***Cambridge Academic English – An integrated skills course for EAP - Advanced***

**Key to Grammar and Vocabulary & Reading exercises**

**Unit 2 – Innovation and invention**

**1 Lectures, note-taking and follow-up reading**

**1.1.a** Suggested answers

*- market knowledge* is necessary in order to generate innovation; businesses must have a

good understanding of existing technologies in order to develop new products and services. For an invention to become a true innovation, developers must have a good knowledge of the market. Unless a company understands what the market needs, or what the market can be persuaded to buy, it won't be able to promote its products successfully.

*- breakthrough:* we sometimes read that some new device is the most significant breakthrough since the invention of the wheel.

*- commercialisation, entrepreneurs:* the commercialisation of green technologies has

encouraged entrepreneurs to invest in new innovations

*- diffusion:* large economies such as China and the US lead the international diffusion of

technological innovations

*- facilities:* universities and research laboratories often retain ownership of all inventions

originated at their facilities

**2 Vocabulary in context**

**2.1.a**

2 availability

3 innovator

4 requirements

5 occurrence

6 economic, economically

**2.1.b** Suggested answers

2 distinct, distinction, distinctive, distinguish

3 require, requirement

4 innovation, innovator, innovate, innovative, innovatory

5 economy, economic, economically, economical, economist, economise

6 available, availability

**2.1.c**

2 to be innovative

3 the requirements of the Clean Air Act

4 economically active

5make a distinction between

6 the limited availability of resources

**3 Vocabulary in context: hedging**

**3.1** Suggested answers

- Hedging helps distinguish between facts and claims.

- By toning down their statements with hedge words, academics reduce the risk of opposition from their peers.

- If a claim is being made about an area in which further research is needed, an academic

may want to reduce the strength of that claim because a stronger statement would not be

justified by the evidence currently available.

- Experts usually hedge their predictions. If the prediction then turns out to be wrong, the

expert's reputation is less likely to be damaged.

- Hedging can be used as a form of politeness to avoid appearing arrogant.

- A certain amount of hedging is now conventional in academic writing in English.

**3.2.a**

All need to be hedged except for 2, 5 and 7.

**3.2.c** Possible answers

**1** While inventions may be carried out anywhere, innovations occur mostly in firms.

**2** no hedging needed

**3** Many inventions require complementary inventions and innovations to succeed at the

innovation stage.

4 The first versions of virtually all significant innovations were crude, unreliable versions of the devices that eventually diffused widely.

**5** no hedging needed

6 What we think of as a single innovation is often the result of a lengthy process.

**7** no hedging needed

8 Most important innovations go through drastic changes in their lifetimes.

**4 Reading in detail**

**4.1.a**

1 Such lags: lags between the first occurrence of an idea for a new product or process (invention) and the first attempt to carry it out in practice (innovation)

2 that: the role

3 these ideas: Leonardo da Vinci's ideas for a flying machine

**4.1.b**

The writer's use of *his* implies that all inventors of major technological advances through history have been men. As this is not the case, it is not acceptable.

**4.1.c**

The word *yet* emphasises that the situation might change - and, indeed, is probably likely to do so. The use of an exclamation mark is perhaps an attempt to engage more with the reader, by adding a rather conversational feature - said aloud, it might be emphasised, and accompanied with a facial expression to indicate that the speaker thinks that the situation will probably change. The text is from a textbook. The rather informal style (as illustrated by the use of the exclamation mark) would probably be less appropriate in a journal article or student essay

**4.1.d**

Here, *one* refers to the invention, and *from another* refers to innovation (or vice versa).

**Corpus information:**

*Distinguish* is one of the most common verbs which come before *one from another*. *Differentiate* and *separate* are two other such verbs.

**5 Asking for and giving clarification in group work**

**5.1**

**5.1.b**

**pros:** they have made shopping more convenient; they encourage online shopping; easy for people to take out short-term loans

**cons:** it can be too easy to buy things that people don't really need; it is easy for people to get into debt; high rates of interest are charged

**5.2.b**

The following sentences are more polite, as they are usually less direct. (Some people might think that the alternative sentence is rather aggressive.) l b , 2a, 3a, 4b, 5b

**5.3**

1 Suggesting that the listener has a 'problem' in understanding; note use of negatives; indirect; usually longer; *could* vs can; use of just

2 Group work involves collaboration between colleagues. For this to work, it is important for each individual member of the group to develop a good rapport with the other members to help encourage good group dynamics

3 students' own answers

**5.4.b**

2 Well, I meant that...

3 OK, let me try and explain again.

4 What I was trying to say was that ...

5 I was trying to get across that...

**6 Word stress**

**6.1**

**a** *finance - financial* (stress on different syllables)

**b** *profit - profitable* (stress on the same syllable)

**c** *purchase - purchaser* (stress on the same

syllable)

**d** *percent - percentage* (stress on the same

syllable)

**e** *identify - identification* (stress on different

syllables)

**f** *major - majority* (stress on different syllables)

**6.2**

innovation

innovator

innovate

innovative

innovatory

**7 Writing summaries from multiple sources**

**7.1.b model answer**

There has been a substantial Increase in the use of mobile phones in developing countries since 2000 (Barberousse et al.,2009). As landllne phones are inaccessible here for the vast majority of people, this has made telecommunications available to huge numbers of people for the first time, particularly in rural areas. Mobile phones have a number of Important economic and social uses In developing countries. For example, they allow traders access to market information (Khalil et al. 2009), they allow migrant workers to keep in contact with their families, and they are used in providing educational information (Vodafone, 2005). However, their impact is not entirely positive. For example, mobile phones can be expensive, and in poor households this may lead to a reduction in spending on basics such as food and clothing (Lefilleur, 2009).

**8 Reference lists**

**8.1.a**

l E

2 A

3 C

4 H

5 D

6 L

7 M

8 K

9 J

10 B

11I

12 G

13 F

**8.1.b**

**8.1b Model notes**

**A** Baumol, W., Litan, R., & Schramm, C. (2007). *Good capitalism, bad capitalism,*

*and the economics of growth and prosperity.* New Haven, CT: Yale University Press

**B** Block, J., & Wagner, M. (2006). Necessity and opportunity entrepreneurs in Germany:

Characteristics and earnings differentials. *MPRA Paper no. 610.* Retrieved 2 November 2011 from <http://www.mpra.ub.uni-muenchen.de/610/>

**C** Caliendo, M., Fossen, F. M., & Kritikos,A. S. (2009). Risk attitudes of nascent

entrepreneurs - new evidence from an experimentally validated survey. *Small Business Economics,* 32, 153-167

**D** Carayannis, E. G. & Campbell, D. F J. (2006). *Innovation networks and knowledge*

*clusters.* Westport, CT: Greenwood

**E** Davidsson, P. (2004). *Researching entrepreneurship.* New York: Springer

**F** European Fair trade Association. (2010). Fair Trade Yearbook 2010. Retrieved

February 2011 from [www.european-fairtrade-association.org/Efta/yb.php](http://www.european-fairtrade-association.org/Efta/yb.php)

**G** Innovation, (n.d.). In *Wikipedia.* Retrieved 21 May 2011 from <http://en.wikipedia.org/wiki/lnnovation>

**H** OECD (2010). *SMEs, Entrepreneurship and Innovation.* Paris: Organisation for

Economic Cooperation and Development.

**I** Peters, M. (2010). *Innovation and invention.* MBA lecture notes, 2009/10, Southport

University, Business School

**J** Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial

orientation and business performance: An assessment of past research and

suggestions for the future. [Electronic Version]. *Entrepreneurship: Theory &*

*Practice,* p. 761

**K** Roback, K. (2006), *Medical device innovation - The integrated processes*

*of invention, diffusion and deployment.* Unpublished PhD dissertation. Linkoping,

Sweden: Linkoping University

**L** Samuelson, P. (2009). Advances in total factor productivity and entrepreneurial

innovation. In Z. j . Acs, D. Audretsch, & R. Strom (Eds.) *Entrepreneurship, growth*

*and public policy,* pp. 71-89. Cambridge: Cambridge University Press

**M** Woolridge, A. (2009, March 14). Global heroes: A special report on entrepreneurship. *The Economist,* 1-19

**Grammar and vocabulary**

**1) Using gender neutral language**

**1.1.a**

1, 3, 4, 5, 6 and 8 all use inappropriate language 2, 7 and 9 all use appropriate language. The use of *sportsman* is fine in sentence 2, because Hemingway was a man and this sentence does not use the term in a general sense. In sentence 7, the word *man* is used to

contrast men's pay with women's pay. The use of *his* in 9 is fine. It refers to a male researcher.

**1.1.b**

1 What consequences do they have for the way a teacher approaches their job and their training?

3 Throughout history, humans have affected the natural environment, often in a destructive way.

4 One of the basic elements contributing to the urban housing problem is the difference

In goals of landlords or landladies and their tenants.

5 In *The Climates of the Continents,* we have a book which should be of interest, not only to the student of climate and the factors which determine it, but also to the person in the

*sisem.*

6 The daily life of a small shopkeeper struggling to survive had little in common with that of a prosperous businessperson employing a number of workers.

8 Quite sophisticated equipment and a trained workforce is required.

9 Bowles (2001) observed that his findings supported earlier research results.

10 In the intensive-care unit, it is imperative that the nurse must not allow their attention to wander from the patient.

11 Before entering the market, each consumer decides, on the basis of their income, tastes, and alternative opportunities, the maximum price they will pay.

**1.1.c**

Although this sentence seems to include inappropriate language, this is a direct quote from 1967, at which time the use of inclusive language was not as closely observed as it is (or should be) now. You should not change the words of direct quotes.

**2) Complex conjunctions**

**2.1.a**

1 in order that

2 in that

3 in the event that

4 to the extent that

5 in such a way that

6 so that

**2.1.b** Suggested answers

2 + d It is important to use classroom technology regularly so that its benefits and limitations can be analysed.

3 + f Stone houses are rarely damaged in floods to the extent that they need to be completely rebuilt.

4 + c Equipment may need to be modified in order that small children can successfully use it.

5 + e The small-group discussion activities were designed in such a way that all students were able to contribute to the discussion.

6 + a In the event that the response rate falls below 40%, a second round of questionnaires will be distributed.

**3) Adjective compounds with *well-, ill-, poorly***

**3.1**

a *homogenous thing that is defined well* (from a *well-defined homogenous thing)*

**3.2**

2 an ill-conceived curriculum

3 well-defined limits

4 ill-timed announcement

5 are poorly paid

6 poorly managed farms

**Corpus information:**

The most common adjective compounds with this structure in the corpus of academic

writing are with *well-* and *ill*-. Other less common, but still quite frequent, forms are with:

*newly (e.g. formed/created/established)*

*widely (e.g. used, held, accepted)*

*recently (e.g. retired/formed/established)*

*poorly (e.g. differentiated, educated, paid)*