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Patterns of peer talk in consensus-oriented classrooms: Deliberative argumentation or rush toward consensus?

Andreas Reichelt Lind^{*}, Emilia Andersson-Bakken, Margareth Sandvik

Faculty of Education and International Studies, Oslo Metropolitan University, Pilestredet 42, Oslo, Norway

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ABSTRACT

In this study, we investigate peer talk in consensus-oriented first-grade classrooms. Earlier research has shown that the quality of argumentation improves when students argue to agree, because it steers the students toward patterns of argumentation that support the exploration and elaboration of perspectives that is typical of deliberative argumentation. Using multi-modal argumentation analysis, we identify four patterns in the peer talk. First, the students invoked consensus when the conversation developed in a direction that was not in accordance with their understanding of the task instructions. Second, the students tended to delegate the authority to decide what the group will answer. Third, the students searched for the lowest common denominator, looking for a common element in their individual answers. Fourth, the students put the decision to a vote, going with the majority and ignoring the perspectives of the minority. We argue that these patterns illustrate a general tendency for the students to rush toward a conclusion. Accordingly, we argue that younger students need a more explicit instructional design by the teacher to support exploration and elaboration of different perspectives.

1. Introduction

There is growing evidence that the quality of argumentation in classrooms improves when the goal is to reach consensus (Rapanta & Christodoulou, 2022). This is typically explained by an observed correlation between consensus seeking and certain patterns of argumentation that support the exploration of perspectives. Mercer (2000) argues that seeking consensus is one crucial feature of exploratory talk, where the participants “engage critically but constructively with each other’s ideas” (Mercer, 2000, p. 98). Similarly, Felton, Garcia-Mila, and Gilabert (2009) show how consensus seeking tends to foster deliberative argumentation in which the participants compare and evaluate alternatives to arrive at new perspectives, rather than merely defending a preconceived perspective by undermining alternatives. Garcia-Mila, Gilabert, Erduran, and Felton (2013) further find that the goal of consensus promotes scientific reasoning in argumentation. These findings are corroborated by Felton, Garcia-Mila, Villaroel, and Gilabert (2015), who demonstrate that students asked to reach consensus were more likely to elicit, elaborate on, and integrate the perspectives of their partnered peer than those asked to convince their peer.

Importantly, it is argued that these findings suggest “that teachers must attend to discourse goals” (Felton et al., 2015, p. 372). Considering this, it is claimed that the reason these patterns emerge when the goal is to reach consensus is that the students are steered toward “the kinds of disagreement that foster cognitive conflict” and “the kind of open dialogue that supports a careful consideration of

^{*} Corresponding author.

E-mail addresses: andreasr@oslomet.no (A.R. Lind), emanb@oslomet.no (E. Andersson-Bakken), margares@oslomet.no (M. Sandvik).

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alternate views” (Felton et al., 2009, p. 438). Similarly, Díez-Palomar, Chan, Clarke, and Padrós (2021) argue that the shared intention of reaching consensus is crucial for forming an authentic learning community in which the participants share reasons based on truthfulness and respect each other's ideas and perspectives. These patterns are typical features of what is often termed deliberative argumentation (Felton, Crowell, Garcia-Mila, & Villaroel, 2022).

This study explores three lessons from two first-grade classrooms in which the teacher formulates consensus as a goal for group discussions. By contrast, we show how an orientation toward the goal of consensus was *not* correlated with the sustained exploration of alternative perspectives typical of deliberative argumentation. As such, the significance of this study lies in nuancing the proposition that the quality of argumentation necessarily becomes better when seeking consensus, arguing that the goal of consensus is not sufficient, especially in a first-grade context. We show how these lessons can be conceived of as deviant cases that warrant some modification of this proposition (Seale, 1999, p. 80), explicating additional qualifications.

This study fills some gaps in relation to earlier research. First, the participants in these previous studies were all 12- to 13-year-old students in seventh grade, whereas we study 5- to 6-year-olds in first grade classrooms. They have recently entered school, with the new institutional contexts, rules of conduct, and goals which that entails. Thus, we investigated a key point in the development of children's pragmatic conversational skills—that is, the ability to use language in appropriate ways for different goals in different contexts and activities (Cekaite, 2012; Ninio & Snow, 1996). Second, the focus of the earlier studies was on conversations in groups of two, while our study investigates groups of four.

Against this background, we ask the following question: *What do the pupils do when they are asked to reach a consensus?*

To approach an answer to this question, we explore peer talk in group discussions in consensus-oriented first-grade classrooms. We take a multimodal approach in our analysis, considering the different modalities in the interaction of the students. First, we outline and discuss the theoretical framework guiding our analysis of peer talk, focusing on the role of consensus in deliberation, the different phases and moves in such argumentation, and the role of dialogue goals in instructional design. Second, we present our research design and show how we used multimodal analysis to identify patterns. Third, we present our results by showing examples of the different patterns that we identified through our analysis: the invoking of consensus, task delegation, the lowest common denominator, and majority vote. We conclude by discussing some possible practical implications for education.

2. Theoretical framework

2.1. Deliberation and the goal of consensus

Koichu, Schwarz, Heyd-Metzuyanim, Tabach, and Yarden (2022, p. 1) describe dialogue as “the missing interlocutor” for the argument, giving it a point. Bakhtin (1981) describes dialogue as a space for the development of meaning through the confrontation of different voices and perspectives. Such perspective-taking is inherent in argumentation, as “it establishes a dialectical exchange where peers prompt one another to produce claims and evidence and challenge one another with alternative perspectives” (Felton et al., 2009, p. 418).

Koichu et al. (2022) further show how this “winning combination” of dialogue and argumentation has been captured under different names: dialogic argumentation (Clarke & Sampson, 2008), accountable talk (Michaels, O'Connor, & Resnick, 2008), dialogic teaching (Alexander, 2006), exploratory talk (Mercer, 2000), collaborative reasoning (Reznitskaya et al., 2009), and deliberative argumentation (Felton et al., 2022). Here, we adopt the last term, as that is where the goal of consensus is most explicitly applied, in the same way as in the research which forms the background of this study. While the exact role and status of consensus in deliberation is debated, Friberg-Fernros, Schaffer, and Holst (2019) argue that this ideal remains relevant because of the reason-giving requirement. The rationality inherent in this requirement “implies an ideal of consensus, by stipulating that participants should adhere to the best available argument” (Friberg-Fernros & Schaffer, 2014, p. 101). Deliberative argumentation is understood here as a method of practical reasoning about what to do, considering competing perspectives as part of an inferential process of arriving at a consensual conclusion about how to act (Walton, Toniolo, & Norman, 2016).

In the research literature, deliberative argumentation is often juxtaposed with persuasion dialogue. Building on Walton (1998),¹ the differing goals of these two types of dialogue are highlighted while discussing different aspects of their educational implications. Baker (2022) unpacks the differences between these two types of argumentative dialogue. First, he distinguishes them in terms of their goals. In persuasion, goals are individual, and participants argue to convince and persuade according to these individual goals. In deliberative argumentation, by contrast, there is a shared goal of deciding what to do: to reach a consensus. Second, they differ according to the nature of their outcomes. In persuasion, participants typically defend a predefined conclusion, while in deliberation, the conclusion ideally emerges from the dialogue. Third, they can be associated with different clusters of dialogue moves. In persuasion, participants generally attempt to undermine their opponents' alternatives, whereas in deliberations, participants try to build on each other's contributions, for example, by asking for elaborations and contrasting alternatives. Accordingly, Felton et al. (2015) describe persuasion dialogue as “an adversarial exchange in which speakers advance incompatible claims with the goal of convincing others to accept their claims,” whereas deliberative argumentation is “a collaborative exchange in which speakers hold incompatible claims and seek to resolve these differences to arrive at a consensual decision” (Felton et al., 2015, p. 374). Baker (2022) argues further that it is primarily the dialogue goals that define these different sub-types of argumentative dialogue. Consequently, the defining feature of

¹ Walton (1998) has suggested seven categories of argumentative dialogue that can potentially emerge in everyday discourse. For an account of all of these, see Rapanta and Christodoulou (2022, pp. 2–3).

deliberative argumentation as it is conceptualized here can be understood as the goal of consensus, as it is from accordance with this shared goal that both the outcome and the dialogue moves emanate.

In the literature, these two sub-types of argumentation are juxtaposed in different ways in relation to their educational potential. Felton et al. (2009) find that although both forms of argumentation prompted students to absorb information and develop their arguments, the students who argued in a deliberative condition were more likely to do this and—importantly—develop arguments that acknowledged the viewpoints of their opposing peers. Accordingly, they posit that consensus seeking may have the potential to lessen the polarizing effects of argumentative dialogue. Garcia-Mila et al. (2013) find that students participating in argumentation under the consensus condition had a higher rate of reasoning improvement compared to those who were asked to persuade each other. They were more likely to produce a greater variety of dialogue moves, more complex argumentation, and two-sided reasoning. Felton et al. (2015) show that students who were asked to persuade a disagreeing peer tended to engage in shorter exchanges about claims and were more likely to foreclose discussion with their dialogue moves. Students who were asked to reach a consensus with their disagreeing peer, by contrast, tended to use dialogue moves that elicited, elaborated on, and integrated the ideas of their peer.

2.2. The phases, purposes, and moves of deliberative argumentation

Even though the dialogue goal is often taken as the defining feature, it is not only this that distinguishes deliberation from its counterparts. In their framework for analyzing deliberative argumentation, Felton et al. (2022) indicate that deliberation also involves different phases, which are typically observed if the dialogue can be classified as deliberation. They describe three phases: the opening phase, argumentation phase, and closing phase. In practice, these do not necessarily unfold in a formal or linear sense but iteratively during conversation. In the opening stage, the goal of the dialogue is defined, and the question(s) to be answered are stated while establishing the criteria by which to evaluate potential answers (Felton et al., 2022). The middle phase, or the argumentation stage, consists of several components, some of which incorporate elements from other types of dialogue (Walton et al., 2016), as the participants “advance opposing claims and evidence in support of competing proposals, evaluate the relative merits of those proposals, and revise the proposals accordingly” (Felton et al., 2022, p. 3). Felton et al. (2022) point out that whereas the two first phases of deliberation resemble other dialogue types in form, the closing phase distinguishes deliberation. In this last stage, the participants seek to determine the best proposal by reviewing the revised arguments and reaching a consensus on what to do.

Felton et al. (2022) argue that deliberation is effective to the extent that it facilitates three purposes. The first is the exploration and elaboration of arguments on the different sides of an issue (surfacing arguments). The second is the critique and refinement of arguments through a dialectical exchange (evaluating arguments). The third is the integration or reconciliation of opposing arguments (coalescing arguments). Over the course of the different phases of deliberation, the participants ideally engage in discourse moves that correspond to these three purposes. As such, the dialogue moves can be understood as the instruments (Macagno, 2022) for pursuing the common dialogic goal of consensus. An important point to emphasize here, especially in regards to children's argumentation (Hannken-Iljes & Bose, 2019), is that these moves can be both verbal and non-verbal in nature.

We understand the exploration and elaboration of arguments as the most basic of the three outlined purposes. We consider this essential for deliberation because, ideally, all alternatives should be considered before reaching a decision. As Walton et al. (2016) argues, the closing phase “should only be reached when the arguments and proposals considered on all sides have been sufficiently discussed so that all the relevant factors have been considered” (Walton et al., 2016, p. 163). If different alternatives do not surface, there are no grounds for considering them.

To explore what the students in our data material do and whether this can be said to support the basic purpose of exploring and elaborating on the different perspectives, we applied the framework of Felton et al. (2022). They outline an analytical coding scheme for studying argumentative dialogue, dividing the dialogue moves into five categories: interrogative initiations, declarative initiations, elaborative responses, non-elaborative responses, and meta-dialogic statements.²

2.3. Instructional design and classroom talk

The practical issue becomes *how* such deliberative argumentation can be facilitated in the classroom, making the issue of instructional design important. We understand instructional design broadly as “the intentional and systemic action of teaching, that includes planning, developing, and use of methods, techniques, activities, materials, events, and educational products in specific didactic situations” (Filatro & Piconez, 2004, p. 65; referred and translated in Rapanta, 2019), for some educational aim. The teacher plays an important role as the facilitator for the instructional design (Squire, MaKinster, Barnett, Luehmann, & Barab, 2003), by setting the norms and expectations for how the students should interact in peer talk as well as the goals for learning (Mercer, 2004). We apply this concept in our discussion to bring some practical implications into focus.

In their review of the learning to argue (LTA) literature, Rapanta and Felton (2021) propose a framework for instructional design. The framework consists of the following four components: methods, dialogue goals, learners, and outcomes. These components shed light on some of the aspects that should be kept in mind when discussing an instructional approach to argumentation.

The methods refer to the framing of effective argumentation. Rapanta and Felton (2021) distinguish between low-structured and high-structured approaches. Low-structured approaches do not explicitly focus on structuring argumentation itself as a goal-oriented

² See the appendix for a full overview of their framework.

activity. Rather, the focus is on establishing norms for dialogue. The dialogue is productive if the participants engage and explore different perspectives. While argumentation *can* be the outcome of this exploration, it is not the primary focus. High-structured approaches, on the other hand, focus on argumentation as an explicit goal and not merely as an outcome of students' interactions. The dialogue should focus on argumentative knowledge-building to produce new knowledge or new understandings.

The second component is the dialogue goals, which refers to the epistemic goals of the participants during the activity. In relation to argumentation, there is an established empirical argument (see e.g., Felton et al., 2015; Keefer, Zeitz, & Resnick, 2000; Rapanta & Felton, 2021) that the dialogue goals tend to affect the communicational patterns that emerge. This might be why Walton (1998) was so careful to define the different types of dialogue in terms of their goals. We conceptualize this tendency as follows: According to Kress (2010), all communication is a response to a prompt, something that spurs a reaction of some sort, such as "a gaze might produce a spoken comment" (Kress, 2010, p. 32). As he understands it, communication has happened "when a participant's *attention* has focused on some aspect of the communication; she or he has taken that to be a *message* and has *framed* aspects of that message as a *prompt* for her or himself" (Kress, 2010, p. 32). In this manner, the way the teacher frames the task in relation to specific dialogue goals is understood as affecting peer talk in the classroom. Although it does not determine the nature of these interactions, the dialogue goal gives direction by functioning as a prompt (Kress, 2010).

The third component of instructional design, following Rapanta and Felton (2021), is the outcome. They define this as the social, cognitive, and epistemological gains of the students, resulting from their participation in argumentation. The fourth component is the learners. This refers to the students and their main characteristics, for example, age, the specific context, and its structure (groups, whole class, dyads, etc.). For young students, with less experience of different functions of classroom talk, and less experience with peer talk in a school setting, the teacher's instructional design of the lesson can be assumed to play an important mediating role for the children's understanding of classroom conversations (Mercer, 2004). Mercier (2011) shows that preschool children possess basic argumentative skills and that they engage in and benefit from social reasoning. However, he also points out that children who are put in situations in which they may not be motivated to convince someone, are less likely to effectively justify their claims. Consequently, instructional designs should consider what is important and intellectually consequential for young students. On the other hand, Mercier also shows that children can sometimes be "made to care about defending their point of view simply by being put in a group of people who do not share this point of view" (Mercier, 2011, p. 183). As such, simply grouping children with others that disagree with them can raise their argumentative stake.

3. Methods

3.1. Research design

This study was part of a larger, design-based (Anderson & Shattuck, 2012) research project on critical thinking in primary education (KriT),³ an interdisciplinary project aimed at developing educational models for critical thinking in primary schools. The project was carried out at two primary schools in an urban area in Norway.

The project consisted of three cycles in which teachers and researchers worked together to develop lessons to promote critical thinking. This study builds on video data from three lessons in two first-grade classrooms selected from this larger data corpus. The first and second lessons were from the same classroom with the same teacher, while the third lesson was from a different classroom with another teacher. We have video data from two cameras, one focusing on the whole class synced with a portable microphone on the teacher, and one focusing on a group of students synced with a tape recorder on their table. Both cameras were kept stationary during the recording.

The KriT-project has been approved by the Norwegian Center for Research Data (NSD), and we followed the ethical standards of the Norwegian national research ethics committee (NESH, 2022). Accordingly, the participants signed a consent form informing them about the project and stating that it was possible to withdraw from the study at any time. Further, all participants were anonymized.

3.2. Selection of lessons and sequences

In total, we had video data from five first-grade lessons, each lasting between 60 and 90 min. As a first step, the lessons were transcribed using NVivo 12. This preliminary transcription focused on the verbal aspects of communication as grounds for selecting sequences for closer analysis.

Three of the first-grade lessons were selected for further analysis, as we judged them to be consensus oriented. Using simple tabulations as an aid (Silverman, 2020, p. 104), we saw that the word *agree* is repeated by the teacher relatively often in the three selected lessons. Significantly, the word tended to be repeated by the teacher during key situations, for example, by explicitly instructing the students to agree during task presentation and during guidance of peer talk. In the first lesson (60 min), the teacher mentions the word *agree* a total of 11 times.⁴ In the second lesson (60 min), the word *agree* was mentioned 27 times, and in the third lesson (90 min), it was mentioned 49 times by the teacher.

Notably, *agree* was also used in peer talk after the teacher presented the task, emerging as an expressed goal in the group

³ For more information on the project, see: <https://www.oslomet.no/en/research/research-projects/critical-thinking-primary-education>.

⁴ While this is markedly less than the two other lessons, a significant part of the first lesson was dedicated to a summary of the last lesson where they had read the picture book, leaving less time to talk about the task.

discussions. Consider the example from the second lesson in [Table 1](#), showcasing both the repetition during task presentation and its manifestation during the first turns of peer talk.

Within these three lessons we chose sequences of group discussion that followed similar task presentations, where the teachers had asked the students to agree. During these sequences, we excluded off-topic talk. As our interest was in peer talk, we also excluded sequences in which the teacher participated in the group discussions.

In summary, we selected video data from three lessons for closer analysis, leaving us with footage lasting a total of 300 min. Going through the material together, we looked for sequences of on-topic peer talk where the students were trying to reach an agreement, thus being engaged in argumentation. This left us with a total of 21 min for multimodal transcription and coding. Through inductive analysis of these sequences, we identified four different patterns (see [Table 2](#)) used by the students while arguing to agree.

3.3. Participants

In the first and second lessons, 12 students were present; in the third lesson, 20 students were present. In the focus group from the first two lessons, there were four students: two boys and two girls. Except for one of the boys, the focus groups were the same during both lessons. In the third lesson, we had two focus groups, both consisting of four students. In the first group, there were four girls, and in the second group, there were two girls and two boys (see [Table 3](#) for an overview).

The recordings were from the students' first four months at school, when they were 5–6 years old. They had recently started school. As such, they represent episodes from a key point in the development of children's pragmatic conversational skills—that is, the ability to use language in appropriate ways for different goals in different contexts and activities ([Cekaite, 2012](#); [Ninio & Snow, 1996](#)). They represent key moments in their development because argumentation in an educational institutional context is different from what children are used to in preschool and family contexts ([Convertini, 2021](#)), in many cases involving different rules of conduct and new, unfamiliar dialogue goals, as well as rules for turn-taking.

3.4. The lessons

In the first lesson, the class had recently read a Norwegian translation of the picture book 'Baa Baa Smart Sheep' ([Sommerset & Sommerset, 2016](#)) about a mischievous sheep that tricks a naive turkey into eating poop, under the guise that they are pills that make you smarter. They had read the book and discussed characteristics of the main characters in a previous lesson. At the beginning of this lesson, they summarized the story and their previous discussions. The students were asked to imagine how the two main characters felt after the event. To this end, they were given a sheet with pictures of different emojis symbolizing different emotions. First, they were asked to individually pick the three emojis that they thought were the most fitting, and then they were asked to agree on one emoji together in a group.

In the second lesson, the students were given a sheet of paper with images of six Christmas-related⁵ objects, and they were asked to agree on which one was the odd-one-out. There were no obvious answers. The students were first asked to form an opinion by themselves, and then they were asked to discuss this in pairs. Subsequently, they were asked to agree on one object in groups of four.

The third lesson followed the same general outline as the first. The class read a Norwegian translation of the Icelandic picture-book 'Nei! sagði litla skrímslið' (No! Said Little Monster) ([Jónsdóttir, Helmsdal, & Güettler, 2004](#)) during the lesson, stopping at key moments to review what had happened, discussing the students' thoughts about these events and what might happen next. In the picture book, Little Monster is annoyed with Big Monster because Big Monster always bosses Little Monster around. The picture book builds up toward Little Monster eventually telling Big Monster "No!". The students were again asked to imagine how the two characters felt after the event, discussing and agreeing on which emojis best represented the characters' feelings.

While the first and third lesson was connected to the narrative in a picture book, the second lesson was not connected to a narrative. This is a key difference, considering the importance of narrative scenarios in children's argumentative thinking ([Iannaccone, Perret-Clermont, & Convertini, 2019](#)). Nevertheless, we saw that some of the students actively built narratives when arguing for their positions during the odd-one-out-task, giving the different objects a narrative context. For example, one student argued that Santa was the odd-one-out because he lived in the forest.

3.5. Multimodal analysis

We took a multimodal approach to communication to investigate the patterns more closely. This entails seeing argumentation as occurring in and through more than one modality ([Bubikova-Moan & Sandvik, 2022](#)). While the verbal aspects of communication have often been privileged in research, a multimodal approach systematically includes non-verbal elements. Such an embodied view of communication is especially important when researching children's peer talk, as children often substitute verbal utterances for bodily gestures ([Hannken-Iljes & Bose, 2019](#)) and often use non-argumentative means to solve conflicts ([Arendt, 2014](#)). Accordingly, it was necessary to include additional modalities to understand the dialogue moves in the data material.

Using the framework of [Felton et al. \(2022\)](#) posed some challenges for us in this regard, as it does not explicitly account for multimodal dialogue moves. We used multimodality mainly as support in our interpretations of the dialogue moves, either

⁵ The lesson was during the last week before the Christmas break.

Table 1
Consensus orientation.

| Verbal | | |
|--------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Teacher: | I think that now what we do is that you try to <u>agree</u> and coo:perate with your learning partner now (.) and <u>agree</u> on one that does not fit (.) |
| 2 | | with the others (.) right? because here there is no correct answer but you have to say why you think as you do but you also have to be able to |
| 3 | | <u>agree</u> with your learning partner and at this table here you cooperate all three and talk about which one we will say does not fit [then you |
| 4 | | need a] |
| 6 | Sebastian: | [we had to agree] |
| 7 | Teacher: | good then you need to have a <u>good</u> idea about it |
| 8 | Sebastian: | hey we must <u>agree</u> |
| 9 | Daniel: | the gingerbread (.) the gingerbread |
| 10 | Sebastian: | I have not agreed with you (.) why? |

Table 2
Description of the identified patterns.

| Pattern | Description |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| Invoking consensus | The students appealed to what the teacher had asked them to do (reaching consensus) during the peer talk. |
| Task delegation | The students delegated the authority for making decisions to individuals or to smaller constellations in the group. |
| Lowest common denominator | The students reduced task complexity by looking for a common element in their individual answers to come to agreement. |
| Majority vote | The students put the final decision to a vote among the participating peers |

Table 3
Overview of lessons and participants.

| Class A: 12 students | | Class B: 20 students | |
|----------------------|---------------|----------------------|----------|
| First lesson | Second lesson | Third lesson | |
| Group 1 | Group 2 | Group 3 | Group 4 |
| Lisa | Lisa | Sophia | Victoria |
| Maria | Maria | Mia | Arthur |
| Daniel | Daniel | Nora | Stella |
| Simon | Sebastian | Emma | Oliver |

strengthening them or adding nuances as to what might have been going on. In some cases, the actions of the students were also coded as individual dialogue moves.

This made transcription an important phase of our analysis. The choice of which modes of communication to transcribe, and how, makes a big difference. Multimodal transcription brings certain characteristics of the event into focus in certain ways, and omits others.

The modality we focused on in addition to the verbal was actions—more precisely, bodily expressions, gaze, and pointing. For example, some students did not utter disagreement verbally but used bodily expressions to indicate that they were not satisfied with the outcome of the group's discussions. Further, we included voice quality where relevant, as it can play an important role in children's argumentation (Bose & Hannken-Iljes, 2020). How the students verbalized their meaning, with accompanying tone and intonation, turned out to be crucial for understanding which dialogue move they performed. Material modalities, such as the arrangements of desks, were excluded, and due to camera angles, it was difficult to include facial expressions in a systematic manner.

We went through all the selected sequences of peer talk together, watching the videos and reading the transcriptions while trying to get a joint understanding of the situations and which actions were most significant for our purposes. After this we coded the sequences by applying the framework of (Felton et al., 2022). We began by coding the sequences individually before going through them together again, discussing the turns we had coded different more closely and deciding collaboratively on what kind of dialogue moves these represented. A few utterances were unintelligible in the sense that we could not interpret their meaning or function in the dialogue; these were coded with a question mark.

4. Results

The patterns we identified in the peer talk during group activities were labeled as invocation of consensus, task delegation, the lowest common denominator, and majority vote. In the following, we will show some examples of these patterns before discussing how they, taken together, represent a general tendency in our data material for the students to rush toward a conclusion. Below, the patterns are presented according to their frequency in the data, from most common to least common.

4.1. Invoking consensus

The first pattern we identified was the invocation of consensus. By this, we mean that the students appealed to what the teacher had asked them to do (reaching consensus) during the peer talk. This tended to happen at points where the conversation took a turn, which

the students seemingly did not feel was in accordance with their understanding of these task instructions. Consider the example in Table 4, from the discussions of the second focus group in the third lesson.

The teacher has recently handed out sheets with pictures of different emojis and asked the students to talk together and *agree*. The sequence begins when Stella grabs the sheet and moves it over to the girls' side of the table, out of reach for the boys. The verbal exchange begins when Arthur reacts to this, commenting on the process of the dialogue and rejecting Stella's action as a wrongful interpretation of what the teacher had in mind. Seemingly, her action does not support Arthurs' interpretation of what it means to agree, prompting him to invoke the goal of consensus to steer the interaction in a different direction. This invocation prompts an exploration and elaboration of some perspectives on what the character in the book felt like.

The exploration begins when Oliver states in line 16 that he does not think the characters were in love. Stella asks him to justify his position, prompting him to elaborate. Before he can finish, however, Arthur interrupts him, not taking the time to listen to Oliver's elaboration but instead presenting his own position.

To a certain extent, then, the invocation of consensus corroborates the claim in earlier research that argumentation becomes better when arguing to agree. The students' ideas of what it entails to reach consensus seemed to be at odds with certain patterns of interaction, prompting meta-dialogic statements about the process of the dialogue. However, the exploration and elaboration of perspectives that followed the invocation of consensus tended not to be *sustained* in our data material. By this, we mean that it did not continue over several turns of the peer talk or for a significant amount of time. In this sequence, it only lasted for 5 turns, from line 16 to line 24 in the transcription.

Accordingly, we can see that Arthur's claim in line 23 is not justified, nor is it interrogated further by the other students. He asserts his position without substantiating it, and his position is not interrogated by the other students in the following turns. Oliver shows some interest in Arthur's position by acknowledging it, and Stella follows up by framing the discussion toward an unelaborated interpretation of Arthur's claim regarding which of the emojis is the jealous one.

In summary, we observe that the invocation of consensus prompted dialogue moves that supported the exploration and elaboration of perspectives. However, the students did not give each other space to elaborate on their perspectives, nor did they take the time to

Table 4
Invoking consensus.

| | Verbal | Actions | Coding |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------|
| 1 | | The girls take the emoji-sheet and turn toward each other. | Interpret |
| 2 | | Stella keeps control of the sheet for the rest of the sequence | |
| 3 | | but eventually puts it down, so it is more visible to the boys. | |
| 4 | Arthur: <u>you</u> (.) <u>two</u> (.) did you not listen closely you heard (.) if you did <u>not</u> listen closely you did not hear that (.) the teacher said that we had to a:gree in the <u>group</u> | | Meta (Reject) |
| 5 | | | |
| 6 | | | |
| 7 | (.) | | |
| 8 | Victoria: okay you do it like then then you do it <u>only one</u> | | Agree |
| 9 | Stella: yes but I decide | Stella holds up her palm in the direction of the boys, speaking in a jokingly tone. | Aside |
| 10 | | | |
| 11 | | Oliver leans back, while the girls talk among each other. | |
| 12 | (.) | | |
| 13 | Victoria: no both decide | | Disagree |
| 14 | Stella: xx | | ? |
| 15 | (..) | | |
| 16 | Oliver: yes but I don't really think they were in love | | Counter-UC |
| 17 | (..) | | |
| 18 | Stella: why? | Oliver leans forward. | Justify? |
| 19 | (.) | | |
| 20 | Oliver: because I thought that they were so happy today but on the last over there they were like jæææææp (.) on the last and [then x] | Oliver makes a face to illustrate. | Justify |
| 21 | | | |
| 22 | | | |
| 23 | Arthur: [what I thought was that] Little Monster was jealous | | Counter-UC |
| 24 | Oliver: jealous? oh: [yeah:] | | Acknowledge |
| 25 | Stella: [that one] is jealous | Stella points to an emoji, with a determined tone. | Interpret, Framing Reiterate |
| 26 | Victoria: jealous | | Reject |
| 27 | Oliver: no | | Reject |
| 28 | Arthur: jealous is the one ne:xt to in love | | Counter-UC |
| 29 | (.) | | |
| 30 | that one | | |
| 31 | Stella: is that jealous? | | Interpret |
| 32 | Oliver: no that one is to throw up | | Reject |
| 33 | Stella: that one? | | Question? |
| 34 | (.) | | |
| 35 | Oliver: [yes] | | Answer |
| 36 | Arthur: [no] that one is disappointed | | Counter-C |
| 37 | Oliver: yes but that one is the one that throws up | | Accommodate |

interrogate the different available perspectives. In addition, the focus of the argument tended to be quickly directed elsewhere.

4.2. Task delegation

The second pattern, task delegation, emerged in some form in all the focus groups in both the first and second lessons. The tendency was to delegate the authority for making decisions to individuals or to smaller constellations in the group, for example, by proclaiming, “You two can decide.” Typically, this pattern followed a breakdown of other attempts at reaching consensus, for example, simply giving up or not having enough time.

Following the last example, the peer talk turned into a standstill. They did not actually pick an emoji, nor did they consider picking the one suggested by Arthur. Their brief attempts at deliberation broke down, and the students looked for other strategies. Consider the brief example in Table 5 from the same group as above, beginning only a minute after the end of the last example.

Following the end of their attempt at deliberation, Oliver gives a position on the process of the dialogue, suggesting a recitation of ‘Eeny meeny miny moe’ to choose who is to pick and cut out the emojis from the emoji sheet. Stella seems to agree with this suggestion, immediately starting recitation and pointing. Following this sequence, the students spend the rest of the group work reciting the rhyme, picking emojis individually in the order demanded by the rhyme, cutting out, and gluing one emoji each to the shared task sheet. This happens with minimal on-topic talk. Delegating the task of picking emojis to each individual student according to the rules of ‘Eeny meeny miny moe’ is apparently agreed upon as a legitimate and more efficient strategy to solve the teachers’ challenge of reaching consensus as an alternative to deliberation.

In addition to ‘Eeny meeny miny moe’, we also identified other methods of task delegation to individuals within the group. Consider the example in Table 6 from the first group in the third lesson.

Before this excerpt, three of the students have been participating in a brief exploration and elaboration of perspectives, which continues into this excerpt. Interestingly, this is prompted by an invocation of consensus. In this sequence, Emma tries to enter the conversation.

The excerpt begins when Emma tries to interrupt the other girls’ exploration of perspectives by asking if she can also pick an emoji. This can be interpreted as a meta-comment in the sense that it is prompted by her feeling excluded in some way from the deliberation. As a result, she asks if she can pick an emoji individually. In line 9, Sophia initially dismisses this as irrelevant to the process, before Mia asks whether Emma agrees with them or not. Emma gives her unelaborated disagreement to this, leading to an end to deliberation, as none of the other students interrogates her position any further. Sophia withdraws her earlier dismissal of Emma’s request by giving up and delegating the authority to pick an emoji to Emma.

In summary, although the invocation of consensus tended to initiate brief sequences of deliberation in our data, these sequences broke down relatively quickly, prompting meta-dialogic statements suggesting other strategies that were less demanding. Accordingly, rather than exploring and elaborating on the available perspectives and building a consensus regarding which emojis to pick based on these perspectives, they delegated the authority to pick emojis to individuals or smaller constellations within the group. From the students’ perspective, this seems to be considered a legitimate strategy; although they might not agree as a group on each individual emoji, they at least agree that the method of delegating authority to make the decision is fair.

4.3. Lowest common denominator

The third pattern that emerged through our analysis was the tendency for the students to look for the lowest common denominator—a proposal that was deliberately simplified to appeal to the largest possible number of students in the group—while trying to reach consensus. By this, we mean that they tended to sidestep the *reasons* for why they chose one answer over the other, seemingly content that they at least agreed on which answer was the best, or which aspect of their answer was most relevant to focus on to reach an agreement. That is, if they could find a common element in their individual answers, they tended to pick it as their “consensus” rather than argue *why* that was the best answer or explore other alternatives.

This pattern emerged in two distinct but related ways in the data material. First, it emerged as an attempt at choosing a comparative strategy for reaching consensus. Second, it emerged as an ambiguity about what it means to agree. Beginning with the former, consider the example in Table 7, from the first lesson.

Earlier during the same lesson, the children had prepared individual answers to which emojis they thought were the most fitting for describing one of the character’s feelings. Immediately preceding this specific sequence, the teacher presents the new task, which is to agree in groups of four about *one* emoji that they *all* think is best. The teacher also hands out shared task sheets on which the students are supposed to glue their emojis after they have cut them out from an emoji sheet with a collection of different emojis.

Lisa interrupts Simon in line 2 by holding up her individual task sheet to bring attention to the task and asking the other students to take a position on the possible case that everyone has picked the same emojis. This can be interpreted as an attempt to find the lowest common denominator: *if the case is* that everyone has picked the same emojis individually, there is no need to discuss, since they

Table 5
Task delegation, first excerpt.

| | Verbal | Actions | Coding |
|---|------------------------------------------------------------------------------------|---------------------------------|-----------------|
| 1 | Oliver: hey we can do eeny meeny miny moe about who gets to cut first of all three | | Position (Meta) |
| 2 | Stella: eeny meeny miny moe | Stella points around the table. | Agree |

Table 6

Task delegation, second excerpt.

| | Verbal | Actions | Coding |
|----|-----------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------|
| 1 | Emma: can I also? | Emma glances in the direction of the emoji-sheet, which Sophia is holding. | Question? (Meta) |
| 2 | Mia: he felt a bit frightened w[hen] | | Position |
| 3 | Emma: [can] I also? | Sophia begins cutting. | Respond? |
| 4 | Sophia: when he was a bit [scared] | | Advance |
| 5 | Emma: [can I also] pick one? | | Respond? |
| 6 | Nora: and he was happy | Emma glances down at her desk. | Position |
| 7 | Sophia: yes | Emma glances toward Nora. | Agree |
| 8 | Emma: can I pick one (.) I haven't picked any | | Respond? |
| 9 | Sophia: yes but Emma | | Dismiss |
| 10 | (.) | Emma glances in the direction of Mia, then in the direction of the emoji-sheet. | |
| 11 | Mia: do you agree with us or not? | | Agree? |
| 12 | (.) | | |
| 13 | Emma: not | | Disagree |
| 14 | Sophia: yes but pick one then | Sophia holds up the sheet in the direction of Emma, Emma points to an emoji, Sophia starts cutting it out. | Withdraw |
| 15 | | | |
| 16 | Emma: um (.) that one | | Position |

Table 7

Lowest common denominator, first excerpt.

| | Verbal | Actions | Coding |
|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1 | | Simon grabs the shared task-sheet and the scissor. | |
| 2 | Lisa: wait! did everyone pick all these? | Lisa holds up her task sheet. | Case? |
| 3 | (.) | | |
| 4 | Maria: no not Da[niel] | | Case answer |
| 5 | Simon: [hey!] I have all those (.) [I have] | | Case answer |
| 6 | Maria: [Daniel] | | Continue |
| 7 | Simon: all of those | | Continue |
| 8 | Lisa: me [too] | | Agree (with Simon) |
| 9 | Daniel: [hey] wait a bit [wait!] | | Refuse |
| 10 | Simon: [look] | | ? |
| 11 | Daniel: hey hey hey hey guys guys guys the whole group are supposed to <u>agree</u> | As Daniel says this he rises from his chair, stands at the side of the table, takes the shared task sheet from Simon, and "slams" it on the table. | Meta |
| 12 | (.) | | |
| 13 | (.) | | |
| 14 | Simon: dææææææææææ[æ] | | ? |
| 15 | Lisa: [ye:s] | | Agree |
| 16 | Maria: yes we have to agree now | | Agree |

effectively would have been in agreement already. She suggests a comparative strategy ("Did everyone choose all these?") to solve the task. This is, of course, rather effective, but it does not lead to an exploration and elaboration of perspectives, only to unelaborated statements about whether or not they have the same emojis.

Table 8

Lowest common denominator, second excerpt.

| | Verbal | Actions | Coding |
|----|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------|
| 1 | Maria: should we choose surprised? | Maria holds up the emoji-sheet and points to an emoji. | Agree? |
| 2 | | | |
| 3 | (..) | | |
| 4 | Lisa: surprised? | | Clarify? |
| 5 | Daniel: no that is not surprised (.) should I tell you what that is? (.) that is (..) not surprised but | | Counter-C |
| 6 | it is (.) how could I have thought that trick pills were | | |
| 7 | (..) | Maria begins cutting during Daniel's explanation. | |
| 8 | how could I have thought that poop was trick pills and eaten them? | | Dismiss |
| 9 | (.) | | |
| 10 | Lisa: yes but [umm] | | Dismiss |
| 11 | Daniel: [that's how it feels] in a way | | Continue |
| 12 | Lisa: do we agree on that then? | | Agree? |
| 13 | Simon: ye:[es] | | Agree |
| 14 | Lisa: [should] we pick that? | | Reiterate |
| 15 | Simon: yes we'll pick that | | Reiterate |

Maria answers in disagreement with this suggestion, pointing out that Daniel has not picked the same emojis. Simon, however, answers in agreement. The sequence culminates when Daniel refuses to take a position on the case Lisa has introduced. He does this by invoking consensus and pointing out that this is not in accordance with the task they have been given. He puts some force behind his claim by standing up and slamming the shared task sheet on the table. As demonstrated in the next example, this invocation prompts an exploration and elaboration of perspectives, but once again, it is not sustained.

Second, the pattern of finding the lowest common denominator emerged as an ambiguity regarding what it means to agree. Agreement can imply different things, and this ambiguity manifested itself in the peer talk as a dismissal of counter claims on the grounds that they were considered irrelevant to the task of reaching consensus. As an example of ambiguity in the term, following Niemeyer and Dryzek (2007), there can be a preference consensus (agreement on what should be done), an epistemic consensus (agreement on how actions affect values in cause and effect terms), or a normative consensus (agreement on values). Consider the example in Table 8 from the first lesson, which immediately followed the last sequence in Table 7.

Here, the children have just started discussing what to pick, following Daniel's earlier emphatic invocation of the goal of consensus in protest of Lisa's suggested comparative strategy. They have agreed that they must agree, seemingly concluding that 'agreeing' entails more than comparing and picking the one emoji they all have in common. While this serves as another example of how the invocation of consensus *sometimes* leads to an exploration of perspectives; it also showcases an ambiguity regarding what it means to agree, which the children navigate in a manner that does not support the exploration and elaboration of perspectives.

In line 1, Maria asks the group if they agree with her claim that they should pick the emoji she thinks symbolizes being "surprised." While Lisa asks her to clarify this, Daniel presents a counterclaim as to what the emoji symbolizes. He spends some time elaborating on his perspective, but his peers dismiss its relevance. First, Maria starts cutting out the emoji during his explanation, which can be interpreted as her concluding that they are at least in agreement about which emoji to pick already and that it is therefore unnecessary to finish listening to Daniel's elaboration. Second, Lisa seems to conclude in the same way as Maria when she asks the group if they agree with picking the emoji that Maria suggested as "surprised".

Accordingly, the exploration and elaboration of perspectives were not sustained and seemed to stop when Lisa dismissed Daniel's elaboration as irrelevant to the task of reaching consensus. The group did not pursue his perspective, seemingly content that they agreed on which emoji to pick, while ignoring the individual reasoning behind this choice. Although Maria had already agreed with this conclusion through her action of cutting out the emoji prematurely, Simon agreed explicitly. Accordingly, we observed that the students seemed content with reaching an agreement on what to pick, whereas the reasons for the choice and what the emoji symbolized were considered irrelevant. This can be interpreted as a search for the lowest common denominator. In this particular lesson, this sequence also concludes the group's search for which emoji to pick.

These two excerpts illustrate how the students searched for the lowest common denominator in two distinct but related ways. Both patterns imply that they were more concerned about *what* to pick, rather than *why* one choice was better than another, or to explore other alternatives.

4.4. Majority vote

The last strategy we identified was putting the final decision to a vote among the participating peers. Although this cannot be called a pattern per se, as it occurred only once in our data material, it stood out as significant because it gained some authoritative backing from the teacher. Consider the example in Table 9, from the second lesson.

Prior to this sequence, the teacher had asked students to agree on the "best" answer to what was the odd-one-out among six Christmas-related images. Earlier in the lesson, they had discussed their thoughts in pairs. Daniel and Sebastian together, and Lisa and Maria together. In this excerpt, they were asked to agree together as a group of four.

The sequence begins when Daniel expresses his agreement with what the girls have chosen. This prompts a recap from Lisa, which is

Table 9
Majority vote.

| | Verbal | Actions | Coding |
|----|-----------------------------------------------------------------------|----------------------------------------------------------------------------|-----------|
| 1 | Daniel: I'm thinking the same as you guys | Daniel points his pencil toward the girls. | Agree |
| 2 | Lisa: okay so then it is one two three (.) three against one let's go | Lisa points toward each student around the table as she counts. | Recap |
| 3 | for that [you] | | |
| 4 | Daniel: [the] majority decides | | Accept |
| 5 | Sebastian: no:o | Sebastian looks down at his desk. | Reject |
| 6 | Daniel: yes the majority decides | | Reiterate |
| 7 | (...) | | |
| 8 | Sebastian: then I'm not in on that | | Disagree |
| 9 | Daniel: the majority decides | Daniel mumbles his response. | Reiterate |
| 10 | (...) | | |
| 11 | okay | | |
| 12 | (..) | | |
| 13 | why is santa the odd-one-out then? | | Justify? |
| 14 | Sebastian: because xxx | Sebastian looks up again, toward Daniel. | Justify |
| 15 | | While the boys continue negotiating, the girls start talking about crayons | Dismiss |
| 16 | | | |

accepted by Daniel, giving the recap additional support by introducing the principle of majority vote. Sebastian, who is the minority, disagrees with this. Although this explicit disagreement eventually prompts Daniel to interrogate Sebastian's perspective, the girls dismiss the relevance of this interrogation for the group consensus.

Immediately following this excerpt, the teacher enters the conversation and acknowledges their chosen strategy as "democratic." The teacher tries to comfort a disconcerted Sebastian by saying that "sometimes you have to give in when there is a majority". Following this authoritative backing from the teacher, majority vote is seemingly agreed upon as a legitimate strategy, even though it excludes and ignores the perspective of the student in the minority. Sebastian's perspective is not further explored or elaborated on, and he eventually concedes by exclaiming, "I give in" later in the lesson.

5. Discussion

We set out to investigate: *What do the pupils do when they are asked to reach a consensus?* Thus, it is not the identified patterns in themselves that are most important here but the general tendency that they represent. In the following, we discuss the teacher's emphasis on consensus as a dialogue goal, how this affected what the students did during peer talk in relation to the three basic purposes of deliberation, and some practical implications of this considering the different components of instructional design.

Taken as a whole, there was a general tendency in our data material for the students to rush toward a conclusion when the teacher asked them to reach a consensus. The students did not take the time or were not able to explore or elaborate on different perspectives in the sustained manner necessary to fulfill this basic purpose of deliberative argumentation. This was visible in the peer talk, as most of the dialogue moves were non-elaborative, and there was a lack of interrogative initiations. We observed this in all the patterns outlined above in different ways.

While some of the unelaborated and unexplored claims we observed might be explained by a lack of engagement in the dialogue goal raised by the teacher (to reach consensus) or the topic, we also observed several examples where engagement, elaborated argumentation and exploration of perspectives seemed intellectually consequential for the children. This was especially evident when the peer talk was directed toward practical issues of cutting or gluing. We also saw that not getting the chance to elaborate their perspective was consequential for the children. This was especially evident when Sebastian was not given the opportunity to argue for his claim because the group chose to do a majority vote. We can see him folding his arms on his desk and hiding his face in frustration when the teacher tries to comfort him. This interpretation gives some support to [Mercier's \(2011\)](#) claim that encountering different views might make children care more about defending their positions. The further observation that invoking consensus was the most common pattern is also a case in point, as this indicates that the students did adopt the goal as their own.

In a certain sense, the invocation of consensus is a deviant case in light of the general tendency for the students to rush toward a conclusion. Following the invocation of consensus, the students tended to initiate an exploration and elaboration of perspectives, giving some support to the claim that the goal of consensus facilitates deliberation. However, we observed that the sequences of exploration and elaboration that followed the invocations were brief. The students seemingly struggled or were too disinterested in the issue at stake to sustain an exploration and elaboration of perspectives. When delegating the tasks, the students delegated the authority to pick answers to their peers or to smaller constellations within the group, sidestepping the need to engage all available perspectives while making it easier to reach a decision. When searching for the lowest common denominator, the students tried to find the most effective and easiest route to consensus, either by comparing their individual answers or by being satisfied with a consensus on what answer to pick rather than the reasons for picking it. Finally, in the majority vote, the students ignored the perspectives of the students in the minority, reaching an agreement through the sheer force of numbers. Whereas [Walton et al. \(2016, p. 163\)](#) reserves an important role in deliberative argumentation for majority vote as a contingency when deliberation does not lead anywhere or when time is a constraining factor, the students *began* with this strategy. Interestingly, it also gained authoritative backing from the teacher. These three last strategies are, of course, very effective, to some extent, also solving the task assigned by the teacher. However, they did not support the exploration or elaboration of perspectives.

This tendency to rush toward consensus goes against the ideals of deliberative argument. [Felton et al. \(2022\)](#) argue that "quick consensus is not a goal of deliberative argument, as that outcome also undermines the process of weighing the relative merits of arguments on either side of an issue" ([Felton et al., 2022](#), p. 3). According to [Larrain, Fortes, and Rojas \(2021\)](#), deliberation emerges when contrary views are expressed and discussed through argumentation with the goal of reaching consensus. Whereas [Garcia-Mila et al. \(2013, p. 516\)](#) argue that "one possible way to start is by making the goals of argumentation more explicit," our results indicate that making the goal of consensus explicit is not sufficient in itself.

The difficulty lies in seeking consensus *while* attending to the different perspectives in the group. If the desired outcome is that students are to learn deliberation, consensus orientation must be balanced against what is needed in the specific context to support the exploration and elaboration of perspectives.

The concept of instructional design brings attention to the learners. The students in our material were 5–6 years old and worked in groups of four. At least two points can be made here. First, it is likely more difficult to reach a consensus when there are four students in a group than in for example dyad situations, which has been explored in several earlier studies. There are simply more perspectives to explore and elaborate on, putting more demand on the students regarding interrogating each other's perspectives. This difficulty is visible in how they tended to delegate the authority to decide and how they put decisions to the majority vote, instead of considering the different perspectives in the group. Second, it cannot be assumed that the students had a shared understanding of the dialogue goals. Most likely they had differing interpretations of what consensus implies and what seeking consensus entails. This was especially evident when the students searched for the lowest common denominator.

Considered from the perspective of instructional design, one way for the teacher to approach these difficulties becomes visible

through the distinction between low- and high-structured approaches to methods. The students seemed to need a more explicit focus on establishing the norms and the process of deliberation, especially concerning the different phases and dialogue moves related to the exploration and elaboration of perspectives. As a result, we observed many meta-dialogic statements in our data. Both the invocation of consensus and the decision to delegate the task were typically prompted by meta-dialogic statements, indicating that the question of how consensus was to be reached was left to the students. They also spent a considerable amount of time discussing the different positions on how to reach a consensus, indicating that they considered the question of *how* as very meaningful to discuss. Accordingly, we argue that a low-structured approach focusing on how consensus can be reached, especially the role of interrogative and elaborative dialogue moves, and what it means to agree to something might have supported the students in their exploration and elaboration of perspectives.

To this end, we suggest seeing deliberation less as a unitary process emanating from the goal of consensus, and more as a balance between seeking consensus on the one hand and exploring and elaborating difference on the other hand. Following [Mercier \(2011\)](#), eliciting the different views and positions in the group is important to motivate students to argue. One way of securing this balance in the first-grade context we investigated could have been to suspend the consensus orientation until different perspectives had been given the opportunity to surface. Hence, giving the students more space to explore and elaborate the different perspectives in the group. This would have delayed the rush for consensus. Had the teacher begun by asking the students to share their ideas and listen to their peers, and only after this phase was over, asked them to agree on which suggestion was the best, there might have been a higher possibility of a more sustained exploration and elaboration of perspectives.

6. Conclusion

In this article, we attempted to nuance the proposition that argumentation becomes better when seeking consensus. Multimodal analysis of what the students did when asked to reach an agreement showed that the goal of consensus tended to lead to patterns of peer talk that did not support sustained exploration and elaboration of perspectives. Our findings indicate that the instructional design affects argumentative peer talk, which the study showed us to be not only verbal. The dialogue goal of consensus prompted students to choose strategies that led them to consensus via the fastest possible route, not taking the time to explore and elaborate on the different perspectives of the group. As such, the goal of consensus in itself did not lead to deliberative outcomes.

Based on our findings, we conclude that we need something more than an orientation toward consensus to support deliberation in a first-grade classroom as students at that age are not yet familiar with the phases and moves of deliberative argumentation. While some of the patterns identified here might emerge at higher grade levels, older students can be expected to have a greater understanding of the need to elaborate and explore perspectives before reaching consensus as they have more experience with argumentation in different contexts. Nevertheless, instructional design is important at all grade levels, to ensure a joint understanding of the task. A focus on consensus must be balanced against the need to make room for difference and to give the necessary time for the students to elaborate on and explore the different perspectives and alternatives. To this end, younger students seem to need a more explicit instructional design regarding the phases and dialogue moves of deliberative argumentation ([Felton et al., 2022](#)) to sustain an exploration of perspectives.

Declaration of competing interest

None.

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Appendix A. Argumentative discourse coding scheme ([Felton et al., 2022](#))

Interrogative initiations

| | | |
|--------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Agree? | A question that asks whether the partner will accept or agree with the speaker's claim | Must be a complete, non-rhetorical question. Disregard "you know?" or "right?" tacked onto a statement. <i>Agree?</i> focuses on partner's agreement (cf. <i>Acknowledge?</i>). |
| Acknowledge? | A question that checks whether the partner comprehends or attended to aspects of the speaker's preceding utterance | Must be a complete, non-rhetorical question. Disregard "you know what I mean?" or "right?" <i>Acknowledge?</i> focuses on partner's understanding and attention (cf. <i>Agree?</i>) |

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| | | |
|---------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Case? | A request for the partner to take a position on a particular case or scenario | Code <i>Case?</i> when the question hinges on the specifics of a situation. Code <i>Stance?</i> when the question hinges on a claim that applies across all situations. |
| Clarify? | A request for the partner to clarify or elaborate his or her preceding utterance | Code <i>Clarify?</i> when the speaker does not try to represent the partner's utterance (cf. <i>Interpret</i>). Code <i>Clarify?</i> when question is not critical & rhetorical (cf. <i>Counter-C</i>). |
| Justify? | A request for the partner to provide reasons in support of a claim | Code <i>Justify?</i> when asking for reasons. If asking for more details, code <i>Clarify?</i> If explicitly asking for or challenging to produce evidence, code <i>Substantiate?</i> |
| Position? | A request for the partner to provide his or her global position | If asking for a position, code <i>Position?</i> . If asking whether partner's position has changed or been modified, code <i>Meta</i> . |
| Question? | A simple informational question which does not refer back to the partner's preceding utterance | May be used to initiate a line of reasoning that eventually leads to a claim or critique. If the claim or critique is evident in the initial question, code <i>Counter-C</i> or <i>Stance?</i> instead. |
| Respond? | A request for the partner to react to the speaker's preceding utterance | If the request refers specifically to agreement or disagreement, code <i>Agree?</i> . If the request refers to a specific claim, code <i>Stance?</i> . |
| Stance? | A request for the partner to state his or her position on an opposing-side argument | Code <i>Stance?</i> when the question broadly asks where partner stands on a claim. Code <i>Case?</i> when the question hinges on the specifics of a situation (hypothetical or real). |
| Substantiate? | A request for the partner to support his or her preceding claim with evidence | Code <i>Substantiate?</i> if the speaker is challenging partner to produce evidence. If claiming that substantiating evidence does not exist, code <i>Counter-C</i> . |

Declarative initiations

| | | |
|------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Anticipate | A claim that supports a position in opposition to the speaker's own position not raised by partner | Speakers may <i>Anticipate</i> a claim and then critique it, adding a <i>Counter-C</i> . If speaker is repeating partner's opposing-side claim and then critiques it, only code the <i>Counter-C</i> . |
| Argument | A claim that is provided in support of the speaker's position in the argument | Code <i>Counter-C</i> when there is no other code in an utterance that addresses the partner's preceding utterance. All subsequent new claims in the utterance can be coded <i>Argument</i> . |
| Aside | An off-topic or tangential comment that does not add to the argument about the issue | If the comment is about the progress or process of the conversation, code <i>Meta</i> . |
| Case | An anecdote with details that could be used to pose a question or present an argument | Code <i>Case</i> when the speaker initiates a line of reasoning with an anecdote without getting to a question, claim or critique within the utterance. |
| Counter-A | Disagreement that counters with a new claim that is unrelated to the partner's preceding utterance | Code <i>Counter-A</i> when there is no other code in an utterance that addresses the partner's preceding utterance. All subsequent new claims in the utterance can be coded <i>Argument</i> . |
| Initiate | A statement that begins a line of reasoning without introducing an explicit claim | Code <i>Case</i> if speaker presents an anecdote, code <i>Initiate</i> if talking about the topic without presenting a claim within the same utterance. |

Elaborative responses

| | | |
|------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accommodate | A statement that integrates an opposing argument by adapting but not abandoning the speaker's own argument | Code <i>Accommodate</i> when a claim is adapted to address counter-arguments. Code <i>Position-Q</i> when a global position is adapted with qualifications and reservations. |
| Acknowledge | A validation the partner's utterance, indicating interest, understanding, appreciation or attention | Must be explicit validation. Disregard conversation fillers like, "okay," "yeah," "uh huh," "right," etc. |
| Add | An elaboration of the partner's utterance that does not strengthen their claim | Code <i>Add</i> when the speaker adds detail or plausibility to a partner's claim without providing supporting warrants, backing or evidence (cf. <i>Advance</i> and <i>Add-Substantiate</i>). |
| Advance | An extension of the partner's preceding utterance that strengthens the partner's claim | Must offer warrants or backing to support a claim. (cf. <i>Add</i> and <i>Add-Substantiate</i>). |
| Add-Substantiate | An extension of the partner's preceding utterance that provides evidence for the partner's claim | Evidence can be anecdotal. However, code <i>Add</i> if the anecdote is hypothetical and used to clarify rather than substantiate the partner's point. |
| Answer | An informational response to a Question? presented by the partner | Use only when the response to <i>Question?</i> |
| Case Answer | A response to a Case? presented by the partner | Any answer to a <i>Case?</i> , including simple "yes" or "no" response that indicates how the speaker would respond to the <i>Case?</i> |
| Clarify | A clarification of speaker's own argument in response to the partner's preceding utterance | Code <i>Clarify</i> in response to a <i>Clarify?</i> , <i>Recap</i> , or <i>Interpret</i> from partner. Code <i>Counter-C</i> if clarifying argument in response to a <i>Counter-C</i> from partner. |
| Concede | Agreement with an opposing-side claim put forth by the partner | Code <i>Concede</i> when speaker responds to <i>Stance?</i> with a stance that favors an opposing-side claim. |
| Continue | A continuation of the speaker's previous utterance that ignores the partner's immediately preceding utterance | Only code <i>Continue</i> , when there are no other transactive statements or questions in the utterance to acknowledge the partner's interjection. |
| Coopt | An explicit use of the partner's immediately preceding utterance to serve the speaker's own argument | Code <i>Coopt</i> , if explicitly points out that partner has conceded a point that undermines his/her position. Code <i>Counter-C</i> if the speaker simply calls partner hypocritical. |
| Counter-C | Disagreement that counters with a critique that undermines the strength of the partner's argument | Code <i>Counter-C</i> if critical & rhetorical question (cf. <i>Clarify?</i>). Code <i>Counter-C</i> if rebutting the partner's <i>Counter-C</i> (cf. <i>Clarify?</i>) or critiquing his/her line of questioning (cf. <i>Refuse</i>). |
| Interpret | | |

(continued on next page)

(continued)

| | | |
|--------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | A paraphrase of the partner's preceding utterance with or without further elaboration | Can be a statement or a rhetorical question, but must attempt to represent or summarize partner's utterance (cf. <i>Clarify?</i>). Code <i>Recap</i> , if summarizing the course of dialogue. |
| Justify | Reasoning provided in response to a <i>Justify?</i> presented by the partner | May take the form of a claim, warrant or backing, but not data. Must be in response to <i>Justify?</i> (cf. <i>Argument</i> , <i>Substantiate</i>) |
| Position | A global statement of position on the topic of the dialogue | Code only when in response to <i>Position?</i> or when the speaker is introducing a new position that they haven't articulated previously in the dialogue. |
| Position-Q | A qualification or reservation added to a global position aimed at addressing opposing-side arguments | Must address adaptations to the overall position, rather than to a specific claim (cf. <i>Accommodate</i>). |
| Stance | The answer to a stance question—speaker's response to a request for their position on a reason | Code <i>Concede</i> when speaker responds to <i>Stance?</i> with a stance that favors an opposing-side claim. |
| Substantiate | Evidence presented in support of a speaker's claim | Substantiate can be offered in response [Substantiate?] or to set up the speaker's argument. Code {Justify} when responding to [Justify?] |

Non-elaborative responses

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|------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accept | An explicit agreement to a <i>Position-Q</i> , <i>Interpret</i> or <i>Recap</i> made by the partner | If response is specifically agreement to <i>Position-Q</i> , <i>Interpret</i> or <i>Recap</i> , code <i>Accept</i> . Any elaboration in response to these should be coded <i>Clarify</i> (cf. <i>Agree</i>). |
| Agree | A statement of agreement with the partner's preceding utterance | Code <i>Concede</i> if speaker is agreeing with an opposing-side claim. Code <i>Accept</i> if the speaker is agreeing to the accuracy of the partner's representation of the dialogue. |
| Counter-UC | An unjustified assertion that the speaker's position or claim is better than the partner's position | Any unsubstantiated claim that the speaker's argument or position is stronger or better than the partner's argument or position. |
| Disagree | An unelaborated statement of disagreement with the partner's preceding statement | Do not code <i>Disagree</i> , if the speaker follows up with any transactive statement within the same utterance. |
| Dismiss | An unelaborated statement that the partner's preceding statement is unimportant or irrelevant | If a critique or some rationale for dismissal is provided, consider <i>Counter-C</i> , <i>Meta</i> , or <i>Framing</i> . |
| Reiterate | A simple repetition of a previous utterance without elaboration | Must repeat a point in the speaker's immediately preceding utterance. |
| Reject | An explicit disagreement with a <i>Position-Q</i> , <i>Interpret</i> or <i>Recap</i> | Opposite of <i>Accept</i> . Code <i>Disagree</i> when responding to <i>Agree?</i> or <i>Respond?</i> from partner. Add <i>Clarify</i> if speaker goes on to explain after a simple <i>Reject</i> . |

Meta-dialogic statements

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|----------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Framing | A meta-statement that attempts to establish the focus, breadth or direction of the argument | Any directive about the bounds or direction of the argument. Code <i>Framing</i> if speaker is accepting, rejecting or modifying partner's previous <i>Framing</i> statement. |
| Meta | An utterance regarding the aims or process of dialogue rather than its content | Must address the dialogue or argumentation broadly (cf. <i>Aside</i>) without being about the content of the dialogue (cf. <i>Counter-C</i> , <i>Framing</i> , <i>Coopt</i> , <i>Recap</i>). |
| Recap | An attempt to summarize key point(s) of consensus and/or disagreement in the dialogue | Encapsulates agreement or disagreement between partners, rather than a single point made independently either by speaker (cf. <i>Clarify</i>) or partner (cf. <i>Interpret</i> , <i>Counter-C</i>). |
| Refuse | An explicit refusal to respond to the partner's preceding question | Must be explicit. If refusal is accompanied by reasons for not answering, consider <i>Meta</i> , <i>Framing</i> , <i>Counter-C</i> . |
| Withdraw | Explicit retraction of a claim previously made by the speaker | Must be explicit. Code <i>Concede</i> if the speaker admits that a critique is legitimate but does not explicitly withdraw a claim. |

Appendix B. Transcription notation

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| _ | emphasis |
| : | elongation |
| (.) | short break, 1 s or less |
| (...) | longer break, length indicated by number of dots, each dot representing approximately 1 s |
| [] | overlapping speech, speech within brackets are spoken simultaneously as the bracketed speech in the following or preceding line, left bracket represent start of interruption, right bracket represent end of interruption |
| @ | laughter, number of @ indicates length |
| x | not possible to hear what the speaker said, number of x indicates length of the utterance |

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