Centar za strane jezike

JEP 102

ENGLESKI JEZIK STRUKE II

Nastavni materijali za engleski jezik na studiju psihologije

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ACADEMIC WRITING: WRITING ABOUT A PROCESS

(Oshima & Hogue, 2014, pp. 102-119)

PROCESS PARAGRAPHS
In this chapter you will learn to develop a paragraph according to the steps in a process. This type of paragraph is known as a process, or how-to paragraph. The purpose of a process paragraph is to show the best way to do an important task by breaking it down into a series of steps and explaining each step. At the end of this chapter, you will write your own process paragraph.

ANALYZING THE MODEL
The writing model explains a process that students can follow so that their teachers will be more likely to give them good grades. Read the model. Then answer the questions.

Impress for Success

1 When it is time to be evaluated by your professors, you want them to remember you – and remember you in a positive way. 2 As an experienced student, I know that it is easier to make a good impression on your course instructors if you follow these fundamental steps. 3 First, before you go to class, do all of the assigned reading and homework. 4 Good preparation will help you to follow the professor's lecture more easily, ask intelligent questions, and keep up with the class. 5 Second, arrive for class a few minutes early. 6 That way, you can get a good seat and have enough time to get organized. 7 You want to be ready so that you will not disturb the professor or your classmates while the class is going on. 8 For the same reason, you should also turn off your cell phone as you are getting ready. 9 Next, participate actively throughout the lesson. 10 Smile, nod, and make eye contact with your instructor. 11 Take notes. 12 If the professor asks a question, it is not necessary for you to jump at the chance to answer. 13 However, if no one else speaks up, show what you know. 14 If there is something that you do not understand, wait for an appropriate time to ask about it. 15 Finally, when the class meeting ends, remain seated. 16 Take a few minutes to collect your belongings and make last-minute additions to your notes. 17 If you still have questions, talk to your professor in the classroom. 18 Alternatively, you can send an email or
clear up your confusion during the professor's office hours. If you follow these steps in all of your courses, you will be better prepared for your tests, and your teachers will be ready to give you the good grades that you deserve.

Questions about the Model
1. Underline the topic sentence. What words let you know that the paragraph will explain a process?
2. According to this paragraph, what are the fundamental steps in the process of doing well in class?
3. What kind of information does the last sentence of the paragraph contain? Why did the writer include this sentence?

Phrasal verbs
Understanding and using **phrasal verbs** will help you write more naturally and sound like a native speaker of English. When some English verbs combine with a particle (a preposition or adverb), they have a meaning that is different from the verb itself. Verb + particle (preposition or adverb) combinations such as *look after* (someone), *stick to* (a plan), and *run up* (a bill) are examples of phrasal verbs.

**PRACTICE 1  Identifying and Forming Phrasal Verbs**

A. Work with a partner. Underline these phrasal verbs in the writing model on pages 4-5. Notice how the meaning of each phrasal verb is different from the meaning of the verb alone.

<table>
<thead>
<tr>
<th>PHRASAL VERB</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>clear up</td>
<td>explain or solve something</td>
</tr>
<tr>
<td>going on</td>
<td>happening</td>
</tr>
<tr>
<td>jump at</td>
<td>eagerly accept the chance to do something</td>
</tr>
<tr>
<td>keep up</td>
<td>learn as fast or do as much as other people</td>
</tr>
<tr>
<td>speak up</td>
<td>say publicly what you think about something</td>
</tr>
<tr>
<td>turn off</td>
<td>stop a supply of water, electricity, etc., so that a machine stops working</td>
</tr>
</tbody>
</table>
B. Work with a partner. Form phrasal verbs using the particles from the box. Look up the verbs in a dictionary as needed. Notice the particles (prepositions or adverbs) in the dictionary sample sentences. Use each particle once.

\[ \text{down in off out through up} \]

1. tell ______ off ____________
2. break ______________
3. fall ______________
4. mix __________________
5. wipe ___________________
6. drop ____________________

ORGANIZATION
As with narrative and logical division paragraphs, process paragraphs have three basic parts: a topic sentence, supporting sentences, and a concluding sentence. In this section, you will learn about structuring a process paragraph.

TOPIC SENTENCES IN PROCESS PARAGRAPHS
In a process paragraph, the topic sentence names the topic and tells the reader to look for a process or procedure. Use words such as steps, procedure, process, directions, suggestions, and instructions.

It will be easy for you to make a good impression on your course instructors if you follow these fundamental steps.

Use this step-by-step process to increase your reading speed.

These simple instructions clearly show how to make the battery on a laptop computer last longer.

SUPPORTING SENTENCES IN PROCESS PARAGRAPHS
The supporting sentences in a process paragraph are the steps and details about each step in the process.

First, before you go to class, do assigned reading and any other homework. Good preparation will enable you to understand the professor’s lecture more easily, ask intelligent questions, and keep up with the class.

If you want to read faster and with more fluency, the second step is to put your dictionary in a hard-to-reach place so that you will use it less often.
Next, go to the control panel of the computer and look for the power saving functions.

**CONCLUDING SENTENCES IN PROCESS PARAGRAPHS**

In a process paragraph, the concluding sentence can explain the last step, or it can sum up the results of following the entire process.

If you follow these steps in all of your courses, you will be better prepared for your tests, and your teachers will be ready to give you the good grades that you deserve.

You will soon find that you can not only read faster but also understand much more.

Finally, turn the laptop off when you are not using it.

**PRACTICE 2  Writing topic sentences for process paragraphs**

Work with a partner or in a small group. Write topic sentences for four of the topics.

**TOPICS**

· how to register for classes at your school
· how to balance school and your personal life
· how to improve your study and test-taking skills
· how to ask a question in class
· how to use your school’s website effectively
· how to increase your knowledge of English slang and idioms
· how to make your backpack lighter
· how to keep your apartment clean and clutter-free
· how to get the job of your dreams
· how to prepare for a job interview
· how to enjoy life when you are on a tight budget
USING TIME ORDER IN PROCESS PARAGRAPHS
In a process paragraph, you arrange the steps in a process in order by time, and you use time-order signals to guide your reader from step to step. Here are some useful signals for process paragraphs.

<table>
<thead>
<tr>
<th>Time-Order Signals</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sentence Connectors</strong></td>
<td></td>
</tr>
<tr>
<td>First, (Second, etc.)</td>
<td>First, preheat the oven to 500 degrees Fahrenheit.</td>
</tr>
<tr>
<td>Then (no comma)</td>
<td>Then prepare the pizza sauce.</td>
</tr>
<tr>
<td>Now (no comma)</td>
<td></td>
</tr>
<tr>
<td>Next,</td>
<td></td>
</tr>
<tr>
<td>Finally,</td>
<td></td>
</tr>
<tr>
<td>After that,</td>
<td></td>
</tr>
<tr>
<td>Meanwhile,</td>
<td></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
</tr>
<tr>
<td>The first step... (no comma)</td>
<td>The next step is to mix the pizza dough.</td>
</tr>
<tr>
<td>The next step... (no comma)</td>
<td>After five minutes, check the pizza.</td>
</tr>
<tr>
<td>The final step... (no comma)</td>
<td>After you take the pizza out of the oven, cut it into eight pieces.</td>
</tr>
<tr>
<td>After five minutes,</td>
<td></td>
</tr>
<tr>
<td>After you take the pizza out of the oven,</td>
<td></td>
</tr>
</tbody>
</table>
**PRACTICE 3  Identifying and Using Time-Order Signals**

**A** Circle the time-order signals in the writing model on pages 4-5.

**B** Complete the paragraph. Use the time-order and conclusion signals from the box. Capitalize and punctuate them as needed. Use each signal once.

<table>
<thead>
<tr>
<th>finally</th>
<th>the first step</th>
<th>second</th>
<th>to sum up</th>
<th>the third step</th>
</tr>
</thead>
</table>

### Choosing Classes

Choosing the right classes each semester can be stressful, but you can reduce your stress with a common-sense process. **The first step** (1) is to become familiar with the graduation requirements for your major. It is a good idea to meet with an academic advisor, but do not depend entirely on others to give you correct information. Instead, use your school’s website to find out what the requirements for your degree are, and memorize them.

**plan, plan, plan.** Write out a program for each semester when you talk to your advisor so that you can be certain you have all the courses you need for graduation. Be aware that some classes have prerequisites – classes you must pass before you can register for them.

**is to talk with as many older students as you can.** Ask them which courses are good and which ones are not. Do not waste your time or money on bad classes. **register each semester as soon as you can.** Waiting even an hour may mean that the classes you want or need are filled. **plan ahead to avoid missing any required classes, to steer clear of bad classes, and to graduate on time.**
PRACTICE 4  Arranging Supporting Sentences in Time Order

Work with a partner. Read each group of sentences. Then number them from 1 to 8 in time order.

GROUP 1 How to buy an airline ticket

___ Type in your travel dates and the names of the airports you will be traveling to and from.
___ Click the purchase button to buy your ticket.
___ Select your preferred departure flight.
___ Go to an online travel site such as Orbitz, Travelocity, or Kayak.
___ Enter your credit card and other personal information.
___ Choose a return flight that is at a convenient time for you.
___ Print your ticket confirmation or keep an electronic copy on your computer so that you will have it when it is time for your trip.
___ Look at the flights that fit your needs, paying close attention to the total price for a round-trip with taxes and other fees.

GROUP 2 How to get a book in your school library

___ Go to the homepage of your school library’s website.
___ Locate the books on the library shelves by their call numbers.
___ Give your student ID to the librarian at the checkout desk.
___ Select the keyword “Subject,” and in the search box, type the topic you are seeking information about.
___ Find the "Search Catalog" box on the library’s home page.
___ Make a list of the title and call number of each book that you want.
___ Scroll through the entries for the books that are displayed on the computer screen, and determine which ones seem the most relevant.
___ Take the books to the checkout desk.
PURPOSE
The purpose of a process paragraph is usually to inform — to tell readers how to complete a specific process. The concluding sentence can emphasize the purpose of a process paragraph by stating the positive effect of following the steps in a process. For example, the writer of the writing model on pages 4-5 used the concluding sentence to point out that the process could help students to get better grades.

PRACTICE 5  Stating the Purpose in Concluding Sentences
Work with a partner. Write a concluding sentence for each of four topic sentences you wrote for Practice 2 on page 7. Include the positive effect that readers can achieve by following your instructions.

Topic 1
___________________________________________________________________________
___________________________________________________________________________

Topic 2
___________________________________________________________________________
___________________________________________________________________________

Topic 3
___________________________________________________________________________
___________________________________________________________________________

Topic 4
___________________________________________________________________________
___________________________________________________________________________

AUDIENCE
When you write, always keep your audience in mind. In other words, think about the people who will be reading your compositions. For the writing you do in this book, your audience is your teacher and classmates. Consider what kind and how much information your audience needs to know in order to understand your ideas. For example, if you are writing a process paragraph about how to care for a newly planted tree, explain any terms that your audience might not know, such as *mulch*, *root ball*, or *fertilizer*. 
PRACTICE 6  Identifying the Audience

A  Reread the writing model on pages 4-5. Who is the intended audience? How do you know this? On a separate sheet of paper, write two sentences to explain your answer. Discuss your answer with a partner.

B  Read the paragraph. Who is the intended audience? Check (V) your answer. Then circle any clue words that helped you figure out the audience.

What to Do If the Emergency Alarm Sounds During Class

When you hear the school’s emergency alarm, follow the required safety procedures. It is possible that there is an actual emergency or that the alarm is signalling a practice evacuation. In either case, you and your classmates must exit the building. First, take all of your personal belongings with you. Quickly put everything into your bag or backpack. Second, find the nearest stairway and go down the stairs to the first floor lobby. Do not use the elevators. Even if it is your first emergency situation, stay calm. Walk. Don’t run. After you leave the building, follow the instructions of the safety leaders who are outside. Finally, you can re-enter the building as soon as the police and fire department have announced that, in fact, there is no danger.

☐ tenured professors  ☐ new international students

PRACTICE 7  On a separate sheet of paper, write each group of sentences from Practice 4 on page 10 as a paragraph. Follow the instructions:

1. Before you start writing, identify your audience and purpose.

2. Start each paragraph with a topic sentence and end it with a concluding sentence.

3. Make your paragraphs flow smoothly by adding time-order signals at the beginning of some of the sentences. Use necessary punctuation.
Writing Tip!

When you write the steps in a process paragraph, use commands. Commands are also known as imperatives. For example, "take all of your personal belongings with you" is one of the steps to follow if an emergency alarm sounds at school. "Find the nearest stairway, and go down the stairs to the first floor lobby" is another step. "Take," "find," and "go" are command forms. Notice that in commands, we understand that the subject is you, but you is not expressed.

SENTENCE STRUCTURE

Good writers use a variety of sentence patterns. In their paragraphs, they sometimes use simple sentences because they are direct, clear, and easy to read. At other times, they combine simple sentences to show their readers the connection between ideas. Good writers also know that a mixture of sentence types can help to keep their readers interested.

ANALYZING THE MODEL

The model is a process paragraph that tells students how to write an email to their course instructors. As you read it, pay attention to time-order signals and to the variety of short and long sentences.

Model

**How to Email Your Course Instructor**

1 It is common for students to contact their professors by email to ask a question, explain an absence, or submit an assignment. 2 Before you click the send button on your next email to an instructor, remember that such an email is a piece of business writing with very specific requirements. 3 First of all, use your university email account. 4 Because the address for this account probably has at least part of your name and the name of your school, it is less likely to go to junk mail. 5 In addition, your professor will recognize the address when he sees it and know that your message is important. 6 Second, clearly state your purpose in the subject line of the email. 7 For example, you can say, "Paul Lee's Final Draft – Essay #3 English 100-02." 8 After that, move on to your actual message. 9 Start out with a greeting such as "Hi, Professor Smith" or the more formal, "Dear Professor Smith." 10 In the body of your email, once again be very clear and direct. 11 For instance, if you are going to
be absent from class, give a brief explanation. 12 Never write an email more than one screen in length. 13 Email messages should be short enough to be read and understood quickly, 14 Also avoid using slang and text messaging abbreviations such as "ru" and "btw." 15 End your message with a simple "Thank You" or "Best Regards." 16 Then add your full name and the name and number of your course. 17 Finally, check your email carefully for grammar and spelling mistakes before you send it off. 18 Such details are important as this is not a Facebook post or an informal text message to a friend. 19 Your email must be somewhat formal since you and your professor are involved in the business of teaching and learning.

Questions about the Model

1. Look at Sentence 3. What kind of sentence is it – simple or compound? (Note: This sentence is a command.)

2. Find and underline other simple sentences that are commands. How many can you find?

3. Look at Sentence 17. How many SV combinations does it contain? What word connects them? Circle the word.

CLAUSES AND COMPLEX SENTENCES

In this chapter you will study a kind of sentence called a complex sentence.

Clauses

First, let’s learn about clauses. A clause is a group of words that contains at least one subject and one verb.

The student arrived late…

. . . because she wasn’t feeling well

There are two kinds of clauses in English: independent and dependent. An independent clause can be a sentence by itself, or two independent clauses can be joined with the conjunctions and, but, or, so, for, yet, and nor.
This is a simple sentence that is also an independent clause.

*The professor provided his email address.*

This is a compound sentence with two independent clauses.

*The professor provided his email address, but some students did not write it down.*

A dependent clause, in contrast, cannot be a sentence by itself. A dependent clause "depends" on something else to complete its meaning.

... *so that students could send him their compositions*

... *because they were not paying attention*

**Complex Sentences**

A complex sentence is a combination of one independent clause and one (or more) dependent clause(s).

*The student arrived late because she wasn't feeling well.*

   Indep. clause.       dep. clause.

*The professor gave the class his email address*

   Indep. clause

   so that students could send him their compositions.

   Dep. clause

Usually, the independent and dependent clauses in complex sentences can be in any order. However, the punctuation is different depending on the order. In a complex sentence, when the dependent adverb clause comes first, separate the clauses with a comma. When the independent clause comes first, do not separate them.

*The students had a problem because they did not write down their professor's email address.*

Because they did not write down their professor's email *address, the students had a problem.*
**Subordinators**

A dependent adverb clause always begins with a subordinating conjunction, or subordinator. There are different kinds of subordinators. Time subordinators begin a clause that tells when something happens. Reason subordinators begin a clause that tells why something happens. Purpose subordinators begin a clause that tells the purpose or objective of an event or action. Conditional subordinators begin a clause that tells the condition under which something can occur.

<table>
<thead>
<tr>
<th>Subordinators</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time Subordinators</strong></td>
<td></td>
</tr>
<tr>
<td>after</td>
<td>He goes to school after he finishes work.</td>
</tr>
<tr>
<td>as*</td>
<td>I entered the classroom as the professor was beginning her lecture.</td>
</tr>
<tr>
<td>as soon as</td>
<td>The professor stopped talking as soon as I entered the room.</td>
</tr>
<tr>
<td>before</td>
<td>Before you attend college, you have to fill out an application.</td>
</tr>
<tr>
<td>since*</td>
<td>It has been an hour since the test started.</td>
</tr>
<tr>
<td>until</td>
<td>We can’t leave the room until everyone has finished the test.</td>
</tr>
<tr>
<td>when</td>
<td>When you start college, you sometimes have to take a placement test.</td>
</tr>
<tr>
<td>whenever</td>
<td>Whenever I don’t sleep well, I feel sick the next day.</td>
</tr>
<tr>
<td>while</td>
<td>I felt nervous while I was taking my first exam.</td>
</tr>
<tr>
<td><strong>Reason Subordinators</strong></td>
<td></td>
</tr>
<tr>
<td>as*</td>
<td>As the number of scholarships is limited, it is important to submit your application as soon as possible.</td>
</tr>
<tr>
<td>because</td>
<td>I did well on my exam because I studied hard.</td>
</tr>
<tr>
<td>since*</td>
<td>Since this is a required course, you must take it.</td>
</tr>
<tr>
<td><strong>Purpose Subordinators</strong></td>
<td></td>
</tr>
<tr>
<td>so that</td>
<td>I studied hard so that I would do well on the exam.</td>
</tr>
<tr>
<td><strong>Condition Subordinators</strong></td>
<td></td>
</tr>
<tr>
<td>if</td>
<td>If your professor gives a list of class rules, you must be sure to follow them.</td>
</tr>
<tr>
<td>unless</td>
<td>Do not use a dictionary in class unless your professor allows you to do so.</td>
</tr>
</tbody>
</table>

*Notice that as can be either a time subordinator or a reason subordinator. Also notice that since can be both a time subordinator and a reason subordinator.*
PRACTICE 8  Identifying and Analyzing Complex Sentences

A  Underline three complex sentences with time clauses in the writing model on pages 4-5.

B  Underline the independent clauses and double underline the dependent clauses. Circle the subordinators. Add a comma as needed.

1. **When** students email their professors, they often expect an immediate reply.

2. It is usually impossible to get a response right away because professors are very busy people.

3. If you have not received an answer within two business days you should send a second email.

4. After you have received a helpful response send a follow-up email to thank the professor.

5. Check your school email regularly since your instructors may send out important notices.

6. Whenever you see the word test in the subject line of an email you had better pay attention.

7. Do not be absent on the day of a test unless you have received permission from your instructor.

8. The students were silent as the professor handed out their test.

9. The students worked on the test problems until the teacher told them to stop.

10. As soon as the instructor told them to stop writing they put down their pencils.

11. After the teacher collected the tests she dismissed the class.

12. Before she left she promised to post their test scores in the grade book of their course website.
**PRACTICE 9  Writing Complex Sentences**

**A** Combine the independent clauses in Column A with the dependent clauses in Column B to make complex sentences. Then write the sentences on a separate sheet of paper in order as a paragraph. Use correct capitalization and punctuation.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. you will not be late for early morning classes</td>
<td>a. as soon as your alarm clock rings</td>
</tr>
<tr>
<td>2. begin the process by deciding what to wear the next day</td>
<td>b. unless your professor has rules against food in the classroom</td>
</tr>
<tr>
<td>3. then get out of bed in the morning instead of sleeping an extra five or ten minutes</td>
<td>c. if you follow several time-efficient steps</td>
</tr>
<tr>
<td>4. you should keep your alarm as far from your bed as possible</td>
<td>d. then when you are in the shower</td>
</tr>
<tr>
<td>5. stick to a two-minute limit to save not only water but also time</td>
<td>e. because it will force you to get up and stay up</td>
</tr>
<tr>
<td>6. the final step requires you to bring your breakfast to class</td>
<td>f. before you go to bed at night</td>
</tr>
</tbody>
</table>

**B** Choose a topic from Practice 2 on page 7. Write six complex sentences about it. Use a different subordinator in each sentence. Vary the placement of the dependent and independent clauses.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Work with a partner. Read the first draft of “Note Taking 101” on page 19. Mark up and revise the paragraph so that it flows better and contains more sentence variety. Follow the instructions:

1. Use compound and complex sentences to improve the paragraph.
2. Combine sentences to connect ideas logically.
3. Use transition signals to connect the supporting sentences.
4. Use time, reason, purpose, and condition subordinators.
5. Add punctuation where needed.
6. Copy your revisions on a separate sheet of paper.
7. Share them with another pair of students.

Note Taking 101

You are listening to a professor’s lecture. Are you having trouble taking notes? There is no need to feel frustrated. A good note-taking process is actually quite easy. Bring a notebook. Bring something to write with. You will have the basic tools you need. Make good decisions about what to include in your notes. You should write what a professor puts on the board. Write what a professor shows on a projection screen. It is usually important information. You will notice that the professor uses signal words and phrases. You hear “the most important reason” or a similar phrase. Pay attention. Add that information to your lecture notes. You will need to develop a system of symbols and abbreviations to increase your note-taking speed. You can use “w/o” to mean “without” or “+” and “-”. You want to indicate positive ideas. You want to indicate negative ideas. You go to your next class. Be sure to review your notes. Ask your teacher any questions that you have. With this note-taking system, you will feel more confident in class and be better prepared for your next exam.
Applying vocabulary: Using Phrasal Verbs

PRACTICE 11 Using Phrasal Verbs in Sentences

Write a sentence for each how-to topic. Use the phrasal verbs from the box.

<table>
<thead>
<tr>
<th>Phrasal Verbs</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>call up</td>
<td>telephone someone</td>
</tr>
<tr>
<td>clean out</td>
<td>make someone or something clean and neat</td>
</tr>
<tr>
<td>drop off</td>
<td>take someone or something somewhere, usually by car</td>
</tr>
<tr>
<td>go over</td>
<td>look at or think about something carefully</td>
</tr>
<tr>
<td>look up</td>
<td>try to find information in a book or on a computer</td>
</tr>
<tr>
<td>run into</td>
<td>meet someone by chance</td>
</tr>
<tr>
<td>sign up</td>
<td>put your name on a list, for a class or group</td>
</tr>
<tr>
<td>think over</td>
<td>consider something carefully before making a decision</td>
</tr>
<tr>
<td>work on</td>
<td>try to repair, complete, or improve something</td>
</tr>
<tr>
<td>work out</td>
<td>find a solution or make a decision</td>
</tr>
</tbody>
</table>

1. How to organize your desk/ desktop / closet/ room

   To organize my closet, I first cleaned out any old clothes and dropped them off at a thrift shop.

2. How to select a college major

   ________________________________________________________________

   ________________________________________________________________

3. How to make new friends

   ________________________________________________________________

   ________________________________________________________________

4. How to do better on your next test/ composition/ oral presentation

   ________________________________________________________________

   ________________________________________________________________

5. How to memorize new vocabulary

   ________________________________________________________________

   ________________________________________________________________
WRITING AN ESSAY: ESSAY ORGANIZATION
(Adapted from Oshima & Hogue, 2014, pp. 198-220)

Introduction
In this chapter, you will learn about writing an essay. Writing an essay is a lot like writing a paragraph. Both an essay and a paragraph have three main parts: an introduction, a body, and a conclusion. The main difference between the two is that an essay is longer than a paragraph. For this reason, you have to plan and develop an essay more carefully so that all the parts work well together. At the end of this chapter, you will write an essay with an introductory paragraph, several body paragraphs, and a concluding paragraph.

Analyzing the model
The writing model describes body language. As you read the essay, look at the kind of information that is in each of the five paragraphs.

Read the model. Then answer the questions.

Body Language

| INTRODUCTION | Communicating effectively in a new country and in a new tongue requires more than just learning the language. Nonverbal communication, including body language, is equally important. A person’s facial expressions, bodily gestures, and physical attitude transmit powerful messages that go beyond words. Therefore, anyone who intends to live, work, or study in another country should learn the body language of that culture, including the acceptable ways to use the face, gesture with the body, and make physical contact. |
| THESIS STATEMENT | First, let’s consider how people use the human face to communicate. Research shows that people everywhere reveal basic emotions, such as happiness, sadness, excitement, and confusion, through facial expressions. However, the amount of emotion people are comfortable showing varies from place to place. Take, for example, the extremely expressive faces of people in Italy and Spain. They are in constant motion and reveal feeling easily and often. In contrast, the faces of people from Asian countries tend not to reveal feelings as much or as quickly. Eye contact is a big part of facial expression, too. In the United States, speakers use their eyes to connect with others. People will look directly into a speaker’s eyes to show interest. However, if listeners stare at a speaker with unblinking eyes, this can mean that they are bored, distracted, angry, or defensive. In some Latin American cultures, looking down instead of making direct eye contact is a show of respect. |
| BODY PARAGRAPH 1 | The gestures that people make with their heads, shoulders, arms, and hands are another important means of communicating. In most – but not all – countries, shaking the head from side to side means "No" and nodding the head up and down means "Yes." In Bulgaria, the reverse is |
true. Nodding means "No" and shaking the head from left to right means "Yes." A shrug, with the shoulders raised and the hands extended with the palms up, has various meanings in Western cultures. It often shows uncertainty but can also mean "I'm not interested." In many cultures, the thumbs up gesture means acceptance and approval. However, in places such as Iran and Iraq, the thumbs up is an insult. Similarly, in North America and many European countries, raising the hand with the thumb and index finger together so that they form the letter O means "everything is OK." However, in France and Belgium, the gesture means "zero," or "worthless." In Japan, the same gesture symbolizes money, and in Russia, Brazil, and Turkey, it is an insult. Clearly, typical gestures that people use every day can cause major misunderstandings depending on where and how they are used.

In addition to facial expressions and gestures, physical contact or the lack of it, is a key aspect of body language. Interestingly, people from the United States are thought of as open and friendly, but their body language may give the opposite message. Americans often seem cold and remote to people from other cultures because they prefer to keep their distance. They like to have approximately two to three feet of personal space around them. When individuals from other countries come too close, Americans tend to step back until they have enough distance to feel comfortable again. In addition, Americans will briefly shake and then release the right hand of a man or woman that they are meeting for the first time. They rarely kiss someone in public unless they have a close relationship with the person. In addition, unless they are romantically involved, Americans rarely hold hands in public. A lack of awareness about the rules of physical contact can give the wrong impression of Americans and have a negative effect on cross-cultural communication.

In short, body language is an important form of communication that varies from place to place. When people travel, they should not presume that the rules for body language in their home culture apply everywhere else. In fact, just as people focus their attention on grammar and vocabulary to master a language, they should devote time and energy to learning the body language of a new country or culture.

Questions about the model

1. In this essay, what main point does the introductory paragraph make about body language?
2. Underline the topic sentence of each body paragraph. What aspect of body language does each body paragraph present?
3. Circle the transition words and phrases that introduce the body paragraphs.
4. What is the main pattern of organization that the essay uses: *logical division of ideas, process (time) order, or comparison/ contrast?*

**VOCABULARY Formal and Informal Words**

Good writers select words that have the right level of *formality* or *informality*, depending on the setting. In many academic classes, you will be asked to use formal, or academic, language. As you listen to your professors’ lectures and read college texts, you will acquire the *formal vocabulary* that you need for academic writing. You will learn to distinguish between *everyday words* (common in *informal speech*) and *formal academic language* that is used in college settings.

In these sentences from the writing model, notice the boldfaced academic words.

> A person’s **facial** expressions, bodily **gestures**, and physical **attitude** transmit powerful messages that go beyond words.

> Research shows that people everywhere **reveal** basic **emotions**, such as happiness, sadness, excitement, and confusion, through **facial** expressions.

**PRACTICE 1 Comparing Formal and Everyday Vocabulary**

Work with a partner. Match the everyday words in Column A with their more formal synonyms in Column B. Use a dictionary as needed.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. almost</td>
<td>a. devote</td>
</tr>
<tr>
<td>2. bad</td>
<td>b. aspect</td>
</tr>
<tr>
<td>3. give</td>
<td>c. briefly</td>
</tr>
<tr>
<td>4. let go</td>
<td>d. approximately</td>
</tr>
<tr>
<td>5. part</td>
<td>e. negative</td>
</tr>
<tr>
<td>6. quickly</td>
<td>f. physical contact</td>
</tr>
<tr>
<td>7. show</td>
<td>g. release</td>
</tr>
<tr>
<td>8. touch</td>
<td>h. reveal</td>
</tr>
</tbody>
</table>
ORGANIZATION
In well-written paragraphs or essays, writers present information in a logical order. Notice how the three parts of a paragraph correspond to the three parts of an essay.

<table>
<thead>
<tr>
<th>Essay</th>
<th>General Statements (background information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis Statement</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I. Introduction</th>
<th>A. Topic Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Statements</td>
<td>1. Supporting Sentences</td>
</tr>
<tr>
<td>Thesis Statement</td>
<td>2. Supporting Sentences</td>
</tr>
<tr>
<td>(background information)</td>
<td>3. Supporting Sentences</td>
</tr>
<tr>
<td>(Concluding Sentence)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Body</th>
<th>B. Topic Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Topic Sentence</td>
<td>1. Supporting Sentences</td>
</tr>
<tr>
<td>1. Supporting Sentences</td>
<td>2. Supporting Sentences</td>
</tr>
<tr>
<td>2. Supporting Sentences</td>
<td>3. Supporting Sentences</td>
</tr>
<tr>
<td>(Concluding Sentence)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Topic Sentence</th>
<th>1. Supporting Sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supporting Sentences</td>
<td>2. Supporting Sentences</td>
</tr>
<tr>
<td>2. Supporting Sentences</td>
<td>3. Supporting Sentences</td>
</tr>
<tr>
<td>(Concluding Sentence)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Conclusion</th>
<th>Restated thesis or summary of the main points; final comment</th>
</tr>
</thead>
</table>

In an essay introduction, the writer stimulates the reader's interest and gives general or background information about the topic. Then the writer presents a thesis statement, usually at the end of the introductory paragraph. Like the topic sentence of a paragraph, the thesis statement of an essay names the specific topic and the writer's controlling idea about it. Each paragraph of the body develops a sub division of the topic. The conclusion, like the concluding sentence(s) in a paragraph, can restate the topic and controlling idea, summarize or review the main points discussed in the body, and/or present a writer's final statement about the topic.

An essay has coherence (logical organization) and unity (a focus on one topic), just as a paragraph does. Transition signals link the paragraphs into a cohesive whole.
The introduction is the first paragraph of an essay. It serves two functions: (1) to attract the reader's interest, and (2) present the topic of the essay. There are several kinds of introductory paragraphs. In this chapter, you will learn how to write one kind, which is known as a "funnel" introduction.

A funnel introduction has two parts: several general statements and one thesis statement. The general statements give the reader background information about the topic of the essay. They should lead the reader gradually from a general idea of the topic to a specific idea. The first general statement in a funnel introduction catches the reader's attention. Then, similar to the lens of a camera moving in for a close-up, each sentence that follows becomes more and more focused on the specific topic of the essay. The thesis statement is normally the last sentence in an introductory paragraph.

It has three purposes:

1. **It states the topic of the essay and what the writer wants to say about the topic.**
2. **It may list the subtopics (or subdivisions) of the main topic.**
3. **It may also mention the essay's method of organization.**

If you reread the introductory paragraph of the writing model on page 21, you will notice how the sentences gradually move from the general topic of effective communication to nonverbal communication, including body language, to the specific topic of the essay, three key types of body language.

*The first sentence attracts the reader's attention; it also names the general topic: communicating effectively in a new country.*

*The second sentence narrows the topic to nonverbal communication, including body language.*

*The next sentence narrows the topic to three key kinds of body language: facial expressions, bodily gestures, and physical attitude.*

*The final sentence, the thesis statement, presents the writer's main point about body language: People should learn the body language of another culture. The final sentence also lets readers know that the writer will focus on three main aspects of body language: the face, bodily gestures, and physical contact.*
Writing Tip!

Do not give too much information in an introductory paragraph. Anywhere from three to seven sentences is usually enough to introduce the topic, present the thesis, and reveal the essay's structure. The goal is to narrow your focus as quickly as possible.

Notice how the funnel introduction in the writing model resembles a funnel. It is wide at the top (beginning) and narrow at the bottom (end).

Communicating effectively in a new country and in a new tongue requires more than just learning the language. Nonverbal communication, including body language, is equally important. A person's facial expressions, bodily gestures, and physical attitude transmit powerful messages that go beyond words.

Therefore, anyone who intends to live, work, or study in another country should learn the body language of that culture, especially, the acceptable ways to use the face, gesture with the body, and make physical contact.

PRACTICE 2 Writing funnel introductions

On a separate sheet of paper, reorder the sentences in each introductory paragraph. First, copy the most general statement. Then copy the sentences in the correct order from most to least general. Copy the thesis statement last.

Paragraph 1

Therefore, workaholics' lifestyles can affect their families, social lives, and health. Because they work so many hours, workaholics may not spend enough time in leisure activities. These people are serious about becoming successful, so they work long hours during the week and even on weekends. People who work long hours are called "workaholics."
As a result, anyone who wants to drive must carry a driver's license. It is divided into four steps: studying the traffic laws, taking the written test, learning to drive, and taking the driving test. Getting a driver's license is a complicated process. Driving a car is a necessity in today's busy society, and it is also a special privilege.

During this period, children separate themselves from their parents and become independent. Teenagers express their separateness most vividly in their choice of clothes, hairstyles, music, and vocabulary. The teenage years between childhood and adulthood are a period of growth and separation.
BODY PARAGRAPHS

The body of an essay is made up of one or more paragraphs. Each body paragraph has a topic sentence and several supporting sentences. It may or may not have a concluding sentence. Concluding sentences for body paragraphs are not always necessary, especially when the ideas in consecutive paragraphs are closely related. Each body paragraph explains and gives details about the thesis statement. Reread the three body paragraphs of the writing model on pages 22-23. Notice that the topic sentence of each paragraph presents one of the areas of body language mentioned in the thesis statement. The supporting sentences then give more information about each area.

**Thesis Statement**

Therefore, anyone who intends to live, work, or study in another country should learn the body language of that culture, especially the acceptable ways to use the face, gesture with the body, and make physical contact.

**Topic Sentences**

A. First, let’s consider how people use the human face to communicate.

B. The gestures that people make with their heads, shoulders, arms, and hands are another important means of communicating.

C. In addition to facial expressions and gestures, physical contact or the lack of it, is a key aspect of body language.

**Practice 3**

Writing topic sentences for body paragraphs

Work with a partner or in a small group. For each thesis statement, write topic sentences for three supporting body paragraphs.

1. There are three types of movies that I especially enjoy watching.

   A. I love watching fast-paced action movies.

   B. I am also a big fan of animated films, in particular 3-D animation.

   C. My absolute favorite movie genre is comedy.
2. My city/country has several interesting places to visit.
   A. ____________________________________________________________
   B. ____________________________________________________________
   C. ____________________________________________________________

3. There are three types of computer software that all students must have.
   A. ____________________________________________________________
   B. ____________________________________________________________
   C. ____________________________________________________________
CONCLUDING PARAGRAPHS

The concluding paragraph is the last paragraph of an essay. It has three purposes:

1. It signals the end of the essay.
2. It reminds the reader of what the writer wants to say in the essay.
3. It leaves the reader with the writer’s final thoughts on the topic.

In the first part of the concluding paragraph, you repeat the thesis statement in different words, and I or summarize the main points of your essay. You may need one or more than one sentence to do this. In the second part of the conclusion, you add a final comment. You might state your opinion or make a recommendation, judgment, or prediction about the topic. The final comment must be clearly related to the information you have already presented in the essay.

Reread the last paragraph of the writing model on page 23. Notice how the writer accomplishes each of the three purposes of a concluding paragraph.

- The writer uses the transition phrase *In short* to signal the end of the essay.
- The writer restates her message about body language – *it is an important form of communication that varies from place to place*.
- She gives a final comment. The writer observes that rules for body language are not the same everywhere and then gives her opinion that people should learn the body language of another culture or place in the same way that they learn the grammar and vocabulary of a foreign language.

PRACTICE 4  Identifying Concluding Paragraphs

Read each introductory paragraph and set of topic sentences for body paragraphs. Then read the possible concluding paragraphs and circle the best one.

**Essay 1**

**Advertising**

**Introductory paragraph**

Living anywhere other than an uninhabited island in the middle of a big ocean, it is impossible to escape advertising. People in the modern world are continually
exposed to ads and commercials on the radio, on television, on billboards, in their mailboxes, and on their computers. However, advertising is not a modern phenomenon. It has been around for a long time, as a review of its history shows.

**Topic sentences for body paragraphs**

A. As early as 3000 BCE, merchants carved signs in wood, clay, and stone to put above their shops.

B. In ancient Egypt, merchants hired people called *criers* to walk through the streets announcing the arrival of ships and their cargo.

C. In medieval Europe, shop owners hired *criers* to direct customers to their shops.

D. The invention of the printing press in the 1400s was the start of the advertising industry as we know it today.

**Possible concluding paragraphs**

1. In conclusion, advertising has been a part of merchandising for at least 5,000 years. From the carved signs above doorways in ancient Babylonia to the pop-ups on modern computer screens, advertising has been a part of daily life. Its form may change, but advertising will undoubtedly be with us for a long time to come.

2. In conclusion, it is clear that advertising is useful for both buyers and sellers. It helps sellers by informing the public about their goods and services. It helps buyers by allowing them to comparison shop. Its form may change, but advertising will undoubtedly be with us for a long time to come.

**Essay 2**

**Compulsory Attendance in College**

**Introductory Paragraph**

On my first day of class in an American university, I discovered that there are many differences between universities in the United States and in my country. One difference hit me immediately when the professor walked into the classroom dressed in casual pants and a sports shirt. Then he sat down, and I received a second shock. He sat down on the desk, not behind the desk. The biggest shock happened when he passed out a piece of paper listing the requirements of the class. I learned that I was not allowed to miss any classes! In my country, professors do not know or care if
students attend lectures, but in the United States, professors actually call out the names of students at the beginning of each class meeting to see if they are present. In my opinion, compulsory attendance in college is completely inappropriate for two reasons.

**Topic sentences for body paragraphs**

A. College students are adults, not elementary school children.

B. Students often have other obligations such as jobs and family.

**Possible concluding paragraphs**

1. To summarize, attendance in college classes should be optional. Students may already know the material that the professor will cover. Sometimes the professor lectures on material that is in the textbook, so students can read it on their own time. Therefore, in my opinion, compulsory attendance in college classes should be abolished.

2. To summarize, college students are mature enough to take charge of their own learning. Furthermore, they may have family or work problems once in a while that cause them to miss a class. They should not be penalized for this. Therefore, in my opinion, compulsory attendance in college classes should be abolished.

---

**Essay 3**

**Goals**

**Introductory paragraph**

Everyone needs goals. When people have clear goals, they are more successful because they focus attention on what is truly important. However, goals can change at different stages of life. What a person wants at the age of ten is quite different from what the same person hopes to achieve at the age of 15 or 20. My major goals for this semester are to get a part-time job and to master the use of the English language.
Topic sentences for body paragraphs

A. My first goal is to get a part-time job in an area related to my field of study.

B. I also plan to improve my ability to speak, write, read, and understand English.

Possible concluding paragraphs

1. In short, it is important to have goals. With clear goals, it is easier to stay focused and not let small things become big distractions.

2. In short, finding a job and using English well are important to me at this stage of my life. I am working hard to succeed at both. Then I will build on my success to set new goals.

3. In short, I have set important goals for myself this semester. If I do not reach my goals, I will be unhappy. However, I realize that I can't be successful 100% of the time.

Essay 4

Changes in the Workplace

Introductory paragraph

Female airline pilots? Male nurses? In the middle of the 20th century, such job descriptions were virtually impossible. However, society has become more accepting. Although it is still somewhat unusual, men now work in traditionally female occupations. In particular, more and more men are becoming nurses, secretaries, and elementary school teachers.

Topic sentences for body paragraphs

A. The nursing profession has seen the greatest increase in male participation.

B. Besides entering the field of nursing, more men are becoming secretaries.

C. Elementary school teaching is a third occupation that men have taken up.

Possible concluding paragraphs

1. These examples have shown that it is no longer unusual to see men working as nurses, secretaries, and elementary school teachers. Occupations that used to be
almost exclusively female are now open to all. As society continues to change, we will undoubtedly see this trend continue.

2. These examples have shown that it is no longer unusual to see men working as nurses, secretaries, and elementary school teachers. On the other hand, it is no longer unusual to find women engineers, construction supervisors, and presidents of large corporations. In fact, there are already more women than men studying to become lawyers.

3. These examples have shown that it is no longer unusual to see men working as nurses, secretaries, and elementary school teachers. Indeed, there is less sexism in the working world as men have proven themselves to be as capable as women in these areas, and women have proven themselves to be as capable as men in others.

TRANSITIONS BETWEEN PARAGRAPHS

In previous writing classes, you learned how to use various transition signals to connect the ideas and details in the topic, body, and concluding sentences of a paragraph. Just as it is important to use transition signals to show the connection of ideas within a paragraph, it is also important to use transition signals between body paragraphs to show how one paragraph is related to another. To do this, many writers use transition signals such as first, second, third, and finally. Other transition signals can tell readers if the topic of the next paragraph follows the same line of thought or reverses direction.

In addition to being very focused on their goals, millionaires ...

On the other hand, millionaires do not ...

<table>
<thead>
<tr>
<th>“Additional idea” Transition Signals</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sentence Connectors</strong></td>
<td></td>
</tr>
<tr>
<td>Furthermore, ...</td>
<td>Furthermore / In addition / Moreover / Besides, millionaires are always open to new ideas and are not afraid to take risks.</td>
</tr>
<tr>
<td>Moreover, ...</td>
<td></td>
</tr>
<tr>
<td>Besides, ...</td>
<td></td>
</tr>
<tr>
<td>In addition, ...</td>
<td></td>
</tr>
<tr>
<td><strong>Prepositions</strong></td>
<td></td>
</tr>
<tr>
<td>Besides – noun or gerund</td>
<td>Besides / In addition to their ability to look ahead to the future, millionaires are ready to take immediate action.</td>
</tr>
<tr>
<td>In addition to + noun or gerund</td>
<td>Besides / In addition to having strong personal goals, millionaires are excellent team leaders. (The word having is a gerund, or -ing form.)</td>
</tr>
</tbody>
</table>
Notice that *besides* is both a sentence connector and a preposition. When *besides* is a sentence connector, it must be followed by a comma and an independent clause. When *besides* is a preposition, it must be followed by a noun or gerund (-*ing* form). Similarly, *in addition* is a sentence connector, and *in addition to* is a preposition.

<table>
<thead>
<tr>
<th>“OPPOSITE IDEA” TRANSITION SIGNALS</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sentence Connectors</strong></td>
<td></td>
</tr>
<tr>
<td>On the other hand, ...</td>
<td>On the other hand / However, millionaires are not particularly interested in spending money.</td>
</tr>
<tr>
<td>However, ...</td>
<td></td>
</tr>
<tr>
<td><strong>Subordinators</strong></td>
<td></td>
</tr>
<tr>
<td>Although ...</td>
<td>Although / Even though millionaires earn a lot, they are more likely to invest their money than spend it.</td>
</tr>
<tr>
<td>Even though ...</td>
<td></td>
</tr>
<tr>
<td><strong>Prepositions</strong></td>
<td></td>
</tr>
<tr>
<td>Despite ...</td>
<td>Despite / In spite of their great wealth, some millionaires have a simple lifestyle.</td>
</tr>
<tr>
<td>In spite of ...</td>
<td></td>
</tr>
</tbody>
</table>

**PRACTICE 5** Using Transition Signals between Body Paragraphs

Read the essay. Then complete it with “additional idea” or “opposite idea” transition signals from the charts on pages 35-36. Use each signal once. For some, there may be more than one possible answer.

**Personal Computers in Everyday Life**

1. We live in the digital age. Most young people today cannot remember a time without digital music, mobile phones, and the Internet. Even for many members of the older generation, advanced technology has become commonplace. Of all the current technology, personal computers probably have had the greatest influence on daily life. Personal computers have especially revolutionized communication, business practices, and education in both positive and negative ways.

2. Perhaps the most obvious effect of personal computers has been to expand our ability to communicate globally. A single computer user can send an email
message to millions of people all over the world with one keystroke. Grandparents in Minnesota can use a computer with a webcam to see and talk to their grandchildren in Mississippi as often as they like. Family, friends, and colleagues can also stay in touch and share information on social networking sites such as Facebook. Computer users can ask and answer questions on discussion boards and write about their ideas and experiences on blogs. People even start romances through online dating services. The possibilities of computerized communication are indeed unlimited.

3 ______________, computers are changing the way we do our day-to-day business. They make it easy to take care of many personal matters from home. For example, we can buy airline tickets, send a greeting card, pay bills, buy and sell almost anything, and even pay taxes from our home computer at any time of the day or night. This is a great convenience for people who are busy during the day and for elderly or physically disabled people who find it hard to leave the house.

4 ______________ the business of our daily needs, personal computers can be used professionally. Telecommuting – working at home instead of going to the office – has become a choice for thousands of businesspeople. For example, a website designer for an advertising company in downtown Manhattan can work from her home in New Jersey four days a week. She goes to her office once a week for face-to-face meetings and communicates with her boss on her smartphone or computer the remainder of the time.

5 ______________, personal computers have changed the world of education. Elementary schoolchildren are learning to write, practice math, and create art on computers. Schoolchildren in Manhattan can talk via computer to schoolchildren in Moscow. High school and college students no longer need to spend hours in the school library researching topics for term papers because they can usually get the information they need online. For some classes, students are doing all of their work, including lectures and exams, online.

6 ______________, not everyone agrees on the benefits of computers. According to some critics, computers are not completely good for education. Some people claim that replacing a teacher with a machine is not
progress and that young children in particular need a real person, not a machine, to guide their learning. Computers have also caused problems for society. People who spend hours each day surfing the Internet can become isolated and lonely, and children and teenagers can meet strangers through the Internet who may be dangerous.

In conclusion, it is clear that the use of personal computers affects many aspects of our lives. Computers have made communicating and doing business faster and more convenient, and they are changing the way we learn in school. Still, they have introduced some problems. Just as the invention of automobiles had unplanned consequences, such as the growth of suburbs and air pollution, so has the invention of personal computers. We will have to wait and see what additional unintended consequences may develop.

**PRACTICE 6**

On a separate sheet of paper, complete the planning steps for an essay about problems you have had with nonverbal communication in English. Follow these instructions:

1. Think about the topic. Use the listing technique to gather information (ideas, facts, examples) about it.

2. Organize your ideas. Divide your list into categories or groups. Label each category.

3. Continue organizing. Outline the body paragraphs only for an essay about problems with nonverbal communication in English. Make the categories you developed your subtopics for separate paragraphs. Add details as needed.
GRAMMAR FOR ACADEMIC PURPOSES

CONDITIONALS

(Paterson & Wedge, 2013, pp. 152-159)

Introduction

Look at sentences a to d below, spoken by a TV reporter at a scene of flooding. In which one does the reporter

1 form a theory about the past?
2 describe a situation that is always true?
3 make a prediction about the way someone will behave?
4 form a theory about the present?

a Whenever there is a period of heavy rainfall, there is a risk of flooding in the town of Flintchurch.
b If the flood barriers were higher, the houses on Weston Road would probably be secure from flooding.
c Water levels would have dropped to a safe level if the rain had stopped an hour ago.
d Unless the floodwater falls in the next half hour, the local authorities will begin to evacuate all buildings south of the river.

Conditional sentences are a useful way of exploring the relationship between cause and effect, in all types of text, from factual writing to the development of arguments.

If you heat water to a high enough temperature, it boils.

If diamonds had not been discovered in South Africa, the history of that region would have followed a less dramatic and probably more peaceful path.

Conditional sentences always contain two parts: the if clause, which expresses the condition, and a clause expressing the result. The if clause can come first or second. When it comes first, you should put a comma after it.
If you invest in research and development, you will always get a good return on your money.

You will always get a good return on your money if you invest in research and development.

This unit looks at the two types of conditional sentence: 'real' (zero and first conditionals) as in the sentence above about boiling water, and 'unreal' or 'hypothetical' (second and third conditionals) as in the sentence about South Africa.

1. Zero conditionals

Zero conditionals are 'real' conditionals, which means that they describe things that are true or are likely to happen. They normally have present tense verbs in both parts of the sentence and describe situations that always produce the same results. When or whenever (meaning 'every time that') can often replace if.

*If/ When/ Whenever I read all day, I get a headache.*

They are common in a number of subject areas including science, business and law.

*If/ When/ Whenever a small asteroid hits the Earth's atmosphere, it burns up immediately.*

*We are not able to offer refunds if/ when goods are returned without receipts.*

*Completing an annual tax return is a legal requirement if/ when you are self-employed.*

It's possible to use two past tenses together.

*If/ When scientists in those early days made discoveries that might offend religious authority, they sometimes wrote up their results in code. Some of these codes have been broken recently by computer programs.*

In a presentation, speakers occasionally use the form *What happens if...?*

*... and what happens if we apply this trend to the next decade? Well, you can immediately see from my next slide that ...*

**PRACTICE 1**  
Make complete sentences by adding *if*. Add commas and capital letters where necessary.

1. local authorities are fined they do not recycle at least 25% of domestic rubbish.
you translate poetry into another language you lose some aspects of
the original text.

phosphorus burns you expose it to air.

some travel companies guarantee to deliver your tickets within twenty
four hours you pay online.

they overtrain athletes increase the risk of injury in competition.

transport costs are reduced most produce sold is grown locally.

2. First conditionals

1 Forms and use

Like zero conditionals, first conditionals are 'real' conditionals. They typically use the
present simple tense in the if clause, and the future with will in the result clause.

If temperatures rise again, there will be further outbreaks of fire in the
forests of southern Greece.

Remember that we don't use will in the if clause of first conditionals.

If it will cut cuts costs now, Mototron will survive the recession.

First conditionals are often used for asking about or making predictions. Such predictions
can be a way of giving a warning or of offering advice.

Many small companies will lose business if they do not take
advantage of internet marketing.

If you submit your essay after the deadline, it will not be marked.

Who will be the winners in society if interest rates rise dramatically?

They may also be used for offers and guarantees.

There is no fine print. If you are not completely satisfied with any item
or service you buy from us, we will refund your money in full for up
to one year after purchase.

Notice! Be going to can be used in either parts of a first conditional sentence,
particularly in spoken English. In this example, a student is giving a presentation.
No one is saying that there aren’t conventional answers to social issues. But if we’re going to find solutions to some of these urban problems, then we’ll have to be willing to experiment.

2 Verb variations

In the result clause, you can use a modal verb instead of will. May, might, and could, for example, express a less certain outcome.

We may see some improvement in the automatic translation of web pages if there is a greater investment in academic research in the area.

Should can be used to mean “it’s the right thing to do” or, if the outcome is positive, “will probably”.

If tourists visit sacred sites, they should ensure that they are familiar with the appropriate code of dress.

A further outbreak of fighting should be avoided if both sides come to the negotiating table.

Be likely/unlikely to + verb also expresses less certain results than will/will not.

Experiments have shown that if someone in uniform approaches members of the public and instructs them to do something, they are likely to obey.

Note also that a present perfect form may be more appropriate in the if clause than the present simple.

If you have tried to get through to your bank by phone, you will be aware of the extent to which you are encouraged to resolve your problem online.

PRACTICE 2

A Correct the sentences.

1 If you will not give people regular information about the progress of the hurricane, they will begin to panic.

2 The wealth of a country will diminish if banks will not perform their function successfully.

3 If you will ask managers about the general skills levels of trainees, many will say that they are insufficient.

4 You will not know if a new project is successful if you will not evaluate its outcomes.
5 These regional conflicts will only be resolved if the two sides will enter into dialogue with each other.

B  Complete each sentence with one of the phrases in the box. One phrase is not needed.

<table>
<thead>
<tr>
<th>are likely to be</th>
<th>can increase</th>
<th>are going to lose</th>
</tr>
</thead>
<tbody>
<tr>
<td>should become</td>
<td>may suffer</td>
<td>should suffer</td>
</tr>
</tbody>
</table>

1 Stress levels __________________________ amongst staff if management fails to communicate successfully.

2 If an important species dies out, the habitat that it lives in __________________________ as well.

3 South Korea __________________________ a major world economy if its present growth rate continues.

4 If a business uses raw materials to make products, there __________________________ significant delays between obtaining those materials, and acquiring income from the selling of the product.

5 Supermarkets __________________________ business if they do not respond to the growing consumer demand for 'ethical' products.

C  Rewrite the sentences in B using will in the result clause.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
3. Provided (that), unless, etc.

A number of words can be used in the *if* clause instead of *if*, particularly in first conditional sentences.

1 Provided (that) / as long as

*Provided (that), as long as*, and the slightly less formal *providing that* and *so long as* can be used to replace *if* when the meaning is 'but only with the expectation that'.

*As long as/Provided that/if* the public continues its love affair with the internal combustion engine, the demand for oil is unlikely to fall.

*As long as/Provided that/if* you fail the exam, you will need to sit it again.

2 Unless, otherwise

Unless means 'except if'.
Apprenticeship schemes will disappear altogether unless the government takes action. 

Unless an agreement is reached at the talks in Jakarta, these unfair trade practices are likely to continue.

Otherwise means 'because if not'.

Local authorities need to ensure that urban areas have sufficient green spaces for public recreation. Otherwise, they can be accused of contributing to the build-up of urban stress.

3 On condition that, in the event that

These phrases are formal alternatives to if. They tend to be used to describe rules, or to write about legal matters.

In the event that a candidate cannot produce ID, he or she will be unable to take the exam.

Prisoners can sometimes be released early on condition that they agree to be electronically tagged.

Notice! Even if (which is also regularly used with second and third conditionals) means 'whether or not'.

The government is likely to press ahead with reforms to the House of Lords even if there are objections from its own backbenchers.

PRACTICE 3  Circle the correct option. In one sentence, both options are possible.

1 An interview process can be defended as fair unless/provided that the successful candidate satisfies the criteria listed under 'person specifications'.

2 Commuters will not leave their cars at home. Otherwise, / home unless there is a real financial incentive.

3 Accommodation is offered at no charge on condition that/provided that it is not used for commercial gain.
4 As long as/If six more volunteers cannot be found, the experiment will have to be brought to an end.

5 There will need to be a cut in the scale of fishing even if/if new stocks of fish are found.

6 We should take action against global warming not only as countries but also as individuals unless/individuals; otherwise we simply won’t produce the kind of momentum that we need.

4. Second conditionals

Form and use

Second conditionals are 'unreal' conditionals. They are called 'unreal' because they can be used to imagine what might happen if circumstances were different.

They can be an important way of exploring behaviour and testing theories.

If developing countries had a greater control of commodity prices, they would be able to plan their economies more efficiently.

What do you think would happen in the UK if the law on self-defence were changed tomorrow?

Second conditionals use a past tense in the if clause, and typically would + verb in the result clause.

If we paid in dollars instead of sterling, would we get a discount on a bulk purchase?

As with first conditionals, would can be replaced with another modal verb.

Archaeologists might make important new discoveries if they were allowed long-term access to building sites in key areas of major cities. Instead, valuable discoveries are lost as bulldozers tear up the earth.

Notice! In formal writing, were is preferred in the if clause to the singular form was.

If fast broadband access was were introduced to remote areas of the peninsula, the local population might be able to sell some of their products on the internet.
Changes to the *if* clause

The form were to + infinitive can be used in the *if* clause instead of a past simple, where it tends to make the condition even less likely to be fulfilled.

*If the business community were to replace* international trade fairs **entirely** with online video conferences, *it could lose that vital relationship when the sales team makes physical contact with retailers in the places where they live and work.*

You will also hear lecturers using this structure to evaluate options.

*If we were to incinerate* plastics on a large scale, *what waste products would we produce?*

*If it were not for/*Without + noun phrase can also be used.

*If it were not for/*Without **easy access to solar energy**, *business costs in the region would be too high.*

(= *If businesses did not have easy access to solar energy, their costs...*)

**Notice!** In spoken English the words *suppose (or supposing)* can be used, meaning 'what if'.

*Suppose/What if we applied that argument in every case? What would the result be?*

**PRACTICE 4**  **Correct the incorrect sentences. Some sentences are already correct.**

1. It would greatly benefit the regional economies if more business headquarters moved from London to cities such as Manchester.

2. If the UK would be committed to renewable forms of energy, it would benefit economically in the long-term.

3. Croker plc would benefit from the market in part-time workers if it has a more flexible recruitment policy.

4. If the government were introduced a 60% tax rate, more tax payers might use tax avoidance schemes.
If admission to the Vauxhall Art Gallery were cheaper, it might attract local office workers.

If there were not for its highly-skilled local workforce, car manufacturers could not operate in north-east England.

5. Third conditionals

Form and use

Third conditionals are also 'unreal' conditionals. They use a past perfect tense in the if clause and typically would have + past participle in the result clause. We use them to talk about what would have happened if circumstances had been different in the past.

If the advertising campaign had focused on its target audience - young professionals with disposable income - it would have produced more impressive increases in sales.

As with other conditionals, another modal verb can replace would. In this example, the use of should expresses a critical attitude.

If there had been doubts about the funding of the project, an investigation should have followed immediately. (An investigation didn't follow.)

Essay questions sometimes use third conditional questions.

What would have happened if von Stauffenberg's plot against Hitler had succeeded?

Would there have been a depression if the government had not bailed out the banks?

In spoken English, it is quite common to use one clause only of the third conditional form. Look at this example from a seminar.

A    It was clear to insiders that Northern Rock was having difficulties.

B    But no one warned the public. Why not?

C    Because (if people had been warned) the building society would have collapsed immediately!
2 Changes to the *if* clause

Removing *if* and placing *had* at the front of the sentence makes the style slightly more formal.

*Had the party changed its policy on inheritance tax, they might have won a greater share of the middle class vote.* (= *If the party had changed its policy...*)

**If it had not been for/Without + noun phrase** ... can also be used.

*If it had not been for/Without* the government's support, the private member's bill would never have been passed. (= *If the government had not supported it, the private member's bill...*)

**Notice!** Sometimes you can mix the tenses that are typically used in second or third conditional sentences.

In this example, a third conditional *if* clause is followed by a second conditional result clause because there is a present result.

*If the factory had invested in new technology, it would still be in business today.*

**PRACTICE 5**  **Correct each sentence by adding one word only.**

1 Hamlin Brothers had attended the trade fair in Bologna, they might have won more orders.

2 If the office buildings in the centre of the city had better designed to withstand earthquakes, the number of deaths would have been much lower.

3 The school might not have failed the inspection if they produced a strategy for improving exam results.

4 Max Brod followed Kafka's instructions, he would have burned the writer's unpublished work after his death.
5 If the prosecutors had found the witness seen on the CCTV clip, they might won the case.

6 If it had been for the new computerized marking system, the college could never have processed the results in time.

**RELATIVE CLAUSES**

(Paterson & Wedge, 2013, pp. 46-53)

**Introduction**

Read the adapted extract from a textbook on organization types and look at the relative clauses (1-4). Then answer the questions (a-c).

The first organization ¹which we will consider has a strong leader and a spider web structure: power and influence radiate out from the centre, so what matters is staying close to the hub, ²where decisions are taken, and staying close to the individual ³who matters most. Growing beyond a certain size is problematic: the leader ⁴who created a success, possibly from nothing, is typically reluctant to let go.

(Adapted from *Understanding Organisations* by Charles B. Handy)

**a**  How is relative clause 1 different from relative clause 2?

**b**  Which relative pronouns (in bold) could be replaced by the word that? Would it make any difference to the meaning or style?

**c**  Which relative pronoun could be removed from the text altogether? Would it make any difference to the meaning or style?

Relative clauses allow you to include additional information within a sentence in a clear and economical way. They are normally divided into two types: defining relative clauses, where the information 'defines' a noun, and is therefore essential to the meaning; and non-defining relative clauses, where the information may be useful, but the sentence would still be meaningful without it.
The National Carbon Company was the first manufacturer which recognized the potential of the dry cell battery. (defining)

Claude Monet, who spent much of his childhood in Le Havre, was a founder of French impressionist painting. (non-defining)

The relative pronouns who and whom (for people), and which (for things) can represent the subject or the object of a defining clause.

Yves Saint Laurent has been described as the designer who changed the world of women’s fashion. (= He (subject) changed the world...)

The methods which we use to learn languages vary from country to country. (= We use them (object) to...)

This unit begins by focusing on the two types of relative clause, then looks at the different relative pronouns you can use, and finishes by describing how participles work in relative clauses.

1. DEFINING RELATIVE CLAUSES

The relative pronouns which and who can be replaced with that in defining relative clauses, and can be left out altogether when they relate to the object of the sentence.

The first car which I bought was a Honda.

= The first car that I bought was a Honda.

= The first car I bought was a Honda.

However, in academic English, who is rarely changed to that when it relates to the subject.

Yves Saint Laurent has been described as the designer who (not that) changed the world of women’s fashion.

Who and which tend to be left out altogether only when they are followed by a pronoun.

The scientists who/that the Americans hired were originally from Germany.

The methods we use to learn languages vary from country to country.
Notice! Remember not to repeat the object in a defining relative clause.

We’re going to finish the presentation with the slide (that) I showed you it at the beginning.

PRACTICE 1 Rewrite the sentences to include a defining relative clause, using the information in brackets.

1 Some doubts were raised about the quality of the questionnaire. (The group used it in the research.)
2 The shoe company was based in Dundee. (It made the largest profits.)
3 The folding bicycle is selling very well. (They designed it at their workshop in York.)
4 Hewitt questioned the experience of the software engineers. (Wentworth plc recruited them.)
5 The director later wrote a memoir. (He pioneered the tracking shot.)
6 The region is crossed by two main roads. (They require substantial repairs.)
2. NON-DEFINING RELATIVE CLAUSES

Non-defining clauses are separated from the rest of the sentence by commas.

The stethoscope, *which* Rene Laennec invented in 1816, is used for listening to the body's internal sounds.

The relative pronouns *who* or *which* can refer to the object of the clause as above, or the subject.

Frank Lloyd Wright, *who* designed the Guggenheim Museum in New York, was recognized in 1991 by the American Institute of Architects as 'the greatest American architect of all time'.

In non-defining relative clauses *who* and *which* cannot be left out or changed to *that*.

**Notice!** It may help to think of the commas in non-defining relative clauses as 'protecting' the relative pronouns from being changed to *that* or being left out.

Non-defining relative clauses do not always have to come in the middle of the sentence; they can come at the end, too.

A great deal has been written about the naturalist Joy Adamson, *who famously raised a lion cub herself*.

A relative clause beginning with *which* at the end of a sentence can be useful in referring to a whole idea, rather than a specific noun.

In his speeches Martin Luther King often referred to the hope of building a new America, *which* inspired many of the audience to take up active politics.
for the first time. (which = King’s reference to the hope of building a new America)

PRACTICE 2

1 In a case of gross misconduct an employer may fire an employee immediately. (This includes theft.)

2 Bill Grayson handed his small pharmaceutical business to his daughter. (She transformed it into a multinational corporation.)

3 Turkey has land borders with eight countries. (This has frequently led to a kind of diplomatic balancing act.)

4 Vegetable oils have seen recent volatility in their spot price. (They are traded as commodities.)

5 Barbara Hepworth created Single Form for the United Nations building in New York. (Critics regarded her as a key Modernist sculptor.)
3. WHOM AND WHOSE

a. Whom is the object form of who. Because it sounds rather formal, it tends to be replaced in defining clauses by that, or to be left out completely (see section 1).

The teachers (whom/that) we interviewed all spoke well of the new staff development scheme.

In non-defining clauses, you can use who rather than whom to refer to the object, except in very formal styles.

The CEO, who we met at lunch, was optimistic about the company’s long-term prospects.

You must use whom, however, after prepositions.

Radovan Karadžić stated at his tribunal hearings that Madeleine Albright was the diplomat with whom he had held secret talks.

b. Whose + noun in defining and non-defining clauses indicates possession both by people and things (such as companies, government agencies, committees, etc. and books, plays, films, etc.).

A relative whose blood type is compatible may be able to donate a kidney if they wish to.

Buyers International is one of the companies whose opposition to the deal is well known.

An alternative to whose, when writing about things (not people), is the preposition of + which.
Alice Miller wrote an important book on the psychology of childhood, *whose title/the title of which*, *The Drama of Being a Child*, indicates the strength of her views on our early years.

An international conference on intellectual copyright, *the details of which* have not yet been announced, is likely to be held later this year.

**PRACTICE 3** Complete each sentence with one or two words. If no words are necessary, write ---.

1 New employees should have a mentor from ____________ they can obtain advice.

2 Coca-Cola is an example of a company ____________ brand has undeniably passed the worldwide recognition test.

3 All of the scientists ________________ she met expressed their doubts over the viability of cold fusion as an energy source.

4 The government has proposed an amendment to the legislation, the aim ________________ is to restrict the number of local radio stations that can be owned by one person.

5 Sharon Olwyn, ________________ the Prime Minister promoted to the Cabinet, resigned in protest over the issue in 2005.

6 All the staff on patrol at the reserve are in radio contact with the head keeper ________________ they make hourly reports.

**4. IN WHICH, FROM WHICH, TO WHOM, ETC.**

In spoken English, relative clauses may end with a preposition.

And here is a photo of the project team and the local villagers *who* we worked *with*.

In academic writing such prepositions are normally placed before the relative pronoun.

Langham (2009) argues that Alan Turing is the mathematician *to whom* computer science owes the greatest debt.

HM Prison Maze is the prison *from which* thirty-eight prisoners escaped on 25 September 1983.
Simón Bolívar, in whose honour statues have been erected in many of the towns and cities of Venezuela, played a significant role in the Latin American struggle for independence.

Notice how a determiner such as *many, each, some, neither, etc.* or a number, percentage, etc. can be placed before *of + relative pronoun.*

There are hundreds of small businesses in the area, *many of which* are interdependent.

The company has a staff of 1,200, *60% of whom* work on a part-time basis.

Two prepositional phrases that you will find useful are the way in which and the extent to which.

Most observers agree that *the way in which* Nelson Mandela handled his farmer political enemies after he took up the presidency of South Africa was exemplary. (*This avoids two that-clauses: ... agree that the way that Nelson Mandela ... *)

No one can be sure of *the extent to which* the search for water in parts of Africa will become the key source of conflict over the next fifty years.

Two other useful expressions are *at which point* and *in which case.*

A fight may break out amongst the players, at which point the referee is entitled to bring the game to a close.

(*This avoids writing ... the players, and at this point, the referee... or ... the players, and if this happens, the referee...*)

There is a risk that water levels in the reservoir may fall again, *in which case* the local authorities will have to consider a system of rationing.

**PRACTICE 4  Complete each sentence with one of the following phrases from the list. Two phrases are not needed.**

from whom  with whom  three of which
in which  to which  at which
neither of which  from whose
Several charities have criticized Westminster Council for the way it has cut funding to the shelter for homeless people in Charing Cross.

If these types of fault occur in a bridge, there are two options for repair, is cheap.

The rebel leaders the negotiations were conducted seemed unwilling to make any concessions.

A break-even analysis determines point sales cover the production costs.

John Loudon McAdam was a Scottish engineer name the road-surfacing material tarmac (or tarmacadam) is derived.

The hospital then carried out a routine check of the emergency generators, were found to be defective.

5. WHERE, WHEN, WHY, AND WHAT IN RELATIVE CLAUSES

It may sometimes be more economical to use where, when, or why instead of a preposition + which.

a. Where is common in academic English and often follows the words place (or region, country, etc.), area, situation, point, and case.

Assisted suicide is an area of medical care in which many doctors disagree.

= Assisted suicide is an area of medical care where many doctors disagree.

A situation may occur where the police need to 'kettle' or contain a group of demonstrators.

Negotiations often reach a point where one side feels it has conceded too much ground.

India is a continent where we are likely to see substantial economic growth over the next fifteen years.

Notice! In relative clauses with situation, point or case + where, where is sometimes replaced by when (without a change in meaning).
Zoologists have described cases (where) *when* a shark will attack a vulnerable member of its own species.

b. *When* is used with dates, and with words such as time, day, year, occasion, moment, and period.

  In **2004**, *when* the Sumatra-Andaman earthquake occurred, few expected it to trigger a tsunami of such overwhelming power.

  The recession began **at a time when** many British businesses were hoping for a period of extended growth.

  On **the day when** the agreement was signed, many people felt that the country would enter into a new period of long-term stability.

c. *Why* is used with the word *reason*, sometimes in the phrase *there is no reason why*.

  What are the major *reasons why* we are losing so much biodiversity?

  **There is no reason why** green technology cannot be competitive.

d. *The thing(s) which/that ...* can be replaced with *what*.

  Most of the delegates seemed to disagree with *what* the minister said. (= the things that the minister said)

  *What* we expect from a good business leader is a sense of long-term vision for the company.

**PRACTICE 5**

**A  Replace the underlined phrases with where, when, why, or what**

1 Some start-up businesses seem set on entering areas **in which** there is already a great deal of competition.

2 There are several reasons **for which** Jaguar Land Rover may close its factory at Castle Bromwich.

3 Mergers are situations **in which** staff naturally feel that their jobs may be at risk.

4 Deciding **the things that** should be included in a questionnaire is sometimes a difficult task.
5 Staff cuts at the charity became necessary after a period in which corporate and individual donations both fell.

6 There are several cities in which exhibitions of surrealist art have been particularly successful.

7 The English Civil War can be said to have started on 22 August 1642, the day on which Charles I raised his standard at Nottingham.

8 The thing that the marchers were hoping for was a swing in public opinion against the government's proposals.

B Complete the sentences with where, when, why or what.

1 March is the month ________ moles begin to appear above ground, having spent much of the winter lining their tunnels with fallen leaves.

2 Grier (2008) suggests that in the early 1990s, the company car phenomenon was the reason _______ prices in the UK car business stayed consistently higher than those in the rest of Europe.

3 Tonga is the only island nation in the region ________ formal colonization has never taken place.

4 Experts noticed that the video footage had been edited at precisely the point ________ government tanks arrived at the demonstration,

5 Patients who do not respond to hypnotherapy may fear being unable to cope with ________ will emerge during a session under hypnosis.

6 In the sentencing of rioters, most judges felt that there was no reason ________ maximum penalties should not be applied.

7 Ronald Reagan's election to the White House occurred at a moment ________ the credibility of the American presidency was at a particularly low point, according to Shah (2010).

8 The aim of the conference was to consider ________ makes one local community work better than its neighbour.

6. PARTICIPLES IN RELATIVE CLAUSES
In defining relative clauses, you may be able to improve your sentences in terms of economy and flow by using a past participle or a present participle form of the verb instead of a
relative pronoun + verb. This structure is called a 'participle clause' or a 'reduced relative clause'.

These past participles are commonly used in participle clauses: based, caused, concerned, given, involved, made, obtained, produced, required, taken, and used.

The team studied the results (which were) produced by the survey for some weeks before publishing their conclusions.

According to the police, all the people (who were) involved in the incident were interviewed at the time.

Statements (which are) taken from witnesses many weeks after the event are likely to be unreliable.

It is reasonable to question the accuracy of information (which is) obtained through torture.

These present participles are commonly used in participle clauses: arising, concerning, consisting, containing, involving, relating, requiring, resulting, and using.

The newspaper argued that it was publishing a story concerning the public interest. (= which concerned the public interest)

All the data relating to individuals is destroyed after the results of the survey are established. (= which relates to individuals .. .)

A search involving more than a thousand police officers was unable to find the missing girl. (= A search which involved ... )

Note that present participles can't be used if the relative pronoun represents the object.

The methods using which we use to learn languages vary from country to country.

Notice! Reduced relative clauses are also used with adjectives such as available, necessary, possible, responsible, and suitable: The official who was responsible for leaking the document later resigned.

PRACTICE 6 Complete each sentence with the present or past participle of one of the following verbs in bold.

<table>
<thead>
<tr>
<th>verb</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>consist</td>
<td>arise</td>
<td>use base cause give</td>
</tr>
</tbody>
</table>

1. A key issue _______________ from the report is the extent to which politicians put undue pressure on civil servants.
The speech on race by Barack Obama in Philadelphia is considered to be one of his best.

Peterson describes some of the innovative techniques by Monet to capture light in his paintings.

In his article, Ichikawa discusses five recent films on computer games.

*Paradoxes* was an art installation of eight individual paintings and sculptures.

Coughs by viral infections usually disappear within a few days.
**READING FOR SPECIFIC ACADEMIC PURPOSES**

**HUMAN NERVOUS SYSTEM**

(Adapted from Gross, 2010, pp. 49-52)

Biopsychology is the study of the biological bases, or the physiological correlates, of behaviour and is a branch of neuroscience (or the ‘brain sciences’), the study of the nervous system. Biopsychology is also sometimes referred to as ‘psychobiology’, ‘behavioural neuroscience’ and ‘physiological psychology’. But Pinel (1993) prefers the term ‘biopsychology’, because it denotes a biological approach to the study of psychology, where psychology ‘commands centre stage’. According to Pinel:

*biopsychology’s unique contribution to neuroscientific research is a knowledge of behaviour and of the methods of behavioural research … the ultimate purpose of the nervous system is to produce and control behaviour.*

In other words, biopsychologists aren’t interested in biology for its own sake, but for what it can tell them about behaviour and mental processes. In general terms:

- The kind of behaviour an animal is capable of depends very much on the kind of body it possesses; for example, humans can flap their arms as much as they like but they’ll never fly (unaided) – arms are simply not designed for flying, while wings are; however, we’re very skilled at manipulating objects (especially small ones), because that’s how our hands and fingers have developed during the course of evolution.

- The possession of a specialised body is of very little use unless the nervous system is able to control it; of course, evolution of the one usually mirrors evolution of the other.
• The kind of nervous system also determines the extent and nature of the learning a species is capable of. As you move along the phylogenetic (evolutionary) scale, from simple, one-celled amoebae, through insects, birds and mammals, to primates (including Homo sapiens), the nervous system gradually becomes more complex. At the same time, behaviour becomes increasingly the product of learning and environmental influence, rather than instinct and other innate, genetically determined factors.

AN OVERVIEW OF THE HUMAN NERVOUS SYSTEM (NS): STRUCTURE AND FUNCTION

The NS involves a number of subdivisions. Before looking at these in detail, we need to look at some of the general characteristics of the NS.

Neurons

The NS as a whole comprises approximately 100 billion (100,000,000,000) neurons, the basic structural units, or building blocks, of the NS. About 80 per cent of all neurons are found in the brain, particularly in the cerebral cortex, the topmost outer layer. Information is passed from neuron to neuron in the form of electrochemical impulses, which constitute the ‘language’ of the NS. There are three main kinds of neuron:

• sensory (or afferent), which carry information from the sense organs to the central nervous system (CNS)

• motor (or efferent), which carry information from the CNS to the muscles and glands

• interneurons (or connector), which connect neurons to other neurons and integrate the activities of sensory and motor neurons; interneurons are the most numerous and constitute about 97 per cent of the total number of neurons in the CNS.
Although no two neurons are identical, most share the same basic structure, and they work in essentially the same way.

The cell body (or soma) houses the nucleus (which contains the genetic code), the cytoplasm (which feeds the nucleus) and the other structures common to all living cells. The dendrites branch out from the cell body, and it’s through the dendrites that the neuron makes electrochemical contact with other neurons, by receiving incoming signals from neighbouring neurons. The axon is a thin cylinder of protoplasm, which projects away from the cell body and carries the signals received by the dendrites to other neurons. The myelin sheath is a white, fatty substance, which insulates the axon and speeds up the rate of conduction of signals down the axon and towards the terminal buttons (or synaptic knobs). The myelin sheath isn’t continuous but is interrupted by the nodes of Ranvier.

A nerve is a bundle of elongated axons belonging to hundreds or thousands of neurons. Twelve pairs of cranial nerves leave the brain through holes in the skull, and 31 pairs of spinal nerves leave the spinal cord through the vertebrae. Together, they constitute the nerves of the peripheral nervous system (PNS).

Communication between neurons

The terminal buttons house a number of tiny sacs, or synaptic vesicles, which contain between 10 and 100,000 molecules of a chemical messenger called a neurotransmitter. When an electrochemical impulse has passed down the axon, it arrives at a terminal button and stimulates the vesicles to discharge their contents into the minute gap between the end of the terminal button (the presynaptic membrane) and the dendrite of the receiving neuron (the post-synaptic membrane) called the synaptic cleft (or gap). The neurotransmitter molecules cross the synaptic gap and combine with special receptor sites in the postsynaptic
membrane of the dendrite of the receiving neuron. So, the term ‘synapse’ refers to the junction between neurons (although there’s no actual physical contact between them), at which signals are passed from a sending to a receiving neuron through the release of neurotransmitters.

Although this synaptic transmission is the most common form of communication between neurons (Iversen, 1979), 20 per cent of the brain is completely devoid of neurons. Instead of forming a solid mass, the neurons are interspersed with a convoluted network of fluid-filled spaces or cavities. According to Mitchell (1999), there’s a growing body of opinion that neurons can communicate with large regions of the brain by releasing chemicals into these watery spaces. This is called volume transmission, which is seen as complementary to synaptic transmission.

Questions about the text

1. What is the human nervous system made of?
2. What kinds of neurons are there?
3. How do neurons communicate?
4. What is the internal structure of neurons like?
5. What are neurotransmitters?
REAERE REECHH MTHODS IN PSYCOLOGHYH (Adapted from Bernstein & Nash, 2008, pp. 26-35)

**How do psychologists learn about people?**

Like other scientists, psychologists try to achieve four main goals in their research: to describe a phenomenon, to make predictions about it, and to introduce enough control in their research to allow them to explain the phenomenon with some degree of confidence. Five research methods have proven especially useful for gathering the evidence needed to reach each of these goals. They include naturalistic observation, case studies, surveys, correlational studies, and experiments.

**Naturalistic Observation: Watching Behavior**

Sometimes, the best way to describe behavior is through naturalistic observation, which is the process of watching without interfering as behavior occurs in the natural environment (Hoyle, Harris, & Judd, 2002). This method is especially valuable when more noticeable methods might alter the behavior you want to study. If you ask people to keep track of how often they exercise, they might begin to exercise more than usual, so their records would give a false impression of their typical behavior. Much of what we know about, say, gender differences in how children play and communicate with one another has come from psychologists’ observations in classrooms and playgrounds. Observations of adults, too, have provided valuable insights into friendships, couple communication patterns, and even into responses to terrorism (e.g., Mehl & Pennebaker, 2003a, 2003b).

Naturalistic observation can provide a lot of good information, but it is not without its problems. For one thing, people tend to act differently when they know they are being observed (and research ethics usually requires that they do know). To combat this problem,
researchers typically observe people long enough for them to get used to the situation and begin behaving more naturally. Still, observations can be incomplete or misleading if the observers are not well trained or if they report what they expect to see rather than what actually occurs. Further, even the best observational methods do not allow researchers to draw conclusions about what is causing the behavior being observed.

**Case Studies: Taking a Closer Look**

Observations are often an important part of case studies, which are intensive examinations of behavior or mental processes in a particular individual, group, or situation. Case studies can also include tests; interviews; and the analysis of letters, school transcripts, or other written records. Case studies are especially useful when studying something that is new, complex, or relatively rare (Sacks, 2002). Francine Shapiro’s EMDR treatment, for example, first attracted psychologists’ attention through case studies of its remarkable effects on her clients (Shapiro, 1989b).

Case studies have played a special role in neuropsychology, which focuses on the relationships among brain activity, thinking, and behavior. Consider the case of Dr. P., a patient described by neurologist Oliver Sacks (1985). Dr. P. was a distinguished musician who began to show odd symptoms. He could not recognize familiar people or distinguish between people and things. For instance, while he and his wife were at the neurologist’s office, Dr. P. mistook his foot for his shoe. When he rose to leave, he tried to lift off his wife’s head as if it were a hat and put it on his own head. He could not name common objects, but he could describe them. When handed a glove, for example, he said, “A continuous surface, infolded on itself. It appears to have... five outpouchings, if this is the word... a container of some sort.” Only later, when he put it on his hand, did he exclaim, “My God, it’s a glove!”
(Sacks, 1985, p. 13). Using case studies such as this one, pioneers in neuropsychology have noted the symptoms suffered by people with particular kinds of brain damage or disease (Banich, 2004). Eventually, neuropsychologists were able to tie specific disorders to certain types of injuries, poisons, and other causes. In Dr. P.'s case, it was probably a large brain tumor that caused his symptoms.

Case studies do have their limitations. They may not represent people in general, and they may contain only the evidence a particular researcher considered important (Loftus & Guyer, 2002). Nonetheless, when conducted and used with care, case studies can provide valuable raw material for further research and can serve as the testing ground for new treatments, training programs, and other applications of research (Tavris, 2004).

**Surveys: Looking at the Big Picture**

In contrast to the individual close-ups provided by case studies, surveys offer wide angle views of large groups. In surveys, researchers use interviews or questionnaires to ask people about their behavior, attitudes, beliefs, opinions, or intentions. Just as politicians and advertisers rely on opinion polls to test the popularity of policies or products, psychologists use surveys to gather descriptive data on just about any behavior or mental process, from parenting practices to sexual behavior. However, the validity of survey data depends partly on the way the survey questions are asked (Bhopal et al., 2004). In one survey study at a health clinic, patients were asked how frequently they experienced headaches, stomachaches, and other symptoms of illness (Schwarz & Scheuring, 1992). If the wording of the question suggested that most people frequently experience such symptoms, the patients said that they frequently experienced them, too. But if the wording suggested that people rarely experience these symptoms, the patients said that they experienced the symptoms
infrequently. A survey’s validity also depends on who is surveyed. If the people surveyed do not represent the views of the population you are interested in, it is easy to be misled by survey results (Gosling et al., 2004; Kraut et al., 2004). For example, if you were interested in Americans’ views on how common ethnic prejudice is, you would come to the wrong conclusion if you surveyed only African Americans or only European Americans. To get a complete picture, you would have to survey people from all ethnic groups so that each group’s opinions could be fairly represented.

Other limitations of the survey method are more difficult to avoid. For example, the American Society for Microbiology (ASM) found that 95 per cent of the U.S. adults it surveyed said that they wash their hands after using toilet facilities. However, naturalistic observations of thousands of people in public restrooms across the United States revealed that the figure is closer to 67 per cent (ASM, 2000). In other words, people may be unwilling to admit undesirable or embarrassing things about themselves, or they may say what they believe they should say about an issue. And sometimes those who respond to a survey hold views that differ from those who do not respond (Visser et al., 2000). Survey results—and the conclusions drawn from them—will be distorted to the extent that these tendencies distort people’s responses and researchers’ access to responses (Hoyle et al., 2002). Still, surveys provide an efficient way to gather large amounts of data about people’s attitudes, beliefs, or other characteristics.

**Correlational Studies: Looking for Relationships**

Data collected from naturalistic observations, case studies, and surveys provide valuable descriptions of behavior and mental processes, but they can do more than that. The data can also be examined for what they reveal about the relationships between research variables.
For example, fear surveys show that most people have fears, but correlational analysis of those surveys also shows that fear is related to age. Specifically, as people get older, they tend to have fewer fears (e.g., Kleinknecht, 1991). Correlational studies examine relationships between variables in order to describe research data more fully, to test predictions, to evaluate theories, and to suggest new hypotheses about why people think and act as they do.

Correlation refers to both the strength and the direction of the relationship between two variables. A positive correlation means that the two variables increase together or decrease together. A negative correlation means that the variables move in opposite directions. For example, James Schaefer observed 4,500 customers in 65 bars and found that the tempo of the jukebox music was negatively correlated with the rate at which the customers drank alcohol. The slower the tempo, the faster the drinking (Schaefer et al., 1988). Does this mean that Schaefer could have worn a blindfold and predicted exactly how fast people were drinking by timing the music? Could he have plugged his ears and determined the musical tempo just by watching people’s sip rates? No and no, because the accuracy of predictions made about one variable from knowing the other depends on the strength of the correlation. Only a perfect correlation between two variables would allow you to predict the exact value of one from knowledge of the other. The weaker the correlation, the less one variable can tell you about the other.

Psychologists describe the strength and direction of correlations with a number called a correlation coefficient, which can range from a high of 1.00 to a low of .00 (see the “Statistics in Psychological Research” appendix). If the correlation between two variables is positive—if they both move in the same direction—the correlation coefficient will have a plus sign in
front of it. If there is a minus sign, the correlation is negative, and the two variables will move in opposite directions. The larger the correlation coefficient, the stronger the relationship between the two variables. The strongest possible relationship is indicated by either +1.00 or -1.00. A correlation of .00 indicates that there is virtually no relationship between variables.

Correlation coefficients can help to describe the results of correlational research and evaluate hypotheses, but psychological scientists must be extremely careful when interpreting what correlations mean. The mere fact that two variables are correlated does not guarantee that one is causing an effect on the other. And even if one variable actually does cause an effect on the other, a correlation coefficient can’t tell us which variable is influencing which, or why. Consider the question of how aggression develops. Correlational studies of observational data indicate that children who are in day care for more than thirty hours a week are more aggressive than those who stay at home with a parent. Does separation from parents actually cause the heightened aggressiveness with which it is associated? It might, but psychologists must be careful about jumping to that conclusion. The most obvious explanation for the relationship found in a correlational study may not always be the correct one. Perhaps the aggressiveness seen among some children in day care has something to do with the children themselves or with what happens to them in day care, not just with separation from their parents.

One way psychologists evaluate such alternative hypotheses is to conduct further correlational studies to look for trends that support or conflict with those hypotheses. Further analysis of day-care research, for example, shows that the aggressiveness seen in pre-schoolers who spend a lot of time in day care is the exception, not the rule. Most
children don’t show any behavior problems, no matter how much time they have spent in day care. This more general trend suggests that whatever effects separation has, it may be different for different children in different settings, causing some to express aggressiveness, others to display fear, and still others to find enjoyment. As described in the chapter on human development, psychologists are exploring this possibility by examining correlations between children’s personality traits, qualities of different day-care programs, and reactions to day care (NICHD Early Child Care Research Network, 2005).

Experiments: Exploring Cause and Effect

Still, to make the best choice among alternative explanations and to confirm cause and effect relationships between research variables, psychological scientists prefer to exert some control over those variables. This kind of controlled research usually takes the form of an experiment.

In an experiment, the researcher makes a change in one variable and then observes the effect of that change on another variable, while holding all the other variables constant. The variable that is changed, or manipulated, by the experimenter is called the independent variable. The variable that is measured following this manipulation is called the dependent variable, because it depends on the independent variable (see Table 1.7). So in an experiment on the effects of TV violence, for example, the independent variable might be the amount of violence that different groups of children are allowed to watch: a lot, a little, or none at all. The experimental group is the group that is exposed to an experience of interest to the experimenter (a lot of violent
TV, for example). A group that receives no such exposure, or a differing amount of exposure, is called the **control group**. Control groups provide baselines against which to compare the performance of the experimental group. If everything about the groups is exactly the same except for exposure to some experience, then any differences between groups at the end of the experiment should be due to that experience.

**Random Variables**

In an ideal research world, everything about experimental and control groups would be the same except for their exposure to the independent variable (such as whether or not they received treatment). In the real world, however, there are always other differences between the groups that reflect random variables. **Random variables** are uncontrolled, sometimes uncontrollable, factors, such as differences in the time of year when research takes place and differences in each participant’s cultural background, personality, health, and sensitivity to stress. There are so many ways in which participants might vary from each other that it is usually impossible to form groups that are matched on all of them. Instead, experimenters simply flip a coin or use some other random process to assign each research participant to experimental or control groups. These procedures, called **random assignment**, tend to spread the effects of uncontrolled variables randomly (and probably about evenly) across groups. This minimizes the chance that they will distort the results of the experiment (Shadish, Cook, & Campbell, 2002).

**Participants’ Expectations: The Placebo Effect**

Differences in what participants think about the experimental situation can act as another confounding variable. For example, if participants expect that a treatment will help them, they may try harder to improve than those in a control group who receive no treatment or a
less impressive one. Improvement created by a participant’s expectations is called the *placebo effect*. A *placebo* (pronounced “plah-SEE-boe”) contains nothing known to be helpful, but it still produces benefits because a person believes it will do so (Stewart-Williams & Podd, 2004; Wager et al., 2004).

How can researchers estimate the strength of placebo effects in an experiment? The most common strategy is to include in the experimental design a special control group that receives only a placebo. The researchers then compare results for the experimental group, the placebo group, and a group of participants receiving no treatment. In one stop-smoking study, for example, participants in a placebo group took sugar pills that the experimenter said would help them endure the stress of giving up cigarettes (Bernstein, 1970). These participants did as well at quitting as those in the experimental group, who had received extensive treatment. This result suggested that the experimental group’s success may have been due largely to the participants’ expectations, not to the treatment methods. Some studies suggest the same conclusion about the effects of EMDR, because significant anxiety reduction has been observed in clients who get a version of the treatment that does not involve eye movements or even focusing on traumatic memories (Cahill, Carrigan, & Frueh, 1999; Cusack & Spates, 1999; Rosen, 1999). In fact, although EMDR appears to benefit some clients, its failure to outperform impressive placebo treatments (or other established methods for helping clients deal with unpleasant images) has led many researchers to conclude that EMDR should not be a first-choice treatment for anxiety-related disorders (Davidson & Parker, 2001; Lohr et al., 2003; Taylor, 2004; Taylor et al., 2003).
**Experimenter Bias** Another possible confounding variable is *experimenter bias*, the unintentional effect that researchers can exert on their own results. Robert Rosenthal (1966) was one of the first to demonstrate the power of experimenter bias. His participants were laboratory assistants who were asked to place rats in a maze. Rosenthal told some of the assistants that their rats were “maze-bright.” He told the others that their rats were “maze-dull.” In truth, both groups of rats were randomly drawn from the same population and had equal maze-learning capabilities. Still, the so-called maze-bright animals learned the maze significantly faster than the “maze-dull” ones. Why? Rosenthal concluded that the result had nothing to do with the rats and everything to do with the experimenters. He suggested that the assistants’ expectations about their rats’ supposedly superior (or inferior) capabilities caused them to slightly alter their training and handling techniques. These slight differences may have speeded (or slowed) the animals’ learning. Similarly, when giving different kinds of anxiety treatments to different groups of people, experimenters who believe that one treatment will be the best might do a slightly better job with that treatment. When the results are in, this unintentional difference might make the favored treatment look better than the rest.

To prevent experimenter bias from confounding results, experimenters often use a **double-blind design**. In this design, the participants and those giving the treatments are unaware of, or “blind” to, who is receiving a placebo, and they do not know what results are to be expected of the various treatments. Only researchers who have no direct contact with participants have this information, and they do not reveal it until the end of the experiment. Double-blind studies have not yet been conducted with EMDR, which is another reason for caution in drawing conclusions about this treatment. In summary, experiments are vital tools for examining cause-effect relationships between independent and dependent variables, but
they are also vulnerable to error. To maximize the value of their experiments, scientists try to eliminate as many confounding variables as possible. They then repeat their work to ensure consistent results and adjust their interpretation of those results to take into account the limitations or problems that remain.

**Selecting Human Participants for Research**

Visitors from another planet would be wildly mistaken if they tried to describe the typical earthling after meeting only Arnold Schwarzenegger, Michael Jackson, Madonna, and a trained seal. Psychologists, too, can be led astray if the participants they encounter in their research are not typical of the people or animals about which they want to draw conclusions. Accordingly, one of the most vital steps in scientific research is the selection of participants, a process called **sampling**. If they want to make accurate statements about the behavior and mental processes of any large group, psychologists must select a **representative sample** of participants whose characteristics mirror the rest of that group in terms of age, gender, ethnicity, cultural background, socioeconomic status, sexual orientation, disability, and the like. In theory, psychologists could draw representative samples—of people in general, of Canadians, of Florida college students, or of any other group—by choosing them at random from the entire population of interest. Doing this would require putting hundreds of thousands, perhaps millions, of names into a computer, running a program to randomly select participants, then tracking them down to invite them to take part in the research. This method would result in a truly **random sample**, because every member of the population to be studied would have an equal chance of being chosen. (Any selection procedure that does not offer this equal chance is said to result in a **biased sample**.) However, random sampling is usually too expensive and time-consuming to
be practical, so psychologists may have to find their participants in populations that are more conveniently available. The populations from which these *convenience samples* are drawn depend to some extent on the size of the researcher’s budget. They might include, for example, the students enrolled in a particular course, the students enrolled on a local campus, the students who are willing to sign up for a study, or visitors to Internet web sites or chat rooms (e.g., Nosek, Banaji, & Greenwald, 2002; Stone & Pennebaker, 2002). Ideally, this selection process will yield a sample that fairly represents the population from which it was drawn. Still, scientific researchers are obliged to limit the conclusions they draw in light of the samples they draw (Kraut et al., 2004). Because of this obligation, psychologists often conduct additional studies to determine the extent to which their initial conclusions will apply to people who differ in important ways from their original sample (APA Office of Ethnic Minority Affairs, 2000; Case & Smith, 2000; Gray-Little & Hafdahl, 2000).

**Questions about the text**

1. What are the five research methods used commonly in psychology?

2. What are the pros and cons of naturalistic observation?

3. Describe using case studies in psychology.

4. Describe the positive and negative sides of using surveys in psychological research.

5. What is correlation between two variables?

6. How is the strength of correlation described?
7. How is control used in experiments?

8. What is the placebo effect in experiments?

9. How can researchers influence their own results?
REFERENCES