

# Learning About Facilitation of Inquiry Dialogue with Argumentation Rating Tool

Alina Reznitskaya

## Objectives

*Inquiry dialogue* is a particular type of talk that takes place during class discussions. The purpose of inquiry dialogue is to collectively formulate more reasonable judgments (Walton & Macagno, 2007). We use the term “inquiry” to emphasize that the aim is not to persuade others that you are right, but to collaboratively figure out what is right, or more reasonable. During discussions that feature inquiry dialogue, students take public positions on an issue, support it with reasons and evidence, challenge other participants, and respond to counterarguments with rebuttals.

Today, there are many theoretical accounts (Burbules, 1993; Lipman & Sharp, 1994; Mercer & Littleton, 2007; Wells, 1999) and emerging empirical evidence linking dialogic interaction to important learning outcomes, including reasoning, problem solving, and critical thinking about text (Nystrand, Wu, Gamoran, Zeiser, & Long, 2003; Reznitskaya et al., 2009; Wegerif, Mercer, & Dawes, 1999). Unfortunately, many teachers have difficulties conducting class discussions that feature inquiry dialogue (Alvermann & Hayes, 1989; Nguyen, Anderson, Waggoner, & Rowel, 2007).

We designed the *Argumentation Rating Tool* (ART) to help elementary school teachers evaluate their facilitation during class discussions in language arts classrooms. The users of the ART observe a segment of a discussion and rate the quality of teacher facilitation and student argumentation using a 6-point scale. Designed to support professional development and research efforts, the ART helps to engage teachers in a systematic assessment of their practice and to promote reflection on the role of language in

student learning. The research described in this paper aimed to address two goals: 1) examine reliability and validity of the ART and 2) investigate its usability and instructive value for practitioners.

### Theoretical Framework

The ART integrates two typically unrelated strands of research: the literature on argumentation and the scholarship on classroom discourse. Following argumentation theorists (e.g., Toulmin, 1958; Walton, 1996), we identified four key criteria of quality argumentation. They include 1) sharing alternative perspectives, 2) demonstrating clarity in language and argument structure, 3) providing acceptable reasons, and 4) upholding the logical validity of arguments. We then connected the four criteria to eleven pairs observable teacher facilitation/ student argumentation practices, which have been shown to be effective for supporting productive class discussions (e.g., Alexander, 2006; Mercer, Wegerif, & Dawes, 1999).

### Methods and Data Sources

The data came from our previous research on the use of inquiry dialogue in Grade 5 classrooms. In Study 1, we worked with 9 teachers and 263 students (Reznitskaya et al., 2012). In Study 2, we worked with 49 teachers and 935 students (Reznitskaya & Wilkinson, 2015). To examine the reliability and validity of the ART, four research associates rated 232 discussions from both studies. Thirty-six discussions from Study 1 were also rated using alternative measures of classroom talk. We chose the Accountable Talk Observation Rubrics (Junker et al., 2006) and the Talk Assessment Tool for Teachers (Wilkinson, Reninger, & Soter, 2010) as our criterion measures. This allowed us to investigate the following questions:

1. What is the relationship between the ART scores and criterion measurements?
2. What is the relationship between the ART scores and alternative measurement methods?
3. Is the ART sensitive to experimental manipulations of classroom talk?
4. What are the properties of the ART items?
5. What is the evidence to support the reliability of the ART scores?

To investigate usability and instructive value of the ART we performed a code-based analysis of teacher comments, made during focus group interviews, study-group meeting, and coaching sessions conducted as part of Study 2. These comments informed us about how teachers were using the ART to learn about facilitation and what features of the tool they found particularly helpful (or not).

### Results and Scientific Significance

We were able to document several desirable psychometric properties of the ART and to tap into its potential to improve teacher practice. The evidence supports the intended interpretation of the ART scores and indicates that the tool can be used reliably by multiple raters. Further, practitioners report that the ART helped them to re-think and modify their classroom practices. In addition, a professional development program that used the ART was effective at helping teachers change their practice, making their interactions with students more dialogic.

We conclude that the ART has a solid theoretical foundation and an emerging evidence to support its psychometric properties. It helps to distill research-based facilitation practices for practitioners, thus structuring and promoting the process of change.

Preference: We prefer to present this research to full conference audience.



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