Innovation

> *'More value is created through innovation than through invention.'*
>
> Hugh Molotsi, U.S. innovator, entrepreneur and author

Unit overview

1.1 > **An innovative approach**
Lesson outcome: Learners can use vocabulary related to innovation.

Video: Innovation Director, Haiyan Zhang
Vocabulary: Innovation
Project: The impact of technology

1.2 > **How innovators think**
Lesson outcome: Learners can correctly use or omit articles where necessary.

Reading: Understanding what makes inventors tick
Grammar: Articles: *a/an*, *the*, no article
Writing: An intranet post on creativity

1.3 > **Communication skills:** Pitching your ideas
Lesson outcome: Learners can use persuasive techniques to effectively pitch their ideas.

Preparation: Pitching an idea for a magazine section
Roleplay: A pitch
Video: Pitching your ideas

1.4 > **Business skills:** Engaging presentations
Lesson outcome: Learners can use a range of strategies and expressions for making high-impact openings and conclusions to presentations.

Listening: Presentation by a senior sales director
Useful language: Phrases for presenting
Task: Opening and closing a presentation

1.5 > **Writing:** Investment research
Lesson outcome: Learners can write a research report that analyses a business opportunity, and can use topic sentences and cohesion to structure paragraphs.

Model text: Research report
Useful language: Topic sentences and cohesion
Grammar: Substitution of nouns and noun phrases
Task: Write a research report based on a SWOT analysis

Lesson outcome   Learners can use vocabulary related to innovation.

Lead-in

1 **Discuss these questions.**

1 Who is responsible for innovation in your organisation or an organisation you know?
2 What kind of technological innovations have you heard about recently?
3 What innovations could help people who are elderly, sick, disabled or disadvantaged?

BBC VIDEO

2 ▶ 1.1.1 **Watch the video featuring Haiyan Zhang, Innovation Director at Microsoft Research, and answer the questions.**

1 Where is Haiyan based in her current job?
2 What is her first top tip for getting a job in technology?
3 What does she recommend doing when you are faced with a new challenge?

3 **Are these sentences** *true* **(T) or** *false* **(F)? Watch the video again to check your answers.**

1 Haiyan gets her best ideas when she's hanging out with her work colleagues.
2 She's interested in innovations that make a difference in people's lives.
3 She's worked as a teacher, a software engineer and a consultant.
4 When she refers to her 'old XT', she means the video game she used to play as a child.
5 Project Fizzyo is a gadget that enables people with cystic fibrosis to control a TV using their breathing.
6 The Emma Watch has been designed to help a person with the symptoms of Parkinson's disease.
7 One of Haiyan's tips is to find people with similar interests who you can talk to and come up with ideas together.
8 Haiyan's ambition is for her and her team to help a million people in the world.
9 As a woman, Haiyan found it difficult to get into technology, but met people who helped her.
10 Her advice to women is, even if you're unsure what to say in a meeting, it's best to speak up.

T Teacher's resources: extra activities

T Teacher's resources: alternative video and extra activities

4 **Work in pairs or small groups. Discuss these questions.**

1 How did Haiyan overcome the problem of being one of only a few women studying computer science and breaking the glass ceiling?
2 How easy is it for women to get into technology in your country/region?

Vocabulary   **Innovation**

5A **Match the words and phrases in the box with the definitions.**

code   gadget
high-tech   innovator
insight   prototype
researcher   unorthodox
well thought out

1 someone who introduces changes and new ideas
2 write computer programs
3 planned and organised carefully
4 a sudden, clear understanding of something or part of something, especially a complicated situation or idea
5 the first form of a new design, or a model used to test the design before production
6 a small, useful and cleverly designed machine or tool
7 different from what is usual or accepted by most people
8 someone who studies a subject in detail in order to discover new facts or test new ideas
9 using the most modern machines and methods in industry or business

B **Look at the verbs and adjectives. Which one(s) collocate(s) with:** *problem*, *solution*, **both** *problem* **and** *solution*?

address   digital   face   out of date   overcome   tackle   unorthodox   well thought out

C **What word, derived from** *innovation* **collocates with all the words in the box?**

approach   idea   product   solution   technology   thinking

6 **Match 1–9 with a–i to complete the phrasal and prepositional verbs related to innovation. Then answer the questions with a partner.**

1 Can you think of a time when you **got**
2 When was the last time you **tried**
3 What kind of gadgets do some people like **tinkering**
4 What do you do when you're not sure how to **go**
5 What kind of software do you need to **read**
6 If you didn't copyright a great idea, what would happen once it **caught**
7 How did you first **get**
8 Can you think of a brilliant idea that you wouldn't have **dreamt**
9 What's the best way for innovators to **come**

a **up with** practical solutions to real life problems?
b **into** computers or computer games when you were a child?
c **on**? Has anyone ever copied one of your ideas?
d **about** trying to solve a problem? Who do you ask first for help?
e **up** in a million years, but wish you had?
f **with**? Electrical goods, phones, domestic appliances, etc.?
g **up on** at your place of work or study?
h **out** a prototype to see if an idea actually worked?
i **round** a tricky problem? How did you or your team solve it?

7 **Choose the correct option in italics to complete the statements. Then discuss the statements with your partner.**

1 If I *come up with / read up on* something challenging, I *get into it / catch on* more.
2 If senior management lead by example, it's more likely that *innovator / innovative* thinking will be present at every level of a company.
3 There's always a gap between an innovative *prototype / approach* and everyday business. People get frustrated if they can't deliver tangible results every day.
4 Their manufacturing methods are hopelessly *unorthodox / out of date*.
5 *Researchers / Innovations* are only as good as the problem they *tinker with / overcome*.

T Teacher's resources: extra activities

PROJECT: The impact of technology

8A **Work in pairs. How could you make an impact on these people's lives using innovative technology?**

a child with a medical condition
people with mobility issues   the homeless
someone you know with a disability
an elderly person living alone

B **Choose one of your ideas from Exercise 8A and discuss the questions to check if it is a genuine innovation.**

• How is it innovative? Is it faster or better than existing products/services?
• Is it cheaper than existing products/services? Is it accessible to everyone?

C **Share your innovation idea with the class, and explain how it will benefit your local community. As you listen to others, ask the questions.**

• How will the innovation help a specific person or group in the community?
• Will other people be able to benefit from the innovation? How easy will it be to produce?

D **As a class, rate the different innovations that you heard about.**

Self-assessment
• How successfully have you achieved the lesson outcome? Give yourself a score from 0 (I need more practice) to 5 (I know this well).
• Go to My Self-assessment in MyEnglishLab to reflect on what you have learnt.

Lesson outcome

Learners can correctly use or omit articles where necessary.

Lead-in 1 **Work in small groups. Discuss these questions.**

1 What is a 'Eureka!' moment? Can you think of examples from history?
2 When you need to be creative or think of a solution, what do you do?

Reading 2 **Read the article and tick the ideas that are expressed in it.**

1 There are two types of creative thinking: divergent thinking and cognitive flexibility, which help us to reorganise our ideas and make connections.
2 Creative people can be annoying at work, as they often need time to think over an idea.
3 According to Dr Carson, when we are creative, our cognitive filters relax temporarily and allow ideas that are in the back of our mind to come forward.
4 Gary Klein says that businesses should always encourage uncertainty and risk-taking at work.

FT

Understanding what makes inventors tick

Technology and industry are increasingly reliant on innovation and are eager to support creative individuals. This can be frustrating when the process of innovation goes against the grain of businesses that demand
5 productivity and efficiency.

Two qualities that define creativity are divergent thinking — thinking beyond normal boundaries — and cognitive flexibility, the capacity to restructure ideas and see connections. While most of us look for conventional
10 answers, people with these qualities risk going beyond what is familiar. Understanding their unique ways of thinking is essential to getting the best out of them. Science has found links between highly creative, healthy people and individuals with schizophrenia and bipolar disorder.
15 Dr Shelley Carson, a lecturer in psychology at Harvard University, says creativity and schizotypal personality features often go hand in hand because of cognitive disinhibition.

'They lack [cognitive] filters which the rest of us have
20 for social appropriateness. Cognitive disinhibition is also likely at the heart of what we think of as the "aha!" experience. During moments of insight, cognitive filters relax momentarily and allow ideas that are on the brain's back burners to leap forward into conscious awareness.'
25 Her ideas are supported by research at the Karolinska Institute in Sweden, which has shown that the dopamine

system in the brains of healthy, highly creative people is similar to that of people with
30 schizophrenia.

Dopamine receptor genes are linked to divergent thinking, inherent in creativity and also associated with psychotic
35 thoughts. Both groups have fewer D2-type dopamine receptors in the thalamus, the brain's filtering system. This enables a flow of information from the thalamus to the frontal lobes, where thoughts
40 become constructive.

Dr Carson says novel ideas result from a combination of high IQ, a capacity to hold many ideas in mind, and cognitive flexibility.

Gary Klein, a cognitive psychologist, believes companies have much to learn in facilitating creativity.
45 If businesses are to encourage innovation, they need to tolerate a degree of uncertainty. Managers should ask: 'What are we doing that's getting in the way of innovation?'

Strictly adhering to a plan restricts the creative
50 process. Klein says: 'If you want to kill a creative idea, have an organisation that's very hierarchical. It only takes one person in the chain to kill an idea.'

Great minds: Michelangelo

3 **Read the article again and choose the correct option.**

1 It's important for employers to understand how creative individuals think in order to
  a optimise their contribution in the workplace.
  b turn their brilliant ideas into maximum profits.
2 Having a certain degree of cognitive disinhibition in social situations is common in
  a highly creative types and individuals with certain mental disorders.
  b people who are less able to block out extraneous information.
3 This cognitive disinhibition is probably key during a moment of insight, or when we
  a fall over accidently and hit our head.
  b suddenly have an innovative idea.

4 Dopamine receptor genes are associated with creative thinking, but they are also linked to
  a the brain having disturbing, psychotic thoughts.
  b the frontal lobes of the brain, where our thoughts become useful.
5 Dr Carson says original ideas result from being highly intelligent, being able to
  a keep different ideas in your head, and being mentally flexible.
  b think of great ideas, and being aware of your thought processes.
6 Psychologist Gary Klein says managers should
  a not get in the way of innovative people, but try to stick to company plans.
  b encourage innovation by putting up with a certain level of uncertainty.

4 **Work in pairs or small groups. Discuss these questions.**

1 Give examples of when you have been at your most creative.
2 Why is it important for industry to support creative individuals?
3 Do you agree that the more hierarchical an organisation is, the less creative it is?

T Teacher's resources: extra activities

➔ **page 112** Spoken English

Grammar Articles: *a/an*, *the*, no article

5 **Look at the article in Exercise 2 again and find examples that match these rules.**

1 We use *a/an* with singular countable nouns.
2 We use *a/an* when talking about people's jobs.
3 We don't use *a/an* with plural nouns or uncountable or abstract nouns.
4 We use *the* when we know which thing we are talking about because it is unique.
5 We use *the* when we have referred to something before.
6 We don't usually use articles before names of people, places and most countries.
7 We use *the* with superlative forms.

➔ **page 116** See Grammar reference: Articles: *a/an*, *the*, no article

6 **Look at each underlined noun in the article in Exercise 2. Are the words countable or uncountable or both?**

7 **Complete the follow-up to the article with *a/an*, *the* or no article (Ø).**

¹_____ highly creative people both intrigue and irritate us. We admire ²_____ minds of people such as ³_____ Steve Jobs and Michelangelo, marvel at their achievements, but may get tired of their personalities, which can be egotistical and moody.

⁴_____ creative people can be enthused about ⁵_____ project, only to lose interest as their attention shifts elsewhere. They need time to think about ⁶_____ idea, which makes them appear to be doing very little. In their own time zone, they are often late or forget ⁷_____ meetings, to ⁸_____ annoyance of managers.

T Teacher's resources: extra activities

Writing 8A **Your CEO recently attended a creativity and innovation course. She has written to you and other managers in your organisation. Read the extract from her email.**

✉ ◂

I would love to learn more about your creative abilities! Could you please share posts explaining what you understand to be creativity in the workplace and describing a time when you had to be creative?

B **Write a response of 150–180 words as a post on the company's intranet. When you have finished, check your post for correct use of articles.**

Self-assessment

• How successfully have you achieved the lesson outcome? Give yourself a score from 0 (I need more practice) to 5 (I know this well).
• Go to My Self-assessment in MyEnglishLab to reflect on what you have learnt.

Pitching your ideas

Lesson outcome — Learners can use persuasive techniques to effectively pitch their ideas.

3 Read the email from James Campbell, *Lifestyle*'s Editor-in-Chief, and one journalist's idea. Would it make a good section for the magazine? Why / Why not?

From: James Campbell ✉ ◀
Subject: Ideas wanted

Can you all come to our next editorial meeting with ideas for a new section? Keep it brief! I'd like each pitch to be no more than two minutes. Please come with a short description of the concept. Say why this section should be in the magazine and why it will appeal to our target audience.

Idea for a regular section
- short, snappy product reviews of the latest cool gadgets and personal technology
- visually attractive, high-quality images of products
- vary the theme of the section, e.g. top gadgets for under £50, top gadgets for travel, etc.
- include a 'buy it' button and make a commission on sales.

Roleplay **4A** Imagine you need to pitch the idea in Exercise 3 to James Campbell. Prepare a two-minute pitch. Include the points mentioned in James's email. Think of a title for your section.

B Work in pairs or small groups and take turns to make your pitch.

C In your pairs or groups, discuss these questions.
1 What did you struggle with most when making your pitch? 2 What did you do best?

VIDEO **5A** ▶ 1.3.1 Watch Yvonne Williams, a *Lifestyle* magazine journalist, making her pitch at an editorial meeting. Answer the questions.
1 How effective was Yvonne's pitch?
2 Was Yvonne's body language confident? See the examples in Exercise 1C.
3 Did she have a good speaking voice? See the examples in Exercise 1C.
4 How did she make the editors feel part of the process?
5 What techniques would you use from this pitch? Why?

B How appropriate would Yvonne's approach be where you work or study?

6 Match the words and phrases in bold from the video (1–7) with the definitions (a–g).
1 Short, snappy product reviews written in a fun, **upbeat** style …
2 … with an image or video of each product, all very visually **appealing**.
3 … or best **gizmos** for the home …
4 You know, something to win over the less **tech-savvy**.
5 We can ditch the **jargon** for straightforward, easy-to-understand language.
6 … the really great thing about this section is we can **monetise** it.
7 … these are **unbiased**, trustworthy reviews.

a attractive or interesting
b words and phrases used by people in the same profession that are difficult for other people to understand
c cheerful and making you feel that good things will happen
d make money from people who visit a website, for example by encouraging them to buy things
e fair, independent and not influenced by others
f having practical knowledge and ability about technology
g small pieces of equipment (synonym *gadgets*)

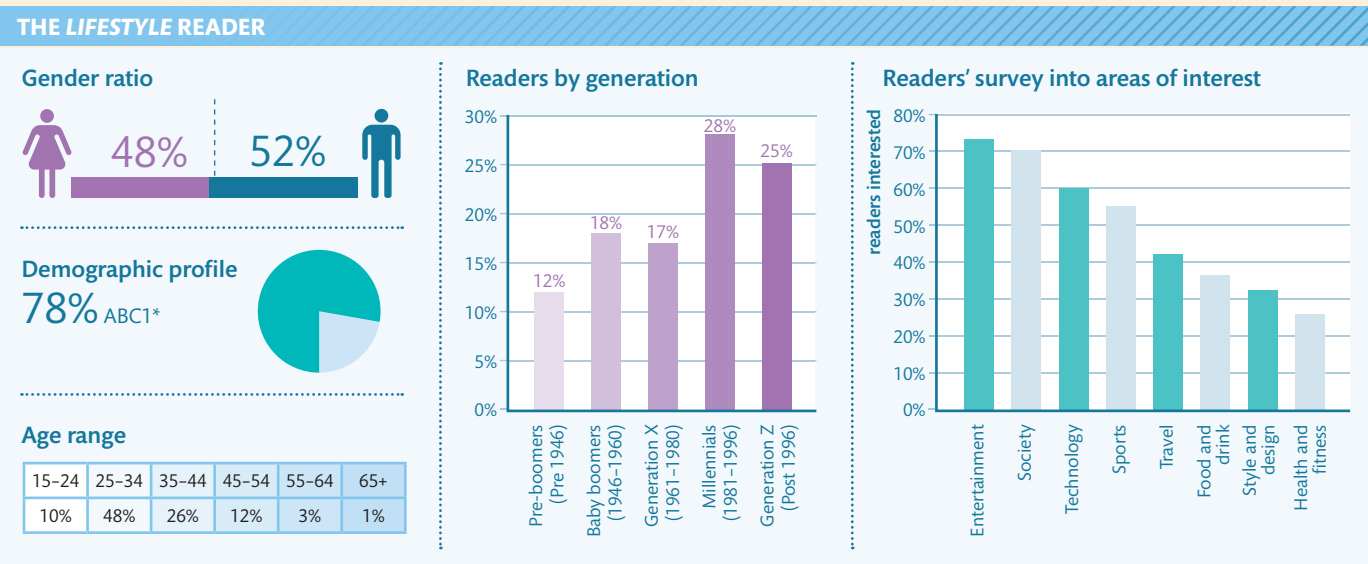**T** Teacher's resources: extra activities

Lead-in

1A Read the definition and look at the photo. What is the person standing doing?

> **pitch** try to persuade someone to do business with you, buy something, etc.

B Do you ever have to pitch ideas to people where you work or study? Who to? What about?

C Read some persuasive techniques for pitching. In what other ways can a speaker be persuasive?
- use confident body language (e.g. posture, eye contact with audience, hand gestures, facial expressions)
- have a good speaking voice (e.g. sound enthusiastic, vary your pace)
- demonstrate knowledge/expertise

Preparation
Pitching an idea for a magazine section

2 *Lifestyle* is an online magazine. Look at the profile of its readership. Would you fit the target audience?

THE *LIFESTYLE* READER

Gender ratio
👩 48% 52% 👨

Demographic profile
78% ABC1*

Readers by generation
Pre-boomers (Pre 1946)	Baby boomers (1946–1960)	Generation X (1961–1980)	Millennials (1981–1996)	Generation Z (Post 1996)
12%	18%	17%	28%	25%

Readers' survey into areas of interest
(Entertainment, Society, Technology, Sports, Travel, Food and drink, Style and design, Health and fitness)

Age range
15–24	25–34	35–44	45–54	55–64	65+
10%	48%	26%	12%	3%	1%

*ABC1 is a UK demographic classification referring to the middle classes

Reflection

7A Write your conclusions from this lesson in the table. Look again at Exercise 1C to help you if necessary.

	Pros	Cons
My approach to the pitch		
Approach used in the video		

B Compare your reflections in pairs or small groups.

Self-assessment
- How successfully have you achieved the lesson outcome? Give yourself a score from 0 (I need more practice) to 5 (I know this well).
- Go to My Self-assessment in MyEnglishLab to reflect on what you have learnt.

Lesson outcome

Learners can use a range of strategies and expressions for making high-impact openings and conclusions to presentations.

Lead-in

1A What types of presentations have you delivered in the past? How easy did you find it to engage your audiences? Why was that?

B What can presenters do to make the information they communicate as engaging and memorable as possible?

2A Read the short article on the psychology of learning on page 124 and answer the questions.

1 What is the Primacy and Recency effect?
2 How can it be applied to different work environments?
3 How can understanding the effect help us to present in a more engaging way?

B The article suggests that presenters can learn a range of techniques to open and close presentations engagingly. Based on your experience, which techniques do you think are effective?

Listening

3 ◀ 1.01 Listen to the opening of a presentation by a senior sales director of a multinational electronics retailer. He is presenting to his store directors at a management meeting.

1 What is unusual about the way the director begins his presentation?
2 What did customer feedback suggest the in-store staff should do? Why?
3 What is the purpose of the rest of the presentation?

4 ◀ 1.02 Listen to the close of the presentation.

1 What action plan has been agreed?   2 What is the main measure of success?

5 With a partner, discuss what you personally liked and did not like about the opening and close of the presentation, and why. Overall, how effective do you think the presentation was?

Useful language

6A Complete the gaps in the table (1–10) with the recording extracts (a–j).

a Before I show you, what do you think it will be?
b So how will we build a new culture?
c Today, I want to do something a little bit different and begin my presentation with some feedback.
d I'm convinced that you can succeed in delivering store success.
e The issue is not about trying harder but more about thinking differently.
f It's really amazing feedback.
g We all want to build an amazing culture.
h We really have to transition the culture more to our customers' needs.
i Let me read out this customer feedback for you; it's great.
j Have a quick chat to the person next to you. I give you thirty seconds.

General techniques for engaging an audience	
Departing from convention	1_____ Let me close by asking an unusual question. What was the main topic today?
Challenging assumptions	The problem is not the customer. The problem is us. 2_____
Creating a sense of urgency	If we don't act quickly, we won't have any customers. 3_____
Building rapport	I believe we share a common ambition. 4_____
Awakening curiosity with questions	What's the most common customer complaint in business today? 5_____
Getting the audience to talk to one another	Can you discuss these two questions with your neighbour for three minutes? 6_____
Communicating optimism and confidence	There's little doubt in my mind that we will succeed. 7_____
Quoting interesting data	Have a look at these statistics published last month in a leading magazine. 8_____
Using rhetorical questions	So how do we find out what they need? 9_____
Using powerful vocabulary	In fact, that's totally wrong. It's an incredible achievement. 10_____

B In pairs, discuss these questions about the Useful language table.

1 Which general techniques do you think are effective and easy to use? Why?
2 What are the advantages and disadvantages of getting audience members to talk to one another during a presentation?
3 When can rhetorical questions be particularly effective?
4 In which contexts might more neutral language engage an audience more effectively than powerful vocabulary?

T Teacher's resources: extra activities

➤TASK

7A Read the professional context on page 124.

B Work in pairs. Plan the opening (3 mins) and close (2 mins) of your presentation using the techniques and language in this lesson. Include the following information:

Opening	**Close**
Your name and position in the company	A summary of the main objective
The objective of the presentation	Opportunities for further information
The content of the main presentation	Your contact details
The timing of the presentation	Thanks

C When you are ready, practise your opening and close with your partner until you feel confident. Then form groups and present to others. When you have finished, give feedback on: the overall clarity and impact of the presentation, which techniques studied in the lesson were used and how effective the techniques were in engaging the audience with the key messages.

Self-assessment

• How successfully have you achieved the lesson outcome? Give yourself a score from 0 (I need more practice) to 5 (I know this well).
• Go to My Self-assessment in MyEnglishLab to reflect on what you have learnt.

Lesson outcome	Learners can write a research report that analyses a business opportunity, and can use topic sentences and cohesion to structure paragraphs.

Lead-in

1 **Read the research report on page 136. Decide if these statements are *true* (T) or *false* (F).**

1 The writer is a researcher for a venture capital company. The reader will be a senior manager who makes the investment decisions.

2 In the main part of the report, the structure is:
paragraph 4 – strengths;
paragraph 5 – weaknesses;
paragraph 6 – opportunities and threats.

3 The SWOT analysis is like a summary of the whole report.

2 **Work in small groups. Write two follow-up questions you want to ask the academics or the web development company about the project discussed in the report.**

Useful language

3 **Discuss these questions, referring to the report on page 136 and the Useful language box.**

1 **Vocabulary** Do you know the meaning of the items in the Vocabulary box?

2 **Topic sentences** Look at the first sentence in each of the seven paragraphs in the report. Is it always a topic sentence as defined in the box?

3 **Cohesion: linking words** In paragraphs 4–6 of the report, find:

a linking words used to make a list

b a linking phrase for contrast

c a conjunction that is a synonym for *although*

4 **Cohesion: avoiding and using repetition** In the report:

a Find repetition of nouns used earlier, because using the pronoun *they* could be confusing. (para 1)

b Find a synonym that avoids repeating a word already used twice. (para 1)

c What does the word *this* refer to? (para 2)

d What does the word *this* refer to? (para 3)

e What does the word *ones* refer to? (para 4)

f Find a noun used right at the beginning of the paragraph that is repeated later, just for clarity. It is not needed grammatically the second time. (para 4)

g Find a place where a verb is changed into a noun to avoid repetition. (para 5)

h What does the word *here* refer to? (para 6)

Vocabulary
barrier to entry   have a track record   hook somebody   leverage something   risk/reward   scalable   showcase a concept   UX (= user experience)
Topic sentences
Most paragraphs begin with a topic sentence that introduces and summarises one main idea. Other sentences provide more detail. However, some paragraphs have a different internal structure, for example a contrast between two ideas.
Cohesion: linking words
giving a supporting point: *in addition, furthermore*; cause: *because, due to*; result: *so, therefore*; contrast: *whereas, while, on the other hand*; concession: *but, however*; purpose: *so, so that, to, in order to*; time: *when, before, after, during*
Cohesion: avoiding repetition
Use a synonym: *figure/percentage, problem/issue, global/worldwide* Use a pronoun to refer back: *it, they, this, these* Use a determiner to avoid repeating a word or to omit words: *many, some, none, each, both, either, one* Change a verb into a noun (or vice versa): *we discussed … / the discussion was …*
Cohesion: using repetition
Use the same noun again if it helps clarity. A pronoun like *it* that refers back is potentially confusing if it can refer to two different things.

4 **Read the report on page 136 again. Underline any vocabulary or phrases that you would find useful in writing a research report on a start-up company.**

T Teacher's resources: extra activities

L The report contains examples of substitution of nouns and noun phrases. Go to MyEnglishLab for optional grammar work.

› TASK

5A **Work in pairs. Turn to page 136 and study the SWOT analysis and notes. Check that you understand everything. Can you add a few details of your own?**

B **You are the person in the venture capital company who prepared the SWOT analysis and notes. Write the full report in around 400 words.**

C **Exchange reports with your partner. Do they have a similar structure? Did you both include a good range of language from Exercise 3? Did your partner add any extra information?**

Self-assessment	• How successfully have you achieved the lesson outcome? Give yourself a score from 0 (I need more practice) to 5 (I know this well). • Go to My Self-assessment in MyEnglishLab to reflect on what you have learnt.