

Background

- I teach 7th grade science at a public 7-8 intermediate school in Clovis, CA for the past 7 years
- Students are great at partner/ small group discussions, but did not bring the same rigor or participation to whole class discussions
- Interested in finding a way to enhance whole class discussions, making them more student-centered and rigorous

Research Questions

What are the effects of whole class discussion in the middle school classroom?

Do Socratic Seminars provide an environment that fosters productive student dialogue?

How does incorporating regular Socratic Seminars affect the student?

How does incorporating regular Socratic Seminars affect the teacher?

Treatment

- Implemented 4 Socratic Seminars centering around science topics over 7 months in both general science and honors science classes.
- Socratic seminars are whole class discussions centered around a question. The teacher is a facilitator, students lead the discussion.

Key Findings

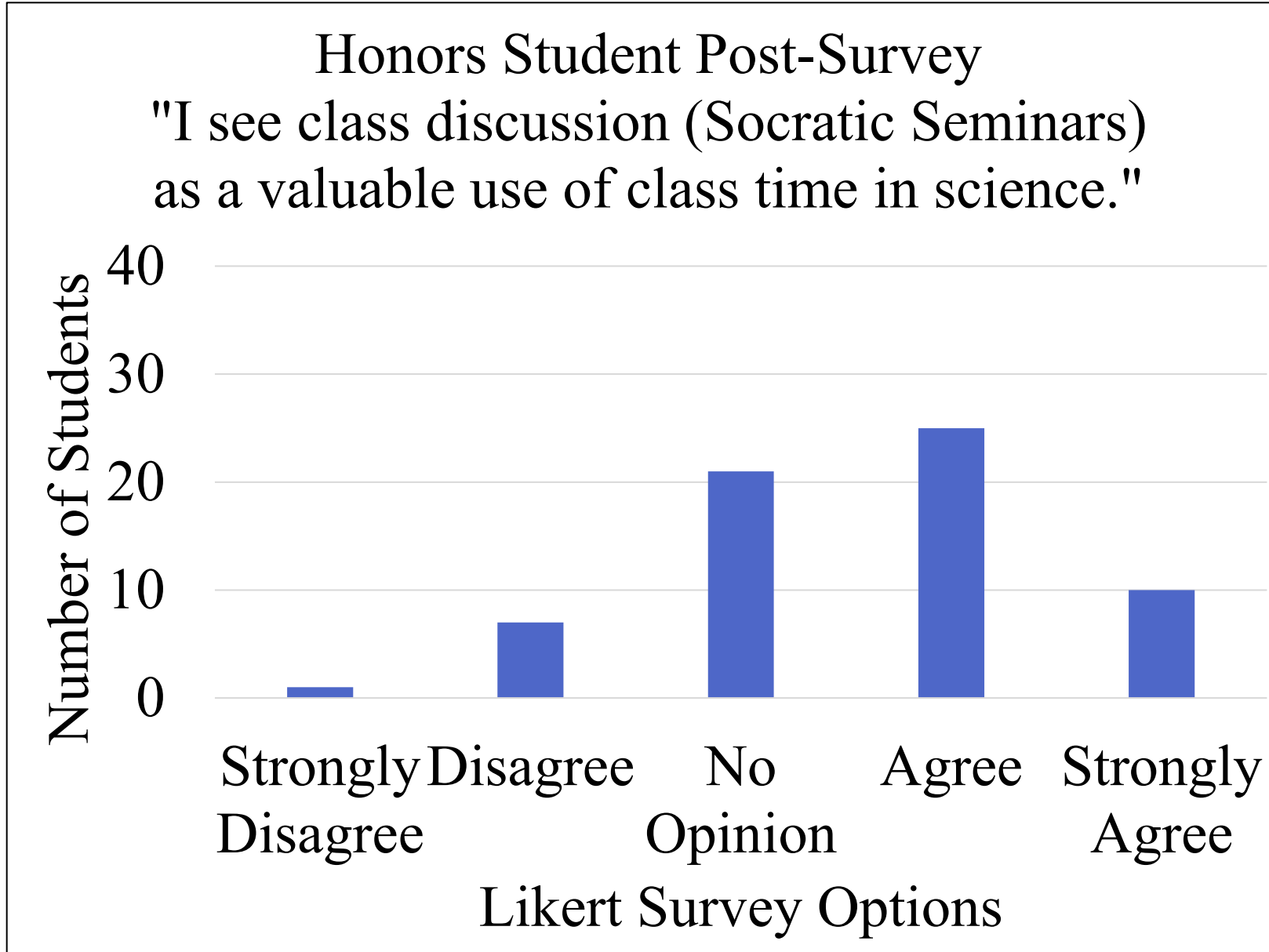
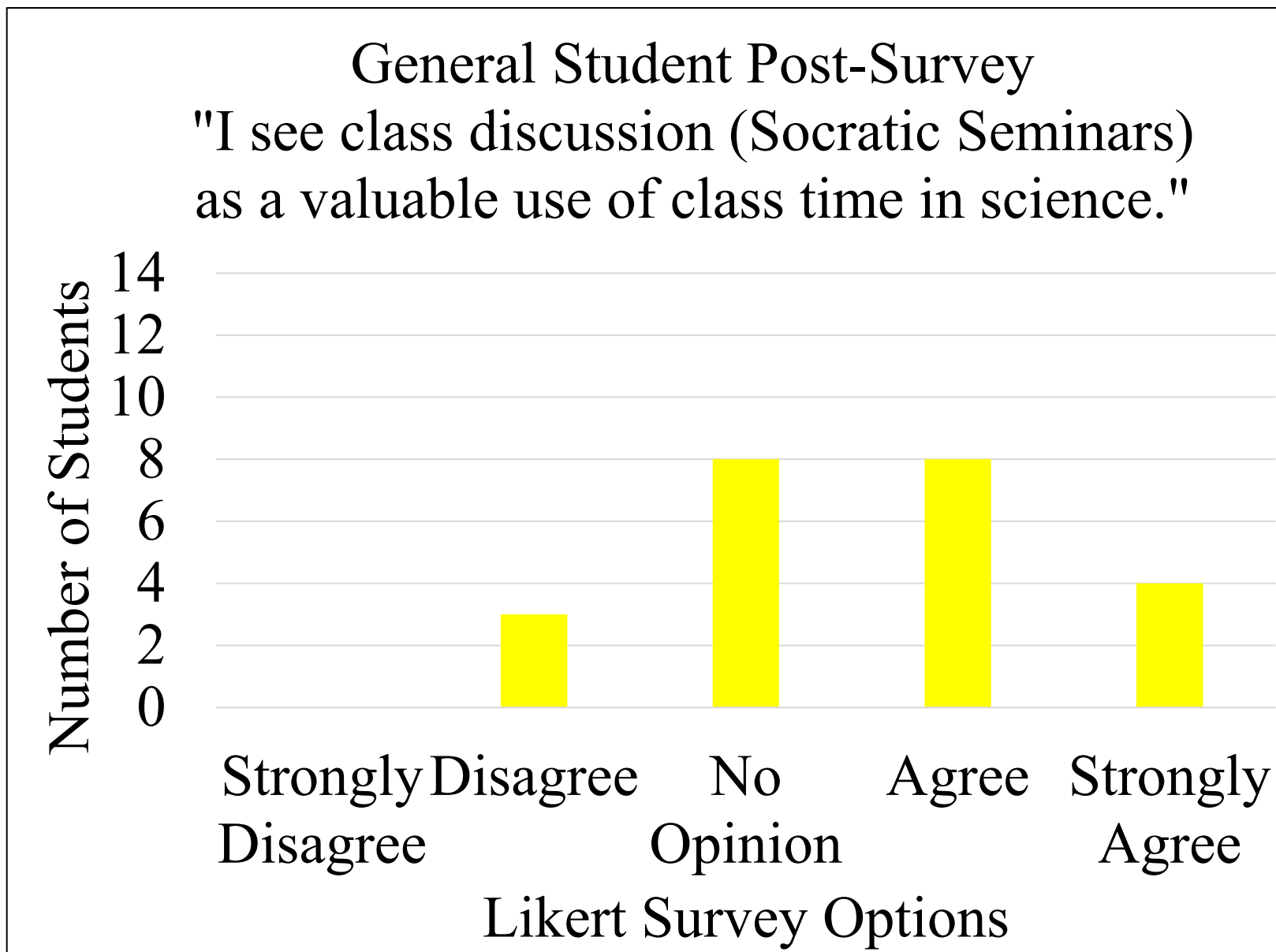


Figure 1. General ($n=23$) and Honors Science ($n=64$) Responses to "I see class discussion (Socratic Seminars) as a valuable use of class time in science".

"I think it's a good way to get out ideas and thoughts and help students feel more comfortable with public speaking". –General Science Student

While I'm not good at speaking in them, I believe that Socratic Seminars help build class unity and help to aid in collaborative knowledge". –Honors Science Student

Table 1. Group Participation During Socratic Seminars. For General treatment group, $n=23$. For Honors treatment group, $n=64$.

	Socratic Seminar 2		Socratic Seminar 3		Socratic Seminar 4	
	General	Honors	General	Honors	General	Honors
Percent of Groups Who Spoke	44%	73-93%	36%	53-80%	73%	78-81%

Table 2. Socratic Seminar Teacher Survey Responses

Benefits for Teachers:

- Informal observation of other non-content skills such as speaking, listening, and social skills.
- Get students out of their comfort zone
- Takes the instruction piece from teacher and puts accountability for learning back on the students

Drawbacks for Teachers:

- Creating the amount of time in curriculum mapping for student-focused Socratic Seminars takes away time front content focused instruction
- Finding good materials to talk about
- Possible topics could get controversial

Conclusions

- Honors classes were more adaptable and reach greater participation level and depth of discussion. However, with proper scaffolding, general classes raised participation rate by end of study.
- Socratic Seminars put a rigorous demand on students to contribute to class discussions. Would help if students practice Socratic Seminars in other classes besides science.
- Socratic Seminars allow an opportunity for a teacher to conduct whole class conversations that are student driven.