

★ Quicklook at "Push and Pull"

Information gaps are an ideal way to introduce material with difficult reading tasks, but with content which we really want to teach. This activity was sourced from an article by James Surowieki in the December 2004 edition of the New Yorker magazine. He was reporting on Gordon Brown's offer to drug companies to buy three hundred million doses of a malaria vaccine. The activity is ideal for a citizenship lesson for Year 8 up, although many teachers have adapted similar content for Year 6. The trickiest bit of this activity is sorting the initial pairs and groups, so we have included a card set for thirty participants, which you can always tweak if you are fortunate enough to be teaching fewer. You or your students will also need to find a few pictures to enliven the text sheets. There is plenty of further reading, including the New Yorker article, currently on the net.

Collaborative Reading Materials with an information gap.

There are three different texts with a common question sheet. The principle here is that readers will be unable to complete the questions by simply using the information in their version, but will have to collaborate with other readers, asking questions and eliciting information, possibly arguing and negotiating. There is also an opportunity to draw on their own previous knowledge.

We have outlined the following procedure, but you can reorganise things in a variety of ways. You can possibly arrange to pair slower readers with faster ones etc. You could start with threes rather than pairs etc.

The class works first in pairs and partners have copies of the same text. Five pairs have Sheet A, five Sheet B etc. The card activity is a simple way of organising pairs with a bit of extra learning thrown in, and if you want or select pairs you can always deal the cards from the bottom of the pack. Pairs can read the text silently first, and then to each other, and then work together to answer as many questions as they can.

The pairs then split up and move into groups of six where two participants have Sheet A, two Sheet B etc. They can then go on to complete the questions by interrogating each other.

Just recently I received emails from colleagues who could not understand these instructions. I have revised them and tried to make them clearer. Please let me know if they are still difficult to understand.

If you are thinking about producing your own information gaps, you may find it easier if you try this method. Find a suitable whole single text containing the information you wish to teach. Formulate a series of questions for the text. Produce three or four texts where the factual and inferential information is shared between them. Some overlapping of information is fine. You can differentiate your texts and include diagrams, pictures etc.

The UK Chancellor announced in November 2004 that the government would buy 300 million doses of an effective malaria vaccine for the developing world. This disease is spread by mosquitos in countries with hot wet climates. Mosquitos pump the disease into the bloodstream when they bite you to drink your blood.

This promise means that drug companies will work hard to develop a vaccine. They have to invest a lot of time and money into research and testing before a drug is ready to be sold. If they think they can't recover the money and then make a profit, they don't do the research.

Some companies have been given money to research malaria, but have not found a vaccine. One company has already developed a vaccine that is 58% successful. There are still years of testing a millions of pounds to be spent before a vaccine is ready to be sold.

Text A

In the 18th century many ships hit rocks and sank because they lost their way. At that time there was no reliable way of finding out their longitude. The British government promised £2000 to the first person to find an accurate way to find longitude while on a ship. A clockmaker won the prize. This is an example of "pull" funding. Gordon Brown MP has just revived this by promising a prize for the first successful vaccine for malaria.

This may take a long time. Most politicians prefer "push" funding. In this case they give money up front to a drug company to develop drugs which may not be profitable. Push funding means politicians get publicity and can give out favours. Big drug companies like push funding too. They can develop cosy arrangements with governments and charities that provide money for research and development.

Gordon Brown's decision means that a vaccine for malaria is more likely to be developed. The market value of the drug will depend on how long the research takes. The social value will be much greater. At the moment hundreds of millions of people catch malaria. Students who are often ill cannot learn well. Ailing workers do not produce so much. Rich companies do not invest their money in countries where infectious diseases are common.

Text C

The average amount per person spent every year in the USA is \$5000; and in Africa \$18. Drug companies have to make money for their shareholders. They invest in the development of drugs that will be used regularly by people who can afford them. An example of this would be a drug to relieve arthritis which needed to be taken every day. Drug companies are unwilling to develop a malaria vaccine because few people in Africa can afford the market value.

The UK Labour government has come up with a way to encourage drug companies. It has promised to pay the market price for 300 million doses of the vaccine when it is developed. Charities and foundations are also likely to make similar promises.

If this method of funding to help poor countries works, it is likely to be extended. Similar promises could be made for the development of drugs to cure AIDS and tuberculosis. "Pull" funding is not a new concept, but it has not been popular.

Governments have generally tried "push" funding by giving money to universities and drug companies to encourage research. Up to now this method of funding has not produced a vaccine for malaria.

Text B

Push and Pull - Question sheet with space for answers.

1. What do you know about Gordon Brown?	2. Why isn't there an effective vaccine against malaria?	3. When did Gordon Brown make his promise?	4. Malaria is infectious. What does this mean?
5. How much is spent on health in the US and in Africa?	6. Where do drug companies invest their research money?	7. How does malaria keep African countries poor?	8. How does push funding work and why do drug companies like it?
9. Why does it cost a lot of money to develop a vaccine?	10. What was one of the first examples of pull funding?	11. What is a good definition of pull funding?	12. What is the social value of a vaccine? How is it different from its market value?