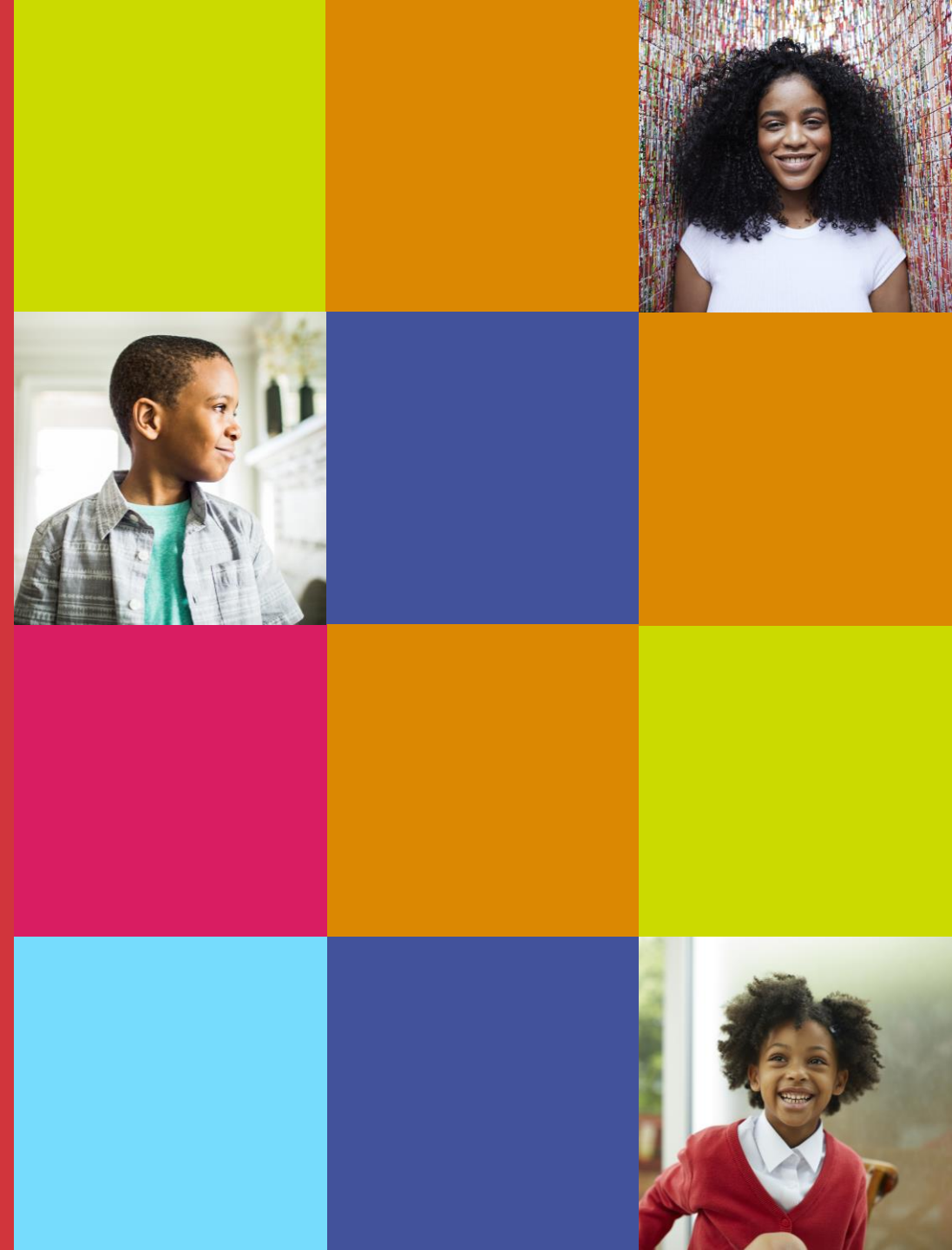


Seventh-Grade Students' Outlook About Peer Conflicts During Math Groupwork

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Overview of the Study

The classroom plays a pivotal role in adolescent cognitive, social, emotional, interpersonal, and intrapersonal development (Rubin et al., 2006).

However, classroom interactions expose students to conflicts, sparking a debate on the effectiveness of groupwork (Jones and Brinkman, 1994; Johnson and Johnson, 1996; Ormrod, 2020).

Therefore, this study explores student perceptions of conflicts during math groupwork.

Research Questions:

1. How do students' conflict perceptions relate to their conflict style?
 - a) Do perceptions change due to incremental theory?
2. How do perceptions of group members relate to the conflict styles used?

Background Literature

Peers, adolescences, influence, interactions:

Peer influences significantly impact students' engagement and conflict resolution in groupwork settings (Jin et al., 2022). Peers have protective functions, impacting school engagement (Moses and Vilodas, 2017).

Conflicts, peer conflicts, peer conflicts inside the classrooms, groupwork conflicts:
Most research revolved around vengeance & bullying.

Resolving conflicts contributes to students' happiness (Wang et al., 2014).

The impact of exposing students to incremental theory (people can change) has also been noted to enable conflict resolution (Yeager et al., 2011).

There is no one-size-fits-all approach to conflict management; varied outcomes result from different strategies.

Definitions of the Study

Conflict Definition:

"Conflict" is defined as assertive acts of raising opposing views, ideas, thoughts, disagreements, disputes, or challenges among peers (Opotow, 1991).

Incremental Theory:

A belief that people can change.

Students' Perceptions to Conflicts:

- Positive conflict perspective would incorporate an opinion that conflicts are an opportunity, challenge, and enrichment.
- Negative would incorporate an opinion that conflicts are undesirable, hostile, and painful.

Students' Approaches to Conflicts:

Five styles of conflict management: Dominant, Obliging, Avoiding, Integrating, and Compromising (Ben-Ari and Hirshberg, 2009).



Data & Methods

Data Collection

- Part of the ongoing project "Equitable Math Groupwork in Middle-School"
- Complex Instruction (CI) at a private K-12 school in Ohio (Cohen & Lotan, 1997).
- Participants: Ten 7th-grade students (1 boy, 9 girls), all Black/African American or multi-racial, during the 2022-2023 academic year.
- Students chose group roles (Leader, Spokesperson, Referee, Recorder).
Role rotation encouraged while keeping group members constant.
- Project conducted in partnership with an experienced Math teacher.
- 1:1 Semi-structured interviews.

Data Analysis

- Qualitative deductive coding focused on conflict style and conflict perception.
- Codes triangulated among researchers and refined through a second analysis round.

In-depth interviews in January 2023 revealed:

- Positive and negative conflict perceptions.
- Identification of conflict styles through interview responses.
- Exploration of incremental theory's correlation with conflict perceptions and resolution styles.



Findings

Overview of findings

Our findings are divided into three broad sections to correspond with our objectives:

- Students' Perceptions of Conflict
- Correlation Between Perceptions and Conflict Styles
- Connections Between Perceptions of conflicts and perceptions of Group Members' Qualities

• Students' Perceptions of Conflict

- 9 out of 10 students displayed primarily positive perceptions of conflict.
 - Of those 9, 3 students were found to exhibit traces of negative perceptions occasionally.

Anna: Do you feel comfortable having disagreements with your group members?

Renea: I mean, **disagreements** happen where different people with different opinions. So disagreements are **going to happen and it's a part of teamwork** and **it's a part** of building upon a relationship with your group.

- 1 student showed predominately negative with traces of positive perception occasionally.

All students were found to have an existing understanding of incremental theory.

• Correlation Between Perceptions and Conflict Styles

Students' perceptions of conflict played a significant role in shaping their preferred conflict styles during math groupwork.

Negative Perceptions of Conflict:

Students with negative perceptions of conflict, leaned heavily towards the Avoiding Style.

Positive Perceptions of Conflict:

Students with positive perceptions did not use Avoiding style.

Students' conflict styles are largely static but could adapt based on specific contexts.

Pseudonym	Their perception of conflict	At large style used
Bec	Positive	Compromising
Cece	Positive	Compromising
Nerds	Positive -	Avoiding
Maddie	Negative +	Avoiding
Renea	Positive -	Avoiding
Jem	Positive	NA
Cheyenne	Positive	Dominating & Integrating
Blu	Positive	Dominating
Trinity	Positive	Compromising
Story	Positive -	Avoiding

• Connections Between Perceptions and Group Members' Qualities

Views about group members	Complete Positive for all group members				
Student pseudonyms	Bec	Cece	Renea	Trinity	Story
Student Conflict perceptions	Complete Positive	Complete Positive	Positive & partially Negative	Complete Positive	Positive & partially Negative
Student Conflict Styles used at-large	Compromising	Compromising	Avoiding	Compromising	Avoiding

Amongst students who only spoke positively about ALL of their group members-

- Students who had a positive conflict perception correlate with using Compromising style.

- No student shared negative views for all their group members.
- However, there were students who shared positive views for 1 of their GM and negative for the other 1; both of them used Dominating style.

Views about group members	Negative for a group member and Positive for a group member	
Student pseudonyms	Cheyenne	Blu
Student Conflict perceptions	Complete Positive	Complete Positive
Student Conflict Styles used at-large	Dominating & Integrating	Dominating

We also found students who shared mixed views for all their GMs & one student who shared positive views for 1 GM and mixed for the

Views about group members	Complete Positive for all group members					Mixed for all group members	Negative for a group member and Positive for a group member		Positive for a group member, mixed for a group member
Student pseudonyms	Bec	Cece	Renea	Trinity	Story	Nerds	Cheyenne	Blu	Maddie
Student Conflict perceptions	Complete Positive	Complete Positive	Positive & partially Negative	Complete Positive	Positive & partially Negative	Positive & partially Negative	Complete Positive	Complete Positive	Complete Negative
Student Conflict Styles used at-large	Compromising	Compromising	Avoiding	Compromising	Avoiding	Avoiding	Dominating & Integrating	Dominating	Avoiding

Which qualities?

Good qualities - hardworking and good listeners. Respectful, kind, cordial, and paying attention were desirable qualities.



Bad qualities - Not participating, not working, being mean, rude, and not focusing were highly undesirable group member qualities.



Limitation

While the paper provides valuable insights into students' perceptions of conflict, there are some limitations to consider. **The sample size** may not represent the entire student population, and the paper's focus on math groupwork may limit its generalizability to other subjects or contexts.





Funded by NSF but views & findings are of researchers.

**Thank you for your
attention!**

What questions can I answer for you?