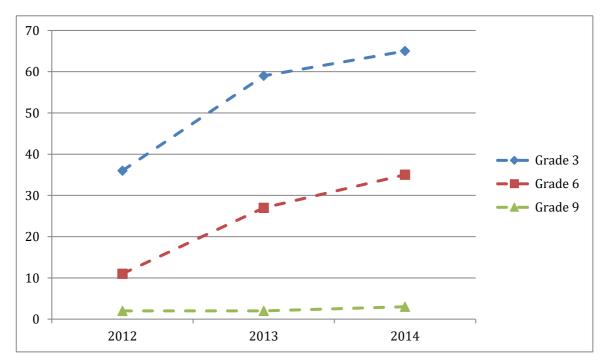


Worksheet 5 Memorandum: Data Handling (2)

Grade 12 Mathematical Literacy

- 1. a) The marks are decreasing from grade 1 to grade 9.
 - b) This is the students own opinion but the answer should be logical. For example: the maths marks are decreasing because the maths becomes harder in the older grades.
 - c) Grade 4 and grade 9.
 - d) Grade 1
 - e) i) $70\% \pm 2\%$
 - ii) $38\% \pm 2\%$
 - iii) $10\% \pm 2\%$
 - f) This is the students own opinion but the answer should be logical. For example: yes, because in general the marks for each grade have improved every year.
 - g) This is the students own opinion but the answer should be logical. For example: Yes, the scale gives a good idea of the differences between the grades and it is easy to see the general trend of the data.
- 2. a)

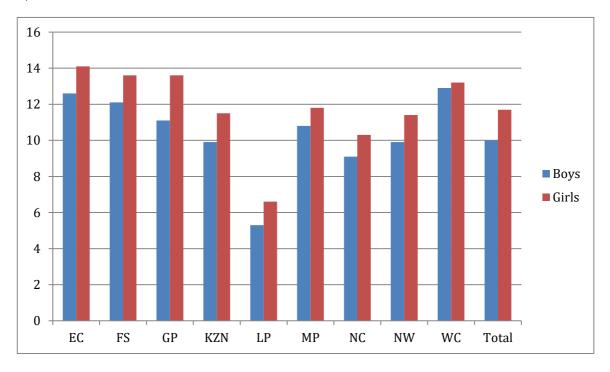


- b) The percentage of learners achieving 50% or more is increasing every year.
- c) This is the students own opinion but the answer should be logical. For example: Yes, the percentage of learners achieving 50% or more is increasing, but not as quickly as the grade 3 and 6 results.

Or no, the grade 9 results seem to be staying the same, with very little if any improvement.

- d) $1042133 \times 3\% = 31264$ students achieved 50% or more.
- e) i) This is the students own opinion but the answer should be logical. For example: Line graph, it gives a more accurate way of comparing the performance of the different grades
 - ii) This is the students own opinion but the answer should be logical. For example: Line graph, because the grades are above each other, you can see which grade did the best and by how much, more easily.
 - iii) This is the students own opinion but the answer should be logical. For example: Bar graph, you see the difference between the years more easily on the bar graph.

3. a)



- b) i) Western Cape
 - ii) Eastern Cape
 - iii) Limpopo
 - iv) Limpopo



- c) This is the students own opinion but the answer should be logical. For example: the graph I drew because you can see the differences between provinces scores more clearly.
- d) The graph given to me, because the marks look very bad in this graph because of the scale (or any similar argument).
- e) The graph I drew, because the results look much better because the scale is smaller.
- f) i) 13.6
 - ii) 9.9
- g) $(11.7 + 10) \div 2 = 10.85\%$

OR $14.1 + 13.6 + 13.6 + 11.5 + 6.6 + 11.8 + 10.3 + 11.4 + 13.2 + 12.6 + 12.1 + 11.1 + 9.9 + 5.3 + 10.8 + 9.1 + 9.9 + 12.9 = 199.8 \div 18 = 11.1$

- h) i) Girls
 - ii) Girls: 11.8 Boys: 10.8
 - iii) Boys: 9.5 5.4 = 4.1

Girls: 10.9 - 6.6 = 4.3

No, although they are very close.

- iv) No, the data is clumped around the 9.5 to 14 range, while only 25% of the data is between 5 and 9.5.
- v) Boys: Range = 12.9 5.4 = 7.5

Girls: Range = 14.1 - 6.6 = 7.5

- vi) Categorical
- vii) Continuous, the marks (particularly percentages) do not have gaps between them, they are not countable.
- 4. a) 25 34 years
 - b) anxiety disorders
 - c) 35 44 years
 - d) This is the students own opinion but the answer should be logical. For example: because there are not as many older people compared to the younger age groups OR older people tend to be diagnosed with other disorders (or any other reasonable argument).
 - e) About $7\% \pm 1\%$



- f) 16 24 year-olds. This is because young people tend to get addicted to drugs more easily and are less inhibited (or any other logical argument).
- g) This is the students own opinion but the answer should be logical.
- 5. a) Isizulu
 - b) i) 5 million
 - ii) 8 million
 - iii) 2 million
 - c) 11 500 000 (Isizulu) + 8 000 000 (IsiXhosa) + 7 000 000 (Afrikaans) + 5 000 000 (English) + 4 700 000 (Sepedi) = 36.2 million or 36 200 000.
 - d) Setswana or Sesotho.
- 6. a) Housing, water, electricity, gas and other fuels.
 - b) i) R25 000 x 12.8% = R3 200
 - ii) R25 000 x 2.7% = R675
 - iii) R25 000 x 17.1% = R4 275
 - c) 32% of total = R1 300.

$$\therefore Total = \frac{1300}{32\%}$$

$$: Total = R4 \ 062,50$$

- d) This is the students own opinion but the answer should be logical. For example: No, people who are below the bread line will not buy clothes every month because they are a luxury.
- e) This is the students own opinion but the answer should be logical. For example: a survey or the census.
- f) This is the students own opinion but the answer should be logical.