

EDITORIAL

BEYOND IMRAD: NEW MNEMONIC DEVICES FOR EFFECTIVE WRITING OF ORIGINAL ARTICLE

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Mnemonics are techniques for memorization and effective recall. Verbal Mnemonics are list of words or phrases where the first letter of word or phrase represents an item which one want to remember in the same order as given by that phrase or letter. For example, bones of the skull can easily be recalled by the mnemonic Old[Occipital] People[Parietal] From[-Frontal] Texas[Temporal] Eat[Ethmoid] Spiders[Sphenoid]. Mnemonics enhance retention of information and ensure prompt but simple retrieval in the correct order.¹ Acronyms are abbreviations but pronounced as words. They are often called First Letter Mnemonics. Acronyms are created from the first letter of group of words or names. For example, AIDS is an acronym and stands for Acquired Immune Deficiency Syndrome. Both mnemonics and acronyms are memory aids and serve the same purpose of quickly understanding, memorizing and easy retention of long strings of words and difficult sequences and lists.

The most common type of journal article is the original article. Original articles are the primary literature and report new research work. The preferred and standard format of the body original article [after Title and Abstract] was recommended in the beginning of twentieth century and represented by the classical acronym IMRaD [which stands for Introduction, Methods, Results and Conclusion] is still valid and practiced widely. The IMRaD eliminates unnecessary information and permits relevant detail in a sequence.²

When an article is written accurately without missing the mandatory details it has greater chances of publication

in highly reputed impact factor journal.³ Omitting the essential details will cause rejection of manuscript and hence wastage of good research. An original article has a title, abstract, keywords, introduction, methods, results, conclusion and references.⁴ In this editorial we are proposing new mnemonics and acronyms for each and every section of an original article that would enhance authors ability to grasp all the key elements of original article.

Title: The four most commonly used article title styles(-types) can be remembered with a mnemonic “**Dogs Dig Cats Inquire**” and represents Dogs [**Declarative/Assertive/Conclusive** title] Dig [**Descriptive/Indicative/Neutral** title] Cat [**Compound/Hanging** titles] Inquire[**Interrogative/Question**]. The acronym for retrieval is **DDCI**. Authors can choose any one title style amongst the four for their manuscripts.

Abstract: In the words of Manske,⁵ “The Abstract is an opening summary of the story, and the Title gives the story a name.” The mnemonic proposed by us for the three common types of abstract is “**Some Use Graphics**” which stands for Some [**Structured**] Use [**Unstructured**] Graphics[**Graphics**] while the acronym **SUG** can be remembered to retrieve all the three types of abstracts. The various components of structured abstract can be remembered by the mnemonic “**Before Outcomes, Meticulous Reporting Clarifies.**” and include Before [**Background**] Outcome, [**Objective**] Meticulous[**Methods**] Reporting [**Results**] Clarifies [**Conclusion**]. The acronym **BOMRC** will be helpful for remembering the above.

KEY WORDS: Acronym; Mnemonics; Original Article.

Cite as: Shah FA, Sattar A, Shafiq M. Beyond IMRaD: new mnemonic devices for effective writing of original article [editorial]. Gomal J Med Sci 2025 Jan-Mar;23(1):1-2. <https://doi.org/10.46903/gjms/23.1.1989>

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Date Submitted: 16-09-2024

Date Revised: 24-02-2025

Date Accepted: 06-03-2025

Keywords: The essential characteristics of keywords can be remembered with a mnemonic “**Tiny Violets Never Often Kill Mice**” and denotes Tiny [**Title**- keywords from title of study] Violets [**Variable**-keywords from variable of study] Never [**Number** of keywords-3 to 10] Often [**Order**-alphabetical/ascending, descending] Kill [**Keywords**-use either] Mice [**MeSH** words-use either]. We proposed **TV NOKM** as an acronym to represent essential of keywords.

Introduction: A good and compelling introduction can be remembered with a mnemonic “**Build In**

Gaps” denoting Build [**Background** of your topic for establishing relevance and context] In [**Importance** of problem you want to study] Gaps [**Gaps** in knowledge/rationale]. The acronym **BIG** can represent details of introduction section.

Methods: The seven essential components of methods section can be remembered with a mnemonic “**Some Dogs Sit Eating Really Interesting Snacks**” This includes Some [**Settings**/place of study] Dogs [**Design** of study] Sit [**Sample** size calculation and technique] Eating [**Ethical** approval/consent] Recruitment [**Inclusion** and **exclusion** criteria] Intervention [**Experiment/Technique**/reproducibility] Snacks [**Statistical** analysis plan]. The **SDSERIS** would be an appropriate acronym for recalling details of methods section. We propose mnemonic “**Clinical Studies Seek Solid Clarity**” to remember important reporting guidelines for main study types which must be mentioned in methods section. This mnemonic explains Clinical [**CONSORT**-Randomized Trials] Studies [**STROBE**-Observational Studies] Seek [**STARD**-Diagnostic/Prognostic Studies] Solid [**SQUIRE**-Quality Improvement Studies] Clarity [**CHEERS**-Economic Evaluation Studies]

Results: The mnemonic crafted for the result section of original article encompassing all the essential elements of this section is “**Scientists Really Analyze Data Always.**” This represents Scientists [**Summary** of main data] Really [**Relationship** of important variables observed] Analyze [**Avoid** repetition of same data in text, tables, graphs Data [**Describe** key data trends and patterns] Always [**Always** focus on data and avoid subjective interpretation]. The acronym **SRADA** is helpful for memorizing essential components of result section.

Discussion: The discussion is the most important component of original article. It should be simple but comprehensive as Albert Einstein has said that” If you can’t explain it simply, you don’t understand it simply.” The discovery of DNA was initially published as one page summary and letter to the editor. The mandatory components of discussion section can be memorized with a mnemonic,” **Investigating Results Creates Significant Learning.**” This include Investigating [**Interpret** your results] Results [**Relationship** of results to research question/objective of study] Creates [**Comparison** /consistency of your results with similar national and international studies] Significant [**Suggest** future research] Learning [**Limitations** of your study]. Result section can be represented with acronym **IRCSL**

Conclusion: The conclusion section can be represented with a mnemonic,” **Just Realize Significance**” denoting Just [**Justification** of main findings] **Realize** [**Relevant** to the aims and objectives of study] Sig-

nificance [**Summarize** the study appropriately]. The acronym for conclusion is **JRS**.

References: Every journal follows one specific referencing style. The most commonly used referencing styles can be represented with a mnemonic” **Very Happy Alligators Always Carry Cute Mangoes.**” This include Very [**Vancouver**] Happy[**Harvard**] Alligators [**American** Psychological Association-APA] Always [**American** Medical Association-AMA] Carry [**Chicago**] Cute [**Council** of Science Editors-CSE] Mangoes [**Modern** Language Association-MLA]. Majority journal however recommend Vancouver style of referencing.

Every good research should be published to produce a meaningful impact on society and humanity. The editors however expect that all critical details of research should be included in every section of original article. The writing process of authors can be simplified by utilizing these proposed novel mnemonics. This will ensure consistency in original article structure and format. The authors must not forget what Robert A. Day has said that “a scientific experiment, no matter how spectacular the results, is not completed until the results are published.”

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
GRANT SUPPORT AND FINANCIAL DISCLOSURE
None declared.



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