Science is Elementary

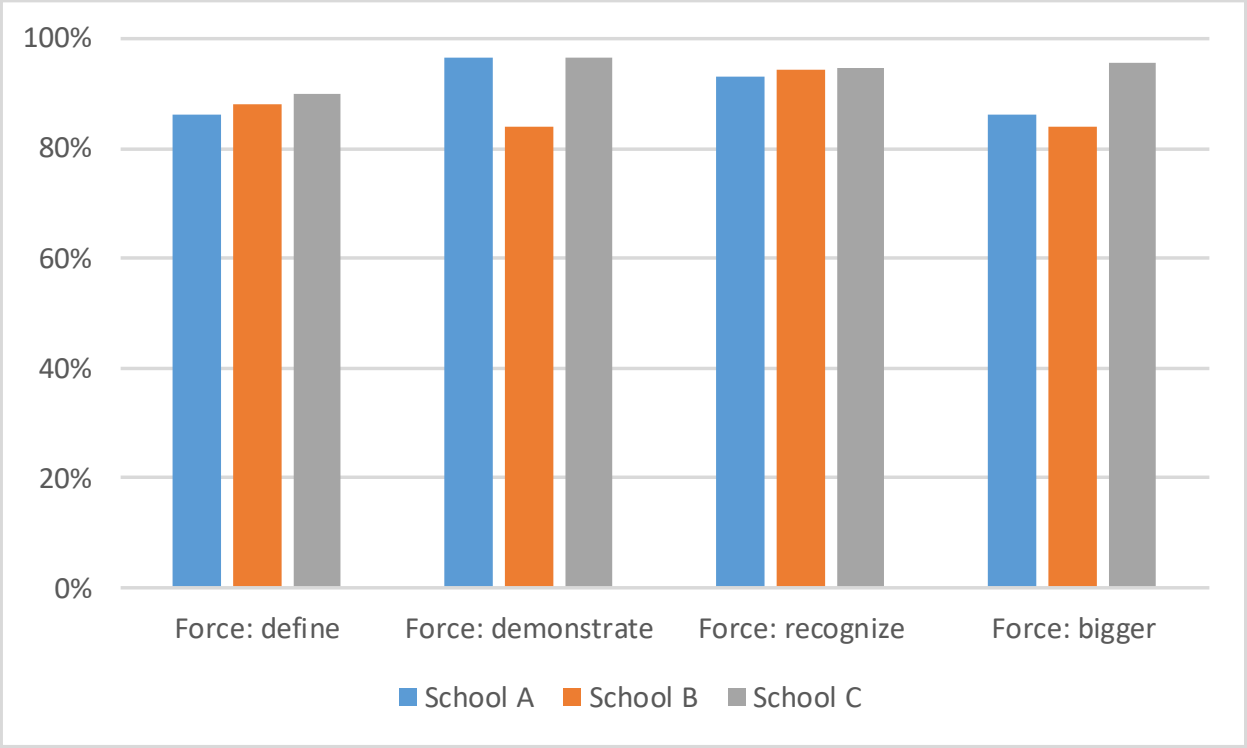
Transforming elementary science education for everyone

Kindergarten End-of-Year Assessment (2017)

In 2017 we assessed 203 kindergarteners, in our program, at the end of the year, to see what they learned. We compared results from schools with vastly different demographics (see chart on the right). All our students scored equally well.

Questions we asked the students:

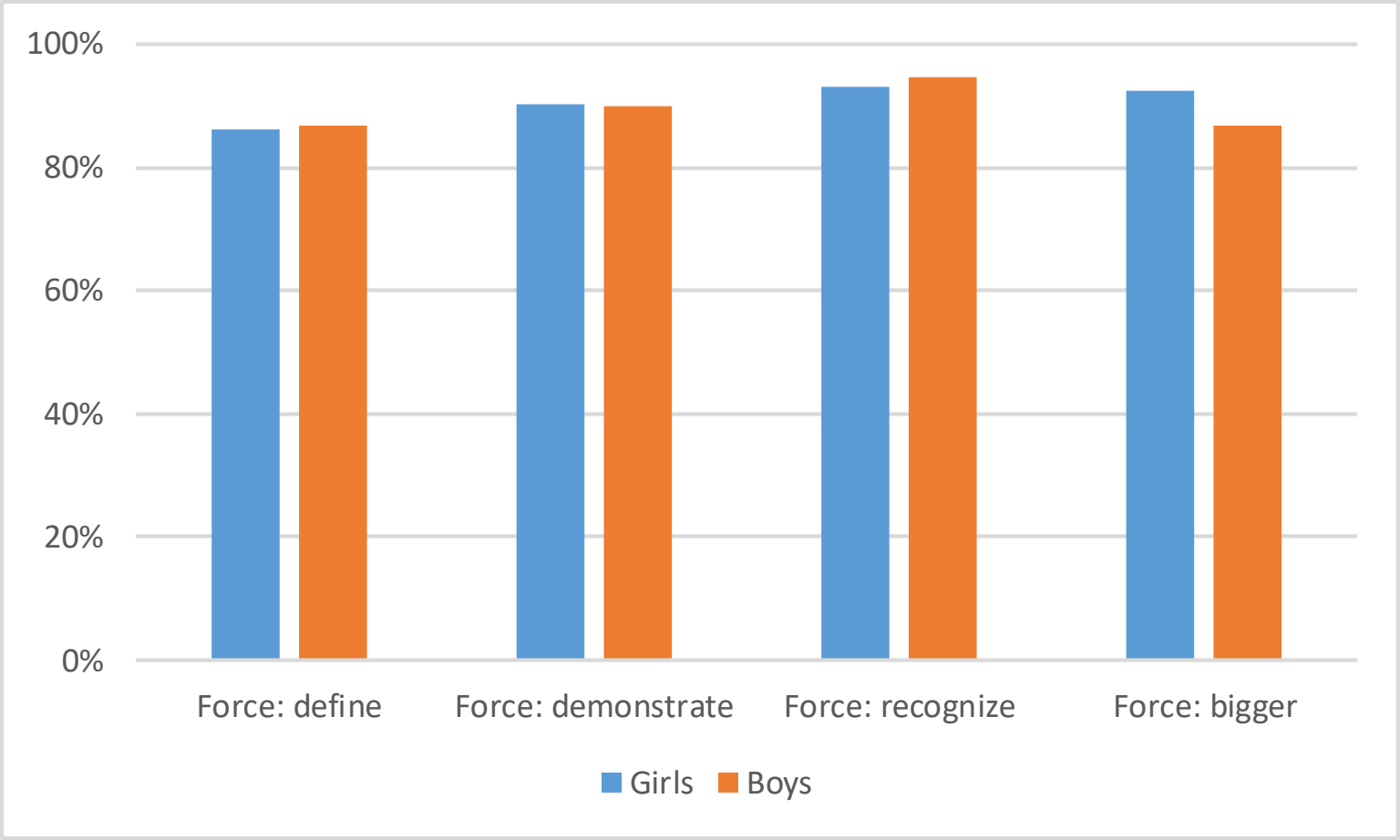
1. Define “force” using words.
2. Show me how you exert a force .
3. Show me which children (in these pictures) are exerting a force.
4. Which of the 2 balls in this picture was pushed with a bigger force?



Demographics			
	School A	School B	School C
English Learners	76%	33%	18%
Free & Reduced Lunch	82%	45%	7%

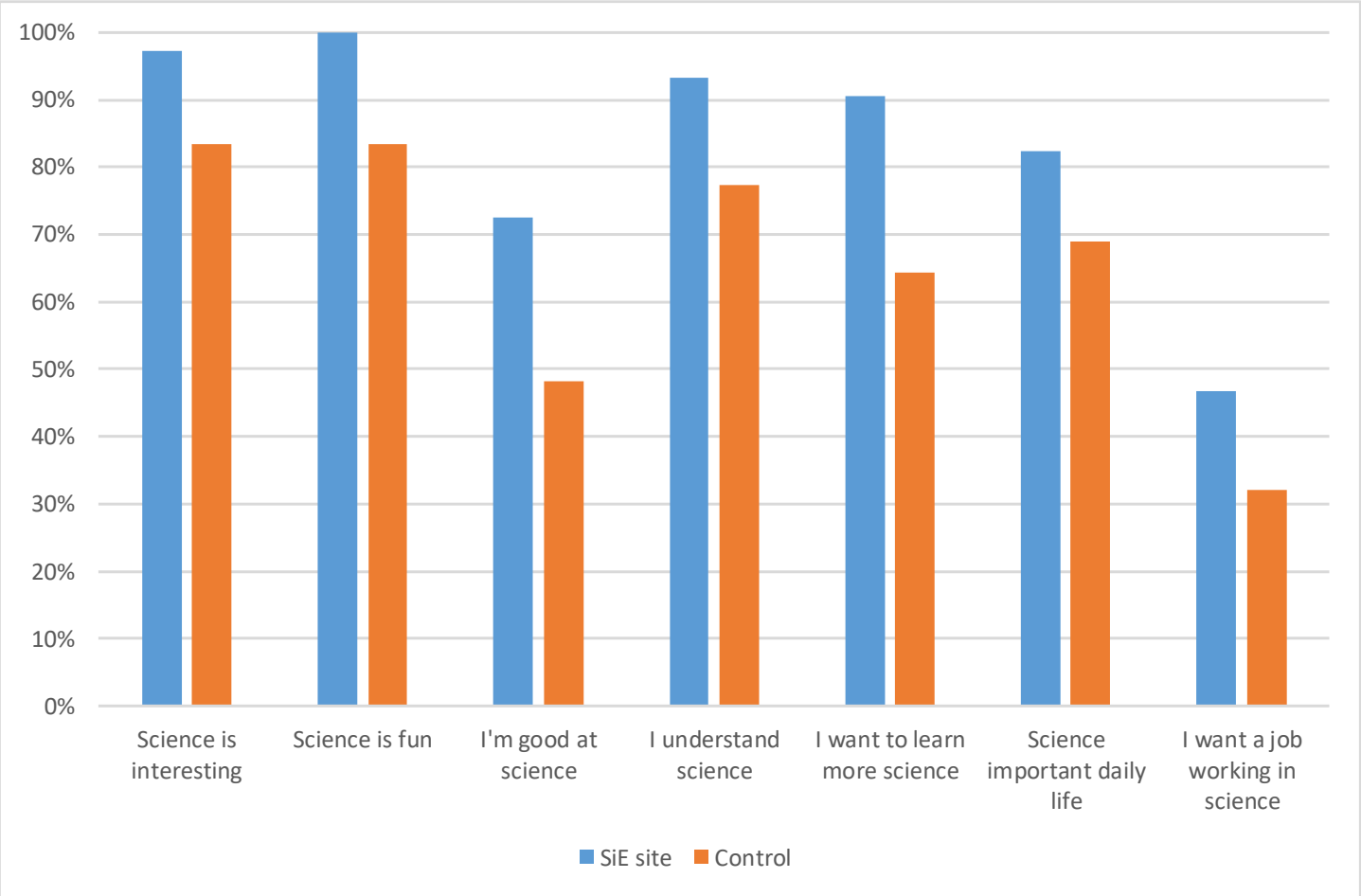
Kindergarten End-of-Year Assessment (2017)

In the same assessment, we also compared boys and girls. Girls did just as well as boys.



Fifth Grade Attitudinal Surveys (2017)

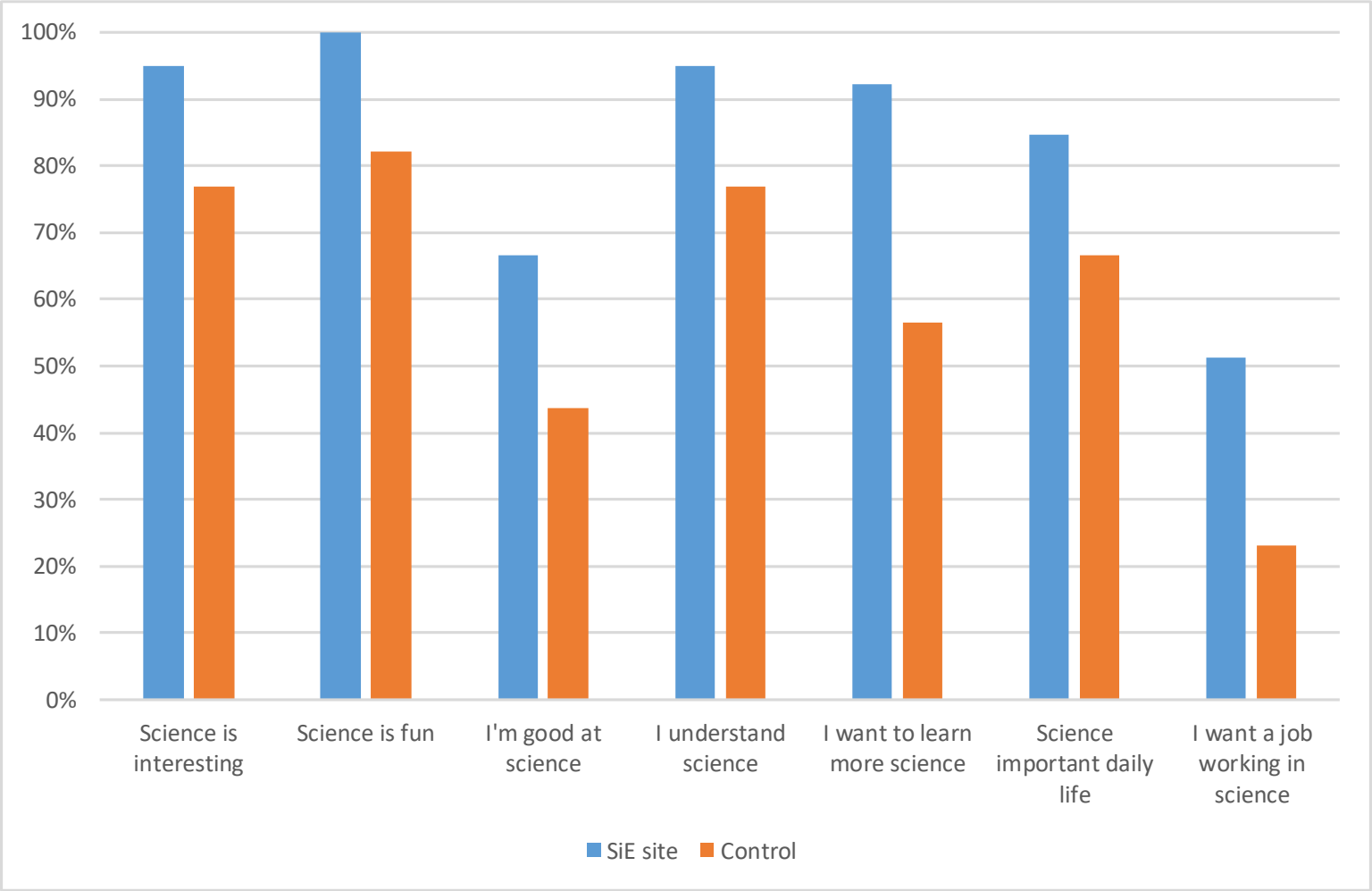
Positive attitudes impact what we care about and how we choose to spend our time. Positive attitudes to science make students more engaged and likely to continue in the field. Our attitudinal survey compared children who participated in our program for 5 years with children who have not. Our students have significantly more positive attitudes towards science.



	SiE site	Control
Number of students	74	83
SiE participation (years)	5	0
Free & Reduced Lunch	90%	65%
Demographics	66% Latinx 2% Black 11% White 14% Asian	47% Latinx 2% Black 26% White 16% Asian

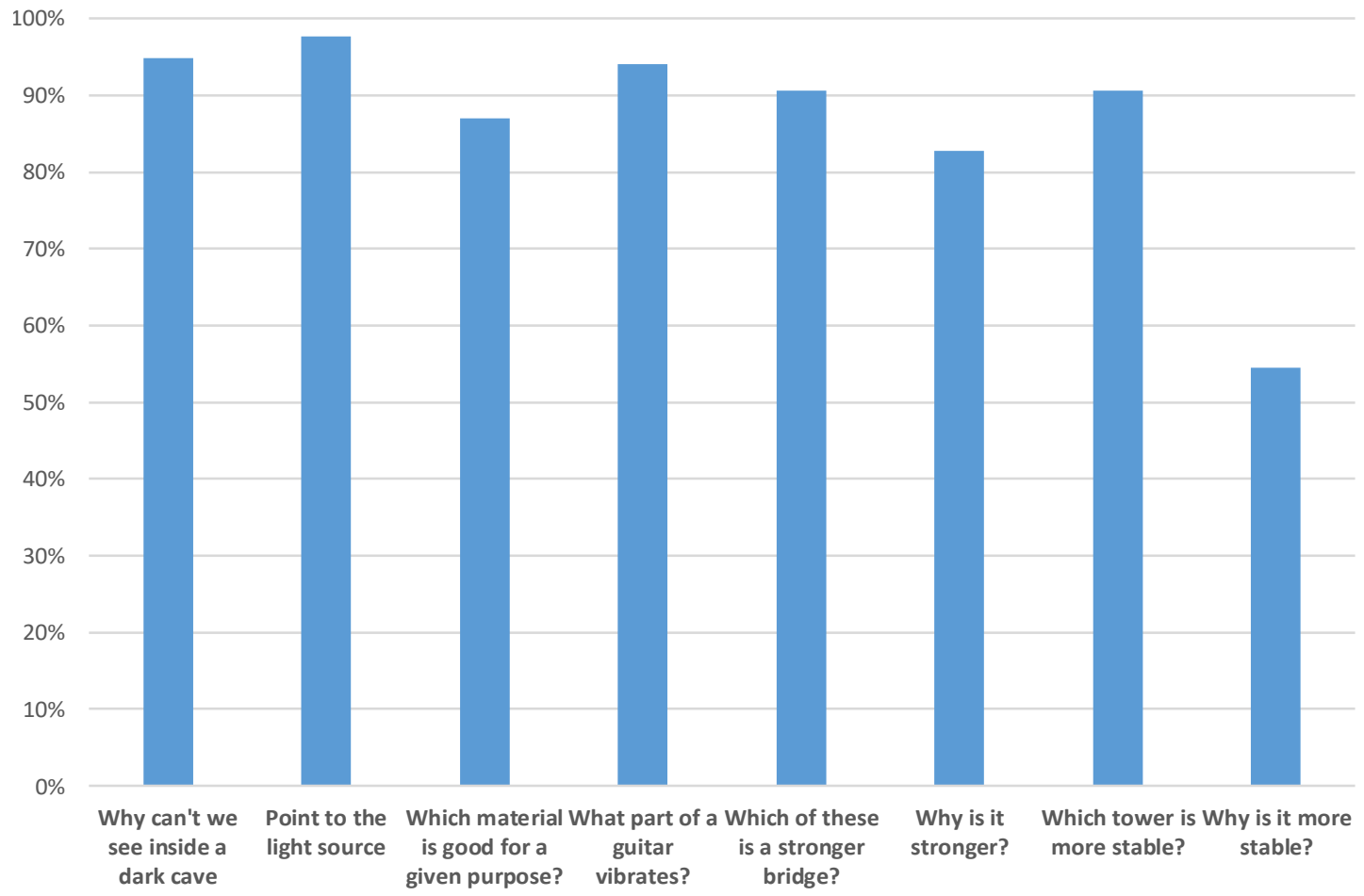
Fifth Grade Attitudinal Surveys (2017)

In addition to tracking students by demographics, we look at our program's impact on girls, who are also significantly underrepresented in science and engineering. The chart below shows results for girls only, at the same two sites as in the previous slide. Most striking is that girls in our program are more than twice as likely to want a job working in science.



First Grade End-of-Year Assessment (2019)

This assessment was conducted in one-on-one interviews to ensure that students' reading and writing levels didn't affect their ability to communicate their science knowledge.



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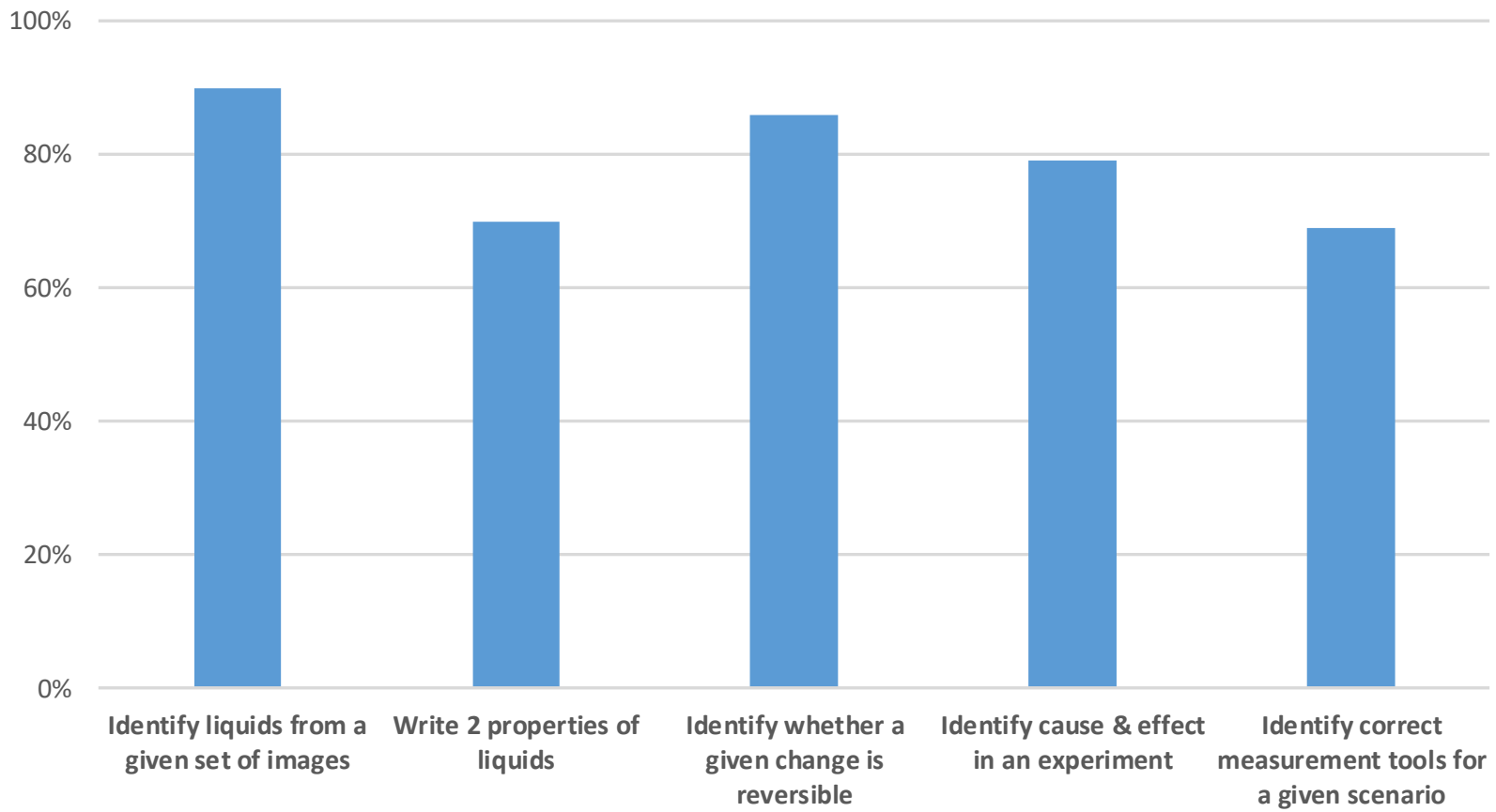
Second Grade End-of-Year Assessment (2019)

This was a written assessment given to students in our second grade classrooms. They answered the assessments individually. English learners got help reading the questions.

Results for the last three questions are an average of multiple questions in the same category. E.g. students were presented with 4 changes and asked which is reversible.



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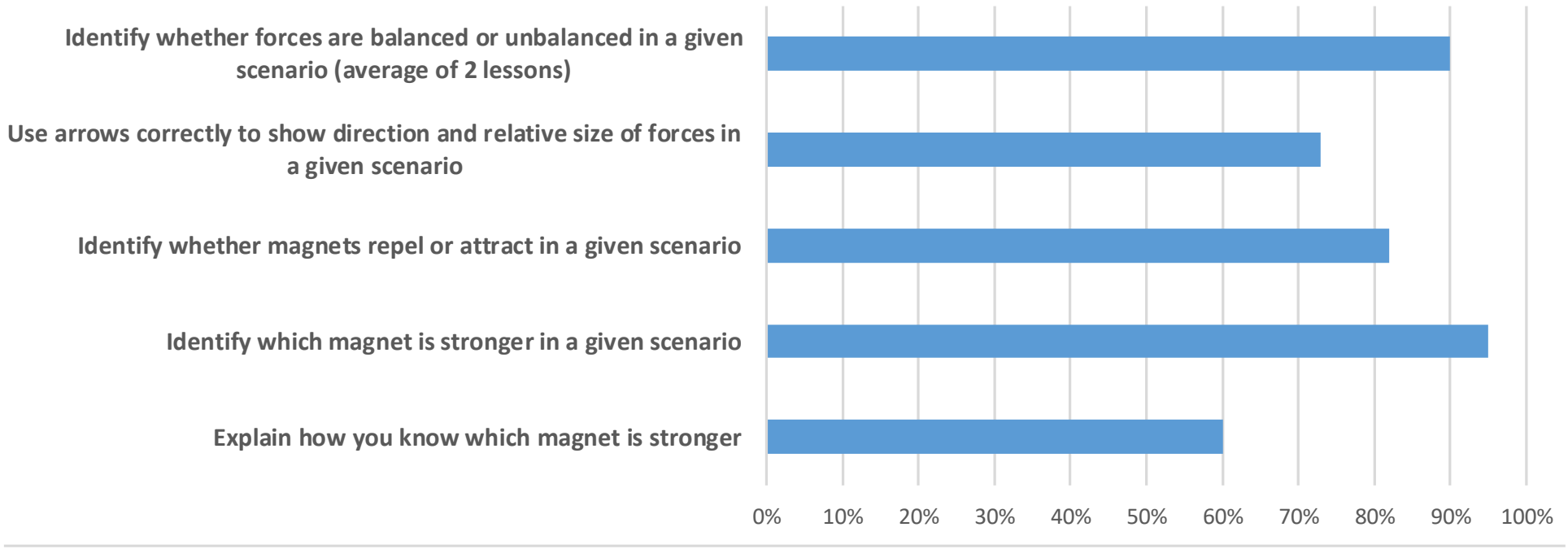
Third Grade Exit Ticket Summary, Part 1(2019)

Exit tickets are short 2-4 question assessments given at the end of each lesson. Students complete these individually, in writing, in a few minutes. Please note that the first bar is the average of answers from 2 lessons.



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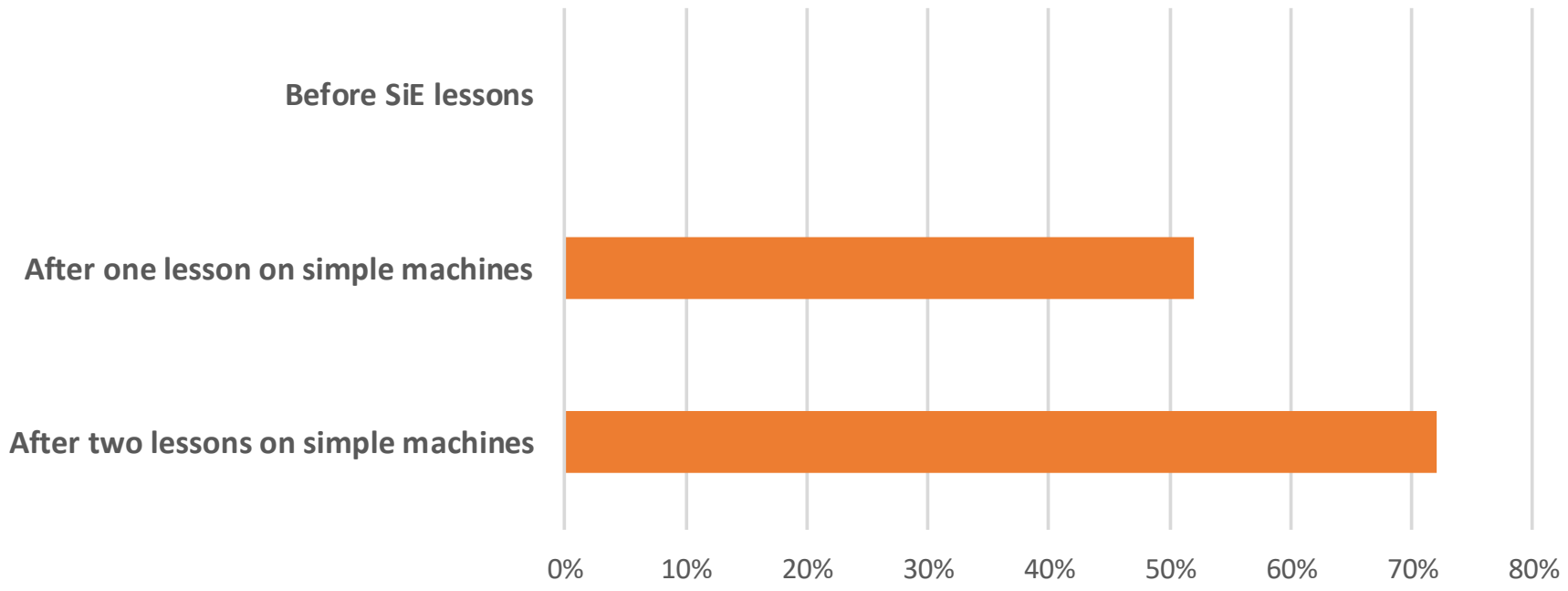
Third Grade Exit Ticket Summary, Part 1(2019)

The chart below is a summary of three lessons. We asked students to articulate the trade-off in simple machines, namely that while simple machines allow us to use less force to move an object, we are required to exert that force over a longer distance.



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Contact us

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