

An employee of Motley Fool walks on a treadmill as he works at his desk in Virginia.



4

Using Word Forms

WHAT DO YOU KNOW?

DISCUSS Look at the photo and read the caption. Discuss the questions.

1. Where is the man? What is he doing? Why?
2. On average, how many hours do you spend sitting down each day?

FIND THE ERRORS This paragraph contains two errors with word forms. Find the errors and correct them. Explain your corrections to a partner.

CAUSE-EFFECT PARAGRAPH

The Dangers of Sitting

¹ People who spend too much time sitting down may be endangering their health, according to doctors at the Mayo Clinic. ² Sit for extended periods of time—in front of a TV, behind a desk, or in a car—increases the risk of obesity, heart disease, high blood pressure, high cholesterol, and even death. ³ In one study, people who spent more than four hours a day in a chair had a greater chance of dying prematurely than those who spent less than two hours a day sitting down. ⁴ To offset these negative effects, doctors recommend less sitting and more moving. ⁵ Simple changes could include the following:

- ⁶ standing up while talking on the phone or watching TV
- ⁷ walking with colleagues instead of holding meetings in a conference room
- ⁸ installing a stand-up desk or placing one's computer on top of a counter or on a stand above a treadmill

⁹ By moving more and sitting less, individuals can gain important benefits such as weight loss, increased energy, and more efficiency use of fats and sugars by the body. ¹⁰ All of these contribute to better overall health and a longer life.



Grammar Forms

4.1 Word Forms

In English, most words have different forms, which are associated with different parts of speech. Word endings (suffixes) usually indicate the part of speech of a word.

Part of Speech	Common Suffixes	Examples
Noun	-tion -ity -ing -ism -ment -ness	<i>generation, inspiration, relation</i> <i>creativity, sensitivity, relativity</i> <i>enduring, singing, understanding (gerunds)</i> <i>communism, nationalism, realism</i> <i>disagreement, management, movement</i> <i>cheerfulness, happiness, illness</i>
Verb	-ize -en -ate -(i)fy	<i>apologize, realize, visualize</i> <i>darken, frighten, threaten</i> <i>animate, legislate, populate</i> <i>classify, liquefy, verify</i>
Adjective	-al -ed -ent -ive -ous -ate -ful -less	<i>geographical, natural, original</i> <i>attached, revised, classified</i> <i>confident, efficient, innocent</i> <i>cooperative, creative, destructive</i> <i>dangerous, mountainous, venomous</i> <i>separate, fortunate, desperate</i> <i>successful, peaceful, powerful</i> <i>careless, endless, useless</i>
Adverb	-ly	<i>extremely, rarely, likely, happily</i>

ACTIVITY 1

Identify the part of speech of the academic words. Write *noun*, *verb*, *adj* (adjective), or *adv* (adverb).

1. eventually _____
2. crucial _____
3. awareness _____
4. modify _____
5. contextualize _____
6. authority _____
7. administrative _____
8. racism _____
9. coherent _____
10. assessment _____

Common Uses

4.2 Using Word Forms

Nouns

1. Nouns formed from verbs or adjectives are very common in academic writing.	English is difficult for many learners to pronounce. One source of the difficulty is the complex system of English vowels (<i>from adjective, difficult</i>).
2. The most common noun suffix is <i>-tion</i> . Often a noun with <i>-tion</i> comes from a verb and means <i>act of</i> or <i>state of</i> the verb.	In 2012, the most frequently performed surgical operation was knee arthroplasty, meaning the replacement of a damaged joint (<i>operation = act of operating</i>).
3. Gerunds as subjects and as objects of prepositions are extremely common in academic writing.	Singing has both physical and mental benefits.

Verbs

1. The most common suffixes are: <i>-ize, -ate, -ify,</i> and <i>-en</i> . They mean <i>become</i> or <i>cause to be</i> .	DNA can be used to identify both criminals and victims of crimes.
2. Verbs with these suffixes are often used in academic writing to describe processes or cause–effect relationships.	In an art appreciation class, students view slides of paintings that exemplify a particular style, period, or artist.

Adjectives and adverbs

1. Adjectives are used to describe nouns. The most common suffixes are: <i>-al, -ent, -ive, -ous</i> .	For patients at risk, doctors recommend an annual screening for skin cancer. Data showed a decrease in violent crime in 2014.
2. Adverbs modify verbs, adjectives, and other adverbs. The most common suffix for adverbs is <i>-ly</i> , which can add the meaning <i>in the manner of</i> .	It is recommended that patients visit their doctors at least twice annually . In nature, predators often attack their prey violently .

ACTIVITY 2

Fill in the blank with the correct form from each word family.

1. _____ therapies are available for the treatment of phobias like fear of heights. (*Various / Variation / Variably*)
2. Astronomers _____ that a mysterious force known as *dark energy* is causing the universe to expand. (*theorize / theoretical / theoretically*)
3. Scientists have successfully engineered artificial bone marrow that can produce both red and white blood cells _____. (*continuous / continuation / continuously*)
4. Dr. Dina Krasikova, an expert on leadership, writes that “ _____ flourishes in supportive environments where leaders and subordinates have good interpersonal relationships.” (*create / creativity / creatively*)
5. The magazine *U.S. News & World Report* rated the 2016 Honda Civic as the most _____ car in the United States. (*economize / economical / economically*)
6. The fight-or-flight _____ is the body’s natural and automatic reaction to both real and perceived danger. (*responsive / response / responsively*)
7. Research has shown _____ that early exposure to more than one language is beneficial to a child’s developing brain. (*consistency / consistent / consistently*)
8. Negative criticism hurts people’s feelings and may cause resentment. On the other hand, _____ criticism, which acknowledges people’s strengths while focusing on specific behaviors that can be improved, motivates people to grow and change. (*construction / constructive / constructively*)
9. If there is a sudden drop in cabin pressure and the oxygen masks drop down, airline passengers are instructed to place the masks over their mouths and breathe _____. (*normal / normalize / normally*)
10. While the respondent was very _____, she had trouble understanding when people were being sarcastic. (*perceptively / perceptive / perception*)

Common Errors

Common Error 4.1 Is the word form correct?

successful

Thomas Jefferson believed that educated citizens were the basis of a ~~success~~ democracy.

REMEMBER: In English, the ending of a word often determines its part of speech. Omitting a suffix or using the wrong suffix changes the part of speech and is an error that could make the sentence difficult for the reader to understand.

ACTIVITY 3 Common Error 4.1

Read each sentence. Underline the correct word form in parentheses.

1. Sales of printed dictionaries have dropped as more and more readers have begun using apps to find a quick (*define / definition*) of a word.
2. Fats that are solid at room temperature, such as butter, (*liquefy / liquid*) when heated.
3. Self-driving cars have features that allow the car to brake, accelerate, and steer (*automation / automatically*).
4. Based on research conducted between 2007 and 2014, the Pew Research Center concluded that Americans are becoming less (*religious / religion*).
5. People who are accustomed to taking care of themselves worry about becoming (*dependence / dependent*) on others as they grow older.
6. Because horses are large and unpredictable, some people claim that horse (*rider / riding*) is one of the most dangerous sports in the world.
7. In this workshop, we intend to (*demonstrate / demonstration*) seven activities to help develop students' reading fluency.
8. Due to their hardness, diamonds have a wide variety of (*industry / industrial*) uses.
9. Researchers often caution that it is too soon to (*generally / generalize*) the results of experiments performed on animals to human populations.
10. Nonnative animal species, such as boa constrictors in the Florida Everglades, often (*threaten / threatening*) native species because they have no natural enemies to control their populations.

Common Error 4.2 Do you have the correct suffix?

development

The ~~developing~~ of a new vaccine is usually a long and costly process.

REMEMBER: Using the wrong suffix will make your sentence hard to understand.

ACTIVITY 4 Common Error 4.2

Read each sentence. The underlined words have incorrect suffixes. Write the correct word form above the word.

1. Samuel Morse, the inventor of Morse Code, gave the simplest codes to the most frequency occurring letters in the English alphabet.
2. In recent years, an ideologic tension has developed between extreme left and extreme right political parties in many countries.
3. The Americans with Disabilities Act of 1990, which forbids discrimination against people with disabilities, requires all sidewalks to be accessibility to people in wheelchairs.
4. Labels on medicine bottles specific how often patients should take the prescribed medicine.
5. In some large cities, the fine for parking illegal can be \$300 or even more.
6. Almost all religions have a story that describes the creative of the world.
7. By analyze 2,000-year-old garbage found in a Roman tunnel, archeologists learned that the ancient Romans had a diverse diet that included fish, meat, vegetables, and fruit.
8. Many parenting books point out that it is good to let children experience the natural consequently of their own behavior. For example, if a child refuses to eat, let her get hungry.

Academic Vocabulary

Words with Common Suffixes Frequently Used in Academic Writing

community	creativity	finally	mechanism	section
consistent	emphasize	individual (adj)	positive	strengthen

Source: *Longman grammar of spoken and written English* (Biber, et al. 1999).

ACTIVITY 5 Vocabulary in Academic Writing

Use the academic vocabulary to complete the sentences.

Subject Area	Example from Academic Writing
Health	1. A recent study at Brigham Young University showed that going to bed and getting up at the same time each day were associated with lower body fat. This finding was _____ with earlier research.
Education	2. In <i>Teaching and Researching Reading</i> (2011) Stoller and Grabe _____ the importance of teaching reading strategies to students and giving students frequent opportunities to practice strategy use.
Music	3. The sonata, a type of classical music composition, typically has three _____: exposition, development, and recapitulation.
Chemistry	4. Arsenic, an extremely powerful chemical used for killing rats, is known to cause cancer, but researchers have not been able to determine the precise _____ by which it causes the disease.
Art and Literature	5. Some people theorize that _____ and mental illness often go hand in hand. Artists such as Vincent Van Gogh and Sylvia Plath are examples.
Physiology	6. For patients with lower back pain, therapists recommend doing exercises that _____ the core abdominal muscles, or abs.
Government	7. The United States Bill of Rights contains a number of _____ liberties that by law cannot be taken away by the government.
Psychology	8. In 1938, B. F. Skinner introduced the concept of _____ reinforcement, which means rewarding a desired behavior so that it will be repeated.
History	9. After declining in power for more than a hundred years, the western Roman Empire _____ fell to Germanic conquerors in the year 476 CE.
Education	10. A learning _____ is a group of concerned people who work together to create the best possible learning environment for a school or group of students.

Put It Together

ACTIVITY 6 Review Quiz

Multiple Choice Choose the letter of the correct answer.

1. Scientists using computer simulation software to _____ the bite of a giant prehistoric shark, *Megalodon*, found that the shark's bite was more powerful than that of a *T. rex* dinosaur.
a. analyze b. analysis c. analytic d. analyst
2. Among most species of birds, it is up to the female to _____ a male that will assure the health of her babies.
a. selective b. selection c. select d. selectively
3. In these insecure financial times, mutual funds can provide a more _____ source of retirement income than savings accounts or bonds.
a. rely b. reliable c. reliance d. reliably
4. The modern age of weather _____ began with the invention of the telegraph in 1835.
a. predict b. predictable c. predictably d. prediction
5. Does listening to classical music improve spatial-temporal reasoning? _____, does listening to the music of Wolfgang Amadeus Mozart have this effect?
a. Specific b. Specify c. Specifically d. Specification

Error Correction One of the five underlined words or phrases is not correct. Find the error and correct it. Be prepared to explain your answer.

6. Communism is a way of organize society in which there is no private property and there are no social classes.
7. The word *gypsy* is a derogatory name for the Romani people, who originated in northern India but immigrated to Europe more than 1,500 years ago. The Romani original practiced the Hindu religion but today follow either Islam or Christianity.
8. Rubella is an infectious disease caused by the rubella virus. Normally the disease is not danger, but it can cause serious health problems for babies whose mothers catch it during pregnancy. A vaccine to prevent the disease was first introduced in 1969.



A magnificent old walnut tree stands on a farm in Maryland.

ACTIVITY 7 Building Greater Sentences

Combine these short sentences into one sentence. You can add new words and move words around, but you should not add or omit any ideas. More than one answer is possible, but all of these sentences include a variety of word forms.

1.
 - a. Walnuts are extremely high in omega-3 fats.
 - b. Walnuts are extremely high in antioxidants.
 - c. Walnuts are an important part of our diet.
 - d. This has been true for thousands of years.

2.
 - a. Franz Boaz was a German-American anthropologist.
 - b. He opposed an ideology called *scientific racism*.
 - c. The ideology stated that race is biologically determined.

3.
 - a. The world community sent Japan billions of dollars in aid.
 - b. The aid was humanitarian.
 - c. The aid followed the earthquake.
 - d. The earthquake was in 2011.

ACTIVITY 8**Steps to Composing**

Read the essay. Then follow the directions in the 10 steps to edit the information and composition of the essay. Write your revised paragraphs on a separate sheet of paper. Be careful with punctuation and capitalization. Check your answers with the class.

SUMMARY-RESPONSE ESSAY**Functional Textiles**

¹High-tech or functional textiles are synthetic fabrics with sensors and microchips built into them. ²Steve Lohr wrote in the *New York Times* on April 1, 2016. ³Steve Lohr describes an exciting new collaboration among U.S. universities, textile companies, and the Defense Department to create fabrics that can “see, hear, communicate, store energy, warm or cool a person, or monitor the wearer’s health.”

⁴High-tech fabrics could have useful applications in many areas. ⁵For example, sports clothing that could be programmed could sense if a person is having a heart attack and then call for help. ⁶Soldiers’ uniforms could signal when an enemy is near and become invisible. ⁷Mattresses could monitor a person’s sleep and health.

⁸Functional fabrics could help to revive the struggling U.S. textile industry. ⁹It has lost jobs as a result of the way the world has become more global. ¹⁰Lohr writes that functional fabrics could “push the American textile industry into the digital age.” ¹¹They could create thousands of new jobs in the process.

¹²The author cautions that many questions remain about the cost, design, marketing, and use of functional fabrics. ¹³Critics worry about privacy and it is possible that the textiles could be hacked, like any digital product. ¹⁴However, I am convinced that functional textiles have big potential to help solve real-world problems and to reinvigorate the U.S. textile industry.

1. Change sentence 2 to a participial phrase beginning with *Writing*. Delete *Steve Lohr*. Then combine sentences 2 and 3.
2. Summaries should include attribution to the author of the original piece. Insert *According to Lohr* at the beginning of sentence 4.
3. Sometimes a word with a suffix can replace an entire phrase or clause. This makes your writing less wordy. In sentence 5, replace *that could be programmed* with the adjective *programmable*. Place the adjective before *sports clothing*.
4. Transitions make writing more coherent. In sentence 8, add *In addition* or *Also*.
5. Combine sentences 8 and 9. Change sentence 9 into an adjective clause beginning with a comma and *which*.
6. In sentence 9, reduce wordiness by replacing *the way the world has become more global* with the noun *globalization*.
7. Combine sentences 10 and 11 by reducing sentence 11 to a verb phrase.
8. In sentence 12, replace *use* with *usability*.
9. In sentence 13, to improve parallel structure, change the phrase *it is possible* to a noun form starting with *the*.
10. In sentence 14, replace *big* with a more powerful word like *tremendous* or *enormous*.

ACTIVITY 9 Original Writing

On a separate piece of paper, write a summary–response paragraph (at least seven sentences) about a recent product or development in the high-tech field. Underline the nouns, verbs, adjectives, and adverbs with suffixes. Include source information.

Here are some examples of how to begin.

- *In a product review on cnet.com dated April 17, 2016, Xiomara Blanca reviews the advantages and disadvantages of the new HP Stream laptop.*
- *Writing in the April 11, 2016, issue of Scientific American, author Larry Greenemeier discusses Facebook’s plan to install “chatbots” in the new version of its Messenger platform.*
- *The editorial “Welcome to the Drone Age” appeared in the September 26, 2015, issue of The Economist. In this article, the writer talks about the explosion in the use of drones in the United States.*