

4.3 Inference

What is Inference?

Comprehension involves understanding the words on the page. Inference involves thinking beyond what is on the page. Inference is a mental process that helps us to reach an unstated conclusion based on the evidence provided.

We infer different things every day outside of the classroom. For example:

- We infer that people are thirsty if they ask for a glass of water.
- When we hear a person shout at another, we infer that they are angry or hurt.
- If we see a person dressed in a strange costume, we might infer they are an actor, or that they are going to a costume party.

Inferring allows us to both ask and answer the question, "Why?" We are always looking for purposes, reasons and explanations, in both the texts we read and in the situations we encounter. Inferring is also known as "reading between the lines." This means that, as we read critically, we are searching for conclusions and ideas that are implied, or hinted at, but not stated directly in the text or situation before us.

As teachers you can help your students to infer meaning from texts by encouraging them to make predictions or guesses based on the information they have read. They can also make inferences exploring the author's motivation for writing the text, and the reason the text was written.

By closely examining word choices, context, content structure, and specific references, students learn that they can infer a larger meaning within the text.

Reading for inference is an important skill for independent learning.

For inference activities to work, choose your topics and texts carefully.

- students should be familiar with the topic
- Texts should be in language that the students can easily understand.



EXAMPLE TEXT

Notes on the Text

This text is the lyrics of *Imagine*, by John Lennon.

Many song lyrics can be found at sites such as:

- songlyrics.com
- lyrics.com,
- azlyrics.com
- metrolyrics.com.

The text has not been adapted.

Imagine

Imagine there's no heaven
It's easy if you try
No hell below us
Above us only sky
Imagine all the people
Living for today...

Imagine there's no countries
It isn't hard to do
Nothing to kill or die for
And no religion too
Imagine all the people
Living life in peace...
You may say I'm a dreamer
But I'm not the only one
I hope someday you'll join us
And the world will be as one

Imagine no possessions
I wonder if you can
No need for greed or hunger
A brotherhood of man

Imagine all the people
Sharing all the world...
You may say I'm a dreamer
But I'm not the only one
I hope someday you'll join us
And the world will live as one

John Lennon, 1971



Climate Change – Into the Future

On average, a person in a developed nation emits more greenhouse gases than someone in a developing nation. Here are the top five emitters of greenhouse gases and the amount of the total global emissions they create:

China – 17%

USA – 16%

European Union – 11%

Indonesia – 6%

India – 5%

How we fight climate change in the future will probably be decided in summits like Kyoto, the G8 summits and the Copenhagen conference of 2009. These meetings try to reach an agreement over global emissions. The most important issues at these summits are usually: who should reduce their CO₂ emissions, by how much, and how soon?



The Kyoto Protocol

The first climate change agreement was the Kyoto Protocol. It took eight years to reach an agreement and, in 1997 in Kyoto, Japan, 160 countries agreed to reduce emissions by 5.2% by 2012. It was ratified by 55% of the countries and became law on 16th February 2005. Countries are now trying to find an agreement to follow Kyoto that all nations are happy with but there are disagreements between richer and poorer countries about emissions. Kyoto says that developing countries like China, India and Brazil don't have to reduce emissions. The USA did not ratify the protocol because it thinks it isn't fair that developing countries don't have to reduce emissions. China says that richer developed countries should solve the problem because they produced lots of carbon dioxide when they were developing. China and the USA are the biggest emitters of CO₂ so it is important that they agree on how to fight climate change.

Adapted from: Environment Issues, Educasia 2011

EXAMPLE TEXT

Notes on the Text

This text is adapted from a locally-produced civic education text book.

Contact

educasiaadmin@thabyay.org for information about ordering.

The language is approximately intermediate level English, or CEF B1.



4.3.1 What Are We Supposed to Know?

Objective: students identify assumed knowledge

Practicalities: students work in pairs or groups

Bloom understanding, analysing

- In pairs or groups, students list the things the text assumes they already know (assumed knowledge).
- Students compare their lists with other groups, or as a class.

- the idea of heaven and hell*
- there are wars and starvation in some parts of the world almost all the time*
- that people kill and die for their beliefs*
- the idiom 'brotherhood of man'*

- the difference between developed and developing nations*
- how percentages work*
- what happens at summits like Kyoto*
- why greenhouse gas emissions are bad*
- what CO₂ is*

4.3.2 What Are We Supposed to Think?

Objective: students identify assumed opinions

Practicalities: students work in pairs or groups

Bloom: understanding, analysing

- In pairs or groups, students list the things the text assumes they think (assumed opinions).
- Students compare their lists with other groups, or as a class.

- Religion causes conflict.*
- Nationalism causes conflict.*
- A world without conflict, hunger or greed is not realistic.*

- We need to fight climate change.*
- We need to reduce greenhouse gas emissions.*

Variation

These two activities are good to do as pyramid activities. Students make lists individually, then form pairs to make combined lists, then form groups of four and make group lists, then make a list as a class. At each stage, they negotiate which points should be on the list.



4.3.3 Infer the Purpose

Individually or in pairs or groups, students decide why the writer wrote this text, and what they want people to take away from it.

Objective: students make predictions based on information from a text

Practicalities: students work individually, or in pairs or groups

Bloom: analysing

The singer wants us to work towards a peaceful world where there are no countries, religion, hunger and greed, and where people share everything.

The writer wants readers to understand the difficulties of making international agreements to reduce CO² emissions and fighting climate change.

Follow-up

Students write their answers on pieces of paper and put them on the wall. The class walks around and reads other students' answers. They vote on the best answer.

4.3.4 Infer the Writer's Point of View

- Students decide what the writer's general opinions on the topic of the text.
- They try to infer other things about the writer – perhaps their age and job, whether they are rich or poor, where they come from.

Objective: students decide what the writer thinks about the topic

Practicalities: students work individually, or in pairs or groups

Bloom: applying, analysing

The singer is male.

He wants the people in the world to stop fighting and live together peacefully.

He also wants people to stop being greedy and share all that they have.

I think he is rich (usually poor people don't think having no possessions is good).

He comes from a country where religion is less important (maybe the UK or Australia).

He or she is worried about global warming.

Perhaps she or he is an environmental journalist.

I think they are not American or Chinese.

Follow-up

If possible, students find out the writer's background and opinions, but researching other things she or he has said or written. This is easier if the writer is well-known.

4.3.5 Infer the Point of View

- Provide or elicit a list of people or groups mentioned in the text.
- Students infer opinions of these people or groups.

Objective: students identify or infer opinions of different people or groups in a text

Practicalities: students work individually, or in pairs or groups

Bloom: applying, analysing

The US *All countries should reduce emissions equally.*

China *We produced less emissions in the past, so we should be allowed to produce more now.*

A poor country *If we can't produce emissions, we can't develop quickly.*

The Copenhagen Conference *We need to agree on reducing emissions.*

Variation

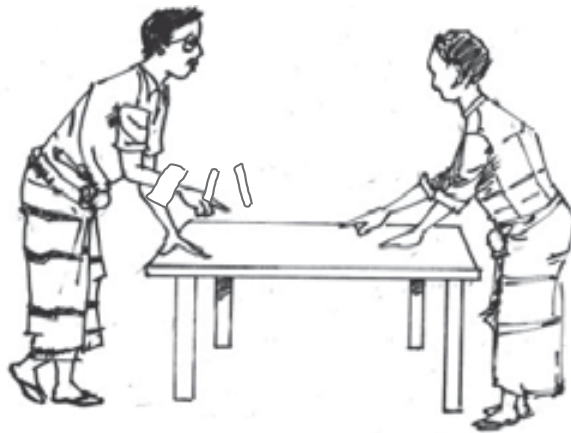
You can also do this by writing some opinions, and students infer who is the group or person who has this opinion.

"Let's give away everything we own." *the singer*

"Without faith, the world would have no morals." *'religion'*

"We need nations so people can live in their own groups." *'countries'*

"People should own lots of things." *greedy people*



To make this **more controlled**, make it a matching exercise. Provide the people/groups and the opinions in mixed order, and students match them.

To make this more **free**, don't list the people/groups or the opinions. Students read the text and decide who are the people/groups involved and what they might think.

Follow-up

Have a **roleplay debate**, with students taking roles of people from the text with opposing opinions.

4.3.6 Is this Inferred?

- a. Write statements that students can reasonably infer from information in the text and statements that students could not reasonably infer from the text.
- b. Mix these sentences.

1. If people don't have possessions, they will be greedy.
2. Many people dream of all people in the world living together peacefully.

3. The entire world is at war.
4. There are no separate countries in the world.

1. China emits more CO² than Brazil.
2. The US won't cut its emissions unless developing countries cut theirs too.

3. China emits more CO² than Brazil.
4. The US won't cut its emissions unless developing countries cut theirs too.

- c. Give sentences in mixed order to the students. They identify which sentences can be reasonably inferred and which can't, and explain their choices.

3 is not reasonable. The song infers that people are killing and dying. It doesn't infer that all people are doing this.

2 is reasonable, because the US didn't sign Kyoto, which meant they didn't agree to cut emissions. They said developing countries should sign it too.

Objective: students decide whether there is enough evidence in a text to make an inference

Practicalities: students work individually, or in pairs or groups

Preparation: write sentences that students can and can't infer from the text

Bloom: analysing, evaluating

4.3.7 Stated or Inferred?

- a. Prepare a list of statements and inferences based on information from the text:

1. There was a climate change summit in Copenhagen in 2009.
2. People in this conference discussed how much they should reduce their CO² emissions.

Objective: students differentiate between stated and inferred information

Practicalities: students work individually, or in pairs or groups

Preparation: a list of statements and inferences from the text

Bloom: understanding

- b. Students decide which are statements and which are inferences, and why.

Number one is a statement. 'How we fight climate change in the future will probably be decided in summits like Kyoto, the G8 summits and the Copenhagen conference of 2009 gives all this information.'

Number two is an inference. It says this is an important issue and that they should discuss it, but it didn't actually say they did discuss it.

Variation

To make this **less controlled**, have students read the text and identify all statements and inferences.

stated	inferred
Greed is unnecessary People kill for their countries	There are a lot of dreamers in the world People don't share things much now

'Greed is unnecessary' is a statement. It means the same as 'no need for greed'.

'People don't share things much now' is inferred by 'Imagine all the people sharing all the world'. If that happened a lot, we wouldn't need to imagine it.

4.3.8 What Happened Next?

- a. Students predict what happened after the events in the text.
Write their predictions on the board.

- *Some people gave up religion.*
- *Some people tried to get countries to have open borders.*
- *Some people gave away some possessions.*
- *Most things remained the same.*

Objective: students make predictions based on information from a text

Practicalities: students work individually, or in pairs or groups

Bloom: creating

- *The US continued to refuse to sign an agreement.*
- *China tried to get people to sign an agreement that allowed them more emissions.*
- *There was another conference, and all countries signed a new protocol.*

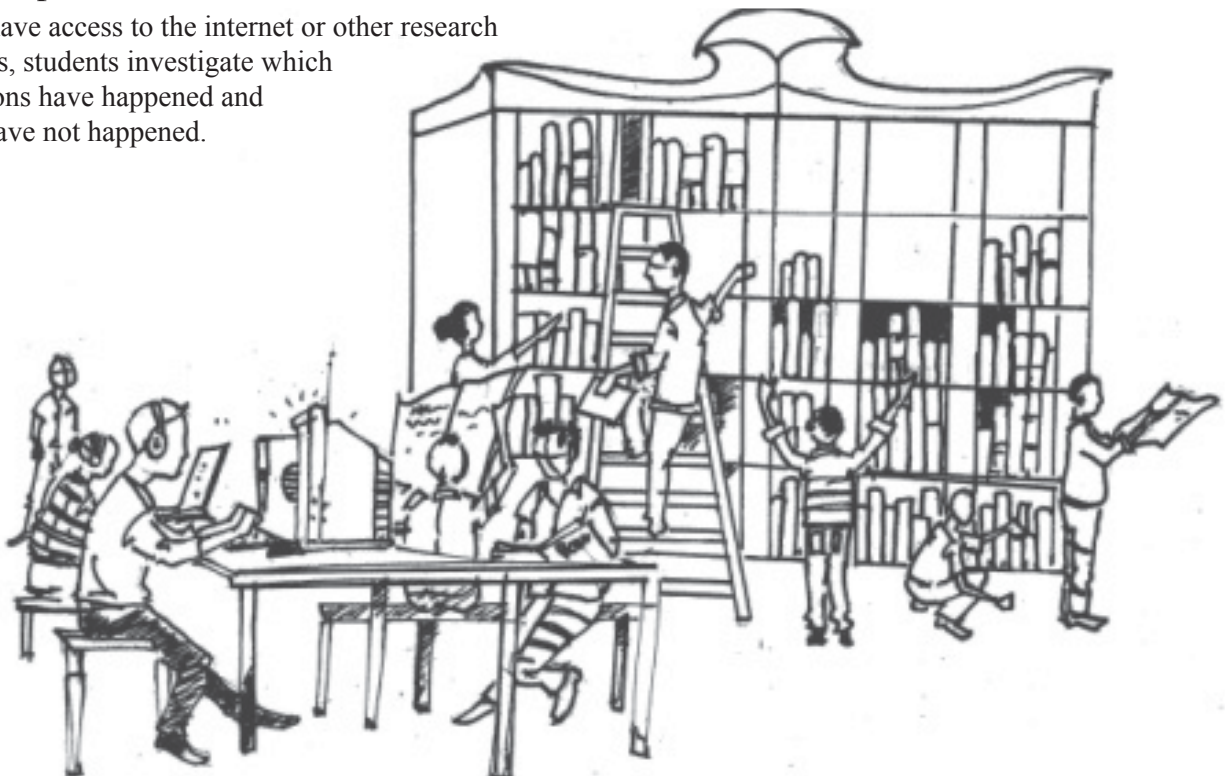
- b. Students give reasons for their predictions.

There has been a lot of pressure put on religious groups to be more tolerant of one another.

The US still emits a lot of emissions, so is likely they didn't sign it.

Follow-up

If they have access to the internet or other research materials, students investigate which predictions have happened and which have not happened.



4.4 Fact, Opinion, Hypothesis

Understanding Fact, Opinion and Hypothesis

Facts, opinions and hypotheses are all different kinds of statements we find in texts and in conversation.

A fact can be proven. It is also supported with evidence that cannot easily be challenged.

Humans cannot live without food and water.

This is a fact. Our evidence is both scientific and from our own experience: doctors and health professionals have shown that malnutrition and a lack of access to clean water can cause disease and death. There is no debate about this basic truth – only about how much food or water people require in order to survive.

An opinion is a belief, or a feeling held by an individual. We cannot be completely certain about an opinion – we can argue for or against it. We can hold competing opinions.

The colour red is ugly.

This is an opinion. Another person might claim that the colour red is beautiful. Both people have reasons for their statements. Both people have reasons for their belief, but we cannot prove something such as beauty – different people recognise it differently. Since there can be either agreement or disagreement with these ideas, we know they are opinions.

A hypothesis is a theory about either how something happened in the past, or a prediction of how something will happen in the future. Making a hypothesis is making an educated guess. For example:

If children grow up without love, they are more likely to become violent.

This is a hypothesis. It predicts why or how children might become violent adults. Hypotheses such as this can be researched and tested, perhaps by interviewing individuals who have engaged in violent acts and asking about their early life. A hypothesis is often the start of further research.

In your social studies classroom, you can help your students to categorise different statements as facts, opinions, or hypotheses. This will help the students to identify which ideas to accept, which to debate, and which to test further. In doing so your students can strengthen and challenge their own views, and communicate using a more balanced combination of these three types of statements.

English – A Global Language

English has become a global language for a number of reasons. Historically, English spread to many parts of the world when English speakers migrated abroad from the UK. The language itself is quite easy to learn with its vocabulary, which is borrowed from many different languages, and its fairly simple grammar. English-speaking countries dominated the global economy for many centuries. This has also contributed to its status as a global language. Indeed, English is likely to remain the number one global language for the next thousand years.

Adapted from: University Foundation Study: Critical Thinking. Garnet Publications 2007

EXAMPLE TEXT

Notes on the Text

This text is adapted from a university study preparation guide.

The language is approximately intermediate level English, or CEF B1.

Mobile Phone Apps for Farmers

U Khin Maung Than is a rice farmer in the Delta village of Aye Ywar. His farm suffers from armyworms, a pest that destroys crops at alarming speeds. Aye Ywar is a very remote village, so pesticides are difficult to find there. Crops go to waste, and the family struggle to make enough money to survive.

But in a few months time, U Khin Maung will be able to find solutions to this problem with just a push of a button.

Myanmar will see huge growth in mobile phone use during the next decade. As SIM card prices drop and phones spread in rural areas, Proximity will be ready to provide mobile farming services to our rural customers.

Proximity Designs is currently developing Myanmar's first app for farmers. This offline app would provide farmers with instant access to agricultural information:

1. how to identify pests
2. how to identify plant diseases
3. solutions to these problems
4. fertilizer timeline

The design team recently showed groups of farmers similar apps and received a positive response. Villages often share phones, with sometimes one to two per village.

Rice farmer U Khin Maung Than will be able to consult his phone to identify his armyworm problem. He can get information about the simple, inexpensive method of flooding the land to kill the pest. This technique will save U Khin Maung Than a total of 750,000 kyat.

Adapted from: <http://proximitydesigns.squarespace.com/>

EXAMPLE TEXT

Notes on the Text

This text is adapted from a website. If you have internet access, it is very easy to find useful texts that you can adapt yourself.

The language is approximately intermediate level English, or CEF B1.



4.4.1 Identify the Fact, Opinion or Hypothesis

Objective: students identify facts, opinions and hypotheses

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

- Students classify information from the text into facts, opinions and hypotheses. They don't need to use exact quotes.
- Students compare their lists with other groups, or as a class.

fact	opinion	hypothesis
English spread when English speakers moved overseas. English vocabulary is borrowed from different languages.	English is easy to learn. English grammar is fairly simple.	The economic dominance of English speaking countries is the reason that English is a global language. English is easier than Chinese for Myanmar people to learn.

fact	opinion	hypothesis
Khin Maung Aye is a rice farmer. Villages often share phones, with sometimes 1-2 per village.	Aye Ywar is a very remote village. The design team recently showed groups of farmers similar apps and received a positive response.	Myanmar will see huge growth in mobile phone use over the next decade. The flooding technique will be immediately successful.

Variation

To make this **easier**, students only list facts, or only opinions, or only hypotheses (or any two of these).

To make this **more controlled**, write lists of statements from the text, which students classify into facts, opinions, or hypotheses.

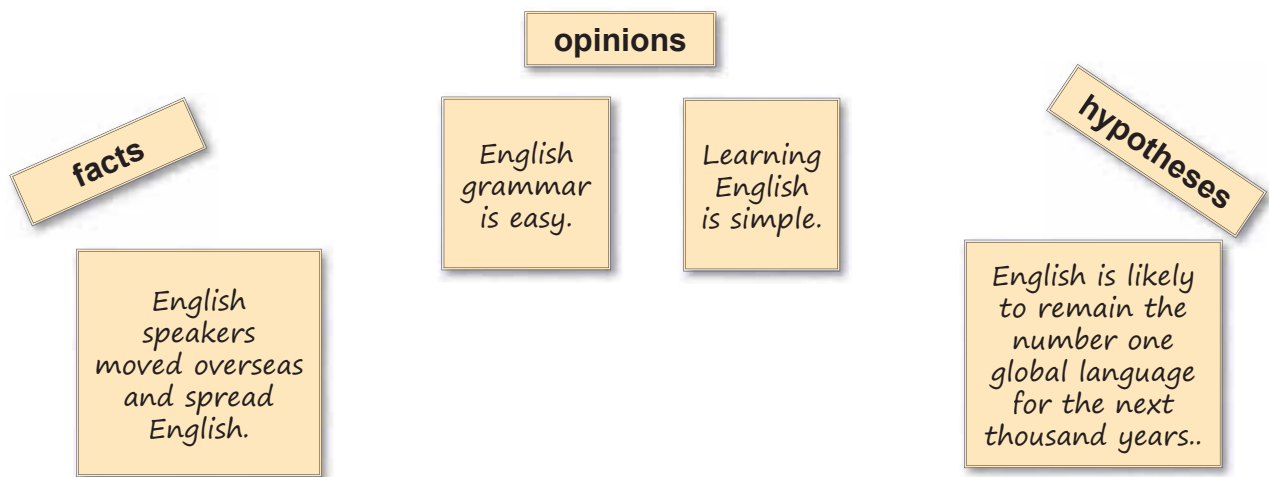
4.4.2 Fact, Opinion and Hypothesis around the Room

Objective: students identify facts, opinions and hypotheses

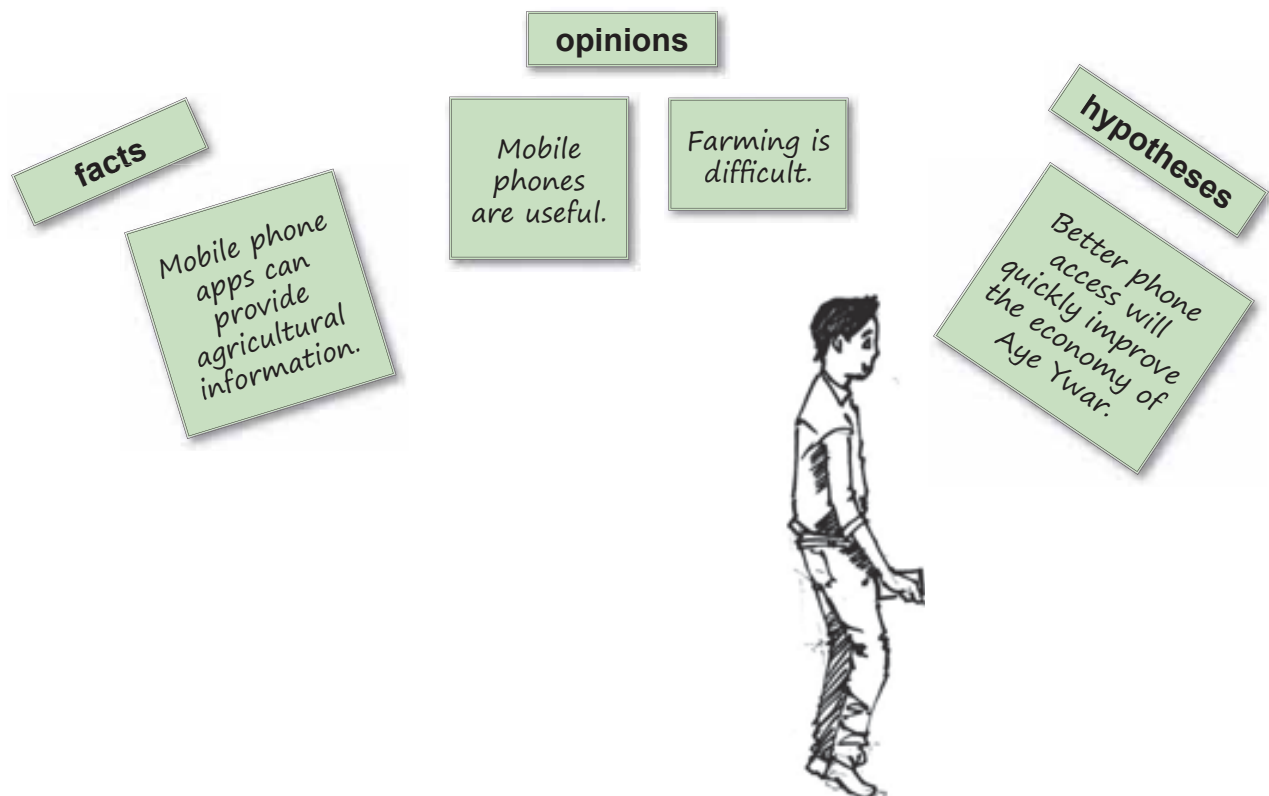
Practicalities: students move around the class and stick papers on the wall

Bloom: understanding, evaluating

- Put a sign in a corner of the room saying 'facts', in another corner one saying 'opinions' and a third, one saying 'hypotheses'.
- Students read a text. They identify one statement that is a fact, one opinion, and one hypotheses. They write these on three separate pieces of paper.
- They stick these on the correct section of the wall. If another student has put the same fact, opinion or hypothesis on the wall. They stick their one next to it.



- If they notice one is wrong, they take it off, and go and put it on the correct part of the room.



4.4.3 Change Fact to Opinion

- a. Students choose facts from the text.
- b. They change them into opinions.

English borrows words from other languages.
The words that English borrows from other languages make spelling more difficult.

Objective: students change facts into opinions, and vice-versa

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

Villagers often share phones.

It's good that villagers share phones, because more people get access to them.

- c. Students choose opinions from the text.
- d. They change them into facts.

English grammar and vocabulary are easy to learn.
Over ten million people are fluent in English.

Aye Ywar is a very remote village.
Aye Ywar is over 100 kilometres from the nearest city.

Variation

You can also have them change facts or opinions into hypotheses, or change hypotheses into facts or opinions.

50% of English words come from other languages.
English-speaking countries still dominate the global economy.

Villagers only share phones because they can't afford one each.
It probably takes ten hours to drive from Aye Ywar to the city.

4.4.4 Write Facts and Opinions with Key Words

Objective: students create facts and opinions about the text using key words

Practicalities: students work individually or in pairs or groups

Bloom: understanding, evaluating

- a. Choose two key words/phrases from the text.

English global

mobile phone rural

- b. Students create factual sentences about the text, using the key words.

English is a global language – people use it in different parts of the world.

There are more mobile phones in urban areas than in rural areas.

- c. Students create opinion sentences using the key words.

Chinese is a more useful global language than English.

I think rural communities should have better access to mobile phones.

Variation

To make this **easier**, have them use one key word in a sentence.

To make this **more difficult**, have them use three or more key words in the same sentence.

Make this a group competition. Groups have five minutes to write as many fact or opinion sentences as they can with the key words. The group with the most sentences is the winner.



4.4.5 Check the Facts

- Students list facts from the text.
- For each fact, they decide how easy it is to check, and where they can check it.

Objective: students decide how verifiable a fact is

Practicalities: students work individually or in pairs or groups

Bloom: evaluating

English vocabulary is borrowed from different languages.

- Look in a dictionary that shows word origins.
- Research on the internet.

English spread when people migrated abroad from the UK.

- Read history books and see if it's true.

U Khin Maung Than is a rice farmer in Aye Ywar.

- Go to Aye Ywar and find out if this is true.
- Look at information from the census.

Armyworms can quickly destroy crops.

- Research this on the internet.
- Go to an agricultural college and research it.
- Ask an agricultural expert.

Follow-up

Students rank the facts in order of how easy they are to check.

Look at historical UK migration records.

- Difficult, because you have to go to the UK.
- These records might be online.

U Khin Maung Than is a rice farmer in Aye Ywar.

- Easy, but might take a long time. Better to telephone and ask.

For homework, students check some facts and report back on whether this was easy or difficult.

4.4.6 Test the Hypothesis

- Students identify hypotheses from the text.
- They think of ways to test them.

Objective: students list ways to test a hypothesis

Practicalities: students work individually, or in pairs or groups

Bloom: evaluating, creating

English will be the main global language for a thousand years.

1. Do a worldwide survey of how much communication is in English, compared to other languages.
2. Wait ten years. Repeat the survey.
3. Make sure the survey happens every ten years until a thousand years from now.

Flooding the land will save U Khin Maung Than a total of 750,000 kyat.

1. Kill U Khin Maung Than's armyworms with pesticides. Add up the cost.
2. Flood the land. Add up the cost.
3. Is flooding the land K750,000 cheaper?

Follow-up

Students discuss how realistic or possible each test is.

If practical, they could test one of the hypotheses.

4.5 Fallacies

WARNING

This chapter is very difficult. The skills involved in recognising logical fallacies can be complex. If you are teaching students in a different language to their own, or if you are teaching topics they are not familiar with, you might want to skip these activities.

Critical reading is a big part of understanding argument. Encourage your students to ask questions:

- What is the author trying to say?
- What kind of evidence do they use?
- Do I agree with the author?
- Is there something he/she leaves out that I would include?
- How do they support their opinion?

Section 3.1: Comprehension, Section 4.3: Inference and Section 4.4: Fact, Opinion, Hypothesis have activities to help students practice these skills.

As critical readers we need to be able to recognise flaws in arguments (fallacies) presented to us in texts we read. Here are some common examples:

a. Generalisation

This is when a conclusion is made on the basis of too little evidence.

Often people take an example from personal experience, and assume it to be true in all situations:

Evidence – You got the accounts wrong last month.

Conclusion – You are not able to do accounts.

Evidence – My uncle was fat, and he never did any exercise.

Conclusion – Fat people are lazy.

Evidence – Many Hindu people I know are involved in business.

Conclusion – Hindu people are good at business.

A lot of stereotypes are based on generalisations.



b. *Ad populum* (popularity)

An *ad populum* argument claims that because a lot of people think or believe the same thing, it must be true.

Bruno Mars is the best singer in the world, because people have bought over 11 million of his albums.

75% of people voted for the government, so their policies must be the right ones.

Headway is the most effective English course, because most English language schools here use it.

c. Appeal to Authority

An appeal to authority claims that because an expert says something, it must be true.

The advertisement infers that 'Camel' cigarettes are more healthy than others, because doctors smoke them.

However, just because someone is a doctor, it does not mean all their personal habits are healthy.

Another issue is the credibility of the authority:

More children die under the age of five when the parents are not educated. – Angelina Jolie

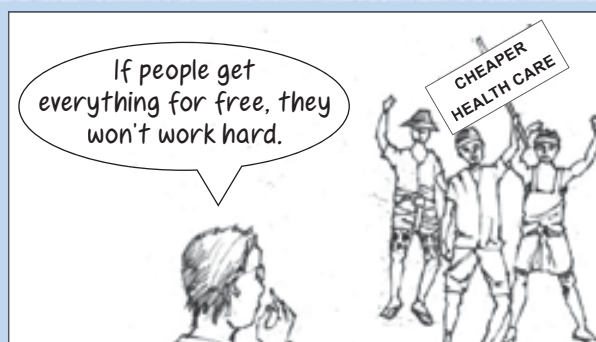
As an actor, Angelina Jolie is not an expert on health or education, so quoting her in an argument about these topics is not very useful. Many people read celebrities' opinions. However, being famous does not make anyone an expert.

<http://www.wikihow.com/Evaluate-the-Credibility-of-a-Source>



d. Straw Man

The straw man argument is one that changes or exaggerates the argument of the opposing side to make it easier to defeat. This false argument is called a 'straw man'. This form of argument is unfair to the opposing side and fails to address all points made.



In the example above, the man is arguing against people getting everything for free. However, the demonstrators are not asking for 'everything for free', they are asking for cheap health care. 'Getting everything for free' is a straw man argument.

<http://www.youtube.com/watch?v=kgdDK4XMpm>

e. *Ad hominem* (attacking the person)

An *ad hominem* argument attacks the person who makes the argument, rather than the argument itself.



Mary says global warming is a major problem. I think Mary is stupid and she often tells lies. Therefore I don't agree with her.

U Thaung says his boss is a bad manager. However, I know that he wants his boss's job, so he must be wrong.

http://www.youtube.com/watch?v=W_veZ24nC3g

f. Incorrect premises

Reasoning doesn't work if one premise is incorrect. Often it is opinion or inference, not fact.

That person is a foreigner.

All foreigners are tourists.

Therefore that person is a tourist.

The conclusion might be incorrect, because one of the premises is incorrect. Not all foreigners are tourists – some foreigners live and work overseas. Others might be visiting on business.

Big cities are dangerous (opinion – not always true)

If you move to the city, you will get into trouble.

If a person moves to the city, they might not get into trouble. The city is not always dangerous.

Section 4.1: Compare and Contrast and Section 4.2: Cause and Effect have activities to help students practice recognising broken logic and incorrect premises.

EXAMPLE TEXTS

Notes on the Texts

These texts are not original texts; they have been written to illustrate the main uses of the activities in this section. However, they are very similar in style to opinion, editorial or comment articles in newspapers or on news websites such as:

- Irrawaddy – irrawaddy.org (English and Myanmar)
- The Myanmar Times – mmtimes.com (English and Myanmar)
- The Guardian (English) theguardian.com

Texts written by students can also be useful for this type of activity.

The language is approximately intermediate level English, or CEF B1.

I don't think prisons are a good way to prevent crime. People only commit crimes if they are poor. Therefore, poverty is the criminal, and we should look instead for solutions that end poverty.

The people who want harsh punishment for criminals do not understand conditions for the poor. How would they feel if they could not feed their hungry children?

I know a woman who used to steal her neighbours' chickens. She only made 1000 kyat per day, and her family could not get enough food. When we found her a better job, she stopped stealing, so we know that this strategy solves crime. Dr Ahmed Khan, Professor of Law at Lanna University, says 'People who commit minor crimes usually do not repeat these crimes if they get help to solve their immediate problems'.

T. T. Phone wants more prisons and longer prison sentences. However, he owns the Golden Construction Company, and they have the contract to build state prisons. Therefore his arguments are based on personal interest so we cannot trust him. He is the sort of corrupt, conservative dinosaur that prevents our country from developing and progressing.

All around the world, people want more caring societies. Let's help people, not punish them.

Daw Rosy Thein, President, Justice Reform Initiative

Do Prisons Prevent Crime?

We need longer prison sentences. At the moment, prison sentences are too easy. When criminals are in prison, they can't make problems for people. It is good to keep them in prison so society can be safe.

We all know about the murderer who was released, and then immediately went out and killed more people. This is why we need to keep them all in prison. The movie star Silas Headbang, after his house was robbed, suggested shooting criminals as a way to stop this behaviour.

Daw Rosy Thein doesn't want to punish criminals. If criminals don't get punished, people will see that they can freely commit crimes, the crime rate will rise, and society will collapse. Liberals and free-thinkers like her are a problem in a traditional society like ours, and we should not encourage her and her ideas.

Society needs protection from thieves, murderers and rapists. Everyone wants to feel safe from crime, and agrees that the best way is to keep criminals behind bars.

T. T. Phone, Director, Concerned Citizens Coalition

4.5.1 Identify the Generalisation

- Students identify examples of generalisation in a text.
- They explain why this is a generalisation.

Objective: students identify generalisations

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

I know a woman who used to steal her neighbours' chickens. She only made 1000 kyat per day, and her family could not get enough food. When we found her a better job, she stopped stealing, so we know that this strategy solves crime.

This strategy worked for this one person. There is not enough evidence to say it works for everyone.

We all know about the murderer who was released, and then immediately went out and killed more people. This is why we need to keep them all in prison.

This happened once. There is not enough evidence to say that all people who have killed someone will kill more people.

Follow-up

Students rewrite the conclusions so they are not generalisations.

When we found her a better job, she stopped stealing, so we know that this strategy can encourage people to not commit crime.

This is why we need to consider carefully before we release violent criminals from prison.

4.5.2 Identify the Example of *Ad Populum*

- Students identify examples of *ad populum* in a text.
- They explain why this is an example of *ad populum*.

Objective: students identify examples of *ad populum*

Practicalities: students work individually, or in pairs, then in pairs or groups

Bloom: understanding, analysing, evaluating

All around the world, people want more caring societies.

This statement makes claims about 'people all over the world' to support the writer's argument.

Everyone wants to feel safe from crime, and agrees that the best way is to keep criminals behind bars.

This statement claims 'everyone' agrees with the writer.

4.5.3 Identify the Appeal to Authority

- Students identify appeals to authority in a text.
- They explain why these are examples of appeals to authority.

Objective: students identify appeals to authority

Practicalities: students work individually, or in pairs, then in pairs or groups

Bloom: understanding, analysing, evaluating

Dr Ahmed Khan, Professor of Law at Lanna University, says 'People who commit minor crimes usually do not repeat these crimes if they get help to solve their immediate problems'.

The writer uses the opinion of a legal expert to support her argument.

The movie star Silas Headbang, after his house was robbed, suggested shooting criminals as a way to stop this behaviour.

The writer uses the opinion of an actor to support his argument.

4.5.4 Evaluate the Credibility of Experts

- Students identify an appeal to authority in a text.
- They decide whether the expert is likely to have useful opinions about the topic:
 - Are they an expert in the specific topic of the argument?
 - Do they have anything to gain by their views? (e.g. a cigarette company executive claiming that smoking is safe.)
 - Are they likely to be biased? (e.g. a religious leader claiming that other religions are wrong.)

Objective: students evaluate the credibility of experts used to support an argument

Practicalities: students work individually, or in pairs, then in pairs or groups

Bloom: analysing, evaluating

Follow-up

Students research the backgrounds of the expert(s) to support the argument to decide how credible these experts are. If several students research the same expert, they compare the information they found.

Dr Ahmed Khan, as a professor of law, probably knows a lot about this topic. If we want to look further, we can check whether he is an expert on repeat criminals, or whether he specialises in tax law.

Silas Headbang is an actor, so he probably has not researched crime much. Because he was a victim of a robbery, perhaps he is biased.

4.5.5 Identify the Straw Man

- a. Students identify examples of straw men in a text.
- b. They explain why these are straw men.

The people who want harsh punishment do not understand conditions for the poor. How would they feel if they could not feed their hungry children?

The writer is arguing against hunger and poverty here, not against prison sentences.

'if they could not feed their hungry children' is an example of a 'straw man' argument. It simplifies the issue to a 'straw man' – parents will want to feed their hungry children, but this is not about the issue of prison sentences.

Objective: students identify examples of the straw man fallacy

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

Daw Rosy Thein doesn't want to punish criminals. If criminals don't get punished, people will see that they can freely commit crimes, the crime rate will rise, and society will collapse.

Daw Rosy is not arguing against punishing criminals. She is arguing against prison as punishment, and against harsh punishment. She never says crime should not be punished.

'Criminals not getting punished' is a straw man.

4.5.6 Identify the Example of *Ad Hominem*

- Students identify examples of *ad hominem* in a text.
- They explain why these are *ad hominem*.

Objective: students identify examples of *ad hominem*

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

T. T. Phone wants more prisons and longer prison sentences. However, he owns the Golden Construction Company and they have the contract to build state prisons. Therefore, his arguments are based on personal interest so we cannot trust him. He is the sort of corrupt, conservative dinosaur that prevents our country from developing and progressing.

This is an ad hominem attack, because T. T. Phone's business interests and character are not relevant to the argument. He might be corrupt, and he might make money from prisons, but that doesn't mean his arguments are wrong.

Liberals and free-thinkers like her are a problem in a traditional society like ours, and we should not encourage her and her ideas.

This ad hominem attack is against Daw Rosy and people with similar views. It is not an argument about prison sentences. Daw Rosy's ideological views are not relevant to the argument.

4.5.7 Attack your Partner

- In pairs or groups of four, students take opposing sides of the argument.
- They take turns to claim and argue against points in the argument.
- Whilst arguing, they bring in *ad hominem* attacks.
- After the activity, pairs or groups reflect on whether this helps their argument or not, and how it makes them feel.

Objective: students create and use examples of *ad hominem* attacks

Practicalities: students work in pairs or groups

Bloom: evaluating, creating

We should help people who steal food, not put them in prison.

You didn't say that when your bicycle got stolen last week.



4.5.8 Identify the Incorrect Premise

- Students identify examples of incorrect premises in a text.
- They explain why these are incorrect premises.

Objective: students identify examples of incorrect premises

Practicalities: students work individually, or in pairs or groups

Bloom: understanding, analysing, evaluating

People only commit crimes if they are poor.

Therefore poverty is the criminal, and we should look instead for solutions that end poverty.

The premise that people only commit crimes if they are poor is not true. Some people commit crimes for other reasons. Rich people commit crimes too. You therefore can't make the conclusion that poverty is the criminal.

When criminals are in prison, they can't make problems for people.

It is good to keep them in prison so society can be safe.

The premise is incorrect – that criminals can't make problems if they are in prison. They can make a lot of problems in prison, especially for other prisoners. Therefore you can't make the conclusion that keeping criminals in prison keeps society safe.

Follow-up

Students rewrite the premise (and the conclusion if necessary).

Many people only commit crime because they are poor. Therefore, poverty is the criminal, so to reduce crime, we should look for solutions to reduce poverty.

When criminals are in prison, it is more difficult for them to harm the public. It is good to keep them in prison so society can be safer.

Variation

To make this **more controlled**, write a list of statements, some with incorrect premises, others without incorrect premises. Students choose which are examples of incorrect premises and which are not.

4.5.9 Create Incorrect Premises

- Students write examples of incorrect premises.
- They give it to a partner or another pair, who decide whether they are incorrect premises, and why.

Objective: students design examples of incorrect premise

Practicalities: students work individually, or in pairs, then in pairs or groups

Bloom: evaluating, creating

Variation

Collect all the students' examples of incorrect premises. Put them on the board or a worksheet. Students identify which are broken logic, and why.

4.5.10 Spot the Fallacy

Students look for examples of generalisation, ad populum, the appeal to authority, straw men, ad hominem, and incorrect premises in their daily lives:

- in conversation with friends and family
- in newspapers and magazines
- on the internet, TV or the radio
- in advertisements

Objective: students identify fallacies in the world around them

Practicalities: students observe as they go about their daily life

Bloom: evaluating



Follow-up

Students record examples of fallacies in a reflective journal. When they come to class, they explain them to the class, or in groups.