Norway, the recent history of curriculum reforms contains similar instances of deep ideas being poorly grounded. A 1997 reform extended compulsory schooling from 12 to 13 years by having children start school at the age of six instead of seven. The new Year One was meant to transition between kindergarten and school proper, making space for both pedagogical traditions. An overarching idea was play-based learning. However, following results on international educational assessments at the beginning of the new century, the Norwegian educational discourse in most fields (public debate, politics, and even research) turned abruptly away from letting the idea of play-based learning mature towards ensuring the acquisition of competencies and literacies for future participation in society and working life. A 2006 curriculum reform entitled “The Knowledge Promotion” (Kunnskapsløftet) focused on five basic skills (reading, writing, arithmetic, digital skills and oral skills) across all disciplines, and competence aims connecting skills with disciplinary content. Specifically, oral skills were linked to opportunities for students to create meaning through conversation, speaking and listening. It was explicitly stated that an important aim of the Norwegian L1 subject was to provide students with the opportunity to find their voices, speak their minds, be heard, and be answered (Utdanningsdirektoratet, 2006).

Despite this focus on basic skills, however, researchers have shown that teachers' conceptions of such skills remained rather shallow (Hertzberg, 2009) and that the focus on oral skills tended to manifest itself mainly in the use of Microsoft PowerPoint-assisted presentations (Svenkerud, 2013) as a basis for assessment. Moreover, studies of Norwegian classrooms following the curriculum reforms of the past two decades have shown that almost two-thirds of the time is devoted to whole-class teaching (Hodgson et al., 2012). Moreover, teachers talk for approximately two-

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1 Norway has participated in major international school assessments since the 1990-ies: TIMSS since 1995 (Trends in International Mathematics and Science Study for 10- and 15-year-olds); PISA since 2000 (Programme for International Assessment of Student Achievement, targeting reading, mathematics and science among 15 year olds), and PIRLS since 2001 (Progress in International Reading Literacy Study, for 10 year olds). Especially PISA has had a major impact on public debate and education policy. The results from the first PISA assessment were released in 2001, and Norwegian students did worse than expected. This has since been referred to as the Norwegian “PISA shock”. Also the PIRLS and TIMSS assessments showed weaker results for Norwegian students than expected. The international studies were largely the rationale for the introduction of national tests of basic skills in 2004, a curriculum reform in 2006, and substantially increased governmental engagement in school development. The shocking news in 2000 was that Norwegian students appeared to be around the average. Since the beginning of the century, Norwegian results have risen steadily for primary school (see TIMMS, and also PIRLS, where Norwegian 10-year-olds in 2016 ranked as 8 out of 50 countries). For lower secondary school, Norwegian students perform above average in reading (PISA), but still around the international average in mathematics and science (TIMSS).
thirds of the time (Klette, 2003)—indicating that two of the “two-thirds rules” suggested by Flanders’ (1963) still apply. After the 1997 reform, researchers sensed a shift towards more collaborative activities and a corresponding shift in the dialogic climate (Aukrust, 2003). Ten years later, after the 2006 reform, researchers identified the large amount of whole-class teaching as a potential space for student participation in Norwegian classrooms. But they also observed a “lack of depth” in whole-class teaching (Hodgson et al., 2012, p. 16), which they associated with the plethora of competence aims in the 2006 curriculum. A pilot to the present study, carried out in the same classrooms in Year One (Skaftun & Wagner, 2019), suggests a paradoxical contrast between the oral practices of kindergarten and school: whereas kindergarten tends to explicitly support activities where students actively use oral language, initial schooling seems to implicitly support activities where students actively listen to their teacher.

Over the past two decades, education authorities have become increasingly engaged in forming educational practice. National campaigns on reading and basic skills in general (Utdanningsdirektoratet, 2003) were followed by a series of large-scale efforts supporting school completion (Kunnskapsdepartementet, 2013) and student motivation (Kunnskapsdepartementet, 2008), and there is a growing tendency to organize developmental programmes addressing the professional communities as learning organizations (Kunnskapsdepartementet, 2017; Utdanningsdirektoratet, 2012). In recent years, several reports and white papers (Kunnskapsdepartementet, 2014, 2015, 2016) have been published as part of the preparations for a reform implemented in the autumn of 2020, entitled “The Renewal of the Disciplines” (Fagfornyelsen) (Utdanningsdirektoratet, 2020) This reform highlights the professional community as a space for continuous development of practice towards deep learning, critical thinking, and explorative activities in the disciplines and in relation to a set of highly relevant cross-disciplinary themes or problem areas. In addition, this reform is framed by a new decentralized strategy to support school-based professional development (Kunnskapsdepartementet, 2017), which emphasizes partnerships between the school sector and higher education. All of this suggests that student participation and engagement in disciplinary practices are key values and overarching aims of educational practice. Teachers generally seem to acknowledge the language and ideas of the new curriculum. Still, the big question is how the new curriculum will affect the deeper structure of social practice (Van Leeuwen, 2008) in Norwegian classrooms and, more specifically, conditions for student participation (cf. Van Leeuwen, 2008).

As curriculum reforms increasingly adapt to progressive ideas and concepts, the gap between policy and reality may grow. To bridge this gap, we need detailed knowledge about the practices (Van Leeuwen, 2008) of real-life classrooms, conceived of as social structures, i.e., as a dynamic interplay between roles, activities, settings, and resources (Ivanic, 2009; Van Leeuwen, 2008; Wagner et al., 2020). More specifically, we need to explore and understand what roles are available for teachers and students (Barnes, 1990; Nystrand, 1997) and what eligibility conditions for
participation (Van Leeuwen, 2008) apply to teachers and students. Such knowledge is essential as a basis for realistic approaches (cf. Lefstein, 2010) to making fundamental changes in classroom practices, which is an explicit goal of the new Norwegian national curriculum.

This study explores and analyses conditions for student participation in whole-class interaction in six Norwegian Year Two classrooms. Our research questions are inspired by the concept of dialogic space (Wegerif, 2013) and by the model of Segal and Lefstein (2016) for the realization of student voice:

- How much time/space is there for student talk during one week in six Norwegian Year Two classrooms?
- What kinds of talk are available in the L1 subject for Norwegian Year Two students?
- What are students given the opportunity to talk about in interactional sequences that displays a potential for dialogic participation?

The study takes as its starting point a socio-cultural understanding of language as a system for higher-order thinking and teaching (Vygotsky 1978, 1986). Student participation in educational practices is largely determined by the conditions under which students can talk to learn (Britton, 1990) or to work on their understanding (Barnes, 2008), using spoken language as a key tool for thinking and learning (Barnes, 1990; Mercer, 2000; Vygotsky, 1986; Wegerif, 2016). We understand the use of spoken language in the classroom as a dialogic space of opportunity (Wegerif, 2013) where the student can develop their voice (Segal & Lefstein, 2016). Our analytical approach and discussion draw inspiration from the model of Segal and Lefstein describing four conditions for realizing the idea of the voice in the classroom: (1) having the opportunity to speak; (2) being able to express one’s ideas; (3) being able to speak on one’s terms; and (4) being heeded by others (Segal & Lefstein, 2016). Our analysis narrows in on organizational forms that provide opportunities for student talk and the distribution of spoken words within this space (condition one in the model). We then explore types of talk and ideational content in conversational sequences interpreted as displaying dialogic potential (conditions two and three in the model). Finally, our conclusions relate to the four conditions of Segal and Lefstein’s model.

2. METHODOLOGICAL CONSIDERATIONS

2.1 The Seaside case

The present study is part of a comprehensive qualitative case study of early literacy practices in Norwegian co-taught L1 classrooms (Year One and Year Two), involving six out of nine schools in one municipality, referred to as “Seaside.” The Seaside case was initiated as part of a large RCT study of the effects of an increased teacher-student ratio called Two Teachers in the Class (Solheim et al., 2017). It is conceived of
as an embedded case (Yin, 2009), supporting the generalizability of aggregated results from different classrooms. The municipality is a relatively wealthy one, and none of the six schools display features associated with economic struggles. As such, our embedded case concerns relatively privileged Norwegian schools. However, the population is in line with the national average concerning educational level and percentage of immigrants. Beyond well-maintained school environments, we see no apparent reasons to consider the schools involved extraordinary in socio-economic status. The Seaside case and its link to the RCT project are discussed in greater detail in the case protocol (Wagner et al., 2020).

The number of students in the six classes involved ranges from 14 to 20, with an average class size of 18 students. During the L1 lessons, two teachers were teaching the class (with a few exceptions due to sick leave). Generally, the two teachers were both present in the classroom for approximately 55% of the time. During the remainder of the time, one of them was outside the classroom with a group of students or individual students, typically to support students in need of extra help. When we were collecting data in the spring of 2018, having two teachers in a class was considered an extreme case as well as a critical case (Flyvbjerg, 2006) being tried out. In the following semester—autumn 2018—a new national “teacher norm” was implemented, with a higher teacher-student ratio and having more than one teacher teach a class, something that was expected in the new everyday life of Norwegian primary school (Years One–Four). As a result, our sample of classrooms with two teachers during L1 lessons became far more representative of Norwegian classrooms in general. How teachers use the extra teaching resource increasingly available to them is an interesting question that will be explored elsewhere.

2.2 Methods of data collection

Six researchers were involved in data collection in the spring term of 2018. Observations took place during January and February, except for one class (C5), where the observations were delayed until May. Each researcher spent a whole week in one of the six classrooms, given that the week represents an important contextual reference during single lessons as well as a meaningful unit of time at primary school. The general approach was that of participant observers; the degree of participation varied based on communication with the teachers of each class. As observers, we placed ourselves in the back of the classroom. When activities took place outside the primary classroom, we moved between activities to understand what was going on. In Year Two, we observed a total of 105 lessons in different subjects, 47 of which were L1 lessons. The six researchers wrote field notes from each lesson except lessons in subjects taught outside the regular classroom, such as P.E., arts and crafts, music, and “outdoor education.” We based the field notes on a template containing

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2 The norm specifies group size as an indicator of the teacher-student ratio; the maximum group size for Years 1–4 is 15 students.
fixed categories to be tagged for each event alongside a box for time codes and separate columns for description and interpretation (cf. Appendix 1). “Events” were conceived of as delimited by activity shifts. An event may contain more than one episode, as in the typical case where teachers address the whole class with information during individual seat work for examples. Within the event’s time frame, the duration of such episodes can be estimated from the descriptions. A new table was filled out for each new event in the classroom, providing a meaningful sense of time flow and a useful tool in the subsequent coding process. At the end of each school day, each researcher wrote a narrative summary, adding impressions, thoughts, and reflections of a more holistic nature that might have been difficult to record during observation, and also commented on a number of pre-determined key focal points (cf. Appendix 2 for the narrative summary template). Elaborate descriptions and discussions of this procedure and the templates for field notes and summaries can be found in the project protocol (Wagner et al., 2020).

In addition to the field notes and narrative summaries, we recorded the 47 L1 Norwegian lessons using two cameras: one positioned in the back of the primary classroom, capturing the students and the teacher(s), and one in the room for outside-classroom activities involving one of the teachers and one or more students. We recorded the sound of the whole-class interaction through the camera microphone and recorded each of the teachers using individual microphones. All recordings of L1 lessons, both from the primary classrooms and from adjacent rooms, were transcribed verbatim, following a simplified version of Jefferson’s transcription key (cf. Atkinson & Heritage, 1999).

2.3 Analytical approach

We analysed the material in NVivo 12 through a stepwise shift from descriptive to interpretative categories aiming to identify what we refer to as dialogic potential. We used this term as a heuristic tool which guided data reduction and allowed us to focus on sequences where student participation went beyond listening and giving short answers. All coding was performed by researchers working in pairs and reaching agreement through discussion. Table 1 provides an overview of the three main steps of our analytical procedure.

| Table 1. Organization of analysis |
|----------------------------------|
| Step 1: Forms of organization across subjects and in L1 | Step 2: Distribution of speech and types of talk in L1 (whole-class teaching) | Step 3: Conversational themes in L1 (whole-class teaching) |
| Whole class | Narrative sharing | Texts |
| Individual work | Conversation | Textbook questions |
| Station work | Recitation | Evaluation |
| Work in pairs | Formalized talk | Personal experiences |
| Group work | Teacher dialogue | Situational context |
The first step of the analysis was to examine how time was distributed—across all 105 observed lessons in all subjects—among the major forms of organization or classroom work: whole-class teaching, individual (seat) work, station work, work in pairs, and group work. The field notes’ design allowed us to manually sum up time for whole events and make more fine-grained estimates of the time taken up by individual episodes within events.

Second, we narrowed in on the events in which students might talk, limiting—for reasons that will become clear below—our analysis to the 47 filmed L1 lessons and whole-class activities. In the transcriptions, we identify students as boys (B) or girls (G). Identifying individual students in whole-class interaction was not possible. We have chosen to distinguish between boys and girls, which allows careful investigations into gender differences. These distributions are not addressed in the article but are made available in detailed overviews in appendices. We identify the teachers as homeroom teachers (T1), who taught most lessons to the class, or co-teachers (T2), who led only L1 lessons, together with T1. All transcriptions were auto-coded for speaker cases in NVivo. NVivo provides overviews of the number of turns and cover-age based on word count. With a few caveats (differences in speech tempo, etc.), the distribution of words can provide a meaningful clue about how speech time is distributed. In our analysis, we therefore consider the distribution of words as indicative of speech time.

To further identify sequences with a dialogic potential within whole-class teaching, we developed a set of six types of talk. We adapted the categories from the framework of Alexander (2008) based on specific features of the present data.

1) Narrative sharing (student dominance)
2) Conversation (teacher and students)
3) Recitation (instruction involving students)
4) Formalized talk (including reading aloud and singing)
5) Dialogue between teachers (in the classroom)
6) Instruction (teacher dominance)

Formalized talk and teacher dialogue (categories 4 and 5) are based on our data. Formalized talk (category 4) is associated with reading aloud and singing. It resembles Alexander’s category rote, but it lacks the drilling of facts and learning by heart characteristic of rote. Whereas Alexander’s set of categories only include dialogic relations between teacher and students or between student peers, teacher dialogue (category 5) is a phenomenon that is possible when there is more than one teacher in the class. It is a rare phenomenon in our classrooms, but it does occur, and it seems like a powerful tool for teachers to renew classroom interaction. Narrative sharing (category 1) is an important kind of talk for learning in Alexander’s framework and a speech genre we expected to be prominent in early-year classrooms. In our set of six types, it also represents an extreme end on a scale from student dominance to teacher dominance. At the other end of this scale, we find teacher instruction (category 6). Recitation (category 3) involves well-known forms of scripted dialogue, where the student responds to the teacher’s initiative, and the teacher provides
feedback or evaluation (the IRE structure of recitation, cf. Mehan, 1979). Alexander makes a further distinction between discussion and dialogue proper in his framework, as categories rarely found in classrooms. This is also the case in our six classrooms. Therefore, in order to grasp dialogic qualities, we included a category for sequences with conversational features (category 2, conversation). The choice of term is inspired by Nystrand and Gamoran’s article (1991) exploring “when recitation becomes conversation.” These conversational sequences were further subjected to close reading (field notes and summaries as well as the video recordings of these sequences).

Our approach was inclusive concerning student participation. If the students were silent, we coded the event as teacher instruction. If a question was put to the students, we coded the event as recitation. Sequences where students were singing or reading aloud in plenary were coded as formalized talk. In some of the classrooms, the teachers gathered the students in a semi-circle, and at times students were invited to share their experiences from the weekend or from the winter vacation (which had taken place just before the observation week). However, the teacher often took centre stage and gave the floor to many different students, permitting them to make short rejoinders rather than offering them an open space for narration. Such events are coded as conversation. Sequences with dialogic qualities that go beyond answering a question from a teacher are also coded as conversation. Hence conversation is a heterogeneous category, but it allows us to identify dialogic potential in whole-class interaction.

In the third and final step of our analysis, we focused on category 2: conversation. Through a close reading of the transcripts and video recordings of the sequences in question, we identified five themes in these sequences: the teachers and students talked about (1) texts, (2) personal experiences, (3) textbook questions, and (4) situational context, and on one occasion (5) students participated in peer evaluation during a whole-class session. Our analysis examined the distribution of speech within these themes and across the disciplinary and experiential domains.

We direct our analyses towards dialogic aspects of interaction across the six classrooms. Differences between the six classrooms will be displayed in appendices as a source of critical scrutiny of the results on an aggregated level.

3. RESULTS

3.1 Forms of organization

Teachers and classrooms are different, and so is the flow of time in various subjects and classrooms. The distribution of organizational forms varies a great deal between the six classrooms in the Seaside case. A detailed overview of the distribution in the six classes can be found in Appendix 3. These differences are interesting in themselves, but they fall outside the scope of this article. Table 1 below shows the aggregated numbers for time spent in the different forms of organization in all observed
disciplines combined as well as in L1 Norwegian alone. “Other” in the right-hand column mainly refers to time devoted to entering and leaving the classroom.

Table 2. Forms of organization in observed lessons, year two (% of the observed time)

| Lessons observed (n) | Whole class % | Individual work % | Stations % | Pairs % | Group % | Other % |
|---------------------|---------------|-------------------|------------|--------|---------|--------|
| All subjects        | 105           | 50                | 29         | 13     | 2       | 0      |
| L1                  | 47            | 42                | 33         | 18     | 1       | 0      |

We see that whole-class teaching accounts for a little less than half of the time across disciplines (42%) in L1. Approximately one-third of the time is devoted to individual seatwork: 29% across all disciplines and 34% in L1. The rest of the time is mainly used for station work (13% across subjects and 18% in L1). Pair work does occur, but not often and with little emphasis on explorative talk. A typical activity in pairs involves “learning buddies” reading aloud to each other. The few episodes resembling explorative talk are typically given a minimal time frame (e.g., “now you will have 20 seconds to tell your learning buddy everything you know about wolves”). Neither students nor teachers seem to expect these activities to have a clear purpose. During individual seat work, teachers assist those who ask for help. Our video data from the L1 classrooms do not allow us to systematically analyse these teacher-student interactions since the teacher microphone does not always capture what the students say. In general, however, these encounters are short and geared towards answering questions about assignments, and the teacher is the one who does most of the talking. We find two episodes of guided reading during station work and one where teachers address how students think when solving mathematical problems. There are also some stations for construction work and for playing games, but the predominant feature of station work is individual work. These findings are the reason for our focus on whole-class teaching in the next steps of our analysis. In what follows, we will also narrow the scope to L1 lessons, where we have also transcribed video data to support a more detailed analysis of the distribution of speech in the classroom.

3.2 Distribution of speech and types of talk in L1 whole-class teaching

Speech turns are distributed relatively equally between teachers and students (see table 3): 54% are produced by teachers and 46% by students. However, another important aspect of classroom interaction is speech time, for which we use the distribution of words spoken as a proxy. In our six classrooms, teachers talk for 78% of the time in whole-class activities, while students talk for 22% of the time (see Appendices 4 and 5 for more detailed overviews). On average, teacher-turns contain 20 words, while student-turns contain seven words.
Table 3. Speech distribution in L1 whole-class activities

| Speech turns (%) | Words spoken (%) | Words per speech turn |
|------------------|------------------|-----------------------|
| Teachers         | 54               | 78                    | 20                    |
| Students         | 46               | 22                    | 7                     |

We further wanted to see how different types of talk were distributed in whole-class teaching. Table 4 displays the results for the L1 subject, based on field notes from the classroom observation.

Table 4. Types of talk in L1 - Percentage of observed time

| Types of talk       | Percentage of observed time |
|---------------------|----------------------------|
| 1 Narrative sharing | 2.0%                       |
| 2 Conversation      | 18.5%                      |
| 3 Recitation        | 28.6%                      |
| 4 Formalized speech | 17.9%                      |
| 5 Teacher dialogue  | 1.2%                       |
| 6 Instructions      | 31.7%                      |

Instruction and recitation together take up approximately 60% of the whole-class interaction. Teacher dialogue is an interesting phenomenon, but it is rare. Similarly, the time devoted to students’ sharing of narratives is quite limited. In 18% of the whole-class time, students take part in singing or reading aloud. Words quoted in formalized speech are not consistently transcribed verbatim (typically rendered instead as “singing” or “reading aloud”). Hence this category is under-represented in the word count (cf. Appendix 4), making the field notes a more adequate source for estimating the time spent on the various types of talk. Finally, a little over 18% of whole-class time is devoted to conversation and thus represents a potential for dialogic interaction, which is what we aim to identify and explore in this article.

3.3 Ideas in L1 conversations - what do teachers and students talk about?

A close reading of the whole-class interaction coded as conversation shows that the topics or themes of those conversations can be broken down into five categories. Table 5 shows the distribution of time across those themes (cf. appendix 7 for a more detailed overview).

The largest thematic category—both in terms of the number of episodes and in terms of coverage—in the interaction with a potential for dialogue is text talk. It should be noted that this refers to text talk with dialogic potential, not text space. In general (appendix 7 shows that this category does not occur in C1 and C2. Such conversation mainly occurs in pre-reading activities intended to activate prior knowledge through discussions about titles, images, and word meanings (cf. Skaftun, 2016).

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3 Appendix 6 shows the results for L1 and across subjects based on time codes in the field notes. The pattern of distribution across all subjects is similar to that observed for L1. We have also added the distribution of words across the different types of talk. The main tendencies concerning teacher dominance and dialogic potential (category 2, conversation) are confirmed.
2020). There are also a few episodes of conversation during reading and after reading. In one case, the students have a lengthy discussion about the relationships at play in a text called “Best friends.” In another case, the students, having just read a text about dogs, discuss why dogs do not walk on two legs more often. Finally, in one of the classrooms, students have been writing about their winter holiday throughout the week. On Thursday, after they have handed in their texts, the teacher reads some of them aloud after obtaining their permission to do so, and then she lets the students comment on them.

Table 5. Distribution across themes in whole-class conversation in L1 (number of episodes and % of words spoken)

|               | 1 Text | 2 Personal experience | 3 Textbook questions | 4 Situational context | 5 Evaluation |
|---------------|--------|-----------------------|----------------------|-----------------------|--------------|
| Episodes      | 18     | 3                     | 8                    | 6                     | 1            |
| Coverage (%)  | 54.1   | 22.8                  | 12.0                 | 9.8                   | 1.3          |

The second-largest category includes conversations where the classroom talk turns to *personal experiences*—sometimes related to the discipline, sometimes not. This typically happens during circle time at the start of the school day. Conversations like these are teacher-led and addressed to many students instead of the space for the single-student narrative that characterizes sharing time. The third-largest category contains questions related to textbook assignments that come up during (the introduction to) individual work, such as the following: “Is the dolphin a fish?”; “What is a fact?”; “Is ‘quiz’ a Norwegian word?” The fourth-largest category contains talk about situations in and outside the classroom. Finally, we observed an episode where students were invited to comment on their fellow students’ work after a text was read aloud to the class. This activity is introduced as “handing out stars,” an established metaphor in the classroom for providing feedback.

Within these thematic categories, we examined the distribution of speech among teachers and students. Table 6 shows the teachers’ and students’ respective shares of the conversations in the five thematic categories (cf. Appendix 7 for a more detailed overview).

Table 6 shows that the students are substantially more active in conversational activities (approximately 35%) than in whole-class interaction in general (22%; cf. Table 3 above). This tendency is most prominent for events where the talk turns towards personal experience. In this category, 41.5% of the words spoken are uttered by students. Students also take up significantly more discursive space in conversations about situational contexts and evaluation than they do in whole-class interaction generally. However, when the conversation is about texts or textbook questions, we see that the teachers dominate in a way that resembles the distribution of speech in whole-class teaching in general.
4. DISCUSSION

Our focus in the present study has been on opportunities to talk and specifically on the kinds of talk that students can engage in during a week in Norwegian Year Two classrooms. We started with the assumption that different organizational forms create different conditions for students to engage in disciplinary activities. Our analyses show that work in groups and pairs is almost non-existing in our six classrooms. The low numbers are consistent with the most recent large-scale study of Norwegian classrooms (Hodgson et al., 2012). This study shows that more time is devoted to working in pairs and groups as the students grow older, which indicates a pattern in which the space for student talk is regulated as a matter of maturity. Such a pattern is consistent with an overall experience from our fieldwork in both Year One and Year Two, that there is not much focus on making space for student talk. There are differences between the classrooms in that the occurrences of work in pairs are limited to a few classrooms, whereas it does not occur at all in other classrooms. But the overall picture remains that student talk in independent settings is strictly regulated or “scripted” (Gutierrez et al., 1995). If we but for a moment accept this perspective on oral participation as a matter of maturation through early years and further into secondary school, a striking contrast compared to the practices of Kindergarten appears (Skaftun & Wagner, 2019). In Kindergarten, oral participation is by far acknowledged as an essential resource for language development and also an essential aim in itself. Conceiving early years in school as a transition between the predominantly oral practices of early childhood and the literacy practices of school suggests considering oral participation as an important part of early schooling. It represents a meaningful bridge between the practices of Kindergarten and an essential learning resource on the verge of literacy, i.e., in the early years’ literacy instruction (Skaftun & Wagner, 2019).

The most dominant organizational forms are whole-class teaching (42 % of the L1 lessons), individual work (33 % of the L1 lessons), and station work (18 % in the L1 lessons). Station work was found to be predominantly silent, similar to individual

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4 Cf. appendix 9 for the distribution of speech in text conversations across classrooms. C4 stands out (63-37) from the mean (71-29), but does not affect the mean substantially since it is a rather short episode. This episode is marked by playfulness, and will be foregrounded in an in depth study of the text conversations (Berge et al., in process).

5 Mean distribution of spoken words for the category of “conversation” as a whole.
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seat work, leaving us with whole-class teaching as the space to explore for student participation.

We further investigated whole-class teaching as the space where students may use their voices in learning activities. Our analyses of speech distribution in whole-class teaching in L1 lessons show that teachers account for 54% of the speech turns and students for 46%. However, of the total words spoken, teacher talk amounts to 78%, whereas student talk represents only 22%. Taken together, these numbers support a general impression of brief student answers—very often, single words filling in the blanks in extensive teacher questions. This description of the conditions for student talk resonates all too well with the findings of numerous studies of classroom interaction which have identified and described the dominant IRE structure of classroom talk, and it is also well in line with research emphasizing the persistence of recitation (Alexander, 2008, 2020; Hoetker & Ahlbrandt, 1969). Set against “the rule of two-thirds” discovered by Flanders (1963, p. 252) and repeatedly reaffirmed by classroom research (Klette, 2003; Lundgren, 1989), our analysis of the distribution of words indicates that teacher dominance in whole-class teaching is increasing.

To explore potential dialogic qualities beyond this purely quantitative representation of classroom interaction, we adapted the categories of Alexander (2008) to identify different types of talk. Six categories along a scale from student dominance (narrative sharing) to teacher dominance (instruction) enabled us to find sequences that might deserve further investigation of their inherent potential for dialogue. The analysis revealed a similar pattern in L1 and across subjects. Teacher instruction with no student contribution is the largest category (32% in L1), followed by recitation (29% in L1), where students participate in a dialogic sequence scripted by the teacher. Approximately 18% of the whole-class interaction is formalized speech, where students take part in voicing pre-existing content by singing or reading aloud. Dialogue between teachers in front of the class appears sporadically (1%), and—more surprisingly—little time (2% in L1) is devoted to what is often referred to as “sharing time” (Cazden, 2001), where students are stimulated to use language and communicate their own stories (sharing of experiences, Table 3).

Approximately 18% of the whole-class talk across subjects and in L1 was identified as conversation with a dialogic potential. In L1 conversations, we found five themes: texts (54%), personal experiences (23%), textbook questions (12%), situations from the school day (10%), and a single episode involving students evaluating classmates (1.3%). Within these thematic categories, we found different patterns of speech distribution. Teacher activity was greater in talk about texts and themes of disciplinary relevance, whereas student activity was greater in conversations about personal experience or the situational context. The “evaluation episode” is an interesting exception from the dominant trend in this picture of Year Two classrooms. The distribution of teacher and student dominance in disciplinary and non-disciplinary conversations is illustrated in the matrix below (Figure 1).
The figure is only an illustration, but the empty space where there could have been student talk about texts and disciplinary ideas is quite expressive in itself—even more so if we relate it to the model for the realization of student voice proposed by Segal and Lefstein (2016). Overall, we have found that 18% of the 42% of whole-class teaching contains conversational features. This means that less than 8% of the total time during Norwegian L1 lessons in Year Two has a potential for dialogic interaction. Within this limited dialogic space, the opportunities to talk about disciplinary ideas are further limited by a mechanism where teacher dominance correlates with the degree of disciplinary relevance. Opportunities for students to work on their understanding (Barnes, 2008) by means of talking to learn (Britton, 1969/90) are nowhere to be found in our six classrooms, and it seems reasonable to cautiously infer that these findings are rooted in underlying understandings of knowledge, learning and teaching (Argyris & Schön, 1978; Barnes & Shemilt, 1974; Wilkinson et al., 2017).

Understandings like these are largely based on tacit knowledge about what it means to be a good teacher. If these understandings are to change, it seems wise to support teachers in the process of recognizing and acknowledging the existence of different frameworks and allowing them the time and space needed to experiment with the full depth of the new ideas. Vygotsky’s work on the development of higher-order thinking has been part of Western educational theories since the 1960s, and most teachers have heard about his ideas during their training. Similarly, dialogue and the importance of student voice have been key issues in Norwegian and Scandinavian teacher training since the 1990s (Dysthe, 1995). Even so, the deep principles for teaching that can be derived from Vygotsky (1978, 1986), Bakhtin (1981, 1986),
and many decades of research striving to change the game of classroom interaction are still far from being realized in everyday life of Norwegian primary-school classrooms.

5. CONCLUSIONS

Segal and Lefstein suggest four conditions for the realization of the student voice: (a) an opportunity to speak, (b) expressing one’s own ideas, (c) on one’s own terms, and (d) being heeded by others (Segal & Lefstein, 2016). Juxtaposing our findings with this understanding of voice yields the following conclusions:

(a) There is space to talk in the classrooms, mainly in whole-class teaching, but this space seems to decrease in favour of silent station work. Pair and group work, often associated with productive explorative talk, hardly occurs.

(b) The space available for student talk in whole-class teaching does not support students’ exploration and expression of their own ideas. Instead, students play the teacher’s game, voicing what they consider to be the teacher’s ideas. The fact that teacher dominance increases with increasing disciplinary relevance further supports this conclusion.

(c) Classroom activities only very marginally provide a space where speech and conversation are valued for their own sake and where students get to speak not only from their own positions and from their own points of view but also on their own conditions, for instance through genres and ways they are familiar with. Rather, socialization into the specific speech genres of school (Mehan, 1979) seems to continue through Year Two. Teachers often display an awareness of the importance of activating prior knowledge, but there is no deliberate tailoring of exploratory talk as a means for young students to think together and work on their understanding (Barnes, 2008; Mercer & Hodgkinson, 2008).

(d) There is much focus on the social community of students and the class environment. All classrooms in our study could easily be described as warm and empathetic, but for purposes other than thinking by means of language.

There is no reason to think that teachers deliberately deny their students access to talk as an important tool for thinking and learning. Instead, it seems fair to assume that they share a well-established understanding of what the teaching game is about and how the roles of students and teachers are to be played out. Barnes and Shemilt (1974) described a distinction between transformation and interpretation as operative frameworks for teachers, which might explain the connection between teachers’ views on knowledge and the student role. The latest Norwegian curriculum reforms can be interpreted as a shift from a transmission view of learning and knowledge towards an interpretation view, emphasizing active student participation, disciplinary curiosity and exploration, critical thinking, and deep learning. However, since these deeper layers of underlying ideas are not explicit, it is quite possible for teachers to “reinterpret curricular innovations in the light of their existing conceptions of
knowledge and learning, and thereby confound the innovators’ intentions” (Barnes & Shemilt, 1974, p. 221).

It takes time and effort to translate new ideas into classroom practice. Play-based learning after the 1997 reform was an opportunity lost. The Knowledge Promotion (2006), conceived of as a literacy reform making space for students to participate in disciplinary knowledge construction, remains a promising idea but is still far from being communicated to teachers in a broad sense. Starting in the autumn of 2020, Norwegian teachers are adapting to yet another new curriculum, the Renewal of the Disciplines, which introduces even more new concepts and phrases, pointing towards student participation and learning processes best conceived of as interpretation (cf. Barnes & Shemilt, 1974). Our findings indicate an urgent need to explicitly address the structures that define and determine the teaching game in Norwegian early-year education to keep the gap between educational policy and classroom realities from growing even wider. These structures deeply affect the conditions for student participation and the distribution of roles among teachers and students. Qualitative case studies might be very productive as realistic exemplars to learn from for teachers and researchers working together towards renewal of disciplines and practices (cf. Lefstein & Snell, 2014), particularly cases focusing on the relational architectonics (cf. Holquist, 1990), dialogic space (Wegerif, 2013), dialogic stance (Boyd & Markarian, 2011) and aspects of dialogic engagement (Maine & Hofmann, 2016).

Observing the classrooms for a whole week allowed us to grasp a meaningful unit in classroom life, but not variation from one week to the next over the semester or the entire academic year. The relatively short period of observation also makes our data somewhat vulnerable to the effect that the presence of researchers might have exerted on the teachers in the classrooms. Further, we have not included activities outside the main classrooms, where the co-teacher would typically be working with one or more students. Our data do not allow us access to the interactions between teachers and individual students during individual seatwork. The relatively limited number of observed classrooms does not allow statistical generalization to all Norwegian classrooms. Nevertheless, a full week in six out of nine schools in a single administrative context provides a fairly representative image of a meaningful societal unit in Norwegian education.

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REFERENCES

Alexander, R. (2008). Towards dialogic teaching: rethinking classroom talk (4th ed.). Dialogos.
Alexander, R. (2020). A dialogic teaching companion (1st ed.). Routledge. https://doi.org/10.4324/9781351040143-1
Argyris, C., & Schön, D. A. (1978). Organizational learning: A theory of action perspective. Addison-Wesley.
Atkinson, J. M., & Heritage, J. (1999). Transcript notation-Structures of social action: Studies in conversation analysis. Aphasiology, 13(4–5), 243–249. https://doi.org/10.1080/026870399402073
Aukrust, V. G. (2003). Samtaledeltakelse i norske klasserom—en studie av deltakerstrukturer og samtale-bevegelser [Participation in conversations in Norwegian classrooms—a study of participant structures and conversational movements]. In K. Klette (Ed.), Klasserommets praksisformer etter reform 97 [Classroom practices after the 1997 reform]. Universitetet i Oslo.
Bakhtin, M. M. (1981). The dialogic imagination: Four essays. (M. Holquist, Ed.; C. Emerson & M. Holquist, Trans.). University of Texas Press.
Bakhtin, M. M. (1986). Speech genres and other late essays. University of Texas Press.
Barnes, D. (1990). Language in the secondary classroom. In D. Barnes, J. Britton, & M. Torbe (Eds.), Language, the learner and the school (4th ed.). Boynton/Cook publishers.
Barnes, D. (2008). Exploratory talk for learning. In N. Mercer & S. Hodgkinson (Eds.), Exploring talk in school. Sage.
Barnes, D., & Shemilt, D. (1974). Transmission and interpretation. Educational Review, 26(3), 213–228.
Bellack, A. A., Kliebard, H. M., Hyman, R. T., & Smith Jr., F. L. (1966). The language of the classroom (3rd ed.). Boynton/Cook publishers.
Boyd, M. P., & Markarian, W. C. (2011). Dialogic teaching: Talk in service of a dialogic stance. Language and Education, 25(6), 515-534. https://doi.org/10.1080/09500782.2011.597861
Britton, J. (1990). Talking to learn. In D. Barnes, J. Britton, & M. Torbe (Eds.), Language, the learner and the school (4th ed.). Boynton/Cook publishers.
Cazden, C. B. (2001). Classroom discourse: The language of teaching and learning (2nd ed.). Heinemann.
Cuban, L. (2013). Why so many structural changes in schools and so little reform in teaching practice? Journal of Educational Administration, 51(2), 109-125. https://doi.org/10.1108/0022487131131304661
Dewey, J. (1938) [2018]. Democracy and education: An introduction to the philosophy of education. Createrspace Independent Publishing.
Dysthe, O. (1995). Det flestemmige klasserommet: Skrivende og samtale for å lære [The multi-voiced classroom: writing and talking to learn]. Ad Notam Gyldendal.
Flanders, N. (1990). Conversation analysis. Harvard educational review, 60(3), 445–472.
Flyvbjerg, B. (2006). Five misunderstandings about case-study research. Qualitative Inquiry, 12(2), 219-245. https://doi.org/10.1177/1077800405284363
Freire, P., & Macedo, D. (1987). Literacy: Reading the word & the world. Routledge.
Gage, N. L. (2009). The multi-voiced classroom: writing and talking to learn. Ad Notam Gyldendal.
Gutiérrez, K., Rymes, B., & Larson, J. (1995). Script, counterscript, and underlife in the classroom: James Brown versus Brown v. Board of Education. Harvard educational review, 65(3), 445–472.
Hodgson, J., Rønning, W., & Tomlinson, P. (2012). Sammenhengen mellom undervisning og læring. En studie av læreres praksis og deres tenkning under Kunnskapsløftet. Sluttrapport [The link between teaching and learning. A study of teachers’ practice and thinking during the Knowledge Promotion. Final Report]. NF-rapport nr 4/2012. Nordlandsforskning.
Hoetker, J., & Ahlbrand, W. P. (1969). The Persistence of the recitation. American Educational Research Journal, 6(2), 145. https://doi.org/10.2307/1161891

Holquist, M. (1990). Dialogism: Bakhtin and his world. Routledge.

Klette, K. (Ed.). (2003). Klasserommet: praksisformer etter Reform 97 [Classroom practices after the 1997 reform]. Pedagogisk forskningsinstitutt.

Klette, K., Blikstad-Balas, M., & Roe, A. (2017). Linking instruction and student achievement. A research design for a new generation of classroom studies. Acta Didactica Norge, 11(3), 19. https://doi.org/10.5617/adno.4729

Kunnskapsdepartementet [Ministry of Education and Research]. (2013). Ny GIV: Overgangsprosjektet—konsekvenser for skolen [New Deal: Transitional project—consequences for school] [Report]. https://www.regjeringen.no/no/dokumenter/ny-giv-overgangsprosjektet-konsekvenser/id746690

Kunnskapsdepartementet [Ministry of Education and Research] (2008). NOU 2008:18 Fagopplæring for framtida. Utredning og instilling til Kunnskapsdepartementet fra Karlsenutvalget [Vocational training for the future. Report from the Karlsen Committee to the Ministry of Education and Research]. Oslo, October 2008.

Kunnskapsdepartementet [Ministry of Education and Research]. (2014). NOU 2014: 7 Elevenes læring i fremtidens skole. Et kunnskapsgrunnlag [Students’ learning in the school of the future: a summary of knowledge] [Official Government Report]. https://www.regjeringen.no/no/dokumenter/NOU-2014-7/id766593/

Kunnskapsdepartementet [Ministry of Education and Research]. (2015). NOU 2015: 8 Fremtidens skole. Fornøyelse av fag og kompetanse [School of the future. Renewal of disciplines and competencies] [Official Government Report], https://www.regjeringen.no/no/dokumenter/NOU-2015-8/id2417001/

Kunnskapsdepartementet [Ministry of Education and Research]. (2016). Meld. St. 28 (2015–2016) Fag—Fordypning—Forståelse — En fornyelse av Kunnskapspløftet [Disciplines-Deepening-Understanding — A renewal of the Knowledge Promotion] [White Paper]. https://www.regjeringen.no/no/dokumenter/meld.-st.-28-20152016/id2483955/

Kunnskapsdepartementet [Ministry of Education and Research] (2017). Meld. St. 21 (2016–2017). Lærelyst—tidlig innsats og kvalitet i skolen [Desire to learn—early interventions and quality at school] [White Paper]. https://www.regjeringen.no/no/dokumenter/meld.-st.-21-20162017/id2544344/

Lefstein, A. (2008). Changing classroom practice through the English National Literacy Strategy: A micro-interactional perspective. American Educational Research Journal, 45(3), 701–737. https://doi.org/10.3102/0002831208316256

Lefstein, A. (2010). More helpful as problem than solution. In K. Littleton & C. Howe (Eds.), Educational Dialogues: Understanding and Promoting Productive Interaction. Routledge.

Lefstein, A., & Snell, J. (2014). Better than best practice: developing teaching and learning through dialogue (1st edition). Routledge. https://doi.org/10.4324/9781315884516

Lundgren, U. P. (1989). Att organiser omvärlden: En introduktion till läroplansteori [Organizing the surrounding world: An introduction to curriculum theory]. Utbildningsförlaget.

Maine, F., & Hofmann, R. (2016). Talking for meaning: The dialogic engagement of teachers and children in a small group reading context. International Journal of Educational Research, 75, 45–56. https://doi.org/10.1016/j.ijer.2015.10.007

Mehan, H. (1979). Learning lessons: Social organization in the classroom. Harvard University Press.

Mercer, N. (2000). Words and minds: How we use language to think together. Routledge.

Mercer, N., & Hodkinson, S. (2008). Exploring talk in school. SAGE.

Mercer, N., Wegerif, R., & Major, L. (Eds.). (2019). The Routledge international handbook of research on dialogic education. Routledge. https://doi.org/10.4324/9780429441677

Nystrand, M. (Ed.). (1997). Opening dialogue: Understanding the dynamics of language and learning in the English classroom. Teachers College Press.

Nystrand, M. (2006). Research on the role of classroom discourse as it affects reading comprehension. Research in the Teaching of English, 392–412.

Nystrand, M., & Gamoran, A. (1991). Student engagement: when recitation becomes conversation. I H. C. Waxman & H. J. Walberg (Red.), Effective teaching: Current research (s. 257–276). McCutchan. http://eric.ed.gov/?id=ED323581
Wilkinson, I. A., Reznitskaya, A., Bourdage, K., Oyler, J., Glina, M., Drewry, R., Kim, M.-Y., & Nelson, K. (2017). Toward a more dialogic pedagogy: Changing teachers’ beliefs and practices through professional development in language arts classrooms. Language and Education, 31(1), 65–82. https://doi.org/10.1080/09500782.2016.1230129

Yin, R. K. (2009). Case study research: Design and methods. Sage.
## APPENDIX 1

Template for field notes—one table for each new event

| Event | Description | Interpretation |
|-------|-------------|----------------|
| Time  |             |                |
| Frames for teacher co-operation | Both teachers in the classroom | The teachers split the class between them |
| Organization of classroom activities | | |
| Individual | Planary* | |
| Pairs | Lesson | |
| Groups** | | |
| Type of activity | Reading | Graded writing **** |
| | Writing | a. Student talking |
| | Guided reading *** | a. Other |

* The teacher is at the center of the activity  
** The students work together in groups  
**** Reading in a group guided by the teacher  
***** Guided writing in a group with a teacher

## APPENDIX 2

Template for narrative summaries

| Part 1 to be filled in first | SUMMARY OF THE DAY |
|-----------------------------|--------------------|
| SCHOOL: | Narrative summary: the story of the day, with a special focus on the Norwegian hussent |
| CLASS: | |
| INTERVENTION GROUP: | |
| DATE: | |
| TEACHER(S): | |

| Part 2 | Teacher co-operation |
|--------|-----------------------|
| Harmony | - Sharing of workload  
|  | - Integration  
| | - Signs of joint planning  

| Oral interaction | |
|------------------| |
| | - Open/closed questions  
| | - Challenges  
| | - Follow-up  
| | - Response  
| | - . . . |

| What type of reading? | |
|----------------------| |
| | - Teacher reading aloud to the class  
| | - Students’ own reading  
| | - Preparation/writing of reading homework  
| | - . . . |

| What type of writing? | |
|----------------------| |
| | - Class tasks  
| | - Letter formation practice  
| | - Individual test writing  
| | - . . . |

| Digital technology | |
## APPENDIX 3

**Organizational forms—detailed overview**

Numbers to the left of the slash refer to all observed lessons (including L1). Numbers to the right of the slash refer to L1 lessons.

| Class | Lessons observed (n) | Whole class % | Individual work % | Stations % | Pairs % | Group % | Other* % |
|-------|----------------------|---------------|-------------------|-----------|--------|---------|---------|
| C1    | 16/8                 | 47 / 40       | 36 / 33           | 14 / 25   | 1 / 0  | 0 / 0   | 3 / 3    |
| C2    | 16/8                 | 37 / 24       | 31 / 43           | 22 / 25   | 0 / 0  | 0 / 0   | 10 / 8   |
| C3    | 18/8                 | 68 / 55       | 16 / 20           | 13 / 23   | 1 / 0  | 0 / 0   | 2 / 1    |
| C4    | 19/8                 | 57 / 54       | 14 / 20           | 16 / 17   | 5 / 1  | 0 / 0   | 8 / 8    |
| C5    | 18/7                 | 52 / 44       | 23 / 22           | 14 / 20   | 0 / 0  | 1 / 0   | 13       |
| C6    | 18/8                 | 37 / 25       | 58 / 67           | 0 / 0     | 3 / 6  | 0 / 0   | 1 / 2    |
| Sum   | 105/47               | 50 / 42       | 29 / 33           | 13/18     | 2/1   | 0 / 0   | 6 / 6    |
| Mean  |                      |               |                   |           |        |         |         |

*Note: “Other” refers to time spent entering and leaving the classroom, getting seated and preparing*

## APPENDIX 4

**Distribution of Speech Turns—detailed overview**

|          | C1  | C2  | C3  | C4  | C5  | C6  | MEAN   |
|----------|-----|-----|-----|-----|-----|-----|--------|
| Teacher 1| 49.1% | 52.1% | 31.6% | 27.0% | 42.0% | 50.9% | 42.1% |
| Teacher 2| 5.8%  | 2.1%  | 21.4% | 26.3% | 14.4% | 3.0%  | 12.2% |
| Boys     | 27.0% | 22.3% | 31.7% | 24.9% | 25.1% | 24.4% | 25.9% |
| Girls    | 17.3% | 20.9% | 13.3% | 20.1% | 18.3% | 18.7% | 18.1% |
| Both teachers | 54.9% | 54.1% | 53.0% | 53.3% | 56.4% | 53.9% | 54.2% |
| All students | 45.1% | 45.9% | 47.0% | 46.7% | 43.6% | 46.1% | 45.8% |

## APPENDIX 5

**Distribution of speech time in whole-class teaching—detailed overview**

|          | C1  | C2  | C3  | C4  | C5  | C6  | MEAN   |
|----------|-----|-----|-----|-----|-----|-----|--------|
| Teacher 1| 72.2% | 76.2% | 50.8% | 29.3% | 53.1% | 74.8% | 59.4% |
| Teacher 2| 6.7%  | 2.6%  | 28.6% | 43.8% | 28.1% | 2.1%  | 18.7% |
| Boys     | 11.6% | 8.2%  | 14.0% | 12.3% | 9.5%  | 9.8%  | 10.9% |
| Girls    | 9.2%  | 12.2% | 6.0%  | 14.2% | 9.3%  | 12.8% | 10.6% |
| Both teachers | 78.9% | 78.8% | 79.5% | 73.1% | 81.2% | 76.8% | 78.1% |
| All students | 21.1% | 21.2% | 20.5% | 26.9% | 18.8% | 23.2% | 21.9% |
### APPENDIX 6

**Types of talk across subjects and in L1; distribution of words spoken in the different speech types in L1**

|                      | 1 Narrative sharing | 2 Conversation | 3 Recitation | 4 Formalized speech | 5 Teacher dialogue | 6 Instructions |
|----------------------|---------------------|----------------|--------------|---------------------|--------------------|----------------|
| All subjects - obs time | 2.9%                | 18.1%          | 30.5%        | 17.3%               | 1.3%               | 29.8%          |
| L1 - obs time        | 2.0%                | 18.5%          | 28.6%        | 17.9%               | 1.2%               | 31.7%          |
| L1 - distribution of words | 6.25%              | 18.19%         | 37.16%       | 5.34%               | 0.30%              | 32.76%         |

### APPENDIX 7

**Distribution of conversational themes across the six classes**

|                      | All classes | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|
| Evaluation           | 1.3%        | 0.0%    | 0.0%    | 5.3%    | 0.0%    | 0.0%    | 0.0%    |
| Personal experience  | 22.8%       | 66.9%   | 0.0%    | 14.9%   | 66.8%   | 0.0%    | 0.0%    |
| Situational context  | 9.8%        | 24.4%   | 100.0%  | 7.9%    | 2.5%    | 11.7%   | 0.0%    |
| Text                 | 54.1%       | 0.0%    | 0.0%    | 47.2%   | 30.8%   | 81.1%   | 75.5%   |
| Textbook questions   | 12.0%       | 8.7%    | 0.0%    | 24.7%   | 0.0%    | 7.2%    | 24.5%   |
| SUM                  | 100.0%      | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  |

### APPENDIX 8

**Distribution of speech in different themes—detailed overview**

|                      | 1 Text | 2 Personal experience | 3 L1 topics | 4 Situational context | 5 Evaluation |
|----------------------|--------|-----------------------|-------------|-----------------------|--------------|
| Teacher 1            | 63.8%  | 53.2%                 | 28.7%       | 61.0%                 | 55.3%        |
| Teacher 2            | 6.9%   | 5.3%                  | 42.8%       | 3.8%                  | 3.4%         |
| Boys                 | 13.8%  | 23.7%                 | 15.9%       | 16.5%                 | 15.8%        |
| Girls                | 15.5%  | 17.8%                 | 12.6%       | 18.7%                 | 25.6%        |
| Teachers             | 70.7%  | 58.5%                 | 71.6%       | 64.8%                 | 58.7%        |
| Students             | 29.3%  | 41.5%                 | 28.4%       | 35.2%                 | 41.3%        |

### APPENDIX 9

**Distribution of speech in conversations about text across classes**

|                      | All classes | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|
| 1 : Teachers         | 70.71%      | 0%      | 0%      | 70.84%  | 62.91%  | 70.66%  | 73.47%  |
| 2 : Students         | 29.29%      | 0%      | 0%      | 29.16%  | 37.09%  | 29.34%  | 26.53%  |