

Key Features of Writing Academic Research Paper

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Abstract

An academic research paper is one of the academic writing assignments which is done to be presented to universities, institutes, and other educational organizations. Academic writing assignments have many names, (essay, paper, research paper, term paper, argumentative paper/essay, analysis paper/essay, informative essay, position paper), but all these types have the same general criteria and principles of formation. Any type of these ones shows a point of view that the writer or the researcher wants to show or discuss in his paper using

pieces of evidence to explore something from his discussion. So, a writer should think critically about his topic to be able to convince the readers of his claims.

This paper discusses the key features and the basic criteria for organizing a research paper showing the mechanism of the writing process. It focuses on how to set an argument for the research paper using relevant evidence and a suitable analyzing method. And it discusses the best techniques for reporting and interpreting the findings achieved from the research using the appropriate language.

Keywords: Academic Writing, Research paper, Argument, Evidence, Claims, Warrants, Backing.

The most important thing a writer must do is be clear about why he is writing his paper. There are many different reasons for writing including answering a question the writer has chosen, discussing a subject of common interest, synthesizing or opposing another theory or research, etc. So, the writer has to show that he understands the purpose of his writing well and can think critically about his topic.

It is agreed that academic writing should be accurate and objective, however, there are no fixed rules for academic writing because it depends on the discipline. But there are common features that should be included in any academic writing, and the writer should be aware of them to explain his ideas effectively. Argument, analysis, and evidence are the key features of formatting and writing a research paper.

*** Argument definition**

Although the nature of academic writing varies according to the

discipline, the development of an argument is the main feature of successful writing across various disciplines. The definition of argument varies according to academic discourse, for example, Toulmin, & Janik, (1984, p. 14), defined argument as ‘the sequence of interlinked claims and reasons that, between them, establish content and force of the position for which a particular speaker is arguing’. And they stated that there are four elements that must be found in an argument; Claims, Grounds, Warrants, And Backing. While Andrews (1995: p. 3), defined Argument as “a process of argumentation, a connected series of statements intended to establish a position and implying response to another (or more than one) position”. Also, it is defined as “Taking a debatable position, presenting evidence, and using sound logic to convince the audience to accept (or at least consider) your position”.¹

Due to the above-mentioned definitions and others, the main idea is the argument is composed of position, a presentation through the logical

¹ For more details:
www.dvusd.org/cms/lib011/AZ01901092/.../ArgumentationPPT.postrevised.3rdq.5/21/2023

arrangement of the propositions that build this position (statements, or claims), and analysis which aims to analyze and evaluate content knowledge. And these components must be presented coherently (Ursula, 2012).

* **Counterarguments**

Counterarguments are the ideas that oppose the writer's point of view, and the writer should show that he is familiar with both sides of the argument and give logical reasons for opposing these ideas before showing his point of view (Stephen, p.88).

* **Evidence and Analysis**

To make a successful argument, the writer should provide logical and factual evidence that supports his claim. Evidence serves as the basis for the writer's position on the subject he discusses, and relevant evidence should be provided to strengthen his argument. The writer should present the evidence coherently and well-organized to avoid confusing the readers. The evidence can be incorporated into the body of the paper

as a quotation, paraphrasing, charts, summary, etc.

Most researchers distinguish between two categories of evidence, Primary and Secondary sources. Primary sources are the original sources, and they may include original documents, diaries, photographs, official surveys, experimental data, etc. Secondary sources are the interpretations or critiques presented by other academics or scholars. Print and electronic sources (Books, Journals, websites, etc.) can be sources for gathering evidence².

The writer should be aware of analyzing the evidence well. It is not enough to bring pieces of evidence into the research paper without explaining their significance and their functions in the research paper. The writer should analyze the relationship between every piece of evidence and the topic. And he should indicate how every piece of evidence supports his point of view. Some Writers sometimes depend on the knowledge of the readers, and they think that the readers understand what they mean. Although the readers may

² For more details:

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<https://guides.lib.uoguelph.ca/UseEvidenceEffective/5/15/2023>

[2- Evidence - UNC Writing Center, The University of North Carolina at Chapel Hill](https://writingcenter.unc.edu)
<https://writingcenter.unc.edu> > 5/12/2023

be familiar with the ideas the writer discusses, they cannot link the evidence and the writer's point of view without explanation. So, he should ask himself why this evidence is important and what does it imply? What are the consequences of applying this evidence? etc., and in that case, it is better to illustrate his ideas with examples for more clarification. Moreover, the writer should draw a conclusion based on every piece of evidence to avoid confusing the readers. This analysis needs to be conducted using a suitable method depending on the discipline of the research paper.

*** Best strategies for structuring an argument**

According to what is mentioned in Mary M. Gleason (1999, pp:83-84), & William W. Baber (2018, pp:32-34), Toulmin, & Janik, (1984), & Toulmin (2003), the key elements of a solid argument are as follows:

1- Claims: refers to what the writer proposes. It includes the writer's beliefs about what he claims to the audience, or his recommendations that he wants the audience to agree with. The writer's claims are not facts but his interpretations about something, and maybe these interpretations are

opposed by another point of view. So, a claim must be supported by specific evidence to convince the audience. And claim statement refers to the writer's position on the presented topic.

2- Grounds/Evidence: refers to reasons why the writer presents his claim. In other words, the logical evidence or reasons supporting the writer's claim. Grounds should be indisputable data or facts. These grounds or evidence may be images, statistical analysis, other experts' opinions, etc.

3- Warrants/Explanation: refers to the logical connection between claim and evidence. In other words, how the writer's grounds will be enough evidence to support his claim, and how he will show it to the readers or audience.

4- Backing: refers to the additional information that supports the writer's point of view and helps the readers or audience to understand his analysis and explanation.

In addition, Toulmin, & Janik, referred to the importance of how those four key elements are connected coherently, and with reliability. And the strength of the argument can be judged in light of how it functions

within the larger context it serves (Mary, M. Gleason, 1999, p.84).

These above-mentioned key elements can be structured in an academic paper as follows:-³

- 1- statement of the problem
- 2- literature review
- 3- The precise focus of the research stated in the form of a hypothesis, question, aim, or objective
- 4- method and methodology
- 5- results/evidence
- 6- discussion and conclusion.

Also, Mallia (J. 2017), asserts a similar structure but in three elements. She stated that the structure of any academic text is similar and should follow the pattern: *an introduction*, followed by *a body* of writing, and ending with *a conclusion*. She added that *the introduction* should include: (i) background information to set a meaningful context, (ii) justification for the choice and focus of the topic, (iii) an outline of the essay, (iv) a definition of key lexis (terms) essential for the topic, (v) thesis statement (a concise summary of the main point or claim), and (vi) purpose for writing the

essay. And *the body* refers to the organization of the paragraphs within it, depending on the objectives of the paragraph and text, and it should follow the basic organizational structure. Then *the conclusion* which may be circular, loops back to the beginning and summarize the highlights, restating the main points. The conclusion indicates to what extent the writer addressed the presented issues and assumptions being the final part of the text (Mallia, J. 2017, p:7).

To edit a successful academic paper, there are some steps that the writer should follow before and during writing. They are⁴ :-

- 1- Understanding the title and paper-type
- 2- Developing a thesis statement
- 3- Argument and discussion
- 4- Problem-solution
- 5- Cause and effect

In addition, Anne, (2010) stated the most important principles of academic writing as follows (Anne, 2010. pp:2-3):-

³ Structuring an academic 'argument' within a journal paper: pp:1-5
<http://w3.unisa.edu.au/researcheducation/students/journal.asp>

⁴ For more details: Mallia, J. (2017). Strategies for Developing English Academic Writing Skills.

1- Clear purpose:

A- Persuasive purpose

The purpose is to make readers adopt the writer's idea or answer to the question of the topic.

B- Analytical purpose

The purpose is to explain and evaluate possible answers to the writing question, choosing the best answer(s) based on the writer's criteria. In this type, the writer investigates causes, examines effects, evaluates effectiveness, assesses ways to solve problems, etc.

C- Informative purpose

The purpose is to explain possible answers to writing questions, giving the readers new information about the topic without pushing the writer's opinion on readers.

2- Audience Engagement:

A writer should direct his writing to a specific audience in his mind and does his best to engage them with his ideas and catch their interest.

3- Clear point of view

A writer should present his point of view about the topic (thesis statement), not just facts or summaries of others' ideas and research.

4- Single focus

Every paragraph should support the thesis statement and the writer must

present contradictory opinions and criticize them.

5- Logical organization

It includes an *introduction*, that catches the readers' attention, provides background information, and lets the reader know what to expect. *Body paragraphs* that contain main points and the evidence that support them. *A conclusion* that summarizes the main points of the paper and its findings.

6- Strong Support

Each paragraph must include relevant support of facts, examples, experts' opinions, etc.

7- Writing style

It should be clear, and concise, and doesn't have grammar, spelling, punctuation, or vocabulary mistakes.

8- Clear and Complete Explanations

The writer's thoughts and interpretation must be clear enough to be understood.

9- Effective Use of Research

The paper must include a variety of current academic sources of high quality. The source material should be introduced, analyzed, explained, and then cited.

10- Correct APA Style

All academic papers should follow universal guidelines of text citation.⁵

* Paper findings & best techniques for writing them

The paper's findings refer to the section on results and discussions. Findings are the results or the outcomes of a project or research that were achieved after analyzing the data and the logical evidence collected from primary research resources (e.g., surveys or experiments), and analyzed by applying a suitable methodology. Writing the findings section needs to be written professionally because it is the section that shows the reader why the paper is important and worth reading. The following section presents some of the effective techniques for writing the findings section (as mentioned in Peggle Chan, pp:27-33):⁶

* Use text and visual aids properly

To convict the readers with the results, it is important to support the results with the help of tables, charts, and graphs. These aids give the results

more emphasis and impact, enabling the reader to understand easily and feel that your results are upon a scientific methodology. It is very important to explain the graphs or the charts first, then draw the attention of the reader to the chart to make the explanation clearer. Visual aids are used only when you present complex results that need more explanation and description.

* Interpret results

Reporting data or results need to be interpreted not just be presented. So, a researcher must interpret and analyze his data, and also, he must explain the relationship between them and the research question.

* Use headings and sub-headings

When the section on results goes over several pages, a researcher should use headings and sub-headings to make the results more organized and clearer. For example, if the results are about a survey on people's experience with recycling, and their practices in this process, the results can be written as follows:-

- 1- Frequency of recycling
- 2- Reasons for not recycling

⁵ For more details: Anne Whitaker, (2010): APA Style Guide
<https://www.vsm.sk/Curriculum/academicsupport/researchapastyleguide2010.pdf>

⁶ Peggle Chan, Reporting research findings,
www.nus.edu.sg/celc/research/books/cwtuc/chapter04.pdf

3- Ways to improve recycling

Also, a researcher must choose the type of headings well. Headings are both talking and topic headings. The first one presents the opinion about a certain proposal, while the second one list the proposal to be analyzed as follows:-

1- Reasons for not recycling
Topic heading

* Inconvenient location of recycling bins

2- *Talking headings*

* Inadequate Encouragement to Recycle

In addition, the headings must be organized in a parallel way. In other words, the headings must be in parallel grammatically, and in the type of heading like in the above example. The headings are noun phrases and talking headings.

Also, the numbering way must be either the decimal system or the alphanumeric system. And it should be consistent in the way of numbering along his research and mustn't mix them.

*** Use the language of reporting appropriately**

A researcher must use the appropriate language in his writing. He

should take care of his expressions, and grammar forms, and when he reports data from other sources he could say for example, the study shows that... or, From the survey, it was found that ..., and when he wants to express his comment, he can say according to... it can be seen that...etc.

*** Refer to figures correctly**

When a researcher uses figures, he must number them and give a title for each one. And then, he could draw the attention of the reader by saying, for example, referring to Figure 1, we can see that... etc.

In writing results and discussions in a research paper, a researcher must recognize that it is the section that tells the reader the answer to the paper or research question, and the section of researcher observations and point of view. So, evidence should be organized around elements of the method, central themes, ideas, case studies, context, etc. Also, the discussion must be clear and be connected to the research question. And when writing this section, it is preferred to start with the result and then the description of the supported evidence or data. After the explanation and interpretation of evidence, a researcher must show the significance

of these results and their impact in the context of the research. The significance of the research or result might be discussed according to its contribution to academic debates, or its impact on professional practice. A researcher should take into account the following points when writing the results section ⁷:-

- 1- report only results that are connected and suitable to the research question
- 2- provide a statement about the main results in the introduction of the results section, then provide related data and evidence
- 3- name the topics of the results section in the introduction
- 4- results numbering should be organized chronologically or according to the research questions or according to their importance
- 5- when there is a need for more explanation, a researcher can use figures
- 6- figures must contain sufficient information to be easily understood
- 7- figures must be explained and discussed in the text
- 8- use titles to indicate the core idea

⁷ Structuring an academic 'argument' within a journal paper: pp:4-5
<http://w3.unisa.edu.au/researcheducation/students/journal.asp> 5/2019

9- cite tables and figures in brackets after relevant results statements.

10- provide precise measurements

* **Making discussion and conclusion**

After writing the results, a researcher should make a conclusion wherein he summarizes the research, the main questions, and the supported evidence that he used. Then he should provide a discussion about the importance of the research and the results he has reached, and the implications of his research. A conclusion should show the relationship between research questions and the achieved results. So, it is very important to link the introduction of the research with its conclusion, and recommendations according to the results. While the results and discussion section present actual facts, the conclusion explores the implications of the results. Also, the last paragraph of the research should provide closure to the research questions. ⁸

* **Conclusion**

In summary, composing a research paper entail more than

⁸ *ibid*: p:5
<http://w3.unisa.edu.au/researcheducation/students/journal.asp> 5/2019

gathering information and sources. It requires a methodical approach that involves careful analysis and interpretation. As such, it is crucial for the writer or researcher to possess a thorough understanding of the fundamental components of the academic writing process.

When writing, it's important to have a clear purpose and effectively convey the significance of the content to the audience. Even if readers are familiar with the topic, the writer should present his ideas in a way that's easy to understand, using cohesive relevant evidence and an accurate interpretation of the results.

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