

2.5.2 Descriptive statistical report

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| Weight: | 30% |
| Type of Collaboration: | Individual |
| Due: | Week 8, 10 pm Monday, 6 September 2021 |
| Submission: | To Turnitin on vUWS. Submission possible only after scoring 100% on the academic honesty quiz. Submission link appears only after scoring 100% on academic honesty quiz at least once. Students may also be required to submit an analysis output file. |
| Format: | <p>Word document based on supplied template. Assignment content comprises text, tables and statistical graphs reporting the background, aims, results, interpretation and conclusions for a descriptive statistical analysis conducted using SPSS. Word limit = 800 words maximum including all document text, and that includes numbers and symbols in tables as well as body text, titles, headings, running heads, footers, page numbers and all other countable (by Turnitin) template and assignment text. Citations and references should be unnecessary and not recommended but are allowed and will add to the word count. Penalties for excess words apply to reports exceeding 800 words: 1% of the total score (30 marks) for every 25 words over the limit up to a maximum penalty of 20% (6 marks out of 30). The word count for an assignment is as determined by Turnitin and not your word processor.</p> <p>The class may be required to submit SPSS analysis output showing results for all analyses in the submitted assignment. This extra submission will be done through a separate Turnitin submission link. The output file will be in SPSS SPV or SPSS htm or Adobe PDF or Word format, as directed. Multiple analyses must be combined into a single file for submission. There is no word limit on the output file, nor is the output file subject to checking for Turnitin similarity. Content of the output file is not directly assessed but may be used to establish how your findings were achieved for the assessable statistical report. Your ability or willingness to submit any output file, if requested, may affect assessment scores because the output file may assist the determination of marks for the assessable report. Your output file is not a substitute for a properly produced statistical report. Your assignment may be marked without the marker looking at the output file.</p> |
| Length: | 800 words total document |
| Curriculum Mode: | Report |

The descriptive statistical report takes the form of a written report for the background, aims, results, interpretation and conclusions from a selection of variables taken from the 2019 UNICEF State of the World's Children data, based on data tables from UNICEF. Instructions below are a summary. More detailed instructions are provided on vUWS learning and practice materials, and presented in tutorials. All advice and instructions on vUWS, additional to this learning guide, carry the same authority as the learning guide, and are thus binding and assessable.

To do the Assessment 2 descriptive statistical report

Using the supplied assignment template in Word dotx format, write a statistical report for descriptive analysis. Assignment sections are as follows:

Aims of analysis (10% of assignment score) stating the aims and rationale (reasons) for the analysis, and hypotheses for predicted associations between variables. Suggested length is 100 to 150 words.

Single-variable descriptive statistics (30% of assignment score) showing results for at least ~~10~~ ¹⁰ variables presented in prose (words and numbers in sentences), at least one table and at least one histogram graph, optionally with a normal curve on the histogram. The data file includes missing data; analyses must be selected and conducted to enable a large enough sample size for a valid, meaningful analysis. Briefly describe the analysis before presenting the results. Some analyses may include multiple variables on a single analysis but without statistically relating one variable to another, as a set of variables of the same measurement level. Direct, literal interpretation of the results

should be included, without overall conclusions and implications, similar to the results section in a technical journal article reporting the findings of quantitative research. Superior interpretation will refer to effect size, difference or ratio. Including results from at least one new variable derived from existing variables using SPSS transformations, will increase the score for this section. An, efficient, economical approach to analysis (i.e., fewer analyses with more variables) will score higher marks. APA 7th edition style conventions for statistical reporting should be followed.

Finding associations (40% of assignment score) presenting results from any appropriate choice of at least two of these analyses using at least four variables:

- Cross-tabulation or
- Breakdown, descriptive statistics by groups or
- Correlation.

Briefly describe the analysis before presenting the results. Results must be presented as at least two tables and at least one graph, all showing the associations. Additional prose presentation (words and numbers in sentences) of results is permitted. The data file includes missing data; analyses must be selected and conducted to enable a large enough sample size for a valid, meaningful analysis. Literal, summary interpretation of the results beyond mere repetition of table and graph data should be included but without discussion, similar to the results section in a technical journal article reporting the findings of quantitative research. Superior interpretation will refer to effect size, difference or ratio. Including results from at least one new variable derived from existing variables using SPSS transformations will increase the score for this section. An, efficient economical approach to analysis (i.e., fewer analyses with more variables) will score higher marks. The analysis should address your initially stated aims. APA 7th edition style conventions for statistical reporting should be followed.

Discussion (20% of assignment score) summarising in general what was found from all of the analyses, and matched to the analysis aims. This section resembles the discussion section of a research report published in a professional journal. What do the findings from your analyses mean for the state of the world's children for the variables you have analysed? State the insights that your analysis has revealed. Do not simply repeat the results. Instead, interpret the findings overall, mentioning the wider implications. Conclusions should be grounded in evidence, with allowance for disciplined, plausible speculation. Suggested length is a few to several sentences. Try to include as many of your results as possible in your discussion. If an analysis is not worth discussing it is not worth doing. Keep in mind that results refer to entire countries (cases are countries) and not individuals within those countries.

Your ability to write clearly and concisely in this report is crucial. More concise summarising enables you to include more analysis and interpretation within the word limit. Your mark will reflect the amount of valid, relevant, original and insightful content you can fit into your report, within the word limit.

If the requested SPSS single output file showing all analysis output matched to analyses in the report is not submitted in the proper format or at all, your assignment may not be marked until a complying file is submitted.

Presentation of the report, including the conversion of SPSS output into a polished document in Word format is assessable. Mastery of your word processor is another component of this assessment, and is covered in learning activities. Conversion of SPSS output tables into properly formatted Word tables in your report will earn more marks than original SPSS output format. Formatting enhancements of SPSS graphs for improved clarity and accuracy of communication will also be scored better than unenhanced graphs. A goal for this unit is to enable students to produce professional standard technical reports, a valuable skill in professional employment.

Resources:

- Online lectures covering theory and practice for biostatistics and data analysis.
- Tutorial content and practice items, including presentation and discussions within tutorials.
- Assignment template in Word in DOTX format, which must be used to write the assignment.
- Supplied practice data sets including 2016 UNICEF State of the World's Children, based on data from UNICEF.
- Supplied data set which must be used for this assignment: 2019 UNICEF State of the World's Children, based on

data from UNICEF. Only this data set, as provided on vUWS, must be used for Assessment 2 analysis.

- SPSS software.
- SPSS output files.
- Online and textbook sources about how to use SPSS.
- Textbook readings.
- Academic honesty quiz.

Marking Criteria:

| Criteria | High Distinction | Distinction | Credit | Pass | Unsatisfactory |
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| “Aims of analysis” 10% of assignment score. stating the aims and rationale (reasons) for the analysis, and hypotheses for predicted associations between variables. | 2.6 to 3.0 marks. Valid, highly persuasive and insightful statement of aims with little or no scope for improved clarity, coherence and conciseness, and relevance to data set or match subsequent analysis. Valid and relevant hypotheses included, matched precisely to analysis. | 2.3 to 2.5 marks. Convincing statement of aims with only slight scope for improved clarity, coherence and conciseness, and relevance to data set or match to subsequent analysis. Valid and relevant hypotheses included. | 2.0 to 2.2 marks. Convincing statement of aims and rationale but with moderate scope for improved clarity, coherence and conciseness, and relevance to data set or match to subsequent analysis. May omit hypotheses or hypotheses invalid or unrelated to analysis. | 1.5 to 1.9 marks. Satisfactory statement of aims and rationale but with considerable scope for improved clarity, coherence and conciseness, and relevance to data set and match to subsequent analysis. Academically honest. | <1.5 marks. Aims section omitted or aims not clearly, coherently or concisely stated, or stated aims not relevant to data set and not matched to subsequent analysis. Evidence of plagiarism or other academic misconduct. |
| “Single-variable descriptive statistics” 30% of assignment score comprising 10% selection of variables and analysis, 10% presentation of results and 10% literal interpretation (summary) of results. | 7.7 to 9.0 marks. Compared to Distinction: More analysis. Exemplary selection of variables and analyses relevant to aims. More sophisticated creation and application of derived variables. Highly efficient analysis. More precise and concise presentation of results, with superior enhancement of tables and graphs. Very clear, concise and accurate summary interpretation. High standard of technical prose including conformity with APA 7 style. | 6.8 to 7.6 marks. Compared to Credit: More analysis. Statistical procedures summarised before results. More precise and concise presentation of results, with further enhancement of tables and graphs. Analysis includes derived variables. More accurate, relevant and informative summary interpretation specifically mentioning effect sizes . Superior expression including conformity with APA 7 style. | 5.9 to 6.7 marks. Compared to Pass: More analysis. More efficient, economical analysis, better matching of aims and analysis. Sufficient effective sample size for all analyses to be valid and meaningful. Clearer, more concise and accurate interpretation. Higher standard of presentation for tables and graphs. Better written expression. | 4.5 to 5.8 marks. At least 10 variables analysed and results reported. Variables correctly matched to analysis. Requisite number of valid tables and graphs provided. Presentation of results clear, concise and accurate, and uses appropriate formats. Summary interpretation may be missing or invalid or uninterpretable. Little or no effective formatting improvements to statistical results. Analysis moderately well matched to stated aims. Academically honest. | <4.5 marks. Single-variable descriptive statistics missing or uninterpretable. Minimal analysis and reporting. Fewer than 10 variables analysed and results reported. Analysis and presentation of results mostly invalid or incomplete or not meaningfully interpretable. Invalid match of most selected variables to analysis. Interpretation mostly invalid. Prose expression mostly unsatisfactory. Evidence of plagiarism or other academic misconduct. |

| Criteria | High Distinction | Distinction | Credit | Pass | Unsatisfactory |
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| “Finding associations” 40% of assignment score comprising 10% selection of variables and analyses matching aims, 20% for results presentation and 10% for literal interpretation (summary of results). | 10.2 to 12.0 marks. Compared to Distinction: Exemplary selection of variables and analyses relevant to aims. More sophisticated creation and application of derived variables. Highly efficient analysis. More precise and concise presentation of results, with superior enhancement of tables and graphs. Very clear, concise and accurate summary interpretation. High standard of technical prose including conformity with APA 7 style. | 9.0 to 10.1 marks. Compared to Credit: More analysis. More precise and concise presentation of results, with superior enhancement of tables and graphs. Analysis includes derived variables. More accurate, relevant and informative summary interpretation. Superior expression including conformity with APA 7 style. | 7.8 to 8.9 marks. Compared to Pass: More analysis. Statistical procedures summarised before results. More efficient, economical analysis. Sufficient effective sample size for all analyses to be valid and meaningful. Better matching of aims and analysis. Clearer, concise and accurate interpretation. Higher standard of presentation for tables and graphs. Better written expression. | 6.0 to 7.7 marks. At least four variables analysed to show at least two associations. Variables correctly matched to analysis. Requisite number of valid tables and graphs provided. Presentation of results clear, concise and accurate, and uses appropriate formats. Summary interpretation may be missing or invalid or uninterpretable. Little or no formatting improvement to statistical results. Analysis moderately well matched to stated aims. Academically honest. | <6.0 marks. Associations between variables missing. Fewer than four variables analysed with results reported. Analysis and presentation of results mostly invalid or incomplete or not meaningfully interpretable. Invalid match of most selected variables to analysis. Associations between variables not presented. Interpretation mostly invalid. Prose expression mostly unsatisfactory. Evidence of plagiarism or other academic misconduct. |
| “Discussion” 20% of assignment score. | 5.1 to 6.0 marks. Compared to Credit : Superior level of integrated discussion, matched to results and analysis aims, with original insights from results included. Exemplary expression and conformity with APA 7 reporting conventions. | 4.5 to 5.0 marks. Compared to Credit: Higher standard of integrated discussion matched to results and analysis aims. Superior application of evidence and logic in conclusions. Superior conformity with APA 7 reporting conventions. | 4.0 to 4.4 marks. Compared with Pass: Interpretation beyond repetition of results yet based on evidence and reasoning. Superior expression. | 3.0 to 3.9 marks. Discussion of results mostly repetition of results, clear, concise and accurate but without interpretation matched to aims, or additional evidence-based insights. Satisfactory expression with considerable scope for improvement. Academically honest. | <3.0 marks. Discussion section missing or written expression needs major improvement. Previously displayed results not discussed or conclusions invalid or irrelevant to results. Evidence of plagiarism or other academic misconduct. |
| Presentation and conformity with assignment template, five criteria: 1. Titles and headings 2. Text and paragraphs. 3. Page layout. 4 Student name and number on every page. 5. Page numbers on every page. | Zero formatting errors, no deduction, full score. | One formatting error, 1% deducted. | Not applicable. | Two formatting errors, 2% deducted. | Three or more errors, 1% mark deducted for each error to maximum of 5%. |