Mini-Dissertation Write-up Guide

Part 08 - Intro and Visuals

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Introduction and Visual Elements

A refresher on writing an introduction for an APA paper

What follows is the introduction from the following paper, with a few instructive annotations:

Relationship between ethnicity and stage at diagnosis in England: a national analysis of six cancer sites BMJ Open 2023;13:e062079. doi: 10.1136/bmjopen-2022-062079

Cancer stage at diagnosis is a strong determinant of viable treatment options and survival.1 Any delays between a first symptom and diagnosis can lead to the disease progressing and a later cancer stage at diagnosis.

> **Note**
>
> Strong opening statements indicate the importance of the issue.

Previous research, particularly on breast cancer, suggests there are differences in proportions of patients diagnosed at different stages by ethnic group.2 3 Delays could be due to patients (delaying seeking help), doctors (delaying ordering investigative tests) or system delays, either in primary or secondary care.4 Several studies have reported differences in barriers to presentation with cancer between ethnic and socioeconomic groups, including difficulties organising and attending appointments, other practical and service barriers and emotional barriers.5–9

> **Note**
>
> This paragraph introduces the aspect of the issue the research is concerned with. It states what is already known, using the literature.
> Note that literature is cited to back up an argument, without describing it in detail.

Historically, the completeness of national cancer stage information in English population-based cancer registry data has not been high enough to allow for robust assessment of links between stage at diagnosis and ethnicity. In recent years, the completeness of both stage and ethnicity information has improved substantially, and now allows for investigation of the association between ethnicity and stage at diagnosis for common cancers. Although cancer stage data is improving in completeness, some tumours remain unstaged. This may indicate that the stage was never ascertained, as certain tumour morphologies cannot be staged, it might have been inappropriate to stage the patient (eg, if the patient was too frail for surgery), the patient died prior to staging, or alternatively, data was not transferred to the national registry, either due to incomplete recording or the diagnosis was made outside of the National Health Service (NHS).1 Old age has been found to be associated with missing stage independent of comorbidities and short-term mortality.10

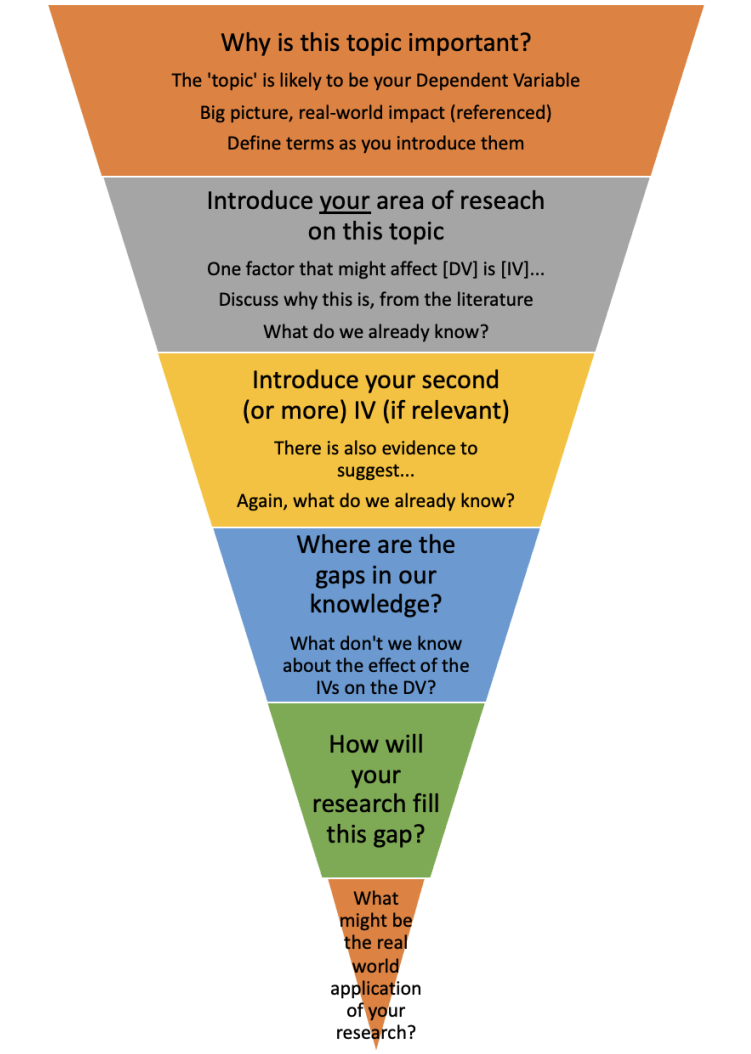
> **Note**
>
> In this paragraph the authors describe what we don't know (and why).
> The authors narrow down their use of the literature to a study that is directly relevant. Here it is appropriate to cite something specific about the method or the sample that your research might improve on.

Previous research on associations between ethnicity and stage at diagnosis in England has been limited geographically and to certain cancer sites. Lyratzopoulos et al assessed multiple cancer sites, however, missing ethnicity data meant ethnic variation in stage at diagnosis was not explored.11

This paper contributes to the cancer literature by assessing, for the first time, the associations between ethnicity and stage at diagnosis across England for six cancer sites, adjusting for patient case-mix and using a granular ethnicity definition where possible.

> **Note**
>
> Finally, the authors state how their research will address the gap they have identified. You should also explicitly state your hypothesis at this point.

The top of the 'hourglass'



Research Question/Hypotheses

Therefore, the aims of this study are...

Present your specific hypotheses

The importance of tables and figures

Tables and figures enhance the presentation of research and their findings by enabling researchers to present a large amount of information efficiently and to make their results more comprehensible.

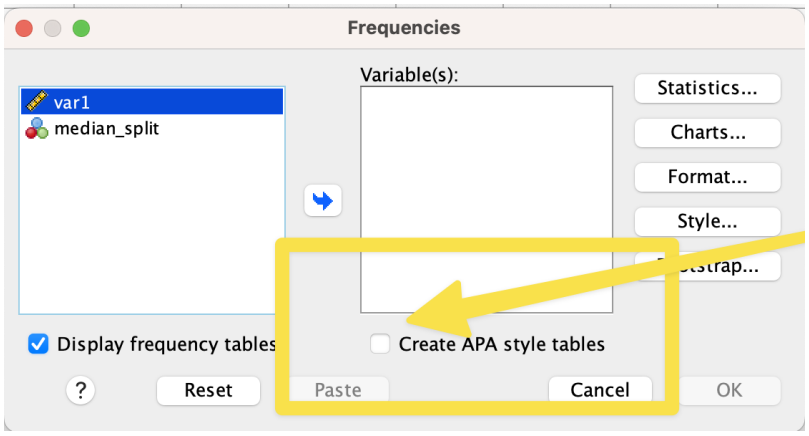
A table usually shows numerical values (e.g., means and standard deviations) and/or textual information (e.g., lists of stimulus items) arranged in columns and rows.

A figure may be a chart, graph, photograph, drawing, plot, infographic, or any other illustration. You may consider figures to illustrate your trial structure, or to present an image of your data collection device.

The APA Style website is (again) your best source of information on how to format your visual elements.

[Tables and figures](https://apastyle.apa.org/style-grammar-guidelines/tables-figures)

> **Tip**
>
> SPSS APA format tables
> In SPSS 27, there is the option to output APA format tables directly. Although this saves much time, please make sure that the output you end up with conforms to the guidelines above.



Just in case you want it

Perhaps the most common error in the delivery of Mini-Dissertations is that tables do not fully conform to APA format and figures (especially graphs) are way too ‘noisy’ or ‘busy’.

On the next page is the most informative of graphics from the APA website and should be of great use to you. Please notice that there are NO vertical lines on the table and there are no colours.

Of notable importance are the following features and should form a checklist for your tables.

- Table Number (at the top of the table!)
- Title should be clear and informative.
- Clear and descriptive headings at all times.
- Alignment: Left for the leftmost column and centre for everything else.
- Note: Should be used to explain the contents.

There is a very good range of sample tables here
https://apastyle.apa.org/style-grammar-guidelines/tables-figures/sample-tables

And I provided you with an APA template specifically for tables in the Mini-Dissertation Resources section of the PS52007D VLE

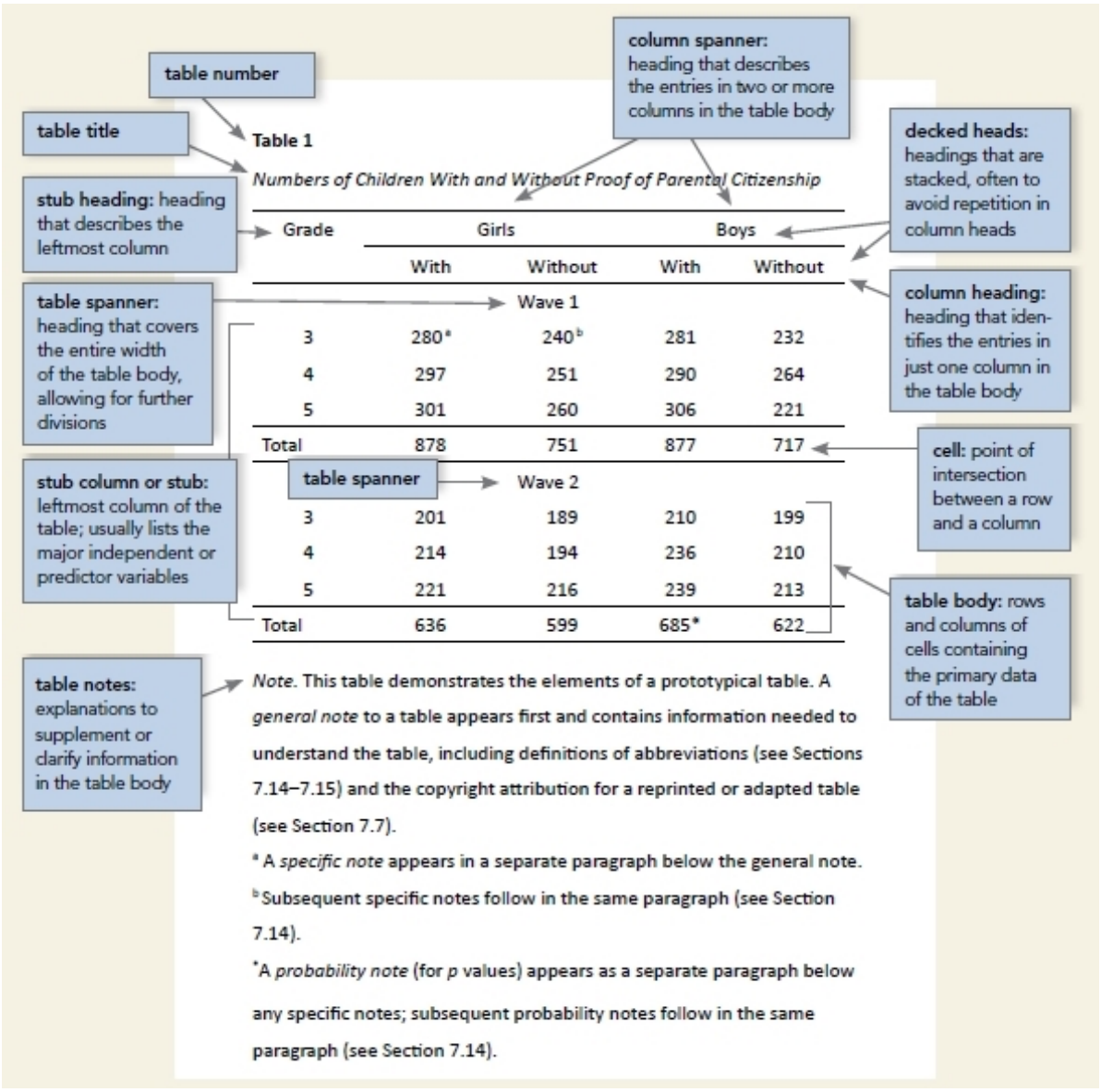


table number
table title
stub heading: heading that describes the leftmost column
table spanner: heading that covers the entire width of the table body, allowing for further divisions
stub column or stub: leftmost column of the table; usually lists the major independent or predictor variables
table notes: explanations to supplement or clarify information in the table body
column spanner: heading that describes the entries in two or more columns in the table body
decked heads: headings that are stacked, often to avoid repetition in column heads
column heading: heading that identifies the entries in just one column in the table body
cell: point of intersection between a row and a column
table body: rows and columns of cells containing the primary data of the table
table spanner
Table 1
Numbers of Children With and Without Proof of Parental Citizenship
Grade
Girls
Boys
With
Without
With
Without
Wave 1
3 280[a] 240[b] 281 232
4 297 251 290 264
5 301 260 306 221
Total 878 751 877 717
Wave 2
3 201 189 210 199
4 214 194 236 210
5 221 216 239 213
Total 636 599 685* 622
Note. This table demonstrates the elements of a prototypical table. A general note to a table appears first and contains information needed to understand the table, including definitions of abbreviations (see Sections 7.14–7.15) and the copyright attribution for a reprinted or adapted table (see Section 7.7).
[a] A specific note appears in a separate paragraph below the general note.
[b] Subsequent specific notes follow in the same paragraph (see Section 7.14).
*A probability note (for p values) appears as a separate paragraph below any specific notes; subsequent probability notes follow in the same paragraph (see Section 7.14).

Figures

Now that you have mastered tables, here is similar information for figures, primarily graphs.

Again, the most common error made is to try to get too creative with colours or shadows. Please do not do this. The more boring your graph, the better.

Again, your figure requires some key features and they are listed below.

- Remember to number your figure according to the sequence it appears in your document. The first figure to appear is figure 1.
- All figures require a title and this sits at the top, underneath the figure number.
- Make sure your figure (and all content within it is readable). By converting your MiniDissertation to pdf, you can make sure that the layout is the same whoever reads it.
- The key (or legend) should sit within the graph, not on a different page
- Notes. Most figures require a note, whether to slightly explain the content, or to indicate p values (for example)

You can find example figures from the APA Style website here.

https://apastyle.apa.org/style-grammar-guidelines/tables-figures/sample-figures

Please do not get too creative with colours, use them sparingly and consistently. Accessibility suggests that gentle patterns are sometimes preferable to subtle colours, but less is more. Make sure to use a modest palette.

> Tip
>
> If you do choose to use colour, then a very professional move would be to ensure that they are accessible to those with colour-blindness.

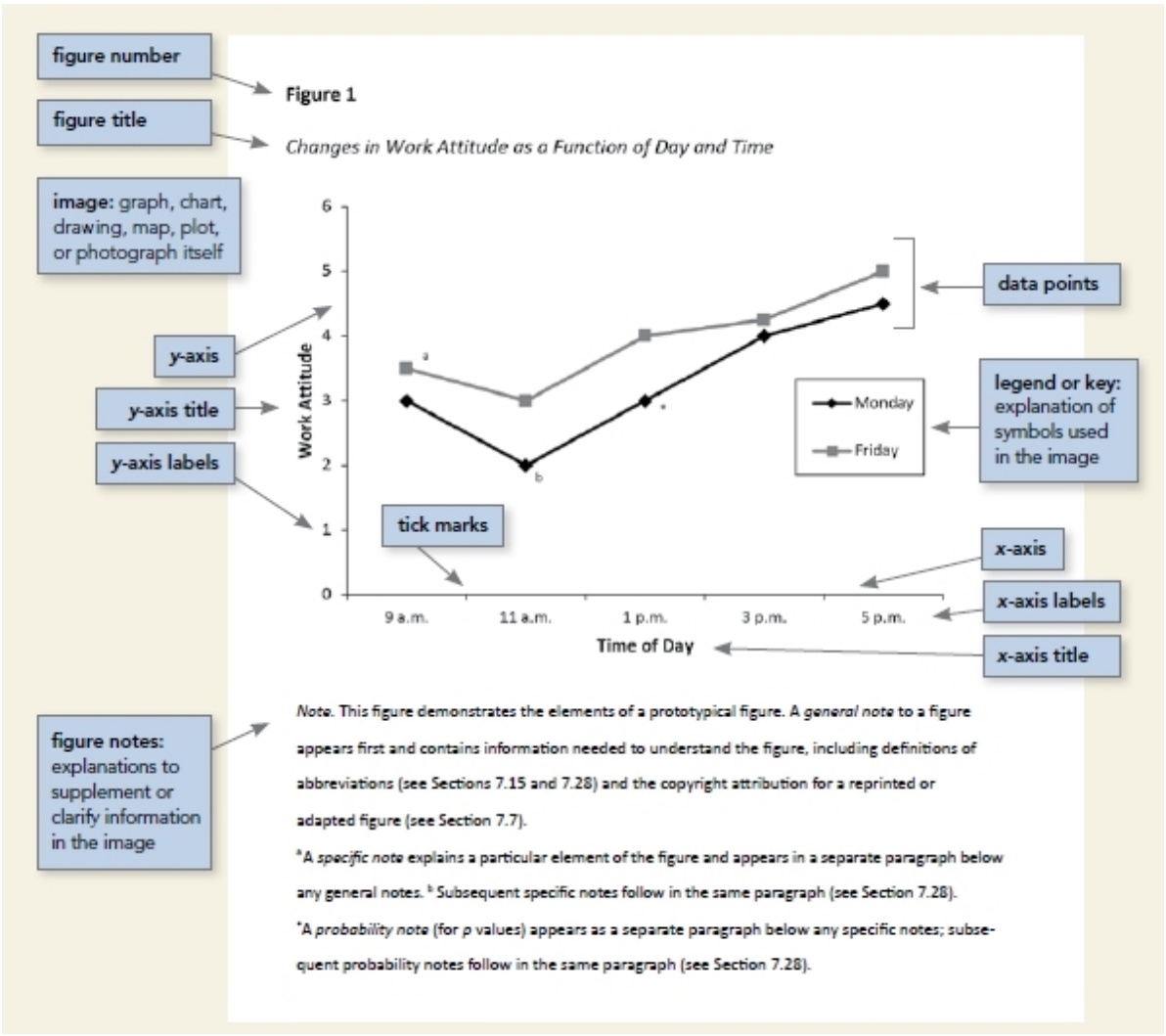


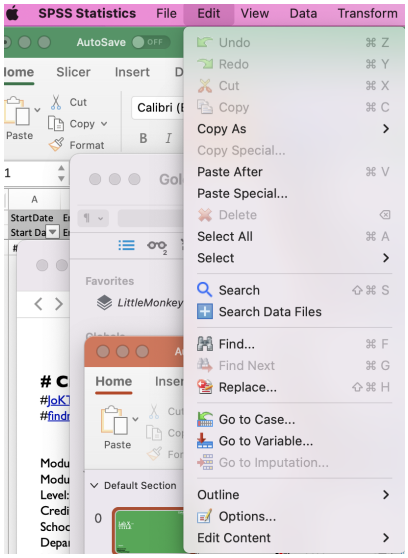
figure number
Figure 1
figure title
Changes in Work Attitude as a Function of Day and Time
image: graph, chart, drawing, map, plot, or photograph itself
data points
y-axis
y-axis title
y-axis labels
Work Attitude
6
5
4
3
2
1
0
legend or key: explanation of symbols used in the image
Monday
Friday
tick marks
x-axis
x-axis labels
9 a.m.
11 a.m.
1 p.m.
3 p.m.
5 p.m.
Time of Day
x-axis title
figure notes: explanations to supplement or clarify information in the image
Note. This figure demonstrates the elements of a prototypical figure. A general note to a figure appears first and contains information needed to understand the figure, including definitions of abbreviations (see Sections 7.15 and 7.28) and the copyright attribution for a reprinted or adapted figure (see Section 7.7).
[a] A specific note explains a particular element of the figure and appears in a separate paragraph below any general notes. [b] Subsequent specific notes follow in the same paragraph (see Section 7.28).
*A probability note (for p values) appears as a separate paragraph below any specific notes; subsequent probability notes follow in the same paragraph (see Section 7.28).

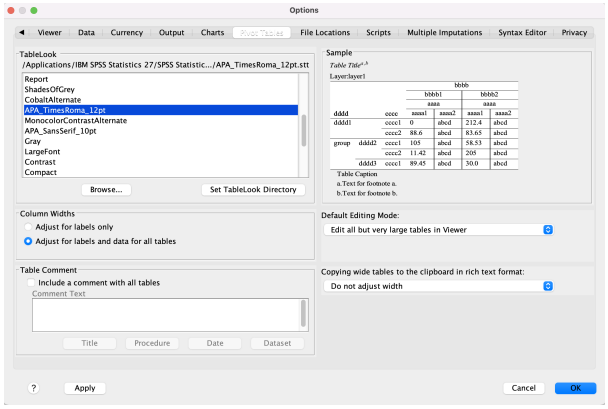
SPSS Output style guides

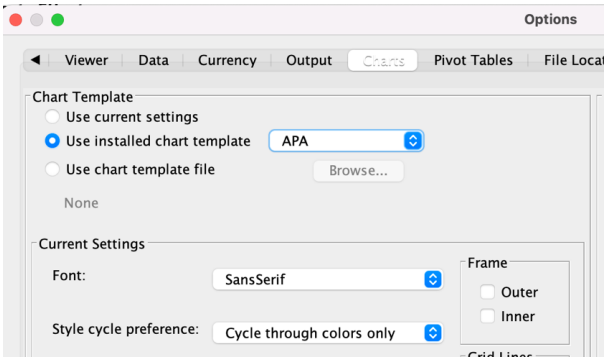
Go to `Edit > Options` and you have the option to change the format of Pivot Tables and Charts to `APA format`.

This will save you a bundle of time. But still be careful to monitor the readability of your output. The style guides are not perfect.

And make sure to properly label and number your tables and figures. SPSS doesn't do this for you!







Before

Descriptive Statistics

Dependent Variable: fear of stats time1

sex	type of class	Mean	Std. Deviation	N
male	maths skills	41.00	5.398	8
	confidence building	41.43	6.425	7
	Total	41.20	5.685	15
female	maths skills	38.57	3.409	7
	confidence building	39.63	5.528	8
	Total	39.13	4.533	15
Total	maths skills	39.87	4.596	15
	confidence building	40.47	5.817	15
	Total	40.17	5.160	30

After

Descriptive Statistics

Dependent Variable: fear of stats time1

sex	type of class	Mean	Std. Deviation	N
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Total	maths skills	39.87	4.596	15
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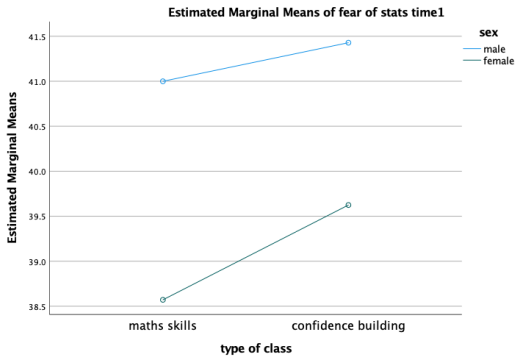
Before

Profile Plots



After

Profile Plots