

Commentary on candidate evidence

The candidate evidence has achieved the following marks for each section of the project.

Candidate 2

Introduction

The candidate was awarded **3/6 marks**.

- ¹ ✓ Mark 1 was awarded as the candidate explained road safety in England, Wales and Scotland relating to accidents, where personal injury is received, on public roads.
- ² ✓ Mark 2 was awarded as the candidate stated that data will be tested to see if there is enough evidence to suggest a linear relationship between time and severity of injury and if there is significant improvement in severity from 1981 to 2015.
- ³ ✗ Mark 3 was not awarded as the candidate did not mention the type of data being studied – categorical or numerical.
- ⁴ ✓ Mark 4 was awarded as the candidate provided information on the background of the data source, stating that it came from the Scottish Government website – 2019 statistics accident reporting form, reported by the police from January 1979 to December 2015.
- ⁵ ✗ Mark 5 was not awarded as the candidate made no comments on the source of data and the fact that as the data came from a government website it could be assumed to be robust.
- ⁶ ✗ Mark 6 was not awarded as the candidate made no comment on the credibility of the method used to gather the data.

Subjective impression

The candidate was awarded **2/8 marks**.

- ¹ ✓ Mark 1 was awarded as the candidate generated an appropriate graphical display – scatter plot.
- ² ✗ Mark 2 was not awarded as the candidate did not include a second **appropriate** graphical display – the candidate could have created a bar chart to display the distribution of the three levels of severity between 1981 and 2015.
- ³ ✓ Mark 3 was awarded as the candidate made a comment relating to the usefulness of their chosen display – stating that their scatter plot shows no linear relationship.
- ⁴ ✗ Mark 4 was not awarded as the candidate made no comment on the graphical display options.

- ⁵ ✘ Mark 5 was not awarded as the candidate has no axes labels on their second graphical display.
- ⁶ ✘ Mark 6 was not awarded because it is unclear if the means had been calculated and the medians and modal values were not calculated (and should have been due to the data type). Medians and modes would have helped to give an indication of whether a particular year had high proportions of recorded level 1 or level 3 severity accidents.
- ⁷ ✘ Mark 7 was not awarded as there is no indication about the variability across the data from year to year.
- ⁸ ✘ Mark 8 was not awarded as the candidate has included insufficient titles for the table data to know what the second column of data contains, represents and there is no unit of measure. There is a lack of descriptive statistics and therefore a lack of appropriate labelling.

Analysis and interpretation

The candidate was awarded **4/6 marks**.

- ¹ ✓ Mark 1 was awarded as the candidate's calculation of the Regression Line is shown.
- ² ✓ Mark 2 was awarded as the candidate has stated Pearson's correlation coefficient.
- ³ ✓ Mark 3 was awarded as the candidate has included minimal interpretation of the line of best fit in context with their research question.
- ⁴ ✘ Mark 4 was not awarded as the candidate has not presented a *p-value* or reject/fail to reject null hypothesis.
- ⁵ ✘ Mark 5 was not awarded as the candidate did not include any interpretation of the descriptive statistics.
- ⁶ ✓ Mark 6 was awarded as the candidate included evidence of interpretation in context with the research question.

Conclusions

The candidate was awarded **3/4 marks**.

- ¹ ✓ Mark 1 was awarded as the candidate's evidence was given in the first sentence of the conclusion.
- ² ✘ Mark 2 was not awarded as the candidate did not give enough detail relating to graphical displays, and descriptive statistics within the conclusion.
- ³ ✓ Mark 3 was awarded as the candidate gave some detail relating to graphical displays, and the additional statistics within the conclusion.
- ⁴ ✓ Mark 4 was awarded as the candidate connected the conclusion to the project aim.

Presentation

The candidate was awarded **4/6 marks**.

- ¹ ✓ Mark 1 was awarded as the candidate provided appropriate text beside each scatter plot.
- ² ✗ Mark 2 was not awarded as the candidate gave no explanation or introduction for the table of statistics.
- ³ ✓ Mark 3 was awarded as the candidate gave a minimal explanation for the linear regression and the value of r .
- ⁴ ✓ Mark 4 was awarded as all sections contain appropriate headers.
- ⁵ ✓ Mark 5 was awarded as each section of the report flows logically.
- ⁶ ✗ Mark 6 was not awarded as the candidate did not include an appendix of data or bibliography.

Project total

The word count was within the 2,200 limit and so the candidate was awarded **16/30** overall for the project.