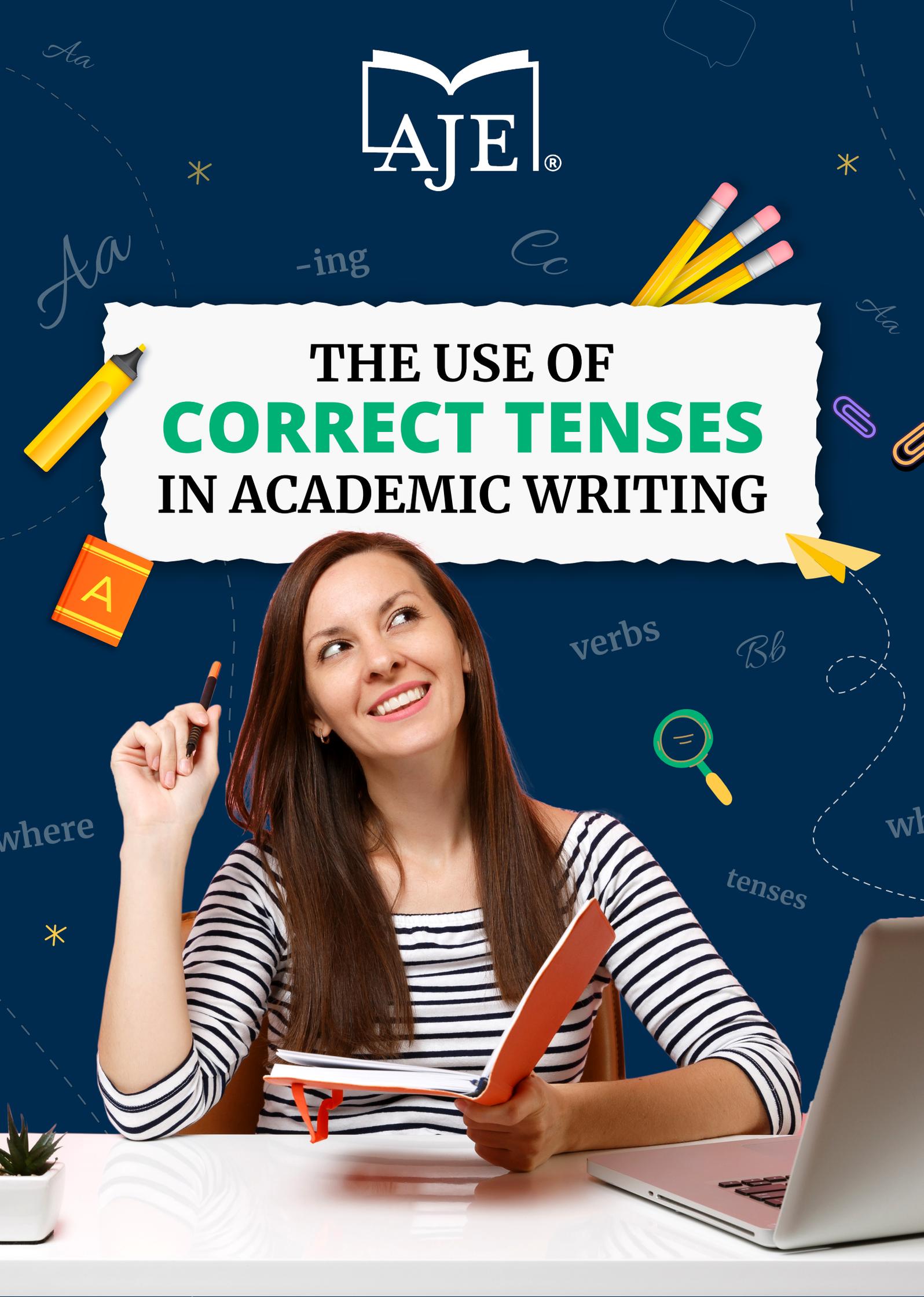




THE USE OF  
**CORRECT TENSES**  
IN ACADEMIC WRITING



# Acceptable Conventions

Verb tense can vary between papers and within a paper. Below are the **most commonly used** and **less commonly used** verb tenses.

## Most Commonly Used

The verb tenses most commonly used in academic writing are described below. Academic papers tend to use these tenses the vast majority of the time.

### Present Tense

#### • Statements of Fact

The present tense is generally used to express a statement of fact or a general truth.

**Example:** DNA **is** composed of four nucleotides.

**Example:** Trypanosomes **exhibit** global trans-splicing of RNA transcripts.

#### • Previously Published Works

The present tense may be used to refer to a previously published work to indicate that it is still valid.

**Example:** Kilgallen's assay results **demonstrate** the highest recorded sensitivity and specificity to date.

Some papers, particularly those in business, social sciences and humanities, engage with previous literature in the present tense. This tense is sometimes referred to as the "literary present."

**Example:** Smith et al. **argue** that tougher gun control is not needed in the United States.

#### • Methods of the Study Being Described

The present tense is appropriate in papers that are treated as the place where the work is being done and thus may be used for describing the research and its results. While they can come from any field, these papers tend to involve lots of math and position themselves as though they are carrying the reader through the work as it happens.

**Original:** Excessive soil water content can result in oxygen deficiency in plant roots, which **will affect** efficient ATP production.

**Revision:** Excessive soil water content can result in oxygen deficiency in plant roots, which **affects** efficient ATP production.



# Present Perfect Tense



## • Previously Published Works

The present perfect tense (e.g., have + past participle of a verb) expresses actions completed in the past but connected with the present. Thus, the present perfect tense may be used to refer to a previously published work that continues to have importance.

**Example:** Several studies have demonstrated that a gradual increase in the carbon dioxide concentration during the first 10 days of incubation in an airtight incubator altered the albumen characteristics, enhanced embryo growth, stimulated early hatching, increased hatchability and improved post-hatch growth.

In addition, the present perfect tense is often used to refer to a body of previous studies.

**Example:** Previous studies **have shown** that drug users tend to provide reliable data about their consumption habits.

Note that when authors refer to previous studies, editors should be sure the correct verb is used (and that the authors do so consistently). Consider the following example:

**Original:** In addition, vascular density in the superficial retinal vascular zone and choroidal thickness (CT) **were** significantly lower in patients with Alzheimer's type dementia [84].

**Revision 1:** In addition, vascular density in the superficial retinal vascular zone and choroidal thickness (CT) **were shown to be** significantly lower in patients with Alzheimer's type dementia [84].

**Revision 2:** In addition, vascular density in the superficial retinal vascular zone and choroidal thickness (CT) **were found to be** significantly lower in patients with Alzheimer's type dementia [84].

Above, were shown/found to be is preferred because it preserves the linkage between the the cited authors ([84]) and the information presented while also avoiding any potential generalization. Such instances should not be changed to are as a matter of course, as there is potential for changed meaning (i.e., changing were to are changes the meaning here from an observation from a past study to a potentially more universally true statement about lower density that type of dementia). Nonetheless, editors should use their best judgment in interpreting the author's intended meaning and making changes accordingly.



# Future Perfect Tense



## • Work, Studies, Experiments Not Yet Performed

The future perfect tense (e.g., will have + past participle of a verb) may be used to reference an action that will have been completed (finished or “perfected”) at some point in the future.

**Example:** Once our meta-analysis is complete, **we will have analyzed** data across all the major biomes on Earth.

The other tense conventions described above are of course still used in proposals and applications as appropriate (e.g., the past tense is still used to describe previous work), but the nature of proposals and applications means that the future tense will be used quite often.

# Future Tense



## • Work, Studies, Experiments Not Yet Performed

In cases when authors want to describe work, studies, or experiments that they have not yet performed, the future tense is used. Although the future tense is not widely used in journal articles, authors sometimes rely on the future tense when describing hypotheses, future work or applications based on their findings and will occasionally use it in references to predicted events.

**Example:** Future studies **will include** patients from hospitals not only in Taiwan but also in Mainland China.

**Example:** Predicted drought shortages due to climate change **will influence** agriculture by reducing crop yields, thus affecting food availability.

A much more common use of the future tense occurs in **grant / funding / research proposals and applications**, which are written in anticipation of future studies. In grant proposals and the like, the future tense is a common and reasonable convention, even when describing the methods of future experiments and their expected results.

**Example:** The 24 mice **will be divided** into four experimental groups. Each group **will be housed** under the following conditions.

However, authors will sometimes switch to the future tense from the present tense unnecessarily. In these cases, maintaining the present tense usually sounds more natural and thus is preferred.

**Original:** Mental fatigue mainly refers to fatigue caused by prolonged cognitive activity. In the state of mental fatigue, a person’s cognitive ability **will be affected**, and the probability of error **will increase**.

**Revision:** Mental fatigue mainly refers to fatigue caused by prolonged cognitive activity. In the state of mental fatigue, a person’s cognitive ability **is affected**, and the probability of error **increases**.

**Original:** According to the results, a higher FIT **will be paid** if there is an uncertain learning effect in the capital cost, and the general trends **will not differ** between the two sets of results.

**Revision:** According to the results, a higher FIT **is paid** if there is an uncertain learning effect in the capital cost, and the general trends **do not differ** between the two sets of results.



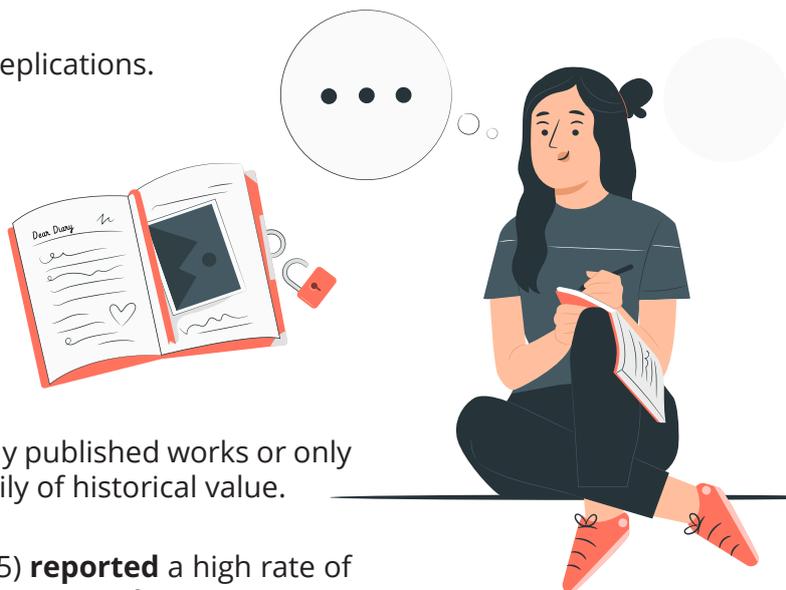
In general, deferring to the author's preference is the best choice, although intervention is warranted if the the verb tenses are not used correctly depending on the meaning or if it is clear that the tenses are being used inconsistently in a seemingly unintentional manner. Editors should be cautious when making these changes, as there is a risk of changed meaning (i.e., making a claim broader than the author meant it to be, or vice versa).

## • Elements of the Present Paper

The present tense is universally used to refer to internal elements (e.g., figures, tables, equations, parts, sections) of the present paper.

**Example:** Figure 1 **shows** a typical X-ray diffraction pattern of MgB<sub>2</sub> taken at room temperature.

**Example:** The data **are** the means  $\pm$  SEs of three replications.



## Past Tense

### • Previously Published Works

The past tense may be used to refer to all previously published works or only to previously published works that are now primarily of historical value.

**Example:** In their article, Northup and Miller (1985) **reported** a high rate of mortality among children younger than 5 years of age.

When the past tense is used to report the findings of previously published works, either the present or the past tense can be used in the report of the finding itself. Please see the the link **above** for more information.

### • Methods of the Study Being Described

The present tense is appropriate in papers that are treated as the place where the work is being done and thus may be used for describing the research and its results. While they can come from any field, these papers tend to involve lots of math and position themselves as though they are carrying the reader through the work as it happens.

**Example:** Let us **set**  $x = 1$ .

**Example:** Taking the second-order derivative **yields** the following ...

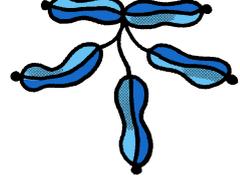
**Example:** To understand the reasons for this large increase in newly licensed firms, we **conduct** interviews with a random sample of 200 newly licensed firms before and after the reform.

**Example:** We **collect** data from Energy Information Administration (EIA) International Energy Statistics database.

The present tense is also often used in papers that describe a method or a model that is in use and thus does, not did, something.

**Example:** The simulation **replicates** how a car reacts ...





## • Results of the Study Being Described

The present tense may be used to report the results of the study being described.

**Example:** Our results **indicate** that the bisecting K-means technique is better than the standard K-means approach.

**Example:** We **find** that the polygenic risk score for birth weight is a powerful instrument and that the causal effect of birth weight on adulthood income is mediated by height.

When the present tense is used to report the findings of the study being described, either the **present or the past tense can be used in the report of the finding itself**. Note that the main distinction between these two verb tenses still applies: the present tense is generally used to express a statement of fact or a general truth, whereas the past tense is used to express something that occurred in the past (perhaps ephemerally) but has not been demonstrated to be always true (i.e., fact). Consider the examples below:



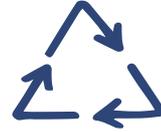
## Less Commonly Used

The verb tenses less commonly used in academic writing are described below.

### • Methods of the Study Being Described

The past tense expresses an action or condition that occurred at a specific, definite time in the past. Accordingly, **the past tense is most commonly used in scientific papers to describe the methods and procedures** of the study being described.

**Example:** We **measured** the response times of each of the participants.



### • Results of the Study Being Described

The past tense is most commonly used to report the results of the study being described.

**Example:** We **found** no differences for either gender or age.

**Example:** The findings **showed** that increased current economic hardship predicted relatively low levels of life satisfaction and mastery but relatively high levels of general psychiatric symptoms.



Authors sometimes use modal auxiliary verbs to change the verb's meaning to something different from simple fact. Modal auxiliary verbs express possibility, ability, prediction, permission, or necessity.

**Example:** Therefore, these results indicate that elevation **could have affected** the alkaloid content in *Uncaria rhynchophylla*.

Either the present tense or the past can be used in sentences that summarize the results of work described, surmise conclusions, and the like. These types of sentences are often but not exclusively at the end of individual paragraphs in the results section of a manuscript. In general, deferring to the author's preference is the best choice, although inconsistent usage should be standardized.

**Acceptable:** Thus, these results **suggest** that China's overall trade level with these two regions is greater than the average.

**Acceptable:** Thus, these results **suggested** that China's overall trade level with these two regions is greater than the average.

When the present tense is used to report the findings of the study being described, either the present or the past tense can be used in the report of the finding itself. Note that the main distinction between these two verb tenses still applies: the present tense is generally used to express a statement of fact or a general truth, whereas the past tense is used to express something that occurred in the past (perhaps ephemerally) but has not been demonstrated to be always true (i.e., fact). Consider the examples below:

**Acceptable:** Our results demonstrate that SNS1 **is** phosphorylated by OST1.

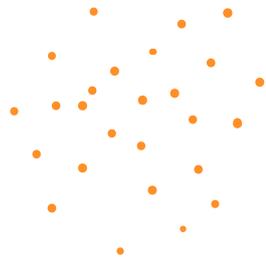
**Acceptable:** Our results demonstrate that SNS1 **was** phosphorylated by OST1.



In the first example above, the use of the present tense (is) indicates that the researchers of the present study found that SNS1 is (and seemingly always is) phosphorylated by OST1, whereas in the second example, the use of the past tense (was) indicates the researchers found that SNS1 was indeed phosphorylated by OST1 but that this occurred only once, was temporary, or is not always the case.

## Less Commonly Used

The verb tenses less commonly used in academic writing are described below.



### Present Perfect Continuous Tense

- **Previously Published Works**

The present perfect continuous (e.g., have been + a gerund) tense expresses actions that started in the past and continue at the present time. Thus, the present perfect continuous tense may be used to refer to a previously published work or action that continues to occur.

**Example:** For the past 50 years, researchers **have been studying** the degree to which race affects juvenile justice decision making.

### Past Perfect Tense



- **Previously Published Works**

The past perfect (e.g., had been) tense is appropriate when describing one action in the past relative to another action that is also being described in the past tense.

**Example:** Spirulina was extracted and given orally to laboratory mice that **had been injected** with liver tumor cells.



### Past Perfect Continuous Tense

- **Previously Published Works**

The past perfect continuous (e.g., had been + a gerund) tense expresses actions that started in the past and continued until another time in the past. Thus, the past perfect continuous tense may be used to refer to a previously published method that is no longer used.

**Example:** Until recently, researchers **had been using** Landsat 7 data to map global NDVI values.

### Future Tense



- **Previously Published Works**

In cases when authors want to describe work, studies, or experiments that they have not yet performed, the future tense is used. Although the future tense is not widely used in journal articles, authors sometimes rely on the future tense when describing hypotheses, future work or applications based on their findings and will occasionally use it in references to predicted events.

