

UNIT 1 > Innovation

Lesson 1.1 An innovative approach



VIDEO

A ▶ 1.1.1 Watch the video featuring Haiyan Zhang again and complete the sentences according to what she says.

- 1 We have a number of different research areas all the way from hard-core _____, programming languages to looking at holograms and virtual reality.
 a computing b computer science c computational
- 2 Computing might be _____ or might be biological in nature, but it's all thinking about computation.
 a silicon chips b silicon bits c software tips
- 3 I became a software engineer in Toronto, and then I decided to go over to Italy to study design, which took me to San Francisco to be an _____.
 a innovative engineer b innovation consultant c innovative consultant
- 4 It's been a lot of fun and I've _____ chased that, that love.
 a just kind of b really just c just sort of
- 5 So this is Project Arena. [They] are a set of physical blocks that teach _____ how to code.
 a blind kids b the visually-impaired c sight-impaired kids
- 6 And this is Project Fizzyo*, where we've got a cystic fibrosis breathing _____ that turns your breath into controllers for a video game.
 a gadget and a device b device and a remote control c device and a gadget
- 7 And finally we have a prototype for the Emma Watch. So this was developed for the *Big Life Fix* and it's a _____.
 a vibrating watch b vibration clock c breathing watch
- 8 I love everything about playing with technology, all the way from just tinkering with it, putting, you know, soldering** wires together, _____ to having ...
 a writing software b writing code c writing computer code
- 9 Gain insight: so really get to _____ the problem, either through reading papers, articles or talking to the real people who are facing this problem.
 a the heart of b the core of c at heart
- 10 Given the resources that you have, how can you create the biggest bang _____?
 a for your luck b for a buck*** c for your buck***

**Fizzyo* (=physio) = abbreviation of *physiotherapy*

***solder* = a soft metal, which can be melted and used to join two metal surfaces, wires, etc.

****buck* = US dollar

B ▶ 1.1.1 Watch part of the video again from 2:23 and complete the script. Write between two and four words in each gap.

If you want to get into my world, I've got ¹_____ for you.

- Play with technology: so get into coding, tinkering ²_____, just start getting your ³_____.
- Find like-minded people: so find the people that you ⁴_____, that share your interests and maybe you can ⁵_____ and create even ⁶_____.
- Go tackle the big challenges: so go find the big problems to ⁷_____. There are lots of them right now and in the future, and try to ⁸_____.

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Vocabulary C Complete the passages about innovation with the words in the box.

come gadgets high-tech innovation innovative innovator
insight overcome researchers tackle unorthodox

- 1 Amazon's internal website features a virtual idea box. Just like a suggestion box, this gives employees the opportunity to submit any ideas. For example, software engineer Charlie Ward simply _____ up with the idea that there should be free shipping, which was later developed into the successful Prime programme.
- 2 Promises and benefits of Artificial Intelligence and computing technologies clearly come with risks, including threats to privacy, public safety, jobs and the security of nations. Universities need to ensure _____ fluency for those in every subject area.
- 3 It's not easy to _____ the problem of handling health data of individuals and integrating health devices or _____ into a profitable business. Various companies have tried to _____ this but without much success.
- 4 If a company's people cannot communicate the how, why and what of _____ to each other, the chances of progress are low. In the lab, new ideas may turn out to be perfectly possible. The head of R&D will understand the _____ in the team and vice versa. The trouble starts when they try to transfer their ideas to the rest of the company.
- 5 Intuit take an _____ approach to encouraging _____ thinking: a 'failure award' is awarded to the team whose idea ultimately failed but provided valuable _____ into learning. Hugh Molotsi, _____ and Vice President of the Intuit Labs Incubator believes in making failure acceptable.

D Choose the correct words to complete the passages about innovation.

- 1 With augmented reality, innovators have *come up / dreamed up* ways in which we can interact between a *digital / gadget* world and the real world. Technology can allow a person to try out an outfit on their digital self or see what furniture might look like in a room before they buy it.
- 2 Haier offer employees who have *innovative / geek* ideas the ultimate recognition: naming the final products after them. They call this scheme 'makers'. Having their name on a product ensures ideas are *well thought out / out of date* and something they are genuinely proud of.
- 3 Algorithms are used for solving mathematical problems and *getting into / coding* or writing computer programs. But there are many examples of algorithms going wrong: Amazon's experimental recruitment algorithm ended up screening out female applicants because of a historic bias of male employees in the *technology / technological* industry.

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Lesson 1.2 How innovators think

Reading A Read the article on page 10 of the coursebook and complete the summary sentences with the words and phrases in the box.

bipolar disorder brain's cognitive disinhibition creative individuals
industry psychologist receptors scientific research

- 1 Technology and _____ are increasingly reliant on innovation and are eager to support _____.
- 2 _____ has found parallels between highly creative people and individuals with schizophrenia and _____.
- 3 Dr Carson, a _____ from Harvard University, says creativity and schizotypal personality features often go hand in hand because of _____.
- 4 Both groups of people have fewer D2-type dopamine _____ in the thalamus, the _____ filtering system.

attention creative idea creativity frontal lobes high IQ organisation thoughts workplace

- 5 The thalamus is connected to the _____, where our _____ become constructive.
- 6 Dr Carson adds that novel ideas are the result of three factors: having a _____, having the ability to hold many ideas in your head, and being able to switch your _____ easily from one thing to another.
- 7 According to Gary Klein, companies need to learn how to facilitate _____ and encourage innovation in the _____ more effectively.
- 8 Klein says: 'if you want to kill a _____, have an _____ that's very hierarchical.'

B Find these expressions in the article on page 10, then match them with the definitions.

go against the grain get the best out of (someone) go hand in hand (with something)
get in the way of (someone/something)

- 1 be closely connected to something

- 2 help or encourage someone to do their best in a situation

- 3 prevent someone from doing something, or prevent something from happening

- 4 when something is not what you would naturally or normally do

Grammar C Complete the rest of the text with *a/an, the* or no article (\emptyset).

FT

Creative people seek \emptyset novel solutions and new associations. Many of their ideas will never come to fruition, so creative thinkers need to become hardened to ¹_____ disappointment and failure. ²_____ Steve Jobs was famously fired and then rehired at ³_____ Apple. Henry Ford filed for ⁴_____ bankruptcy twice before finding success with ⁵_____ Ford Motor Company. However, their resilience and confidence can make ⁶_____ innovators appear arrogant and egotistical.

¹⁰ Gary Klein, cognitive psychologist and ⁷_____ author of *Seeing What Others Don't*, believes many companies have much to learn in facilitating ⁸_____ creativity. Klein says managers strictly adhering to ⁹_____ plan risk restricting ¹⁰_____ creative process, as can ¹⁵ ¹¹_____ emphasis on data gathering and voting by consensus. 'All you need is one or two people who become nervous about a creative idea and ¹²_____ team backs off and moves in ¹³_____ safer direction,' he says.

UNIT 1 > **Innovation****Lesson 1.3** Communication skills: Pitching your ideas

Useful language **A** Replace the underlined words with the words and phrases in the box.

appealing gizmo jargon monetise tech-savvy unbiased upbeat

- 1 The marketing manager used lots of technical words which the intern didn't understand.

- 2 Michelle's presentation slides were full of text and not very visually attractive.

- 3 I've just bought a cool device for my office. It's a retro phone.

- 4 Many people try to earn revenue from their websites and video channels.

- 5 Jahid's feeling positive and cheerful about his new project.

- 6 A manager needs to be as impartial as possible when making decisions.

- 7 Anjali is a person who knows a lot about computers. She'll help you with the Wi-Fi connection.

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Lesson 1.4 Business skills: Engaging presentations

Useful language **A** Match a comment (a–f) and a solution statement (i–vi) with each of the rhetorical questions (1–6) to make more examples of the three-part formula.

Rhetorical question	Comment	Solution
1 So, the question is where to invest next?	a I can tell you in very simple language.	i I think we have to focus on building brand recognition in the coming years.
2 Why are we struggling to attract young talent?	b I'll tell you. You slow down your learning and you make more mistakes.	ii So be brave, admit you don't know and ask. Questions are the highway to success.
3 How many times have people told you that they work too much?	c For me, the answer is clear. Nobody knows about us.	iii But we need to engage with new technology or get left behind.
4 What happens if we don't change?	d For me, the problem is not having too much to do. The problem is time management.	iv However, I feel we should look at Poland and Hungary as emerging economies.
5 Is there a simple solution to the threat of digitisation?	e Not at all. It's complex.	v We will go out of business, slowly but surely.
6 What happens if you pretend to understand things when you don't?	f There are many options. And nobody can be sure of the future.	vi I think people need to learn how to prioritise and focus on what matters, and forget the rest.

B Look at the example from audio track 1.01 that begins with an opening statement (in this case a problem), uses three repetition statements about customers and finishes with a demand to do something. Then match a repetition (a–f) and a closing demand (i–vi) with each of the opening statements (1–6).

Opening: *We have a problem with our store culture.*

Repetition: *Customers are just not feeling listened to. Customers are not happy. Customers are not buying.*

Demand: *This needs to change.*

Opening	Repetition	Demand
1 The project is rapidly becoming a disaster.	a They don't come back and buy from us. They tell others not to come back and buy from us. They buy elsewhere and strengthen our competitors.	i We need to find ways to remotivate people.
2 Staff engagement dropped significantly last year.	b We are over budget. We are over schedule. And we are over scope.	ii I think it's time for everyone to play a part in the leadership of this company and support the turnaround.
3 I'm tired of hearing complaints about the board.	c Learning. More learning. And even more learning.	iii In today's presentation, I want to talk about how we can innovate more.
4 Innovation is the key to business success.	d It means we create new products. It means we find new customers. It means we keep having fun and don't get bored.	iv When you stop learning and developing yourself at work, it's time to move on.
5 Unhappy customers do three things.	e Our leaders don't appreciate me enough. Our leaders don't pay me enough. Our leaders aren't around enough.	v So let's talk for a few minutes about how to keep our customers happy.
6 There are three things which bring success in life	f People aren't happy with their management. People aren't happy with their colleagues. People aren't happy coming to work.	vi I think we need to stop and reflect on whether we are doing the right thing.

UNIT 1 > **Innovation****Lesson 1.5** Writing: Investment research**Useful language** **A** In each pair, decide whether paragraph a or b is better.

- 1 **a** An issue is that this company has only been in the market for two years and has few clients. Another important issue is that the senior management team is relatively inexperienced.
b There are two main issues. The first is that this company has only been in the market for two years and has few clients. The second is that the senior management team is relatively inexperienced.
- 2 **a** So, we can summarise the strengths and weaknesses of this company. They have the patent on a new production process, whereas they have an experienced senior management team. In addition, the potential market for their products is quite small as they supply a niche segment that wants tailor-made solutions.
b So, we can summarise the strengths and weaknesses of this company. They have the patent on a new production process and in addition they have an experienced senior management team. On the other hand, the potential market for their products is quite small as they supply a niche segment that wants tailor-made solutions.
- 3 **a** Scandinavian countries such as Denmark and Sweden have been early adopters of this technology. Chart 1 below shows the rate of adoption of the technology in Denmark and chart 2 compares Denmark, Sweden and Norway as a group with other European countries.
b Scandinavian countries such as Denmark and Sweden have been early adopters of this technology. Chart 1 below shows it clearly and chart 2 compares them with other European countries.
- 4 **a** There are many problems with this project. One of the problems is the unrealistic timescale and another of them is the multiple stakeholders who slow down the decision-making process.
b There are many problems with this project. One is the unrealistic timescale and another is the multiple stakeholders who slow down the decision-making process.
- 5 **a** Basically, we have two choices. One option is to invest in the company now and another is to wait for a year or so until they have built a track record and got more customers. I think that waiting is the better choice.
b Basically, we have two choices. One choice is to invest in the company now and another is to wait for a year or so until they have built a track record and got more customers. I think that the better choice is to wait for a year.