How Should Kids Decide Which Idea Is Better? Understanding Children's Perceptions of Group Decision-Making

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Abstract: This article examined children's perception of effective group decision-making. Sixty-eight fourth-grade students were interviewed after completing up to eight group discussions on complex topics. The interview transcripts were analyzed through a unique coding scheme developed to capture both the reasoning components and social dynamics involved in the decision-making process. Results showed that children's perception of group decision-making included four major aspects: making choices, considering alternatives, clarifying ideas, and working collaboratively.

Objectives and theoretical framework

Decision-making, the ability to present an argued point of view, is a higher order cognitive skill that is essential in our daily lives (Kortland, 1997). Further, responsible decision-making is an essential element of social emotional skills, which are linked to children's long-term success in school and life (Durlak et al., 2011). Due to the importance of decision-making, there have been increased efforts to engage students in developing these skills (e.g. Common Core State Standards). Limited progress, however, is shown from such efforts and decision-making remains challenging to teach in the school setting (Patronis, Potari, & Spiliotopoulou, 1999). One reason behind the slow progress is that, like adults, children's typical decision-making relies on heuristic experiences, value-based systems, and rarely involve rigorous argumentation (Acar, Turkmen, & Roychoudhury, 2010). Thus, reasoned argumentation requires purposeful effort to overcome intuitive preferences.

Small group discussions that engage children in argumentation and naturally occurring group decision-making process have shown promising effect (Zhang et al., 2016). To better understand why this is effective, we examined how children perceive group decision-making after they have had opportunities to experience it on their own. Participants in our study were engaged in a particular small group discussion method called Collaborative Reasoning (CR; Sun et al., 2015). In CR, children engage in interactive argumentation on a Big Question about a text, which typically does not have a single right answer. Children manage the content and flow of the discussion. Teachers only step in to provide necessary facilitation of students' argumentation and discussion.

In this study of CR, our primary research question was: What do children perceive is the best approach when making decisions as a group on complex topics? To address this question, we considered the role that both reasoning and social dynamics play during their decision-making process. We tried to avoid the narrow focus of either side because both have been shown to be essential for decision-making on complex topics (Mercier, 2016).

Methods

Three fourth-grade teachers and 76 children (39 girls; Mage = 10.0 years, SD= 0.2) from an elementary school in a Northwestern state in the U.S. participated in this sixth-month study. The teachers divided their classrooms into four heterogeneous groups of six to seven students, each a representative cross-section of the class in terms of gender, talkativeness, and academic ability. Two groups were randomly selected from each class to be videotaped throughout the study. During the following four months, all groups participated in a total of eight CR discussions. During all sessions, the lead researcher and at least one student research assistant were present to collect data and support the teachers as needed.

To understand children's perception of group decision-making strategies, we interviewed each child at the end of the study. We showed students a picture of a group of fourth graders discussing an important problem and having difficulty making the final decision to conclude the discussion. We asked each child: "*How should the kids decide which idea is better?*" Transcripts of students' responses to this question served as the primary data sources for this paper's analysis.

We employed a combined theory- and data-driven approach in developing our coding scheme. We started with Ratcliffe's (1997) six-step decision-making structure that has been used in direct instruction of decision-making skills. We then undertook an iterative process of analyzing the interview transcripts to identify emergent themes and used them to modify Ratcliffe's coding scheme, accounting for a more complete range of responses that attend to both the cognitive and social aspects of collaborative decision-making. The final coding scheme established four mutually exclusive aspects of group decision-making (see results below). Inter-rater reliability between the first and second author was satistfactory (Cohen's Kappa = .76).

Results

Table 1 below summarized the total number and percentage of students who considered each of the four aspects of decision-making. The majority of students specified that the group had to come up with a solution for making choices, such as voting, to resolve the disagreement. Nearly half of the students referred to the value of clarifying ideas (e.g., finding more evidence or "talking through it"). Thirty-eight percent of the students specifically suggested considering alternatives, such as evaluating the merits of two ideas or proposing a new idea. Finally, about one quarter of the students stressed working collaboratively (e.g., pointing out the importance of respectful listening and maintaining harmony while resisting group thinking).

Table 1: Number (percentage) of students who considered each aspect of decision-making

Aspects of Decision-making	Number of Students (percentage)*
A. Making Choices	41 (60.3%)
B. Considering Alternatives	26 (38.2%)
C. Clarifying Ideas	33 (48.5%)
D. Working Collaboratively	16 (23.5%)

* Note: N=68. Totals exceed 68 (100%) as many students made suggestions in more than one category.

Preliminary analysis of the interview transcripts suggests that students from one of the three classrooms were much more likely to produce a wider range of decision-making stratigies in their interview responses. Further examination of group discussion transcripts is necessary to determine if there are specific group-level and classroom factors that have potentially influenced children's perception of group decision-making.

Discussion and research importance

This study examined children's perception of group decision-making after they experienced a series of collaborative group discussions on complex topics. We found that when prompted to think of the best approach for a group to make decisions, children came up with four major aspects that include making choices, considering alternatives, clarifying ideas, and working collaboratively. These four aspects reflect both cognitive and social aspects of decision-making as well as an appreciation for both high quality decisions and effective procedures.

This study sheds light on the efforts in finding effective ways to promote children's reasoned decision-making through peer-centered collaborative discussions. With further analysis examining the connections between group discussions and children's perception of decision-making, this study will provide insights for educators on best practices to improve children's consideration of multiple aspects of decision-making.

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