**IzTech Academic Writing Center**

**Writing Resources**

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**Types of Academic Writing**

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**Research Proposals**

Research proposals are usually written before your major research, but can also be written afterwards. The main purpose of the proposal is to convince a reader that the project you propose is **worth doing** and that you are the right person to do it.

Research proposals need (1) a description of what you are undertaking, (2) your methodology, and (3) the sources you have found useful and the sources you may use as your research continues. The proposal represents a *probable* plan, but your thesis and main points can be revised if necessary.

**Dissertations / Theses**

The organization and content of your thesis/dissertation will vary based on your discipline and topic of study. A thesis includes a deeper study of a research topic under expert supervision. Current literature and future research options are also detailed. Each section of a thesis is assigned a chapter. A thesis is generally composed after a student completes his or her research in his chosen field. For a detailed guide to writing and formatting dissertations for the Izmir Institute of Technology, please consult the following link: <http://mfbe.iyte.edu.tr/wp-content/uploads/2014/02/Tez-yaz%C4%B1m-k%C4%B1lavuzu1.pdf>

**Types of Journal Articles**

There are three basic types of journal articles, each with different purposes:

1. Those that present the **results of original research**
2. Those that build on existing research to **offer** **new interpretations**
3. Those that **review and analyze the** **current state of knowledge** on a topic (Henderson, 2007).

**Original Research Articles**

Original research articles publish full reports of data from research. They are also called *Original Articles, Research Articles, Research* or just *Articles,* depending on the journal. They generally include the following sections: Introduction, Methods, Results, and Conclusions/Discussion.

**The Master Template of Original Research Article**: The general organization and content of academic writing varies according to discipline. However, the master template for an original research article (below) covers articles in many different fields.

 \_\_C\_\_\_\_ Studies of X indicate...

 \_\_\_\_\_\_\_ However, few have investigated...

 \_\_\_\_\_\_\_ This study aims to…./ The hypothesis of this study is….

 \_\_\_\_\_\_\_ The research approach employed in this study involved…

 \_\_\_\_\_\_\_ The results of this study are..

 \_\_\_\_\_\_\_ Drawing from the results, one can conclude from this study that...

\_\_\_\_\_\_\_ Result A agrees with the hypothesis/ previous studies. However, result B was surprising because... Weaknesses of this study include... In light of the results and conclusion of this study, room for future research consists of….

**Exercise 6**: How well do you know the sections of original research articles? Label the above template with the letters (A-G) in the blanks preceding the sentences. The first one has been done for you.

1. Conclusions: What the results may mean
2. Method: The way the study was conducted
3. Literature Review: Summarizing previous research
4. Discussion: Significance of the results and conclusion
5. Research Gap: Explaining what is missing in previous research
6. Thesis: The main purpose or question of the paper
7. Results: What the study found

**Sections of Original Research Articles: In-depth descriptions**

**Title**

Academic titles are often lengthy and informative and composed mostly of nouns, many of them specific to the discipline. The title of a scholarly article is designed to give the reader information about the content at a glance. It allows experts and student researchers to understand whether the article will be useful to them (Henderson, 2007).

**Abstract**

An abstract is a summary of the article. Abstracts precede most journal articles, giving a preview of content by focusing of the study’s purpose, method, results, and conclusion. They may also briefly explain the background (for example, the need for the study) or consider the findings’ significance. They usually range from 100 to 250 words but can be longer (Henderson, 2007). The abstract is the only section of the article that does not cite information taken from sources. However, the uncited information in the abstract taken from sources is repeated and cited in the introduction.

**Introduction / Background**

The introduction section, which may or not be labeled as such, prepares the reader for the body of the paper by introducing important concepts or summarizing previous studies on the topic. It usually begins with a review of the relevant literature.

 ***Literature Review***

A literature review summarizes related studies on the topic to prepare the way for the unique contribution of the author’s own study. The literature review of a journal article summarizes many studies concisely in a short space, often only one to three paragraphs.

Let us examine the second paragraph in a literature review in a paper on brain injury in ice hockey. The first paragraph includes general facts about the prevalence of concussions. In the second paragraph of the introduction, shown below, the authors mention consequences of concussions, especially as they apply to hockey players. As the review continues, it becomes more specific.

\_\_\_\_\_\_\_ Repeated concussions and TBI [traumatic brain injury] are of particular concern as they may cause life-lasting cognitive and psychosocial deficits [5,6]. \_\_\_\_\_\_ These injuries are common in all contact sports, but those who play ice hockey are at particular injury risk [7,8,9,10]. \_\_\_\_\_\_ The potential Jong-lasting effects of TBI suggest that these injuries are an important threat to public health [11]. \_\_\_\_\_\_ Prevention of sport-related TBIs requires multifaceted approaches that consider issues related to the nature of play and the culture existent within ice hockey [12,13].

(From Henderson, 2007)

**Exercise 7**: Label the above four sentences with their purposes (one of the purposes below can be assigned to two of the sentences above):

1. To suggest what a solution to the problem may involve.
2. To explain the relevance of brain injury to the sport of hockey.
3. To explain why brain injury is an important topic.

***Justification***

Academic authors usually announce how their work will contribute to the field of study. The justification often follows the literature review and answers questions like:

 Why is the study important?

 How will it advance knowledge about the topic?

 What gap will it fill?

 The following justification states the gap that the study will fill:

We have scholarly studies on technical improvements during the nineteenth century,

on social interest in the microscope, and on its use by literary figures. But we have little

on how the microscopic world itself was perceived . . ..

- "The Microscopic World" by B. Lightman

The literature review demonstrates the writer’s credibility and shows what others have written, while the justification reveals where the author’s own study fits in.

(From Henderson, 2007)

 ***Thesis Statement***

In scholarly articles, the thesis is near the end of the introduction. In experiments, the thesis may consist of a hypothesis or prediction. The experiment is designed to test the hypothesis, and the conclusion will announce whether it was proven or disproven. Another common thesis form is the “essay plan,” a statement of intent outlining the areas to be explored in the order they will appear (Henderson, 2007).

**Materials and Methods**

This section is also called **Methods, Methodology,** or **Methods and Materials**. In this section you explain how you carried out your study. You describe the object of study, the study location, the experimental or sampling design, the protocol for collecting data, and how the data were analyzed (Bates College, 2011).

**Results**

Here you objectively present your key results, without interpretation, referring to your figures and tables. You may summarize statistical analyses. The section is organized around tables and or figures. It is written concisely and objectively (Bates College, 2011).

**Conclusions and Discussion**

In the Conclusion or Discussion section, you interpret your results in light of what was already known about the subject of investigation and explain new understanding of the problem after taking your results into consideration. The Conclusion and Discussion will connect to the Introduction by way of the question(s) or hypotheses and the literature cited. It tells how your study has moved us forward from the place you left us at the end of the Introduction. It also discusses any limitations or weaknesses of the study, and presents areas for further research (Bates College, 2011)

**Research Review Articles**

Synthesizing sources is particularly important in a research review article. A review

article summarizes the research on a particular topic. To write a research review article, the

author reads and summarizes existing works on a topic that have already been published in

journals and books. Research review articles are good resources to get background

information on a topic. They also point out gaps in research and offer important areas for future research.

Journal search engines like PubMed, ScienceDirect and Jstor have filter options so you can

search exclusively for review articles.

**References**

Bates College. (2011). The Structure, Format, Content, and Style of a Journal-Style Scientific Paper. Department of Biology, Bates College.

Henderson, Eric. (2007). The Active Reader: Strategies for Academic Reading and Writing. Toronto: Oxford University Press.