UNIT 5

SOCIOLOGY

INNOVATION

Unit Description

Content: This course is designed to familiarize the student with concepts of innovation and social change.

Skills: Synthesizing Information

- Recognizing the relationship between abstract concepts and concrete information
- Recognizing the relationship between two spoken sources
- Elaborating on information
- Selecting and presenting related information from a variety of sources

Unit Requirements

  “The Innovation of Car Sharing” (online publication)
- Lectures: “Mass Media and Diffusion of Innovation”
  “Individuals as Channels of Innovation Diffusion”
- Integrated Writing Task: Writing a short report about innovation and how it was diffused
- Assignments: www.MyAcademicConnectionsLab.com
Contents

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GRAMMAR CHART: Adjective Clauses

UNIT 5 ANSWER KEY
1 PREVIEW

Go to www.MyAcademicConnectionsLab.com for Vocabulary Check.

Previewing the Academic Content, page 94

Sociology is a broad social science that covers many disciplines, such as archeology, anthropology, and linguistics. It focuses on the study of the causes and consequences of human behavior, social life, and social change. A student with a degree in sociology might pursue a career in business, social services, government, education, or medicine. In this unit, students will examine:

- how social conditions encourage innovation
- the relationship between the mass media and the diffusion of innovative products and services

Activating Background Knowledge

- Before students read and study about innovation, have them talk about their understanding of the term *innovation*.
- Examine the Key Words on page 94. This vocabulary will be useful in the activities and tasks throughout the unit.
- Discuss the following questions:
  - Apart from the invention of things, such as the light bulb or computer, what types of innovation exist in the world today?
  - What are some innovations that have materialized in their home countries in the last ten years?
  - How did innovative ideas, products, or services reach the mass population? How did these innovations personally affect the students?

Go to www.MyAcademicConnectionsLab.com for Key Words and Key Words: Practice.

Go to www.MyAcademicConnectionsLab.com for Comprehension.
Previewing the Academic Skills Focus, page 95

Highlight the purpose of this section, stated on the left. In this section students examine various pieces of information and evaluate the relationships among them. This unit focuses on strategies for:

- synthesizing information
- recognizing the relationship between abstract concepts and concrete information
- recognizing the relationship between two spoken sources
- elaborating on information
- selecting and presenting related information from a variety of sources

Review the academic skills focus: Synthesizing Information

As you examine the information in the skills section on page 95, you may want to stop and briefly discuss the definitions of the adjectives *concrete* and *abstract*:

- *Concrete* information is specific and definite rather than general or vague; it often refers to events or things in real life.
- *Abstract* concepts or ideas are based on general principles or theories rather than specific instances.

Go to www.MyAcademicConnectionsLab.com for Discussion Board.

2 BUILDING ACADEMIC READING SKILLS

Go to www.MyAcademicConnectionsLab.com for Vocabulary Check.

Highlight the purpose of this section, stated on the left. Tell students that they will learn about the relationship between abstract ideas and concrete information.

Before You Read, page 97

Students practice using key vocabulary. This vocabulary will be helpful for comprehension of the text and useful for the Integrated Writing Task.
• After students have completed Exercise 1, page 97, model the pronunciation of the Key Words. You may want to have students practice pronunciation in pairs, small groups, or as a class.
• When students have completed Exercise 2, page 97, have partners compare answers and then practice reading each of the sentences aloud.
• Circulate as students are reading aloud to monitor their pronunciation of the Key Words. Some other words that may be troublesome are:
  • prev-a-ence
  • con-sid-er-a-ble
  • col-lab-o-ra-tion

Global Reading, page 98

Students read an article about conditions that encourage innovation and discuss the abstract ideas it presents.

Examine the Key Words. This vocabulary will be helpful for comprehension of the text and useful for the Integrated Writing Task.

For the Exercise, pages 100–101:
• Read the direction line for this exercise aloud, and have students look at the handwritten example in the chart.
• Elicit from students that they will be completing the chart with main ideas from the text.
• Elicit from them that skimming is an effective strategy to use for this exercise. Students learned about skimming in Unit 1, page 6.
• Go over students’ answers to the Exercise. Where in each paragraph did they locate the answer?
Summary of the Reading


Sociologists have identified seven social conditions that create circumstances in which innovation occurs and is likely to spread.

1. Internal inconsistencies that create social stress must be perceived
   a. Inconsistencies can and have existed for long periods of time without producing stress because they were not perceived. Examples:
      • poverty
      • racial discrimination
      • political corruption
      • budget deficits
   b. Once perceived, inconsistencies generate innovation. Example: the Great Depression in North America caused the implementation of social welfare in Canada.

2. Difficulty adapting to the physical environment
   a. There is a hypothesis that significant changes in economic production are preceded by innovation in the generation of energy, usually caused by the near exhaustion of current resources. Examples:
      • In America, whales hunted to extinction caused an energy crisis; researchers developed kerosene to replace whale oil.
      • In Western Europe, the cutting of trees depleted the supply of wood; coal was used as a substitute.
      • The accumulation of greenhouse gases today may stimulate innovative energy sources.

3. Broadly defined social norms
   a. Loosely structured societies that allow norms, rules, and roles to change easily promote innovation. Example: in Western societies, emphasis on individual achievement, working for higher status, and educational success and ease of movement between social classes promote innovation.
   b. In contrast, tightly structured Masai society in Africa doesn’t foster innovation. Examples:
      • Cattle are the main food source, an indicator of economic status, and the means to purchase a bride.
      • People are less likely to accept other forms of currency; significant transactions require cattle.
4. Higher rates of replacement and succession of people
   a. New people replacing older ones bring innovation. Examples:
      • Failing companies often replace CEOs.
      • ii. Losing sports teams often replace coaches.

5. Different cultures in close contact with each other, with the following additional conditions present:
   a. Innovation should be consistent with the values of the host culture.
   b. Innovation should be material rather than ideological.
   c. Innovation should involve great numbers of people in friendly cross-cultural contact.
   d. Innovation is fostered by contact between social elites and central, rather than peripheral, elements.

6. Growth in size and density of population
   a. Small businesses provide a good example. They must innovate as they grow; failure to create change results in no growth.

7. Catastrophes and disasters
   a. Wars, floods, economic depression, and infectious diseases stimulate technological and social innovations. Examples:
      • The Asian tsunami caused early warning systems, dykes and break walls, and media-response systems to be built.
      • The United Nations, a global innovation, was created as a result of World War II.

Go to www.MyAcademicConnectionsLab.com for Key Words and Key Words: Practice.

Go to www.MyAcademicConnectionsLab.com for Reading Activities 1–4.

**Focused Reading, page 100**

In this section, students learn to recognize the relationship between abstract concepts and concrete information. Students re-examine the text they read, identifying abstract concepts and concrete information. They decide whether the concrete information supports or contradicts the abstract concepts.

Review the academic skills focus: Recognizing the Relationship between Abstract Concepts and Concrete Information.
• As you examine the information in the skills section on page 100, point out that *for example* is a common introductory expression that introduces concrete information.

• Elicit from students other words and expressions that might be used for this purpose (*for instance, to illustrate, such as, one example is, another example is*).

• Remind students that when they see these words or expressions in a text, they are likely to be followed by concrete information.

  Go to www.MyAcademicConnectionsLab.com for *Reading Activity 5*.

  Go to www.MyAcademicConnectionsLab.com for *Checkpoint 1*.

### 3 BUILDING ACADEMIC LISTENING SKILLS

Go to www.MyAcademicConnectionsLab.com for *Vocabulary Check*.

Highlight the purpose of this section, stated on the left. Tell students that they will practice recognizing the relationships of various pieces of information from spoken sources.

**Before You Listen, page 102**

Examine the Key Words on page 102. This vocabulary will be helpful for comprehension of the lecture and useful for the Integrated Writing Task.

  Go to www.MyAcademicConnectionsLab.com for *Key Words* and *Key Words: Practice*.

**Global Listening, page 103**

Students listen to a lecture about the role of the media in diffusing innovation and do activities that help them fully understand its content.
For Exercises 1 and 2, pages 103–104:

- Before you play the introduction to the lecture, you may want to have students look at the choices in Exercise 1 and ask them to predict a piece of information that might be surprising.
- Play the introduction to the lecture and have students circle the correct answer. How many students predicted correctly? On what information did they base that prediction?
- Before students complete Exercise 2, page 103, have them form small groups and look over the questions. Then play the whole lecture and have students complete Exercise 2.

Summary of the Lecture

“Mass Media and Diffusion of Innovation,” page 103 (For the complete audioscript, see Academic Connections 4, pages 189–190.)

This lecture focuses on the limitations of the mass media as a channel for the diffusion of innovation and examines how change spreads.

- **Limitations of the mass media.** We are deluged by mass media messages that try to convince us to do, buy, or change something. However, research suggests that the ability of the media to produce change is limited. Examples:
  - The printing press created a way for innovation to spread without physical contact. But in order to receive printed information, people have to know how to read. Thus the print media depend on literacy and education; if people can’t read they have no access to the innovation the media describe.
  - Radio and TV have great potential as diffusers but are also limited by their users’ lack of resources (to purchase radios and TVs) and lack of education.
  - Even in developed countries that have high literacy rates, the communication that the mass media provide is one-way. There is no opportunity for feedback from the audience; the audience can’t ask questions, get clarification, or return meaningful communication. Persuasion to change requires interaction and discussion that alters the original message. This may be why the Internet is such a powerful tool—messages can be received and discussed through the same channel.
  - The selective exposure, perception, and ability to retain information that people bring to their media exposures limit the mass media’s power to change people. People are most likely to remember what they feel positive about. The mass media are successful at intensifying or reducing the intensity of existing attitudes and
opinions, not at persuading people to change their attitudes and opinions or at creating new ones. Diffusion occurs primarily when there is reinforcement of the mass media’s message through interpersonal communication in a small group.

- **Role of the mass media.** Despite these limitations, the mass media can have a long-term effect on social change. They help to socialize people. They also help to shape the culture of knowledge, attitudes, and behavior that people bring to media exposure.

Go to www.MyAcademicConnectionsLab.com for *Listening Activities 1–4.*

**Focused Listening, page 104**

Students listen to a conversation among three classmates about the lecture and learn about how to recognize the relationship between two spoken sources.

Review the academic skills focus: Recognizing the Relationship between Two Spoken Sources.

Review the information in the skills section and ask students which they think is harder: recognizing the relationship among pieces of information from written sources or spoken sources? Why?

After students complete Exercise 1, page 104, have them compare their summaries in small groups or pairs to ensure that they have a full understanding of the content of the lecture. Then play the audio and have students complete Exercises 2–4, pages 104–105.
Summary of the Conversation, page 104

(For the complete audioscript, see Academic Connections 4, page 190.)

- **Student 1** believes that the mass media have no limitations. This student thinks TV and the Internet can change anyone’s opinion because they can reach so many people. This information is in contrast to the information in the lecture.
- **Student 2** says that if she’s not interested in what’s on TV, she doesn’t watch it. She doesn’t listen to political ads because she’s not interested in politics. This information is similar to, or provides a concrete example of, an abstract concept in the lecture.
- **Student 3** says that he’s going out, so he won’t be thinking about the lecture. He’s going to see a movie. This information is unrelated to the lecture.

Go to www.MyAcademicConnectionsLab.com for Listening Activity 5.

Go to www.MyAcademicConnectionsLab.com for Checkpoint 2.

4 BUILDING ACADEMIC WRITING SKILLS

Make sure that students are familiar with the grammar point covered in MyAcademicConnectionsLab for this unit (adjective clauses) before they begin this section. Go to page 15 in these Teacher’s Notes for the grammar chart.

Go to www.MyAcademicConnectionsLab.com for Grammar Check.

Highlight the purpose of this section, stated on the left. Tell students that they will learn how to select, elaborate on, and present information from more than one source. They will also write and present a report on innovation.

Before You Write, page 106

In this section, students listen to a short lecture about individuals as channels of diffusion. They also learn about and practice elaboration in preparation for the Integrated Writing Task.
Summary of the Lecture

“Individuals as Channels of Innovation Diffusion,” page 106 (For the complete audioscript, see Academic Connections 4, page 190.)

- Individuals can have powerful and direct effects on how others perceive innovations.
- There are two types of opinion leaders:
  - **Cosmopolitan leaders** have a very large network of friends; belong to a variety of groups; have a variety of interests; and have numerous contacts, which allows them to spread information quickly to many diverse groups in a society.
  - **Local opinion leaders** have a large number of contacts within one interest group; may belong to many groups focused on a single topic; consequently, they can reach deeply into a single community.
- Together these kinds of leaders have a great impact on the rest of the population and do not have the same limitations that mass media have.

Review the academic skills focus: Elaborating on Information, page 107.

Focused Writing, page 108

In this section, students learn about and practice selecting and presenting related information from a variety of sources in preparation for the Integrated Writing Task.

Review the academic skills focus: Selecting and Presenting Related Information from a Variety of Sources.

- Examine the information in the skills section on page 108. Point out to students that their ultimate goal, synthesizing information, greatly depends on their abilities to identify and see relationships among different pieces of information from both written and spoken sources.
- Point out that in their efforts to elaborate (see skills section on page 107), students must make certain that the detailed information they provide is relevant. One common error in elaborating is adding *too much* information that has little or no relationship to the initial idea.
Summary of the Report
“The Innovation of Car Sharing,” page 110

1. Introduction: What is car sharing and how widespread is it?
   1.1 Car sharing programs provide people the chance to rent cars for short periods of time.
   1.2 Car sharing programs combine the convenience of car ownership without the cost and reduce the number of cars on the road.
   1.3 Car sharing began in Switzerland in 1987. There are now programs in Australia, Europe, North America, and Asia.

2. Social conditions for car sharing. The increase in the number of car sharing programs may be due to several factors.
   2.1 People who are concerned about the environment and good health may use car sharing because it reduces car trips and encourages walking and biking.
   2.2 Car sharing was spread through close cultural contact between the Swiss and other Europeans.
   2.3 The spread of car sharing between the French and French Canadians shows that shared language helps transfer innovation.
   2.4 Growth in population size and density also encourages car sharing, so it is unsurprising that car sharing is popular in heavily populated cities.

3. Diffusion of car sharing. Even though car sharing programs are friendly to the environment and affordable, they are not mainstream programs yet.
   3.1 Car sharing is not popular in countries where access to the Internet is limited because most information about these programs is shared through this medium.
   3.2 Because there are not yet cosmopolitan or local opinion leaders, such as celebrities who advocate car sharing, this innovation remains much less popular than it could be.

4. Conclusion. The environmental and financial advantages of car sharing programs should ultimately make them more popular. Because diffusion of information about it is limited mostly to the Internet and there are no cosmopolitan or local opinion leaders advocating car sharing, the diffusion of information about it will be slow.

Go to www.MyAcademicConnectionsLab.com for Comprehension.

Go to www.MyAcademicConnectionsLab.com for Writing Strategy.
Integrated Writing Task, page 111

The Integrated Writing Task requires students to synthesize the information in this unit and write a report.

- Go over the Integrated Writing Task assignment on page 111.
- In preparation for the task, it might be helpful for you to do the following:
  - Review the four main parts of the sample report on page 110: introduction, social conditions for the innovation, channels of diffusion of the innovation, and conclusion. Point out to students that their reports should have these four parts and headings.
  - Go over Step 1 on page 111, calling students’ attention to the fact that this chart is similar to the one on page 109. They can use that chart as a model for completing their own charts.
- Since students may need to do some research about the innovation they chose, you may want to assign Steps 1 and 2 on page 112 for homework and have them complete Step 3 during the next class.
- Before students begin Step 3, you may also want to have them identify the topic sentences and details in each of the four paragraphs of the sample report on page 110. This would provide a good review of the structure of a paragraph.
- You may also want to review the information about using sentence structure to create coherence on page 52 of Unit 3.
- Once students have gotten feedback on their first drafts, you may want them to write the final draft as homework.
- You might also want to give students the opportunity to share their reports with one another, either through oral reading to the class or sharing in small groups.

Go to www.MyAcademicConnectionsLab.com for Internet Activity and Academic Words Puzzle.
**GRAMMAR CHART: Adjective Clauses**

<table>
<thead>
<tr>
<th>Adjective Clauses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> An adjective clause is a dependent clause that describes, identifies, or</td>
<td><strong>A steam pump is an object.</strong> + It was invented in the early</td>
<td><strong>Local opinion leaders are people.</strong> + They have significant</td>
</tr>
<tr>
<td>gives additional information about a noun or a pronoun in the main clause.</td>
<td>eighteenth century. = A steam pump is an object that / which</td>
<td>effects on how others perceive innovations. = Local opinion</td>
</tr>
<tr>
<td>An adjective clause is also called a relative clause.</td>
<td>was invented in the early eighteenth century.</td>
<td>leaders are people who / that have significant effects on how</td>
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<td></td>
<td>others perceive innovations.</td>
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<tr>
<td>A sentence with an adjective clause can</td>
<td><strong>Correct:</strong> The amphibious vehicle that was invented 200</td>
<td>Incorrect: Local opinion leaders are people who they have</td>
</tr>
<tr>
<td>be understood as a combination of two sentences.</td>
<td>years ago is still used today.</td>
<td>significant effects on how others perceive innovations.</td>
</tr>
<tr>
<td>An adjective clause uses <strong>relative pronouns</strong> to connect the independent clause</td>
<td><strong>Incorrect:</strong> The amphibious vehicle is still used today that</td>
<td><strong>Incorrect:</strong> Local opinion leaders are people who they have</td>
</tr>
<tr>
<td>to the dependent clause. These pronouns are: <strong>who, whom, which,</strong> and <strong>that.</strong></td>
<td>was invented 200 years ago.</td>
<td>significant effects on how others perceive innovations.</td>
</tr>
<tr>
<td>An adjective clause can also begin with <strong>whose, when, or where.</strong></td>
<td></td>
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<tr>
<td>• who and whom are used for people</td>
<td><strong>Correct:</strong> The amphibious vehicle that was invented 200 years</td>
<td></td>
</tr>
<tr>
<td>• which is used for things</td>
<td>ago is still used today</td>
<td></td>
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<tr>
<td>• that is used for both people and things</td>
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<tr>
<td>An adjective clause closely follows the noun it modifies.</td>
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<tr>
<td><strong>Note:</strong> Remember that a relative pronoun is the subject of the adjective</td>
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<tr>
<td>clause. Do not use a double subject.</td>
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<tr>
<td>2. Adjective clause pronouns can be used as <strong>objects of verbs.</strong> To refer to</td>
<td><strong>2.</strong> The individuals are the local opinion leaders. + I</td>
<td><strong>2.</strong> The individuals are the local opinion leaders. + I</td>
</tr>
<tr>
<td>people, use <strong>whom, who, and that</strong> as the objects of verbs in adjective clauses.</td>
<td>described them yesterday. = The individuals who(m) / that I</td>
<td>described yesterday are the local opinion leaders.</td>
</tr>
<tr>
<td><strong>Whom</strong> is used mostly in very formal English. It is often replaced with</td>
<td>described yesterday are the local opinion leaders.</td>
<td></td>
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<tr>
<td><strong>who</strong> in less formal English. <strong>That</strong> is least formal.</td>
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</tbody>
</table>
To refer to things, use **which** and **that** as the objects of verbs in adjective clauses.

A relative pronoun that serves as an object can often be omitted in speech and less formal writing.

<table>
<thead>
<tr>
<th>3. Adjective clause pronouns can be used as objects of prepositions.</th>
<th>The object was invented 200 years ago. + We discussed <em>it</em> yesterday. = The object <strong>which / that we discussed yesterday</strong> was invented 200 years ago.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>They are the local opinion leaders. + I told you about them yesterday.</strong> = They are the local opinion leaders <strong>about whom I told you</strong> yesterday.</td>
<td>The object <strong>we discussed yesterday</strong> was invented 200 years ago.</td>
</tr>
<tr>
<td></td>
<td><strong>They are the local opinion leaders about whom I told you yesterday.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>They are the local opinion leaders who(m) I told you about yesterday.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>They are the local opinion leaders I told you about yesterday.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Incorrect:</strong> They are the local opinion leaders about who I told you yesterday.</td>
</tr>
<tr>
<td></td>
<td><strong>The object was invented 200 years ago. + We looked at <em>it</em> last night.</strong> = The object <strong>at which we looked</strong> last night was invented 200 years ago.</td>
</tr>
<tr>
<td></td>
<td><strong>The object <strong>which / that we looked at</strong> last night was invented 200 years ago.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>The object we looked at</strong> last night was invented 200 years ago.</td>
</tr>
<tr>
<td></td>
<td><strong>Incorrect:</strong> They are the local opinion leaders about who I told you yesterday.</td>
</tr>
</tbody>
</table>

If the preposition comes at the beginning, only **whom** or **which** can be used.

<table>
<thead>
<tr>
<th>4. <strong>Whose</strong> can be used to show possession. It has the same meaning as other possessive pronouns used as adjectives: his, her, its, and their. <strong>Whose</strong> modifies both people and things. It cannot be omitted.</th>
<th>Scramjet is a recent invention. + We met its inventor. = Scramjet is a recent invention <strong>whose inventor we met.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>This is the museum. We saw the first steam pump there.</strong> = This is the museum <strong>where we saw the first steam pump.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>I'll never forget the day. + I first saw a</strong></td>
</tr>
<tr>
<td>adjective clause that modifies a noun of time. <em>When</em> and <em>that</em> can be omitted in this type of adjective clause.</td>
<td><em>hybrid car then (on that day)</em>. = I’ll never forget the day <em>when / that / on which</em> I first saw a hybrid car. I’ll never forget the day I first saw a hybrid car.</td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>7. The adjective clause that is necessary to identify the noun it modifies is not enclosed in commas. This type of adjective clause is called <em>identifying</em>.</td>
<td>The invention (<em>that / which</em> we talked about on <em>Friday</em>) is called a rigid airship.</td>
</tr>
<tr>
<td>The adjective clause that adds extra information and is not necessary to identify the noun it modifies is enclosed in commas. This type of adjective clause is called <em>nonidentifying</em>.</td>
<td>The rigid airship, <em>which we talked about on Friday</em>, was invented in the early 1900s.</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>• A relative pronoun can be omitted only in identifying adjective clauses. It cannot be omitted in a nonidentifying adjective clause.</td>
<td></td>
</tr>
<tr>
<td>• <em>That</em> cannot be used as a relative pronoun in a nonidentifying clause.</td>
<td></td>
</tr>
<tr>
<td><em>Which</em> can be used to refer to an entire previous idea. In more formal English, a noun is used at the beginning of a <em>which</em> clause.</td>
<td></td>
</tr>
<tr>
<td>8. An adjective clause may contain an expression of quantity with the word <em>of</em>: <em>a few of, all of, both of, each of, many of, most of, neither of, none of, several of, some of</em>, etc. Only <em>whom, which,</em> and <em>whose</em> can be used in this pattern. They follow the expression of quantity.</td>
<td><em>There have been many inventions in the twenty-first century.</em> + <em>Most of them are significant.</em> = There have been many inventions in the twenty-first century, <em>most of which</em> are significant.</td>
</tr>
<tr>
<td><em>The text mentions many famous inventors.</em> + <em>I recognize a few of them.</em> = The text mentions many famous inventors, <em>few of whom</em> I recognize.</td>
<td></td>
</tr>
<tr>
<td>9. An adjective clause can be</td>
<td>Anyone *who is interested in modern</td>
</tr>
</tbody>
</table>
shortened to an adjective phrase with no change in meaning. A phrase is a group of words that doesn’t have a subject and a verb.

To shorten an adjective clause with a form of the verb *be*, delete the relative pronoun and the verb.

Only adjective clauses that have subject pronouns (*who, which, that*) can be reduced to adjective phrases.

<table>
<thead>
<tr>
<th>inventions should see the exhibit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anyone interested in modern inventions should see the exhibit.</td>
</tr>
<tr>
<td>A hybrid car, which was invented in the 1970s, did not become an instant hit.</td>
</tr>
<tr>
<td>A hybrid car, invented in the 1970s, did not become an instant hit.</td>
</tr>
<tr>
<td>Correct: Scramjet is a recent invention whose inventor we met.</td>
</tr>
<tr>
<td>Incorrect: Scramjet is a recent invention, inventor we met.</td>
</tr>
</tbody>
</table>

10. An adjective clause that does not have a form of the verb *be* can sometimes be changed to an adjective phrase. To do this, the relative pronoun is deleted and the verb is changed to its -ing form.

Only adjective clauses that have subject pronouns (*who, which, that*) can be changed to adjective phrases.

<table>
<thead>
<tr>
<th>I’m interested in any marketing approach that involves advertising through the mass media.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m interested in any marketing approach involving advertising through the mass media.</td>
</tr>
</tbody>
</table>
UNIT 5 ANSWER KEY

1 PREVIEW

Previewing the Academic Content

Exercise 2, page 94
1. Students should notice that there are more innovations in the present day than there were in the past. They might also notice that the nature of the innovations has changed.

2. Answers will vary. Some possible answers:
   • There are more smart people today than before.
   • One major innovation stimulates others.
   • Scientists share their ideas more today than previously.
   • Today there is more mixing of people and cultures and this mix of different ideas encourages invention.
   • Necessity is the mother of invention: when people perceive a need, they develop something to fill the gap.

3. Answers will vary.

Previewing the Academic Skills Focus

Exercise 1, page 96
2. Four is an example of three.
3. They contrast.
4. They are all reasons that explain how innovation begins.
5. They are unrelated.

2 BUILDING ACADEMIC READING SKILLS

Before You Read

Exercise 1, page 97
1. d 3. g 5. e 7. b
2. f 4. a 6. h 8. c
Exercise 2, page 97
1. inconsistency
2. integrated
3. cascade
4. norm
5. latitude
6. conventional
7. elite
8. peripheral

Global Reading

Exercise 1, page 98
2. problems adapting to the physical environment
3. broadly defined social norms, rules, and role expectations
4. high rates of replacement and succession of people
5. close contact among different cultures
6. growth in population size and density
7. social catastrophe or natural disaster

Focused Reading

Exercise, page 100
1. The seven conditions for innovation are abstract concepts
2.

<table>
<thead>
<tr>
<th>Abstract Concept</th>
<th>Concrete Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. internal social inconsistencies create stress</td>
<td>Social welfare in Canada was a result of the Great Depression in North America.</td>
</tr>
<tr>
<td>2. problems adapting to the physical environment</td>
<td>Energy crises have led to the development of new energy sources. For example, after whales were hunted to near extinction, kerosene fuel was developed to replace whale oil. Coal was developed after most of the trees in Europe were cut down. Today, the accumulation of greenhouse gases has stimulated a search for alternative energy sources.</td>
</tr>
<tr>
<td>3. broadly defined social norms, rules,</td>
<td>Western societies, which emphasize</td>
</tr>
</tbody>
</table>
and role expectations | individual success, individual achievement, and working for higher status, encourage innovation. Societies that are much more tightly structured, such as that of the Masai, where cattle are the main food source and an indicator of economic status, tend not to favor innovation.

4. high rates of replacement and succession of people | Many companies replace their CEOs when business is down; many sports teams replace their coaches after too many losses.

5. close contact between / among different cultures | No concrete information.

6. growth in population size and density | Small businesses must innovate as they grow larger.

7. social catastrophe or natural disaster | The catastrophic Asian tsunami of 2004 prompted the development of new early warning systems. The United Nations was created in response to WW II.

3. Point #5 is not supported with concrete information.

4. support

5. The following expressions in the reading are used to introduce concrete information: a good example of this, for instance, is an example of, to illustrate, another example of this.

### 3 BUILDING ACADEMIC LISTENING SKILLS

#### Global Listening

**Exercise 1, page 103**

b. The influence of mass media has some limitations and is not as powerful as we might think.
Exercise 2, pages 103–104

1. Research suggests that the mass media have limited direct effects for producing change.

2. The influence of the mass media is dependent upon mass education and literacy. If people can't read or aren't educated, they can't be influenced by the written word, either on paper or in electronic format.

3. Radio and television can diffuse innovation easily because they do not require the recipients to be literate. However, lack of money or sufficient resources can limit access.

4. We need human interaction to “shape” the ideas that the mass media presents us with. Human interaction persuades us to adopt change; the mass media alone is usually not sufficient to persuade people. On the Internet, people can learn about innovations AND discuss them with others, all while using the same “channel.”

5. People pay attention to things they see / hear via the mass media only if they are already interested in them. People don’t pay attention to things they are not interested in. This is another limitation of the influence of the mass media. Thus the mass media are less successful at creating new attitudes and opinions or converting people to new attitudes or opinions than they are at reinforcing attitudes and opinions that people already have.

6. The mass media is effective at... The mass media is not successful at

| intensifying existing attitudes | creating new attitudes |
| reducing the intensity of existing attitudes | converting people to new opinions |

7. The mass media can be an agent of long-term social change, it can help socialize people, and it can shape the ideas people bring to the media.

Focused Listening

Exercises 1, 2, and 3, pages 104–105

Lecture’s main points:
The mass media is an influential channel of diffusion, but each media has some limitations. Lack of literacy and resources limit the effectiveness of the mass media at diffusing innovation. Also, the mass media (the Internet excepted), does not provide opportunities for personal interaction, which is required to change people’s attitudes towards innovation. Finally, research shows that people pay attention to mass media messages only if they are interested in the messages to begin with. If people are not interested, then the impact of the mass media is reduced. The mass media can intensify or reduce the intensity of existing attitudes, but cannot convert people to new attitudes.

Student opinions | Relationship to the main lecture:

Academic Connections 4, Teacher’s Notes UNIT 5
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<table>
<thead>
<tr>
<th>First student:</th>
<th>Similar or concrete examples, solutions to a problem, reasons why something is true, unrelated</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mass media don’t have any limitations. They are very powerful.</td>
<td>Contrasting</td>
</tr>
<tr>
<td>Second student:</td>
<td>Similar or concrete example</td>
</tr>
<tr>
<td>People don’t pay attention to what they don't want to hear. I don’t pay attention to political messages.</td>
<td></td>
</tr>
<tr>
<td>Third student:</td>
<td>Unrelated</td>
</tr>
<tr>
<td>I’m going out. Not thinking about channels of innovation diffusion.</td>
<td></td>
</tr>
<tr>
<td>Your own opinion:</td>
<td>Answers will vary.</td>
</tr>
<tr>
<td><em>Answers will vary.</em></td>
<td></td>
</tr>
</tbody>
</table>

### 4 BUILDING ACADEMIC WRITING SKILLS

#### Before You Write

**Exercise 1, page 106**

*Students might say that there are cosmopolitan leaders and local opinion leaders, and these leaders play a role in diffusing information about new innovations to the rest of the population.*

#### Exercise 2, page 106

1. Answers will vary.
2.

<table>
<thead>
<tr>
<th>Cosmopolitan Leaders</th>
<th>Local Opinion Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>have large numbers of friends and acquaintances</td>
<td>have large numbers of friends and acquaintances</td>
</tr>
<tr>
<td>have a wide variety of interests</td>
<td>are members of many groups with similar goals</td>
</tr>
<tr>
<td>are members of many groups that have different goals</td>
<td>have a deep reach into a single community</td>
</tr>
<tr>
<td>have a wide reach into many communities</td>
<td></td>
</tr>
</tbody>
</table>
3. The lecture contains mostly abstract concepts, but the professor gives concrete information when he describes the Facebook example.

Exercise 3, page 107

1. These connections allow them to have a deep reach into a single community. They can diffuse information about innovations throughout a single community quickly because they know so many people.

2. They have some advantages that the mass media do not. These advantages include the fact that they are not dependent on the literacy or education of their contacts. They can spread information through conversation, which does not require print literacy. Individual leaders can also provide interpersonal contact; they can respond directly to the questions of the rest of the population. In this way, they have the power to persuade people, or convert them to new opinions, which the mass media cannot do.
**Focused Writing**

**Exercise 2, page 108**
Yes, the author succeeded in synthesizing information from all of the sources.

**Information About Car Sharing** (from reliable Internet sources)

*Advantages*: environmentally friendly, increases use of public transit, cheaper than owning a car

*Diffusion*: worldwide—in Asia, Australia, Europe, North America, and the United Kingdom

*Mass media as a channel*: on the Internet; presence not strong in other forms of mass media

*Individuals as channels*: group of people involved, no key cosmopolitan or local opinion leader; need for individual leader to champion the cause

<table>
<thead>
<tr>
<th>Information source</th>
<th>Piece of information</th>
<th>Relationship to car sharing</th>
<th>Included in the Report? (√ or X)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Textbook reading:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Social Conditions That Encourage Innovation</td>
<td>1. internal social inconsistencies that create stress</td>
<td>not related</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>2. problems adapting to the physical environment</td>
<td>support</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>3. broadly defined social norms</td>
<td>not related</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>4. high rates of succession or replacement</td>
<td>not related</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5. close contact between / among cultures</td>
<td>support</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>6. growth in population size and density</td>
<td>support</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>7. social catastrophe or natural disaster</td>
<td>not related</td>
<td>X</td>
</tr>
<tr>
<td><strong>Lecture: Mass Media and Diffusion of Innovation</strong></td>
<td>mass media has limits dependent on literacy no human interaction can’t convert people to new opinions</td>
<td>support</td>
<td>√</td>
</tr>
<tr>
<td><strong>Lecture: Individuals as Channels of Innovation Diffusion</strong></td>
<td>Individuals can have direct effects cosmopolitan leaders local opinion leaders</td>
<td>support</td>
<td>√</td>
</tr>
</tbody>
</table>