

English Writing for Academic Purposes

英文学术论文写作

Session Four

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Results – Discussion - Conclusion

Overview

Example 1

Li, C. (2021). A control–value theory approach to boredom in English classes among university students in China. *The Modern Language Journal*, 105(1), 317-334.

Example 2

Tian, Y., Hu, Y., Su, M., Jia, Q., Lian, X., & Jiao, L. (2024). Mitigation Measures Could Aggravate Unbalanced Nitrogen and Phosphorus Emissions from Land-Use Activities. *Environmental Science & Technology*, 58(10), 4627-4636.

Results

- Not all journals require a separate **Results** section, often it is integrated with the **Discussion**, under the section title **Results and Discussion**.
- If you have a separate Results section then the standard procedure is to present them with little or no interpretation or discussion.
- In many disciplines this involves the use of figures and tables, which are referred to in the text. In other disciplines, findings are only reported in text form.

Results

- Don't tell the reader ALL your results – just the most relevant and / or the most unexpected.
- Even if a result goes against what was expected/hypothesized, you should still include it.

Results

The comment from a reviewer on one manuscript:

At times this paper reads like a thesis. The authors seem to have included all their results, with the consequence that I'm not sure which are key findings and which are not. However, I also suspect that some contradictory findings were excluded. Although I generally recommend brevity, this did not mean leaving out key findings that do not support the authors' line of logic.

Results

Tip 1. Structure the Results

- The Results should answer the following questions.
 1. What did I find?
 2. What did I not find?
 3. What did I find that I was not expecting to find (e.g. that contradicts my hypotheses) ?

Results

Tip 1. Structure the Results

- A typical structure is to follow the order you used for the protocols or procedures in your Methods and refer to figures and tables while describing results.

Participants

Procedure

Measures

- ✓ **Data analysis** (descriptive statistics, Pearson's correlation, MANOVA, SEM/LPA/moderated mediation/network analysis etc.)

Results

Tip 2. Begin the Results

The most common way is to simply [go directly to your results](#), often by inviting readers to look at one of your figures or tables.

reliability was 85%. The disagreements were resolved after discussion with professionals or trained English teachers.

RESULTS

Quantitative Results

The results of descriptive statistics and normality tests are presented in Table 5.

As indicated by the mean scores in Table 5, in general, student participants reported a moderate level of self-perceived controllability, high levels of perceived intrinsic value, and extrinsic value toward English learning. Table 5 also shows that participants generally reported a low level of boredom.

The Effects of Control and Value Appraisals on Learners' Boredom Level in English Class. The

Results

Tip 3. The tense for Results

Your results are things that you found before you started writing the paper. They therefore relate to past events, consequently the past simple is used to report them, often in a mixture of the active and passive forms.

Results

Tip 4. The style for Results

When describing your results you may opt for an impersonal style. This style serves to add an element of objectivity to your findings.

1. We found that doctors viewed the NHS as having failed to provide adequate services.
2. There was a perceived failure of the NHS to provide adequate services.

Revision: NHS failed to provide adequate services.

Results

Tip 4. The style for Results

3. Three levels of feedback were looked at for differences on task persistence. Differences between positive, negative, and no feedback conditions, were minimal and showed no significant findings ... There were larger differences both between genders and in the interaction between gender and feedback conditions. (see Table 1).

- ✓ This usage may reflect the author's wish to **remain in the background and let the results speak** for themselves.

Results

Tip 5. Report the null/negative findings

- Should I report any null (not statistically significant) /negative results if they are the key findings?

Yes! Of course!

1. For instance, in medical papers:

When you get a null/negative finding, it feels as if it's all been a bit of a waste of time. It's easy to convince yourself that you found nothing, but in fact you discovered a very **useful** piece of information: the thing that you tested doesn't work or work in the opposite way.

Results

Tip 6. Summarize results from Tables and Figures

- A typical **mistake** is to repeat information from the Table or Figure. This merely tells readers what they can already see in the Table or Figure.
 1. The coefficient for the relationship between A and B was - 0.53 (Table 4).
 2. We can see in Table 2 that in the control group, values for early adolescence (13–15) were 6.5. On the other hand, values for mid adolescence (16–17) were 6.7.
 3. Figure 1 shows that levels of intolerance are 9, 15 and 20 during early, mid and late adolescence, respectively.

Results

Tip 6. Summarize results from Tables and Figures

- Instead, summarize the results a little bit.
 1. The coefficient for the relationship between A and B was -0.53 (Table 4).

A negatively predicted B (Table 4).

Higher levels of A were associated with lower levels of B (Table 4).

Results

Tip 6. Summarize results from Tables and Figures

2. We can see in Table 2 that in the control group, values for early adolescence (13–15) were 6.5. On the other hand, values for mid adolescence (16–17) were 6.7.

Values for early adolescence were lower than for mid adolescence: 6.5 versus 6.7 (Table 2).

3. Fig. 1 shows that levels of intolerance are 9, 15 and 20 during early, mid and late adolescence, respectively.

Levels of intolerance are the highest during late adolescence (Fig. 1).

Results

Don't repeat information from the Table or Figure.

Example

Li, C. (2021). A control–value theory approach to boredom in English classes among university students in China. *The Modern Language Journal*, 105(1), 317-334.

Results

Every figure and table included in the paper **MUST** be referred to from the text.

Use sentences that draw readers' attention to the relationship you wish to highlight by referring to the appropriate Figure or Table parenthetically:

1. Germination rates were significantly higher after 24 h in running water than in controls (Fig. 4).

Results

Tip 7. Figures and Tables

- 文中Figure和Table的写法（是否缩写）、形式（是否加粗），全文要贯穿一致，且与图表中一致

正文中	图/表中
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Figure	Figure
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Figure	Figure
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Fig.	Fig.
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Fig.	Fig.
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Results

Tip 8. Show the value of my data.

S1. The large difference in mean size between population C and population D is particularly interesting.

S2. While the mean size generally varies among populations by only a few cm, the mean size in populations C and D differed by 25 cm.

Which one do you prefer? Why?

Results

Tip 8. Show the value of my data.

- Rather than telling the reader that a result is interesting or significant, show them how it is interesting or significant.
- Give your readers sufficient information for them to be able to say to themselves: “Wow, that is interesting!”.

Results

Tip 8. Show the value of my data.

Adverbs such as *interestingly*, *intriguingly*, *remarkably* also suffer from the same problem. However, they can be used effectively if used at the beginning of a sentence, in order to attract attention to a key finding.

Interestingly, while the mean size generally varies among populations by only a few cm, the mean size in populations C and D differed by 25 cm.

However this technique should be used **only once or twice** in the whole paper, otherwise it loses its effect.

Results

Tip 9. No subjective interpretation in Results section.

If you have a Discussion section, then you do not need not to interpret your data in the Results.

Results

Tip 10. Quotations from interviews.

How should I report quotations from the people we interviewed?

Generally speaking:

- ① there is no need to translate / report word for word what your interviewees said
- ② your transcript should simply enable the reader to understand the core points the interviewee made
- ③ even if the sentence uttered by the interviewee was not complete, if appropriate you can complete it if it was obvious what he/she wanted to say

Results

Tip 10. Quotations from interviews.

- ④ remove any tangential / irrelevant phrases
- ⑤ remove any filler words – *I mean, in other words, that is to say, you know, um, er*

However, ignore the above if the whole purpose of the interview was to report the exact words that were said, e.g. for some linguistics research.

Results

Summary

1. Express as clearly as possible so that the contributions of my results stand out for the referees and readers.
2. Only reporting the key results that each figure and table conveys, rather than reiterate each value.
3. Avoid subjective interpretation of results in Results section.
4. Use tenses and style correctly: *PAST SIMPLE* 一般过去时 and impersonal style 第三人称 for your own findings.

Discussion

Discussion

The primary aim of a Discussion is to explain your results and highlight the level of innovation and contribution of your research. Basically, it justifies why you wrote the paper. Thus, along with the Abstract, it is generally the most important section in the paper.

Discussion

If you can't explain it simply, you don't understand it well enough.

Look deep into nature, and then you will understand everything better.

Discussion

People read papers in different ways. Readers in a hurry may read the title and then just look at the figures! Many begin from the part that they find the most interesting, which is often the Discussion.

Most authors find discussing their results to be the most difficult part of the paper to write. When referees reject a paper, it is very often due to a poorly written Discussion.

Discussion

Tip 1. The structure of Discussion

The Discussion should answer the following questions in the following order. Use the answers to structure your Discussion.

1. What are my important findings?
2. Do these findings support my hypotheses?
3. How do my findings compare with what others have found? How consistent and different are they? What are its advantages and disadvantages?
4. What is my interpretation of my findings?
5. What are other possible interpretations?

Discussion

6. Do any of the interpretations reveal a possible flaw (i.e. defect, error) in my study?
7. What are the limitations of my study? What other factors could have influenced my findings?
8. What external validity do my findings have? How could my findings be generalized to other areas?
9. What possible implications or applications do my findings have?
10. What further research would be needed to explain the issues raised by my findings?

Discussion

Tip 1. The structure of Discussion

Organize your Discussion following the same sequence of your hypotheses / your findings in the Results section.

By having a clear structure, authors are forced to express themselves more clearly.

Discussion

Tip 2. How to begin the Discussion

1. Remind readers of your goals, preferably in a single sentence.
2. Refer back to the questions (hypotheses, predictions etc.) that you posed in Introduction.
3. Briefly restate the most important points from your Results.

Discussion

Tip 2. How to begin the Discussion

DISCUSSION

Research goals

The aim of this study was to investigate the role of control and value appraisals as antecedents of an activity-focused achievement emotion—that is, boredom—experienced by a sample of university students in Chinese EFL classes.

Discussion

The current longitudinal study examined the relationship between PTSD at baseline and negative and positive psychological outcomes (i.e., psychiatric co-morbidity and PTG) at 6-month follow-up. It also investigated the mediational effects of trauma centrality and two types of CER at 3-month follow-up. Inconsistent with hypothesis 1, initial PTSD negatively predicted psychiatric co-morbidity but positively predicted PTG at T3. Partly aligned with hypothesis 2, baseline PTSD was positively associated with trauma centrality at T2 which, however, did not predict the two psychological outcomes at T3 and therefore could not mediate the impact of baseline PTSD onto these two outcomes at T3. Also, partly in line with our third and fourth hypotheses, initial PTSD was positively associated with adaptive CER and maladaptive CER at T2; neither of these two types of CER predicted psychiatric co-morbidity at T3, but both were respectively positively and negatively related to PTG at T3. In addition, both types of CER mediated the pathway between baseline PTSD and PTG at T3 but not that between initial PTSD and psychiatric co-morbidity at T3.

Research goals

**Refer to
hypothesis**

4. Discussion

Research goals

To the best of our knowledge, the current study was the first to explore the network structure of PTSD, psychiatric co-morbidity and PTG among Chinese adolescents. The domains of these psychological constructs mainly clustered in their respective communities, within which edges were all positive. The most central nodes were *intrusion* (B), *anxiety and insomnia* (Q2), and *new positive experiences* (Q1), representing psychiatric co-morbidity and PTG, respectively. The most central node within PTSD echoed previous findings that *intrusion* was the most central node within PTSD and above other symptoms, it played a critical role in the onset and persistence of PTSD (Cao et al., 2019; Russell et al., 2017; Bartels et al., 2019; De Haan et al., 2020; Ge et al., 2019). Although, on average, the

Restate the most
important
findings

Discussion

Tip 3. Compare with other studies

A good structure for doing this is:

1. Make a general statement regarding one of your findings
2. Mention another author's work that **relates directly** to your finding
3. **Clearly** state how your work **echoes/differs** from her/his work
4. Make **interpretations** about your finding
5. State the conclusions that can be drawn from your result in light of these considerations (**optional**)

The validated regression model supports and extends Hypothesis 3, that the effect of value appraisal would outweigh that of control appraisal in boredom in English class. More specifically, the relationship between extrinsic value and boredom turned out insignificant once intrinsic value and control were taken into account, and intrinsic value appraisal played a larger role in predicting boredom than did control and extrinsic value appraisals. This empirically supports the assumption of the CVT that intrinsic value is of primary relevance for the instigation of boredom (Goetz & Hall, 2014). This also dovetails with the findings in an L2 context that activity-focused emotion (e.g., boredom and enjoyment) is most strongly related to intrinsic-value-related appraisal (Li, 2020a, 2020b). Moreover, it replicates the findings in a mathematics context that boredom was

Finding 1

Explain finding 1

Compare with the literature

Discussion

Tip 4. Bring a little excitement to my Discussion

- Add some passion to your writing by using qualitative adjectives (e.g., *convincing, exciting, indisputable, undeniable*) or quantitative adjectives (*huge, massive*), typical powerful nouns that suggest a major step forward (*breakthrough, advance, leap*).
- Remember to **illustrate on these adj., adv, and powerful nouns**, in order to help readers understand!
- However, such adj., adv, and nouns should be used **very rarely** , otherwise they lose their effect.

Discussion

Tip 5. Should I discuss the limitations of my research?

Yes!

Even the most impressive minds are not flawless, they merely pave the way for the next level of understanding.

Once we accept our limits, we go beyond them.

Discussion

It is essential to inform readers of any limitations to your research. There is no need to consider these aspects of your research to be totally negative.

Readers will appreciate learning about what went wrong, as this may help them with their own research.

Discussion

When you discuss any limitations, try to do so in a constructive way so that other researchers can learn from your experiences.

1. Honest
2. Clear
3. Avoid losing credibility

Discussion

S1. **The limitation of* this paper is that the two surveys were *unfortunately* not conducted in the same period. This will affect our results in terms of ...

S2. *Although* the two surveys were not conducted in the same period, this will *only* affect our results in terms of ...

Which type of writing do you prefer? Why?

Discussion

S1. **The limitation of* this paper is that the two surveys were *unfortunately* not conducted in the same period. This will affect our results in terms of ...

S2. *Although* the two surveys were not conducted in the same period, this will *only* affect our results in terms of ...

Although implies that you are going to say something negative, but that something positive will immediately follow.

Combining two sentences into one sentence gives the reader less time to ponder on the negative content.

Discussion

S1. *One limitation of our research was the sample size, which was too small.

S2. *The unfortunate contamination of a few of our samples may mean that some of our conclusions are somewhat misleading.

How do you feel after reading these two sentences?

The author is risking losing the credibility of his/her study.

Discussion

S1. *One limitation of our research was the sample size, which was too small.

Revision: One limitation of our research was the sample size. Clearly 200 Xs are not enough to make generalizations about Y. However, from the results of those limited number of Xs, a clear pattern emerged which ...

Discussion

S2. *The unfortunate contamination of a few of our samples may mean that some of our conclusions are somewhat misleading.

Revision: Two of our samples were contaminated. This occurred because ... However, our analysis of the uncontaminated samples (24 in total) supported our initial hypothesis that ...

How do you feel after reading the revision?

- ✓ Constructive.
- ✓ Credibility of the research is saved.

Discussion

Example

Discussion

Do not end the Discussion with your limitations. You want your paper to end on a positive note, so in your final paragraph(s) talk about the benefits and wider applications of your research.

Example

Li, C. (2021). A control–value theory approach to boredom in English classes among university students in China. *The Modern Language Journal*, 105(1), 317-334.

Discussion

Tip 6. Implication of my research

Don't fall into the trap of drawing bigger implications than are in fact reasonable.

- I. State your findings clearly, i.e. what you really found.
- II. On the basis of these findings, discuss what you believe the implications of these findings are (for example, for policy makers, managers, and others who might be doing research in a similar field).

Discussion

Tip 7. How long should the Discussion be?

Find the most cited papers in your field, and note the proportion of space given to the Discussion relative to the other sections. Adopt the same proportion.

Conclusion

Conclusion

How should I end the Discussion with Conclusions?

Summary & Looking forward into the future.

Conclusion

1. Provide an overall summary of your key findings.
2. Point out how your findings have advanced your field.

To the best of our knowledge, this is the first study that has explored the relationship between using network analysis.

3. State the significance of your findings in terms of their implications.

These might shed some light on the facilitation of patients' posttraumatic growth by clinical psychiatrist.

Conclusion

4. Show how your work could be applied in a related area.

Our finding *could* be applied quite reliably in other engineering contexts without a significant degradation in performance.

5. Suggest future work.

Future studies *should* give priority to 1) the formation of X; 2) the interaction of Y; and 3) the processes connected with Z.

To conclude, Chinese adolescents may experience both emotional distress and personal growth following catastrophic events. The extent of these psychological responses could be influenced by interactions between the adolescents' past trauma experiences, adaptive and maladaptive coping, and attachment difficulties. In other words, the adolescents' past traumatic memories, their past relationships with attachment figures, and how they cope could influence their psychological problems and growth. These past experiences are often beyond the individual's control, while coping tends to reflect conscious behaviors or activities that are usually within the adolescent's control. Future studies *could* further explore the role of loss of control and being in control on mental health after trauma.

Summary

Implication

Future
work

Conclusion

Example

Li, C. (2021). A control–value theory approach to boredom in English classes among university students in China. *The Modern Language Journal*, 105(1), 317-334.

Tian, Y., Hu, Y., Su, M., Jia, Q., Lian, X., & Jiao, L. (2024). Mitigation Measures Could Aggravate Unbalanced Nitrogen and Phosphorus Emissions from Land-Use Activities. *Environmental Science & Technology*, 58(10), 4627-4636.

Thank you!