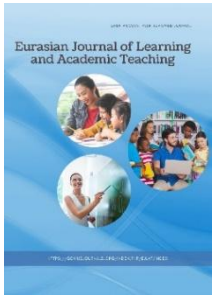

Writing the Results Section in IMRaD Structure: Techniques, Standards, and Best Practices

Rustamova Adash Eshankulovna
Doctor of Pedagogical Sciences (DSc), associate professor, Samarkand state institute of foreign languages, Samarkand, Uzbekistan

Eny Satriana
Doctor of philological sciences, professor, Universitas Muhammadiyah Makassar, Indonesia

ABSTRACT

The Results section is a core component of the IMRaD (Introduction, Methods, Results, and Discussion) structure in scientific writing. It presents research findings objectively and systematically without interpretation or subjective commentary. This article explores the principles, structure, and writing techniques of the Results section in IMRaD-based academic writing. It examines international publishing standards, data presentation methods, use of tables and figures, statistical reporting conventions, and language features required in scholarly communication. The article also discusses common mistakes, disciplinary variations, and strategies for improving clarity and accuracy in presenting research findings. The findings show that a well-structured Results section enhances scientific transparency, improves peer-review outcomes, and strengthens research credibility. The article concludes that mastering Results writing is essential for successful publication in international academic journals indexed in Scopus and Web of Science.

Keywords: IMRaD, Results section, academic writing, scientific reporting, data presentation

Introduction

The Results section is one of the most important components of the IMRaD structure in scientific and academic writing. It presents the findings of a study in a clear, logical, and objective manner. Unlike the Introduction or Discussion sections, the Results section does not include interpretation, explanation, or subjective evaluation of findings. Its primary purpose is to report data obtained from research procedures described in the Methods section (Creswell & Creswell, 2018). In international academic publishing, particularly in journals indexed in Scopus and Web of Science, the Results section is considered a critical indicator of research quality and methodological rigor. Editors and reviewers carefully evaluate whether findings are presented clearly, accurately, and consistently with research objectives (Day & Gastel, 2012). The increasing importance of evidence-based research in science, social sciences, and applied disciplines has strengthened the role of structured results reporting. Standardized reporting improves transparency, reproducibility, and comparability of scientific studies (APA, 2020). Therefore, mastering the techniques of writing the Results section is essential for researchers aiming to publish in international journals. This article examines the principles, structure, writing techniques, and international standards of the Results section in IMRaD-based academic writing.

Purpose of the Results Section. The main purpose of the Results section is to present research findings in a factual and objective manner. It answers the research questions or hypotheses formulated in the Introduction

section using data collected through research methods (Wallwork, 2016). The Results section serves several key functions:

- It reports empirical findings clearly and systematically
- It provides evidence to support or reject hypotheses
- It ensures transparency in scientific communication
- It enables readers to evaluate research outcomes independently
- It prepares the foundation for interpretation in the Discussion section

A well-written Results section allows readers to understand what was discovered without needing additional explanation or interpretation.

Core Principles of Writing Results in IMRaD

Objectivity. The Results section must remain completely objective. Researchers should avoid interpretation, personal opinion, or explanation of findings. Only factual data should be presented (Cargill & O'Connor, 2013). **Clarity.** Information should be presented in a clear and logical sequence. Readers should be able to follow results without confusion or ambiguity. **Accuracy.** All numerical data, statistical values, and qualitative findings must be reported accurately. Errors in data presentation reduce research credibility. **Brevity.** The Results section should be concise and focused. Irrelevant details should be avoided.

Logical Order. Results should follow the order of research questions or hypotheses, not randomly arranged data. **Structure of the Results Section.** The structure of the Results section depends on the type of research but generally follows a logical progression from general to specific findings. **1. Overview of Findings.** Some studies begin with a brief summary of overall results. This provides readers with a general understanding of key outcomes. 2**. Presentation of Quantitative Data.** In quantitative research, results are typically presented using statistical analysis, including:

- Descriptive statistics (mean, median, standard deviation)
- Inferential statistics (t-tests, ANOVA, regression analysis)
- Correlation and significance levels (p-values)

For example: The results showed a significant difference between Group A and Group B ($p < 0.05$). **3. Presentation of Qualitative Data.** In qualitative research, results are presented using thematic descriptions, categories, and participant responses. For example: Three major themes emerged from the interview data: motivation, learning strategies, and classroom interaction. **4. Use of Tables and Figures.** Tables and figures are essential tools for presenting complex data visually. They help improve readability and simplify interpretation.

- Tables are used for numerical and structured data
- Figures are used for graphs, charts, and visual patterns

Each table or figure must be numbered and clearly labeled. **5. Subsections for Organization.** Long Results sections often use subsections based on research questions or variables. This improves clarity and structure.

Language Features of the Results Section. The language used in the Results section must follow specific academic conventions. **1. Use of Past Tense.** Since results describe completed research, past tense is typically used: Data were collected from 150 participants. **2. Passive Voice (Optional but Common).** Passive constructions are often used to maintain objectivity: The data were analyzed using SPSS software. However, modern academic writing also accepts active voice when appropriate. **3. Neutral Tone.** The language must remain neutral and free from emotional or evaluative expressions. Incorrect: The results were amazing and very surprising Correct: The results indicated a statistically significant difference. **4. Precision in Statistical Language.** Statistical terms must be used correctly, including:

- p-values
- confidence intervals
- significance levels
- correlation coefficients

Presentation of Quantitative Results

Quantitative Results sections require structured statistical reporting. Researchers must clearly present numerical findings using standardized formats (Field, 2018). **Example:** A t-test revealed a significant difference between experimental and control groups (t = 2.45, p = 0.02). **Key Features:**

- Numerical precision
- Statistical significance reporting
- Comparison between variables
- Use of tables and graphs

Quantitative results must avoid interpretation and focus solely on data presentation. **Presentation of Qualitative Results.** Qualitative Results sections focus on meaning, patterns, and themes rather than numbers (Braun & Clarke, 2006).

Example: The analysis revealed three main themes: learner autonomy, classroom engagement, and digital learning preferences. **Key Features:**

- Thematic organization
- Use of participant quotations
- Category-based explanation
- Descriptive rather than numerical reporting

Qualitative results must remain descriptive without deep interpretation (which belongs to the Discussion section). **Use of Tables and Figures.** Tables and figures are essential for enhancing clarity and visual understanding of results. **Tables.** Tables are used to present structured numerical or categorical data. Example structure:

- Table number
- Title
- Column headings
- Data values
- Notes (if necessary)

Figures. Figures include graphs, charts, diagrams, and visual representations of data trends. Best practices:

- Each figure must be clearly labeled
- Axes must be defined in graphs
- Visual clarity must be maintained
- Figures must support textual explanation

Common Mistakes in Writing Results. Many researchers make mistakes when writing Results sections, especially novice authors.

1. Interpretation in Results

Including explanations or interpretations is a common error. Interpretation belongs to the Discussion section.

2. Lack of Structure

Unorganized presentation of data reduces clarity and readability.

3. Missing Statistical Information

Failure to report statistical values reduces scientific credibility.

4. Overuse of Text Without Visuals

Large datasets should not be presented only in text form.

5. Inconsistent Reporting Style

Inconsistent use of tense, terminology, or formatting creates confusion.

Differences Across Disciplines. The Results section varies across academic disciplines. **Natural Sciences.** Highly quantitative, structured, and statistically driven. **Social Sciences.** Combination of quantitative and qualitative data. **Humanities.** More descriptive and interpretive, sometimes integrated with discussion. **Engineering.** Focus on experimental outputs, system performance, and technical measurements.

Strategies for Effective Results Writing. To improve Results writing, researchers should:

- Follow journal guidelines strictly
- Organize results according to research questions
- Use tables and figures effectively
- Maintain objectivity at all times
- Report statistical values accurately
- Separate results from discussion clearly

Peer review and revision also significantly improve Results section quality. **Role of Results Section in International Publishing.** In international journals indexed in Scopus and Web of Science, the Results section plays a crucial role in determining publication success. Editors evaluate whether findings are clearly presented, statistically valid, and methodologically consistent (Elsevier, 2023). A strong Results section increases:

- Publication acceptance rate
- Citation potential
- Research credibility
- International visibility

Poorly written Results sections are one of the main reasons for manuscript rejection.

Conclusion

The Results section is a fundamental component of the IMRaD structure and plays a central role in scientific communication. It presents research findings objectively, clearly, and systematically without interpretation or subjective commentary. Effective Results writing requires accuracy, clarity, logical structure, and proper use of statistical and qualitative data presentation techniques. It also requires strict adherence to international academic standards and journal guidelines.

In modern academic publishing, especially in Scopus- and Web of Science-indexed journals, mastering the Results section is essential for successful research dissemination and scholarly impact.

References

1. American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). APA.
2. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.
3. Cargill, M., & O'Connor, P. (2013). *Writing scientific research articles*. Wiley-Blackwell.
4. Creswell, J. W., & Creswell, J. D. (2018). *Research design*. Sage.
5. Day, R. A., & Gastel, B. (2012). *How to write and publish a scientific paper*. Cambridge University Press.
6. Elsevier. (2023). *Journal author guidelines*. Elsevier Publishing.
7. Field, A. (2018). *Discovering statistics using IBM SPSS*. Sage.
8. Wallwork, A. (2016). *English for writing research papers*. Springer.
9. Eshankulovna, R. A. (2021). Modern technologies and mobile apps in developing speaking skill. *Linguistics and Culture Review*, *5*(S2), 1216-1225.
10. Rustamova, Adash Eshankulovna, and Sevinch Navruzjonovna Rakhmatullaeva. "How to improve speaking skill with the help of innovative technology." *International conferences*. Vol. 1. No. 1. 2023.
11. Eshankulovna, R. A. (2021). The use of educational technology in teaching foreign language speaking skill in primary school students. *Journal of Pedagogical Inventions and Practices*, *3*, 18-25.
12. Rustamova, A., & Qayumova, S. (2024). Exploring the reasons for living and working abroad: a scientific perspective. In *Conference Proceedings: Fostering Your Research Spirit*.