Challenge Method

• Find something to challenge and question it deeply. You can challenge many things, including:
  • **Concepts** - and broad ideas
  • **Assumptions** - and beliefs that are not questioned
  • **Boundaries** - across which you do not yet cross
  • 'Impossible' - things that are assumed cannot happen
  • 'Can't be done' - things that are assumed cannot be done
  • 'Essentials' - things that you assume cannot be disposed of
  • **Sacred cows** - that cannot be challenged
The Kipling Method

- 5 wives:
- 1 Husband:
  - How?

Rudyard Kipling used a set of questions (5W + 1H) to help trigger ideas and solve problems.

One approach with this is to use the questions in a particular order to help guide you through a sequence of thought towards a complete answer, such as: *What is the problem? Where is it happening? When is it happening? Why is it happening? How can you overcome this problem? Who do you need to get involved? When will you know you have solved the problem?*
Variation of Kipling: Why-Why

Why-Why Diagram

- Low Quality
- Not Trendy

- Poor Product Design
  - Small advert budget
  - Small sales force

- Inadequate Promotion
  - Late in market

- Ineffective Distribution
  - Can't find right channels
  - High manuf cost
  - Poor economy

- High Price

- Fail to identify Target Market
Assumption busting: Surfacing and challenging unconscious assumptions

• In our everyday lives, we make an enormous number of assumptions about how the world around us works. Normally, this works just fine, but in creative situations it can blind us to many possibilities.

• Assumption-busting works by deliberately seeking out and addressing these previously-unquestioned assumptions.

• Other similar techniques: Provocation (forcing on people instead of intent), Challenge
An engineer is considering the brake assembly on a car. He first looks at the whole system from many angles and watches it work. Then he takes it apart carefully, looking at how the calipers and brake disc interact, how the cylinder and piston work and fit together. In doing so, he notices how a rubber gaiter is stretched at extreme ends of piston travel. Focusing, he continues to break down parts of the gaiter: the ends, the folds and so on.

Doing some experiments, he finds that the gaiter folds split after a while. With a careful redesign of the gaiter, he makes the operation of the brake more reliable.
Individual Project Assignment (10%)

- Design UCTS Open Day Poster on your Facebook, Instagram, Twitter, etc
- Details to be Posted on Edmodo Today
- Submit your work in Edmodo
Thank you for your attention!