



Case study

Antawan Hayes is a keen cycle rider, but finds that punctures happen too often and always at an inconvenient moment. Antawan is also a keen inventor and entrepreneur. Sometimes, his inventions come from accidental creativity, when he chances upon a discovery. Other times, inventions come from deliberate creativity, when he spends a great deal of time working through a problem. With inventions, lateral thinking is needed. Antawan, like many inventors, finds he has to think of the unusual and unexpected to come up with a solution to a problem.

Last year, Antawan decided to tackle the problem of bicycle tyre punctures. He began to work on the idea of injecting a substance into the tyre, which would automatically find the hole, cover it with a layer of material and repair the puncture. He kept asking himself questions such as 'What?', 'Why?' and 'What if?' He needed to look beyond the obvious.

If he could crack the technical problem, Antawan knew there was a long road ahead of him to get the product to market. An invention protected by a patent was one thing. Successful innovation was another. Planning, thinking ahead, seeing business opportunities and drive and determination were enterprise skills he would need. He also knew that the probability of success was low. There were so many risks that he faced. He thought that he stood a less than 1 in 100 chance of getting an invention stocked in bicycle shops. However, Antawan was not afraid to take risks and was always willing to undertake new ventures.

Having worked on the problem for six months, Antawan could find no satisfactory solution. He weighed up the risks and rewards of continuing to work on the idea and decided that his idea was probably not viable. So he abandoned the work and began searching round for a new idea.

Suggested discussion points/answers

1. Explain whether (a) a bicycle and (b) a bicycle repair at a bicycle repair shop are goods or services.

(a) Good

- Physical product
- Can be handled and used

- (b) Service
- Non-physical
 - Making right
 - Fixing
 - As new
 - Specialised skill

2. What enterprise skills does an entrepreneur like Antawan need?

- Creativity
- Drive and determination
- Planning
- Risk taker
- Belief
- Judgement
- Thinking ahead

3. (a) What is the difference between invention and innovation and (b) why are both important for Antawan's puncture repair idea?

(a)

- Invention – design and create
- Innovation – getting it into a format that is usable
- and getting it to the market

(b)

- 2 stage operation
- Invention then innovation
- Invention exists but useless without innovation
- No invention, no innovation

4. Do you think that having a 'less than 1 in 100 chance of getting a successful invention stocked in bicycle shops' means that Antawan should never have spent any time trying to develop his invention? Justify your answer.

No

- Little chance of success
- Could waste time
- Could cost him money
- Could be doing other things which could be more successful

Yes

- Odds might be wrong
- Someone has to be the 1%
- May have found another product by accident
- Got him thinking
- Raised awareness
- Made him determined to succeed
- Learned from mistakes
- Needed to see it end naturally