

FITNESS Programme

The PE Department is evaluating their Year 11 Fitness Programme. At the beginning of Term 1 and during Term 4 students complete a range of fitness tests. There are 21 students in the group. The teacher measured and recorded all the times below for the 50 metre sprint.

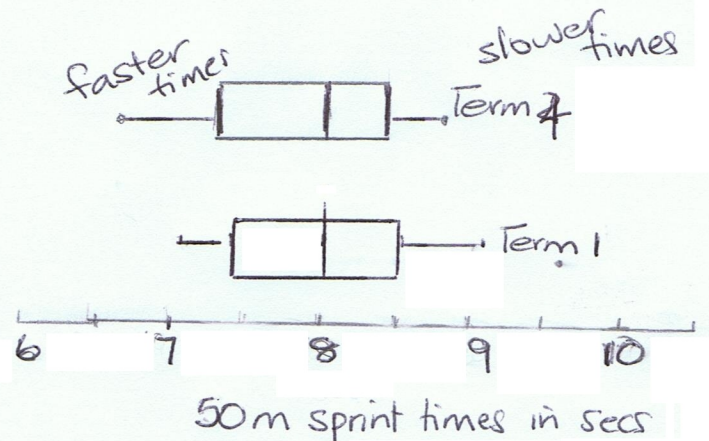
How effective is the current fitness programme for improving running speed? 1
Choose the most appropriate data features to justify the conclusions you make.

50 metre sprint time (seconds)

Term 1		Term 4
	6.00	60 90
90 90 70 50 40 30 20 10 04	7.00	20 20 30 30 60 60 80 90
90 90 60 60 50 40 40 30 00 00 00	8.00	00 00 10 20 40 40 50 50 60 70 90
	05 9.00	

50 metre sprint times (seconds)

	Term 1	Term 4
Mean	8.03	7.89
Median	8.00	8.00
Min	7.04	6.60
LQ	7.45	7.30
UQ	8.55	8.40
Max	9.05	8.90
IQR	1.10	1.10



My conclusion is that the fitness programme didn't improve running speeds for the group. 2 The median time of 8 secs is the same for Term 1 and Term 4. 3 so they didn't get better at running. The box for Term 4 has not moved enough in the box and whisker to show change. 4 so this shows there is no ^{real} difference in how they went.