

Common Mistakes in Medical Writing



Answer Key by

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UNINTENTIONAL ETHICAL VIOLATIONS

Paraphrasing concerns

Original text	Unacceptable paraphrasing
<p>Few laboratory creatures have had such a spectacularly successful and productive history as <i>Drosophila</i>. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.</p> <p>(from Kohler, R.E. 1994. <i>The Lords of the Fly</i>. The University of Chicago Press, 321 pages.)</p>	<p>Despite some ups and downs in status, nearly a century after the fly revealed its talent to Thomas Hunt Morgan and his students, <i>Drosophila</i> genetics research continues its spectacularly successful history (Kohler, 1994).</p> <div>Non-content words must also be changed</div>

From: <http://www.bio.davidson.edu/dept/plagiarism.html>

Original text

Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.

(from Kohler, R.E. 1994. *The Lords of the Fly*. The University of Chicago Press, 321 pages.)

Unacceptable paraphrasing

Drosophila is model organism with a rich and useful legacy. Upon arriving on the scene at the turn of the century, the fruit fly soon became the organism of choice for Thomas Hunt Morgan and his Columbia University pupils. Despite fluctuations in status, fly research is still central to the progress of genetics (Kohler, 1994).

The structure of the original text must also be changed

Original text	Acceptable paraphrasing
<p>Few laboratory creatures have had such a spectacularly successful and productive history as <i>Drosophila</i>. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.</p> <p>(from Kohler, R.E. 1994. <i>The Lords of the Fly</i>. The University of Chicago Press, 321 pages.)</p>	<p>Thomas Hunt Morgan and colleagues at Columbia University were among the first to use the fruit fly <i>Drosophila</i> as a model organism, adopting it as an experimental system around 1910. Since then, the popularity of the fly has waxed and waned somewhat, but the breadth and depth of current research indicates that <i>Drosophila</i> continues its legacy as an incredibly important research tool (Kohler, 1994).</p>

Both the non-content vocabulary and structure of the original text must be changed

A woman with short, curly dark hair and glasses is pointing her right index finger at a whiteboard. She is wearing a black long-sleeved shirt, a gold necklace, and a silver watch. The whiteboard has handwritten Spanish text: "Buenas Dias!", "Mi nombre es", and "Paco Cortes". A globe is visible in the background to the right.

LANGUAGE MISTAKES IN ACADEMIC WRITING

Your turn...

- One-on-one time with teachers can be a powerful influence on youth at risk of dropping out of school.
 - Mentoring is often seen as a key factor for improving graduation rates.
- During the course of the election the two campaigns combined into one, clearly affecting the final outcome.
 - During the election the two campaigns combined, clearly affecting the outcome.
- The past history of the chimpanzee's family gave it absolutely essential experience with group politics.
 - The history of the chimpanzee's family gave it essential experience with group politics.

Article Use in Academic Writing

As the average population of the United States has increased, so too has the number of hearing impaired individuals. Approximately 20 million hearing aids are now in use, and this number is expected to rise. Although there have been considerable advances in hearing aid technology, they still have a number of drawbacks, one of the most notable ones being problems in dealing with important environmental sounds. For example, people who are deaf in both ears are unable to determine the direction of a sound when using a conventional hearing aid. This limitation could result in an accident or injury if the wearer cannot determine the direction of a siren or other warning sound. Another problem concerns people suffering from high-frequency hearing loss. This type of hearing loss removes many consonants and other useful environmental noises, such as the ringing of a telephone.

Choosing appropriate words

Renal blood flow was drastically compromised when the aorta was obstructed.

→ greatly reduced OR decreased by 80%

Animals were studied 4-6 weeks later.

→ what animal? repeat animal name (rat, mouse, etc.)

The salicylate are rapidly absorbed with a peak plasma concentration within 2 h.

→ , reaching OR , as evidenced by

After 4 h of hemodialysis, we abruptly ended the hemodialysis procedure.

→ delete 'of hemodialysis'

Choosing appropriate words

Oxygen uptake in response to drugs was examined and found to vary considerably.

→ delete 'examined and'

The response was blocked by phentolamine but was not **(affected, effected)** by propranolol.

→ affected

The digoxin **(amount, concentration, content, level)** was increased from 0.5 ng/ml to 2.5 ng/ml.

→ concentration

Preganglionic stimulation **(enhances, increases)** norepinephrine release from terminal within the superior cervical ganglion.

→ increases

COMMON ISSUES IN STYLE, FORMATTING, AND GRAMMAR



Indicative vs. Informative verbs

Indicative: Indicates what the paper is going to be about

- Oort's study examined the galaxies.

Note: "Examined" takes a direct object (the entity that is acted upon by the subject)

Informative: Informs and comments (discussing claims)

- Oort's study showed that dark matter accounts for the "missing mass" in galaxies.

Note: "showed" takes a "that" clause (not *always* true of informative verbs)

Indicative and informative verbs are also important to understand when writing about tables and charts

The Test

Indicative

- Figure 4 _____ the survey results
- Feynman's 1950 study _____ the problem.

Informative

- Figure 4 _____ the decline in student attendance through the semester.
- Table 3 _____ that the efficacy of the drug decreased over time.

Indicative and Informative verbs

	Indicative	Informative
show	Y	Y
provide	Y	N
give	Y	N
present	Y	N
summarize	Y	N
illustrate	Y	Y
reveal	Y	Y
display	Y	N
demonstrate	Y	Y
indicate	Y	Y
suggest	N	Y

Exercise: Preposition use 1/2

Complete the sentences using: **in/from/on/by/with/of**

1. As can be seen in / from Figure 4, earnings have decreased.
2. As revealed by / in Figure 2, the lightweight materials outperformed traditional metals.
3. As described on the previous page, there are two common types of abstracts.
4. As stated in Appendix B, 'per' in percent or kilometers per hour is a Latin preposition that originally meant through or by.
5. As described in the previous unit, passive are common in process descriptions.

Exercise: Preposition use 2/2

Complete the sentences using: **in/from/on/by/with/of**

6. As can be seen **by / from / in** _____ a comparison of the two tables, household income is a more reliable predictor than level of education.
7. As has been demonstrated **by / in / from** _____ many similar experiments, these materials have many advantages.
8. As is often the case **with** _____ materials **of** _____ this type, small cracks pose a serious problem.

Fix the Mistake 1/9

Beginning a sentence with a numeral

150 nm thick indium tin oxide (ITO) was deposited as a transparent current spreading layer.

Note that a 150 nm thick indium tin oxide (ITO) **layer** was deposited as a transparent current spreading layer.

60% of the enrolled subjects continued their participation until the end of the study.

1. **Sixty percent** of the enrolled subjects continued their participation until the end of the study.
2. **In this study**, 60% of the enrolled subjects continued their participation **until the end**.

Fix the Mistake 2/9

Using the alphabet instead of the proper symbol (×, μ, etc.) and putting a space before and after mathematical operators

The equation for estimating this value is $A = 3.56 \times 10^{-2} \gamma [a + b]$.

The equation for estimating this value is $A = 3.56 \times 10^{-2} \gamma [a + b]$.

The 100 ug mL⁻¹ extracts improved the antioxidant test for cellular oxidative stress.

The **100 μg mL⁻¹** extracts improved the antioxidant test for cellular oxidative stress.

Fix the Mistake 3/9

Not inserting a space between a numeral and its corresponding unit of measurement

The body weight of the Beagles ranged between 5kg and 10kg; their average body weight was 7.5kg.

The body weight of the Beagles ranged between **5 kg** and **10 kg**; their average body weight was **7.5 kg**.

Of the 91 participants (average age 60 ± 5 years), 51 and 40 were divided into 2 groups based on their response to the drug.

Of the 91 participants (average age **60 ± 5 years**), 51 and 40 were divided into 2 groups based on their response to the drug.

Fix the Mistake 4/9

Not inserting a space between a numeral and its corresponding unit of measurement

An embedded operating system (OS) with a CPU clock of 600MHz and RAM size of 111MB is used in these tests.

An embedded operating system (OS) with a CPU clock of **600 MHz** and RAM size of **111 MB** is used in these tests.

High-pressure RO requires a pressure between 5.6–10.5MPa, and can be used for seawater desalination.

High-pressure RO requires a pressure between **5.6–10.5 MPa**, and can be used for seawater desalination.

Fix the Mistake 5/9

Using the past tense for in-text reference to figures and tables

The baseline characteristics of all subjects were summarized in Table 1.

The baseline characteristics of all subjects **are** summarized in Table 1.

Figure 4 showed the results of a thermal analysis for a Pr_6O_{11} sample.

Figure 4 **shows** the results of a thermal analysis for a Pr_6O_{11} sample.

Fix the Mistake 6/9

Using a singular verb with a plural subject and vice versa

The recent innovations in imaging techniques, MRI in particular, has facilitated the diagnosis of spine osteomyelitis.

The recent innovations in imaging techniques, MRI in particular, **have** facilitated the diagnosis of spine osteomyelitis.

The ratio of positive cells per 1000 cells were defined as the positivity index.

The ratio of positive cells per 1000 cells **was** defined as the positivity index.

Fix the Mistake 7/9

Inserting a hyphen in a compound adjective when the first word is an adverb ending in ly

We developed a fully-automated method that estimates the position of the diaphragm.

We developed a **fully automated** method that estimates the position of the diaphragm.

The surgically-removed tissue specimen was then subjected to histopathological examination.

The **surgically removed** tissue specimen was then subjected to histopathological examination.

Fix the Mistake 8/9

Inserting a comma before but also in a sentence containing the correlative conjunction not only...but also

We observed that poor drug efficiency was due to not only lack of absorption, but also increased clearance.

We observed that poor drug efficiency was due to not only lack of **absorption but** also increased clearance.

Radiotherapy is valuable not only in reducing the number of courses of chemotherapy, but also in producing superior overall survival.

Radiotherapy is valuable not only in reducing the number of courses of **chemotherapy but** also in producing superior overall survival.

Fix the Mistake 9/9

Using the same or similar word/phrase in quick succession in two consecutive sentences

The baseline characteristics are shown in Table 1. Table 2 shows the body temperature of all female subjects.

Tables 1 and 2 show the baseline characteristics and body temperature of all female subjects, respectively.

The centroid wavelength of the c-plane LEDs and micro-pyramid LED arrays was depicted as a function of injection current ranging from 1 mA to 30 mA, as shown in Fig. 5. In addition, we could observe an optical polarization switching as shown in the inset of Fig. 5.

The centroid wavelength of the c-plane LEDs and micro-pyramid LED arrays was depicted as a function of the injection current from 1 mA to 30 mA **(Fig. 5); in the inset, optical polarization switching is observed.**

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Have questions?
Send me an email!
(Really!)

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