

## Academic Writing in Empirical Disciplines: Typical elements of IMRD\*-structured papers

### Abstract: Providing a brief overview

- Summarising research: Context, research questions/hypotheses, sample and methods, results, conclusions and implications

### Introduction: Creating interest in your research and provide context

- Establishing context and stating centrality of topic
- Critically reviewing relevant previous research:
  - Addressing controversies
  - Clarifying terms
- Identifying a knowledge gap
- Filling the gap:
  - Generating hypotheses or stating expectations
  - Explaining expectations (if necessary)
- Stating implications of expected outcomes

### Methods: Providing enough details to allow replication of your research

- Describing sample (e.g. participants, corpus, data) and materials (e.g. measuring technique, apparatus, prompts, software)
- Describing (and justifying) the procedure: How and in which order data was collected
- Introducing the research design (e.g. variables, measurements, experimental set-up, participant assignments, survey items, codification, (novel) statistical approaches)
- Describing (and justifying) the method of analysis

### Results: Presenting your results, visualising results in tables and graphs

- (Re-introducing context/aims/methods)
- Summarising results

- Referring to graphs, figures etc.
  - Reporting results
  - Commenting on results
- present descriptive statistics before test statistics

(Ordered by hypotheses or research questions)

### Discussion: Showing how your results match your research question

- Grounding the Discussion:
  - Re-introducing general or study-specific background
  - Recounting principal findings
- Commenting on Results
  - Explicating/accounting for results
  - Clarifying expectations
  - Addressing limitations (or in separate section at the end)
  - Discussing sources of errors and statistical significance
- Referencing Literature
  - Supporting/countering with evidence (throughout the section)
- Expanding on comments
  - Generalising results
  - Stating value of study
  - Noting implications: How your results could impact practice or relate to relevant theories
  - Proposing directions

### Conclusion: Summarising the most important points, stating general implications and suggesting further research

#### This resource condenses content by:

- Beins, B. C., & Beins, A. M. (2012). *Effective Writing in Psychology*. (2<sup>nd</sup> ed.). New York: John Wiley & Sons.
- Cotos, E., Link, S., & Huffmann, S. (2016). Studying disciplinary corpora to teach the craft of Discussion. *Writing & Pedagogy*, 8(1), 33-64.
- Siepmann, D. (2012). *Wissenschaftliche Texte auf Englisch schreiben*. Stuttgart: Klett
- Swales, John M. (1990). *Genre Analysis*. Cambridge: Cambridge University Press.

Note: This handout is written in British English. The references are provided in APA style (6<sup>th</sup> ed.).

\*IMRD: Introduction, Methods, Results, Discussion

