

Quantitative report: A Summary of the Guidance

It is expected that you are using the [Psychology and Counselling House Rules Document](#) for guidance on every section that is required to be included, as well as the content required within each section of a psychology research report.

The information below is additional and relates specifically to the assessment question for the 2023/2024 academic year.

Attached here: Example of a fully formatted, academically written research report (just note that this is 1,500 words and reports a correlation and not related to what you are reporting on!)

Reminders:

1. Your report should be 1.5 or double spaced from the introduction onwards (the abstract does not have to be 1.5/double spaced)
2. Citations and references within the reference list must be in APA 7th edition
3. Tables and/or figures must be titled appropriately
4. All headings must be included and formatted correctly (main headings should be in bold and centre justified, secondary headings [method sub-sections] should be in bold and left justified)

Title page

This should be the first page and should contain the assessment title or the research question that is being explored.

Exploring the effect of emotional intelligence / neuroticism on memory recall of emotion-induced words.

Abstract

On a new page, this should be approximately 150 words and summarise each of the four main sections of the report; Introduction, Method, Results, and Discussion.

Introduction

On a new page, start introducing the topics that are being explored. This assessment question is asking you to explore the effect of affective traits (e.g., emotional intelligence, personality traits such as conscientiousness or neuroticism, etc) and emotion-induced stimuli on memory recall and so the literature you source and include in this section must be relevant to these topics. [There are two relevant journal articles within the report guidance folder to start you off with your literature search and it is expected that you are engaging in significant wider reading at this level to construct a solid introduction to the topic areas.](#) The literature that you choose to include overall should introduce what the research suggests are the impact of levels of your chosen affective trait on memory recall and how well participants are suggested to recall emotion-induced stimuli (specifically, words). It is also likely that you will come across research that has explored the interaction between these two concepts; for example, research may show that individuals with higher levels of emotional intelligence are better able to recall positively emotion-induced words.

You should end this section with a clear and justified hypothesis – what do you expect to find based upon the literature you have now read and included in this section? When you are using more complex designs, it is likely that you will generate more than one hypothesis. However many you have, they must be based upon the literature you have included in this section. Hypotheses for this report may read something like the variations below:

1. An expectation that levels of [emotional intelligence or personality trait] will have an effect on the recall of emotion induced words **overall** (main effect of EI)
2. An expectation that participants will be able to recall one type of emotion induced-words better / there will be a general effect of the type of words on recall (main effect of the emotion-induced words)
3. An expectation that participants high (or low) in their EI/personality trait will be better able to recall one type of emotion-induced words (e.g., positive words; interaction effect between EI and words on recall)

Method

(do not forget that this section must be written in the past tense.)

*The information below is there to guide you. You **must not** copy any of this section into your own report, as it simply isn't set up to be specific enough or written academically enough! As you are collecting data, you should be starting to construct the method section so that you can just add in the 'numbers' to the participants section once all data has been collected.*

Participants

How many participants were there in total? How many were male and how many female? What was the age range? Mean and SD must also be included. You should be using the basic descriptive analysis methods to find this information ([descriptive statistics worksheet attached here](#)). Participants were recruited via EMS.

Design

Mixed multi-factorial design.

IV1 = your chosen affective trait (either emotional intelligence or neuroticism). This is a between-subjects factor with two levels; low and high. Participants will be categorised as low or high in accordance with the mean score that will be calculated once all data is collected – *state what this score is when you write your report*. Those scoring below the mean will be categorised as low, with those scoring above the mean categorised as high.

IV2 = emotion-induced stimuli. Within-subjects factor with three levels; positive words, negative words, and neutral words. Participants will be exposed to all three levels.

DV = number of words correctly recalled per each trial (positive, neutral, negative)

Analysis = mixed design ANOVA.

Materials

You must explain/describe the questionnaire used to collect data on your chosen affective trait in full. When writing materials sections when psychological scales have been used, you need to include as much detail as you can.

For ease of access, the 'questions' that should be considered when writing up the details of a questionnaire have been linked here,

as well as the document that demonstrates how a full materials section for questionnaires should look.

Do not forget to report the reliability analysis! (you cannot do this until after you have done all your reverse scoring, so just be aware of this!) Explain that this scale was put on to Qualtrics for administration.

The task used to assess memory recall of emotion-induced stimuli (words) was created using the specialist programme Superlab. As above, you need to include as much detail as possible and be **specific and accurate**. The below bullet points summarise the creation of the task:

- Instructions provided to participants to introduce them to the structure of the tasks.
- Three experimental trials; positive words, neutral words, and negative words.
- For each trial, 20 words are displayed individually for 2000ms each. Each word is separated by a blank screen that is displayed for 400ms.
- At the end of each trial (i.e., when all 20 words for that condition have been displayed), participants will be instructed to think of something (e.g., 'now think of your favourite place to eat') for one minute. This will be set to time on Superlab and participants will be informed that the screen will automatically progress once the time is up.
- After this minute, participants will be asked to recall as many of the 20 words they have just seen and type these into the box provided on the screen.
- Repeat the previous steps for each of the three trials.
- End information – as this is the final element of the study, debrief information will be displayed here.
- Scoring = number of words correctly recalled per trial (out of 20)

Data was collected in a lab setting using the Qualtrics survey system and Superlab. A laptop was set up with the Qualtrics survey available for participants to seamlessly switch between the Superlab task on the computer and the questionnaire on the laptop.

Procedure

Recruitment via the Experiment Management System (EMS) → Start on laptop and Qualtrics link loaded ready → Information sheet → Consent procedure → Demographic data collection → Questionnaire completed via Qualtrics → Directed to switch on computer screen to continue with tasks → Memory recall task on computer using Superlab → Debrief → Thanks for participation.

Results

A full SPSS dataset has been provided to each group and this can be found in your groups Teams channel. There are several things you will need to do prior to being able to analyse the data. Outlined below are step by step instructions that you need to follow to ensure that 1. Your dataset is in an appropriate format to enable you to conduct the ANOVA, and 2. You run the analysis properly.

1. Reverse score the negatively worded items – [video for reverse scoring, calculating scores, and categorising linked here](#)
 - a. EI measure – reverse score items 5, 28, and 33
 - b. Neuroticism measure – reverse score items 2, 5, and 7

2. Calculate the total score for the above trait
 - a. EI = add all 33 items together, making sure you include the new reverse scored items **in place of** the original 'raw' items (so you should have EI5REV, EI28REV, AND EI33REV instead of EI5, EI28 AND EI33).
 - b. Neuroticism = add all 8 items together, making sure you include the new reverse scored items **in place of** the original' raw items (so you should have N2REV, N5REV, AND N7REV instead of N2, N5, AND N7).

3. Categorise the total score into two groups around the mean score (generate the mean using [descriptives](#) and categorise into Low and High (make sure you are using the range of scores when selecting transform)

What analysis was conducted and why? Here you need to state what the purpose is – to explore the effect of EI/N on memory recall for emotion-induced words.

What were the descriptives? You should be reporting mean and standard deviation scores of emotional intelligence and memory recall (for the three conditions) here. Remember that tables are a good way to display this information! Also remember to label tables accurately in APA style (House Rules Document).

[Panopto tutorial for the mixed ANOVA linked here](#) and explained below to be specific to your study and variables.

- Click Analyze, then General Linear Model, and select Repeated Measures. Type 'words' into the top box, and then put a 3 in the number of levels box. Click Add, then Define.
- Move the variables **positive, neutral, and negative**, into the top box on the right hand side (within subjects variables).
- Move the GROUPED variable of either EI or neuroticism into the Between subjects factor box.
- Click PLOTS on the right hand side, and move one variable to the horizontal axis and the other to the separate lines box (doesn't really matter which!). Click Add then Continue.
- Click EM MEANS on the right hand side, and move the variable WORDS into the box. Underneath, tick Compare main effects, then change the Confidence interval adjustment to Bonferroni. Click continue.
- Click OPTIONS on the right hand side, and tick Descriptive statistics, Estimates of effect size, and Homogeneity tests. Click continue.
- Finally, click OK to run the analysis.

The statistics from the analysis **MUST** be included! And in the correct formula as shown below:

$$F(df1, df2) = f\text{-value}, p = \quad, np^2 =$$

f-value taken from the F column, p taken from the Sig. column, and np^2 taken from the partial eta squared column.

Remember that you have three things to report and interpret.

First, start with the two-way interaction effect between the trait and words (*this can be found in the **Within-subjects effects box** where you can see the two variable names with an asterisk (*) in between them*)

Next, report and interpret the main effect of the trait – this is in the **Between-subjects effects box**. This will be significant, so report the stats and then you need to then use descriptive statistics to demonstrate what the direction of this effect is (do participants who score high or low in EI/N recall more words than the other category). Remember that SPSS (for some reason) does not give you the descriptives for the between-subjects variable on its own, so you will need to do a little something more to your dataset to get these values:

1. Go back to your dataset and click on the Transform option at the top, then select Compute variable. Click RESET (the calculation you did earlier for the total score will still be here)
2. In the target variable box, type 'AverageWords'
3. Type in to the calculation box – (positive + negative + neutral) / 3
4. Then click OK. This will then create a new variable that will be the average words recalled across all three conditions.
5. Next, click Analyse, go to compare means, and select independent samples t-test.
6. Move your new AverageWords variable into the Test variable box, and EI/N into the Grouping variable box. Click Define groups underneath this, then just click Continue.
7. Click ok to run the analysis. You're not really interested in the results of this, you just want the descriptives that are generated at the top (mean and SD).
8. From these values, you can now interpret the main effect of the affective trait (either EI or N) – do Ps who are high in EI/N score higher than those low in EI/N (or vice versa)...

Final thing to report from the stats is the main effect of the emotion-induced words. This is in the **Within-subjects effects box**. This will also be significant, so you report the stats as normal, but then scroll down to the Pairwise comparisons box to interpret this further. From here, report the differences between each pair (look at the Sig. values, and report whether the difference between each one is significant or not), and then use the descriptive statistics (right at the beginning of the output) to state where the difference is (are significantly more positive words recalled than negative, etc).

1 = positive, 2 = negative, 3 = neutral

[A full example results section is linked here](#) (this is an **example!** It is not specific to your study, so make sure you are using the correct variable names and correct stats from your own output!)

Finally, you need to explain what these findings mean / how they relate to your hypothesis/hypotheses. Have they been supported, or must they be rejected?

Your SPSS output showing the analysis and results must be included within the appendices (and NOT pasted into the main body of your results section!)

Discussion

Reiterate main findings: the narrative explanation of what your results show. How do these findings relate to previous research findings (the literature/references you have included in your introduction to this report?) Why do you think the findings were as they were? What other factors could be discussed in relation to this topic? Are there any areas that could be expanded upon for future research? Discuss, critique and support your claims with literature to make this section stronger.

References

Start your references on a new page. Ensure they are in APA 7th style, in alphabetical order, and include a hanging indent.

Appendices

(label A – X in whatever order you refer to them within your report)

Information sheet

Consent form

Debrief sheet

List of words

Questionnaire that has been used

Full SPSS output