

# Part 2

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قواعد اللغة الإنكليزية

صيغتا المعلوم والمجهول والبحث العلمي

Active and Passive Voices and Scientific Research

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## Part 2: Scientific Research

## 2. Scientific Research

1. Voice in scientific research

2. When is the passive voice preferable?

3. When is the active voice preferable?

4. Scientific Journals and Voice

5. Active and passive in research sections

6. Final Remarks

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ماذا في الدرس؟



2.1.

# Voice in scientific research

## Traditionally

### Passive voice √

- more objective
- formal
- wordy
- difficult to understand

Active?  
or  
Passive?

## Recently

### active voice √

- concise
- less ambiguous

“we found...”

### Examples

This paper will show that ...

In contrast, this paper will contend that ...

50 cc of solution was poured into the beaker...

### Examples

In this paper, I argue that

In contrast, I contend that ...

I poured 50 cc of solution into the beaker.

2.2.

# When is the passive voice preferable?

no	Passive Voice	Example
1.	When the recipient is the main focus	(active): In 1921, <u>researchers at the University of Toronto discovered insulin</u> . It is still the only treatment available for diabetes.
		(passive): <u>Insulin was first discovered</u> in 1921 by researchers at the University of Toronto. It is still the only treatment available for diabetes.
2.	When the action is more important	(passive): <u>The solution was first heated</u> to 120°C for approximately 20 minutes and then allowed to cool to room temperature.
		(active): <u>We first heated</u> the solution to 120°C for approximately 20 minutes and then we allowed it to cool to room temperature.

no	Passive Voice	Example
3.	<b>To avoid repetition</b>	<p>(active): <u>We dissolved</u> the sodium hydroxide in water. Then we titrated the solution with hydrochloric acid.</p> <p>(passive): <u>Sodium hydroxide was dissolved</u> in water. This solution was then titrated with hydrochloric acid.</p>
4.	<b>The agent is unknown:</b> <u>The program was written</u> in C++	
5.	<b>The agent is consensus:</b> <u>Two mechanisms have been widely accepted</u> to account for the SERS effect, chemical enhancement, and electromagnetic enhancement.	



2.3.

# When is the active voice preferable?

no	Active Voice	Example
1.	<b>Improves readability</b>	(passive): <u>The hardness–impact velocity relation was significantly affected</u> by the increased indenter mass.
		(active): <u>Increased indenter mass significantly affected</u> the hardness–impact velocity relation.
2.	<b>Emphasizes author responsibility</b>	(passive): <u>No attempt was made</u> to comprehensively investigate the material properties as it was beyond the scope of the present study.
		(active): <u>We did not</u> attempt to comprehensively investigate the material properties as it was beyond the scope of the present study.
3.	<b>Journals prefer the active voice</b>	

2.4.

# Scientific Journals & Voice

# Journal prefers active

- Journal of Trauma and Dissociation

“Use the active voice whenever possible: we will ask authors that rely heavily on use of the passive voice to re-write manuscripts in the active voice.”

- Behavioral Ecology

"The first-person active voice is preferable to the impersonal passive voice."

- British Medical Journal

“Please write in a clear, direct, and active style.. Write in the active and use the first person where necessary.”

# Journal prefers active

- The Journal of Neuroscience

"Although the passive has its place—for example, in the Methods section—in many instances it makes the manuscript dull by failing to identify the author's role in the research....Use direct, active-voice sentences."

- Nature

Nature journals like authors to write in the active voice ('we performed the experiment...') as experience has shown that readers find concepts and results to be conveyed more clearly if written directly." **!!**

# Journal prefers active

- Ophthalmology

"Active voice is much preferred to passive voice, ...

- Science

"Use active voice when suitable, ..

- American Chemical Society Style Guide

"Use the active voice when it is less wordy and more direct than the passive."

And "Use first person when it helps to keep your meaning clear and to express a purpose or a decision."

# Journal prefers active

- Biomedical Editor

“choose the active voice whenever possible [and] Choose the passive voice if you have a good reason to do so. Consider passive voice when:

1. The performer is unknown, irrelevant, or obvious.
2. The performer is less important than the action.
3. The recipient is the main topic.”

# Journal with NO guidelines

- [Proceedings of the National Academy of Sciences USA \(PNAS\)](#)
- [Applied Physics Letters](#)
- [Council of Science Editors](#)
- [Physical Review Letters](#)
- [Structure](#)
- [IEEE](#)
- [ACM](#)



As a matter of style, passive voice {the matter will be given careful consideration} is typically, though not always, inferior to active voice {we will consider the matter carefully}. The choice between active and passive voice may depend on which point of view is desired.

*(The Chicago Manual of Style, 5.115)*

Verbs are vigorous, direct communicators. Use the active rather than the passive voice, and select tense or mood carefully.

*(Publication Manual of APA, 77)*

Some critics of style tell us to avoid the passive everywhere because it adds a couple of words and often deletes the agent, the ‘doer’ of the action. But in fact, the passive is often the better choice.

(Williams, *Style. Lessons in Clarity and Grace*, 61)

2.5.

## Usage of active vs. passive voice in different sections of a manuscript

No.	Active Voice	Example
1.	<b>Introduction and Discussion sections</b>	(active) <u>Previous studies have investigated contact behaviors resulting from dynamic loading. In this study, we investigated the effect of stiffness on contact behavior.</u>
2.	<b>Literature review</b>	(active): <u>Nobre et al. (1997) studied the surface resistance characteristics of ductile steel to impact indentation by hard alumina balls.</u>
		(passive): <u>The surface resistance characteristics of ductile steel to impact indentation by hard alumina balls were studied by Nobre et al. (1997).</u>

No.	Active Voice	Example
3.	<b>Using the sections of your own report or a graph or figure as the subject of your sentences</b>	<p><u>Table 1 shows</u> the frequencies of the study design criteria of included studies by sponsorship source..</p> <p><u>The results of this study showed</u> that severe hypothermia did not develop in either group.</p>

No.	Passive Voice	Example
1.	Materials and Methods section	(active): <u>We obtained</u> the velocity contour lines from CFD simulations.
		passive): <u>The velocity contour lines were obtained</u> from CFD simulations.
2.	Results section	(active): <u>We observed</u> an inverse relationship between the pressure ratio and exergy loss in the combustion chamber.
		(passive): <u>An inverse relationship was observed</u> between the pressure ratio and exergy loss in the combustion chamber.

2.6.

# Final Remarks



# Check the guideline

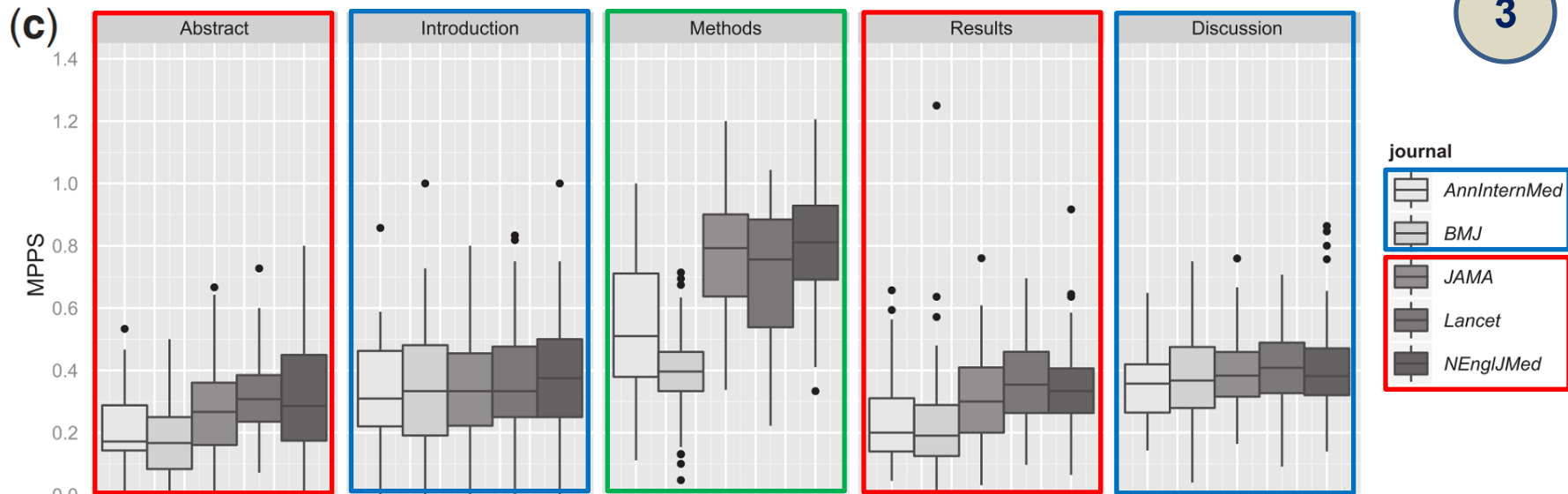
مراجعة الدليل الارشادي للمجلة العلمية  
للتأكد فيما اذا كانت تفضل أحد الصيغتين في الكتابة

- Instructions for authors
- Guide for authors
- Author Guideline
- Publication guideline
- Manuscript guideline
- Submission guideline

# Avoid Confusion

«على الباحث ألا يقع في خطأ الانتقال بين صيغة المعلوم والمجهول من خلال ذكر الفاعل في جملة وتغييرها في جملة اخرى.»

We found that substance A affected substance B.  
. . . The authors determined that this was  
not permanent.”



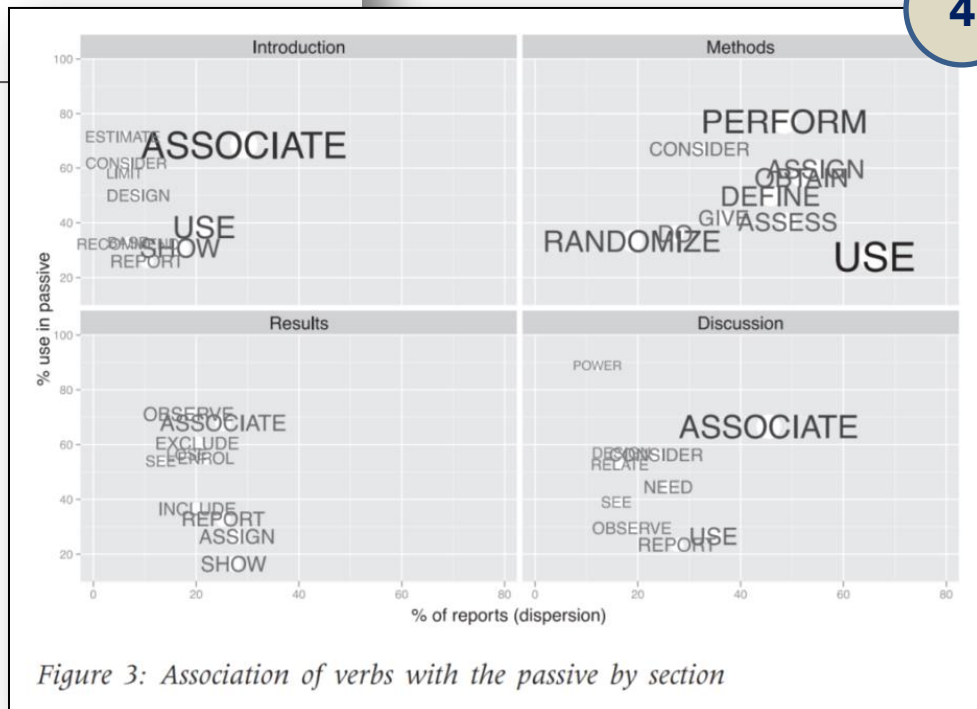
(c) *distribution of passives by journal and section*

(297 corpus)

Millar et al (2012): “Use the active voice whenever possible: The Impact of Style Guidelines in Medical Journals”

Table 2: Twenty verbs most strongly associated with passive usage (ranked by observed frequency)

Verb	Observed	Preference (%)
ASSOCIATE	622	66
ASSIGN	536	44
PERFORM	509	70
ASSESS	364	32
CONSIDER	334	62
OBTAIN	330	50
DEFINE	328	40
EXCLUDE	262	50
BASE	253	36
OBSERVE	236	46
ENROL	222	49
RANDOMIZE	199	30
DESIGN	190	51
RECORD	190	46
MEASURE	188	34
CONDUCT	185	43
SEE	182	44
CALCULATE	179	45
NEED	177	33
MAKE	171	37



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Millar et al (2012): *“Use the active voice whenever possible: The Impact of Style Guidelines in Medical Journals”*

## 2.7. Resources

A Short Guide on Scientific Writing <https://xpertscientific.com/style-guide/#style4>

Active or Passive—Which Voice Is Best? <https://www.eliteediting.com.au/active-or-passive/>

David Banks (2017): “*The extent to which the passive voice is used in the scientific journal article, 1985–2015.*”

<https://link.springer.com/content/pdf/10.1186/s40554-017-0045-5.pdf>

Day et al. (2011). *Scientific English: A Guide for Scientists and Other Professionals, 3rd Ed.*

Encyclopedia Britannica: <https://www.britannica.com/topic/voice-grammar>

How to Effectively Use Active and Passive Voice in Academic Writing <https://www.enago.com/academy/active-and-passive-voice-in-academic-writing/>

How to effectively use active and passive voice in research writing <https://www.editage.com/insights/how-to-effectively-use-active-and-passive-voice-in-research-writing?refer=scroll-to-2-article>

How to Use Active Voice in the Sciences Written by Jerry Plotnick, University College Writing Centre

<https://advice.writing.utoronto.ca/types-of-writing/active-voice-in-science/>

Millar et al (2012): “*Use the active voice whenever possible: The Impact of Style Guidelines in Medical Journals*”

[https://www.researchgate.net/publication/270815031\\_'Use\\_the\\_active\\_voice\\_whenever\\_possible'\\_The\\_Impact\\_of\\_Style\\_Guidelines\\_in\\_Medical\\_Journals](https://www.researchgate.net/publication/270815031_'Use_the_active_voice_whenever_possible'_The_Impact_of_Style_Guidelines_in_Medical_Journals)

The Passive Voice is a Hoax! <http://alldowney.com/essays/passive.html>

The Value of the Passive Voice <http://www.biomedicaeditor.com/passive-voice.html>

All resources were retrieved during March- April 2020

Zainab Jaafar



بالإمكان مشاهدة الدرس الفيديوي للملف على قناتي في اليوتيوب

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