How far can we throw?

Annotation

Sophie collects appropriate data to answer an investigative question that her teacher has posed. The data Sophie collects is whole-number data. Sophie displays her data using a dot plot. This data display clearly shows the results of her investigation, and she can use it to answer the investigative question. Sophie makes two accurate statements about what her data shows. Together these statements provide an appropriate answer to the investigation.

Problem: How far can we throw?

The class discuss ways of collecting data, and they explore the features of a bar graph and a dot plot. The teacher asks the following investigative question in the context of preparing for a school sports day:

How far can students in our class throw a tennis ball? Carry out a statistical investigation to answer this question.

Student Response

Sophie completes the following chart:

Name	Throw	Name	Throw	Name	Throw
Sally	2	Casey	5	Jeremy	7
James	4	Jermaine	8	Philip	6
Hone	4	Kairos	8	Jake	4
Sula	7	Yusuf	6	Hayley	6
Taane	5	Albert	5	Grace	6
Talei	6	Sophie	5	Susan	5
Mary	4	Nina	4	Fiona	6

How many cones the throw passed?
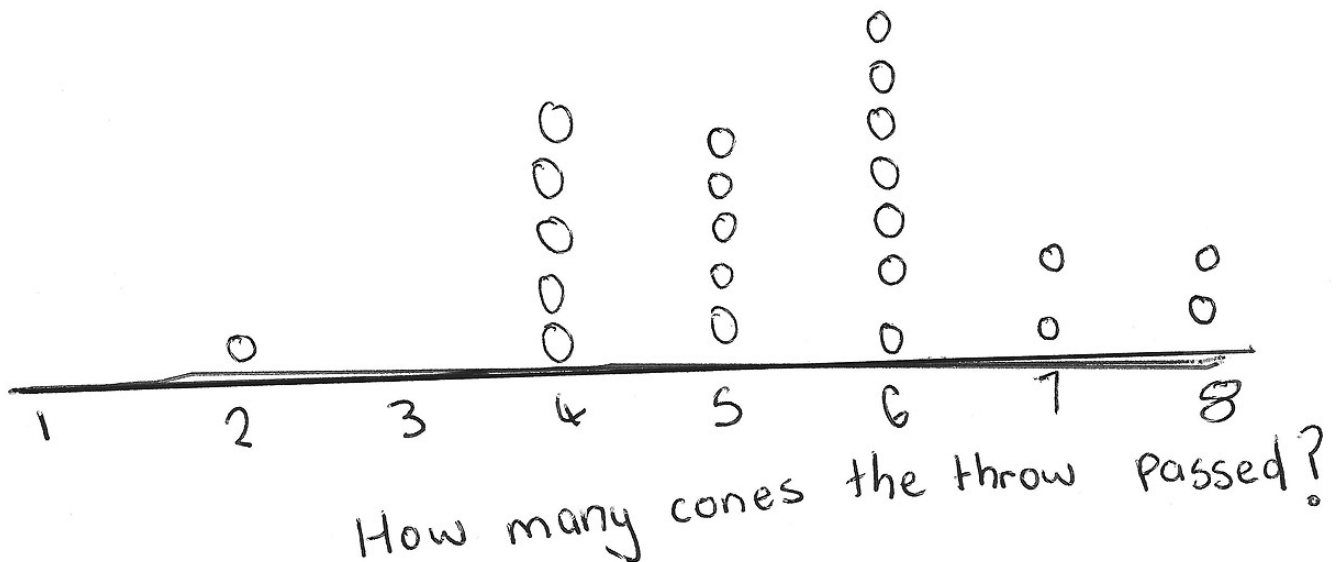
Teacher: Can you tell me what you did?

Sophie: I wrote down all the names of the people in my class, and I watched them throw the ball. I looked at the numbered cones down the side of the field and where the ball landed. I counted how many cones the ball went past.

Teacher: Why did you do that?

Sophie: Because I wanted to see how far everyone could throw. Sometimes the ball rolled a long way, but I only counted where it bounced first.

Teacher: What else did you do?

Sophie: I made a dot plot numbered from one to eight.

Teacher: Why did you do that?

Sophie: Because one person only threw past two cones but maybe someone might have only got past the first cone. And I only went up to eight because that was the biggest throw.

Teacher: What did you find out?

Sophie: Most people in our class could throw past cone number four. Only a few people threw past cone number seven.