THINKING AND REASONING SKILLS

SKILL 2: ELEVATING ARGUMENTS

Being able to make reasonable judgements about the quality of reasoning in an argument is a useful academic skill, enabling a higher level of engagement with written arguments presented across all subjects. Above all, it's fun.

By teaching and assessing this skill, the aims and objectives are as follows:

FLAWS

Expose students to examples of five common flaws (ad hominem, straw man, tu quoque, slippery slope, false dilemma) and teach strategies for recognising and describing them in arguments.

STUDENTS SHOULD BE ABLE TO:

Spot when reasoning contains one of the five flaws and tell which one it is.
Give brief descriptions to show that you understand how a flaw works in a simple argument.

LOADED LANGUAGE

Teachers should aim to:
Teach students the main ways in which language can be loaded to influence a particular response (emotive language, euphemism, jargon, loaded questions).
Expose students to different examples of loaded language and guide them to understand the impact of these.

STUDENTS SHOULD BE ABLE TO:

Tell when and how loaded language is used in an argument.
Comment on how an argument that contains loaded language might have an impact on the response.

APPEALS

Teachers should aim to:
Explain the nature of basic, irrelevant Appeals in reasoning (emotion, history, tradition, popularity).
Guide students to recognise and understand these and give them strategies for telling them apart.

STUDENTS SHOULD BE ABLE TO:

Tell when an argument is making an irrelevant appeal, and name the type of appeal used.
Comment on how an argument that makes an irrelevant appeal impacts on the reader.

MAKING JUDGEMENTS ABOUT REASONING

Teachers should aim to:
Teach students the importance of relevance in reasoning.
Expose students to a range of examples of arguments that have differing degrees of fit between reasons and conclusion.

STUDENTS SHOULD NOW BE ABLE TO:

Tell when reasons do not match up to their conclusion and when conclusions are not properly supported by their reasons.

FLAWS

Now we get to the heart of working with arguments – learning how to spot flaws in the reasoning that people use. You'll soon find that flaws are far more common than you might think and it can be quite a lot of fun when we are able to recognise them. Arguments that sound skilful and persuasive at first frequently lose their edge when we analyse their reasoning more carefully for flaws.

An excellent and fun way of introducing this is to watch the witch scene from *Monty Python and the Holy Grail*. Listen closely to the reasoning given to support the conclusion '*and therefore she's a witch!*'

Flaws, or fallacies, are errors made by a process of reasoning. In other words, somewhere between reasons and conclusion, the logical flow of the argument is weakened in some way. Sometimes, this is done on purpose, in order to manipulate our reaction to the argument, but it is often accidental – either way, it is a weakness in an argument. Good, quality reasoning should be logical and free from flaws.

There are many, many fallacies (as any internet search or the many books devoted entirely to the subject of fallacies will tell you) but on this course we learn about five in particular that are extremely common.

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AD HOMIMEM

AD HOMINEM (*attacking the opponent*): An argument that responds to someone else's reasoning by attacking their character rather than their argument, commits the ad hominem flaw. Consider the following example, in which the flawed part of the reasoning is highlighted:

My driving instructor told me that I do not check my mirrors enough when I'm driving, but I won't take any advice from him because he is such a bore.

Clearly, whether or not the driving instructor is 'a bore', this is not a valid reason to reject his advice about driving skills – the man's character is being attached in place of a good reason to disagree with his reasoning.

STRAW MAN (*misrepresenting the opponent*): when a distorted image of another person's argument is built up to make it easier to challenge. Consider the following example, in which the flawed part of the reasoning is highlighted:

My driving instructor told me that I don't check my mirrors enough when I'm driving, but looking in the mirror at all times instead of keeping my eyes on the road is both stupid and dangerous.

The driving instructor hasn't actually said to look in the mirror at all times, and certainly not instead of keeping an eye on the road, but this argument distorts his point and then points out that it is, quite rightly, stupid and dangerous.

This type of fallacy can sometimes be observed in political debates, when one party is trying to make the policies of another look ridiculous.

TU QUOQUE (*two wrongs don't make a right*): when an argument is given to defend a certain action on the basis that the person doing the accusing is also guilty of the same thing or when an argument attempts to justify a wrong action on the basis that someone else/others are doing it too.

Consider the following example, in which the flawed part of the reasoning is highlighted:

My dad honked his horn and shouted angrily out of the window at another driver on the way to school this morning, so I must remember to do that on my driving lessons next time.

Just because someone else does something in a certain way, this is not a good enough reason on its own to justify doing the same. It may be that we have misunderstood what or why another person has done this, or it could be that their circumstances are entirely different to ours.

SLIPPERY SLOPE: when reasoning goes from one thing to another too quickly (each step is unjustified) so that it ends up at an extreme and unlikely conclusion. Consider the following example, in which the flawed part of the reasoning is highlighted:

I failed my driving for the second time last week. If I fail again I don't think I'll ever pass my test and I'll be forced to use public transport for the rest of my life and I'll be late for everything, including my own wedding, so I'll never get married and grow old alone.

Each of the steps taken here can be challenged, and so the reasoning rushes down a slippery slope to the very unlikely conclusion of a lonely old age.

False dilemma (restricting the options): when an argument presents a limited number of options as if they are the only ones, without considering that there are other possibilities. Consider the following example, in which the flawed part of the reasoning is highlighted:

I failed my driving test last week, so I either have to learn to rely on public transport to get to school or persuade my Dad to drive me there every day.

There are other options that have not been considered here, which is a weakness in the logic of this reasoning. For example, you could take your driving test again or ride a bicycle to school.

The following support materials can be found within the **Skill 2 pdf portfolio**.

2.01 Fallacy Files printable worksheet.doc

2.02 Fallacy Files answers.doc

2.03 Amazing Astrid's fallacious horoscopes printable worksheet.doc

2.04 Amazing Astrid's fallacious horoscopes answers.doc

2.05 Create your own fallacious horoscopes printable worksheet.doc

LOADED LANGUAGE

A frequent tool that people use when trying to persuade others to accept their arguments is loaded language, as it can make an argument sound more impressive than it actually is, or it can manipulate the listener's emotions so that they respond in the way the arguer wants them to.

Four key ways in which this can be done are as follows:

EMOTIVE LANGUAGE: words that have an emotional effect on people, used to make the reader/listener feel a certain emotion to influence the way they feel about the argument. For example, a vegetarian might argue:

Eating meat is murder. Therefore, everyone should become vegetarian.

Murder is a very strong word and it is inevitable that it will have a powerful effect and may influence someone to feel negatively about eating meat by making you feel sorry for the animals being eaten and somehow responsible for this when eating meat.

JARGON: when technical words are used that may not be understood by a non-expert in that field. It is used in lots of professions like medicine and sport as a kind of shorthand or technical speak. Using jargon might confuse people who don't normally use that kind of language. It can cloud the real meaning of the argument, resulting in someone accepting the reasoning because it sounds impressive. For example:

This man is suffering from a bilateral probital haematoma, so we must get him to hospital as soon as possible. That is why I was speeding, officer.

In this example, the term bilateral probital haematoma is the technical, medical term for a black eye, but the use of technical language may well influence the listener's response in way that using ordinary language might not.

EUPHEMISM: this is a term used for words or phrases that disguise the real meaning in order to make it sound better. This is often used to put a nice gloss on a blunt truth or to make something bad sound good. For example, people use the term 'passed away' as a euphemism for death. Whilst euphemisms are often used for the benefit of the person listening, they can be used to deliberately mislead a person into accepting an argument they might not accept if it were clearer. Here is an example of euphemism used in argument:

The war involved some collateral damage, but it is an important cause and so we should be in support of the war effort.

Collateral damage is a used here as a euphemism for the death of innocent civilians, killed in warfare. This makes it seem much less negative, and might influence you to accept the argument.

LOADED QUESTIONS: when a question is worded in such a way as to make you feel forced to accept something you don't agree with, or run the risk of agreeing to something else you don't agree with. If you've heard the phrase 'stuck between a rock and a hard place' then you might see some similarity with the use of a loaded question. For example:

Do you accept that the war was necessary or are you a complete idiot?

In this example, unless you are prepared to accept that you are an idiot, you might feel inclined to agree that the war was necessary, which is a deliberate way of manipulating you to agree with the war. It is a bit like throwing a weighted dice so that it lands on the number you want. A skilled thinker would recognise this technique and would be able to avoid falling into the trap it sets. For example, you might respond to the example above by saying 'Your question is loaded, sir, and I'd like to go for option (c), please'. Your opponent will be disappointed but perhaps a little impressed.

APPEALS

A common weakness in reasoning is to rely too heavily upon an appeal to something irrelevant, rather than give good reasons to support your conclusion. For example, you might argue for a particular action (e.g. women should do the housework whilst men go out to work) by appealing to the fact that it is a **tradition**. Whilst something being traditional can be a relevant thing to consider, it is not a valid enough reason to support an argument on its own – just because something is traditional does not mean that it is right or appropriate in this case:

All the men in our family have always gone on to work in the family business, so you should want to do the same.

We always have turkey at Christmas, so we should have turkey again this year.

Similarly, you might appeal to **history** when arguing for a particular course of action (e.g. we should go to Spain on holiday again this year, because we went their five years ago and we had a lovely time then) – just because it was a good decision then does not mean it is a good decision in this case:

You'll like it at that university, because when your brother studied there he loved it.

Stoke won their game last week, so they'll win again this week.

I passed my mock exams without doing any revision, so I'll definitely pass my GCSE's without revising.

Note – appealing to history is not the same as appealing to tradition. This should help:

Tradition: things have *always* been done this way therefore that's how it should be done now/in the future.

History: this worked before in the past so it will work again now/in the future

Irrelevant appeals to **emotion** are extremely common – they rely on your emotional reaction to the appeal instead of giving proper reasons. Consider which emotions are being appealed to in the following examples:

Your mother would miss you if you went off to university, so you should get a job locally instead.

He would be heartbroken if you broke up with him, so you should carry on seeing him.

University students are often victims of crime, so you should definitely not go to university.

The first two examples appeal to pity – but just because someone may feel bad if you make a particular decision does not necessarily mean that the decision is not the right one.

The second example appeals to fear – the reason given for not going to university appeals to your fear of being a victim of crime, which is not necessarily a good enough basis for a decision.

Emotional appeals *can* be relevant, but only if the argument is directly related to emotion e.g. you shouldn't leave the dog in the house alone all day because he gets lonely and it's cruel. Cruelty to the animal is, in this case, a very good reason not to treat the animal in a particular way. Only when the emotion being appealed to is irrelevant to the subject of the argument is the reasoning flawed.

Another very common appeal is to **authority**:

My doctor says that an apprenticeship is a good route to getting a decent job so that's what I'm going to do.

David Beckham said that Woofalot dog food is the best one, so you should get that brand for your dog.

In the first example, the authority/expert status of the doctor is appealed to in making a decision about taking an apprenticeship, which has nothing to do with the expertise of a doctor! Similarly, David Beckham's expertise is in football, not canine cuisine.

An expert, authoritative opinion can be a very relevant reason, but only if their expertise is relevant to the argument e.g. *my doctor says it's broken, so I should go to hospital to get it seen to, or David Beckham says you should practice every day if you want to be a professional footballer, so you should get practising.*

Finally, appeals to **popularity** often appear in arguments. Some textbooks call this appeal a 'Democratic fallacy', because it appeals to popular or majority opinion instead of giving sound reasons:

Most people think that you should go to university, so you should definitely apply to university.

Almost everyone thinks social networking sites are cool, so you should sign up to one.

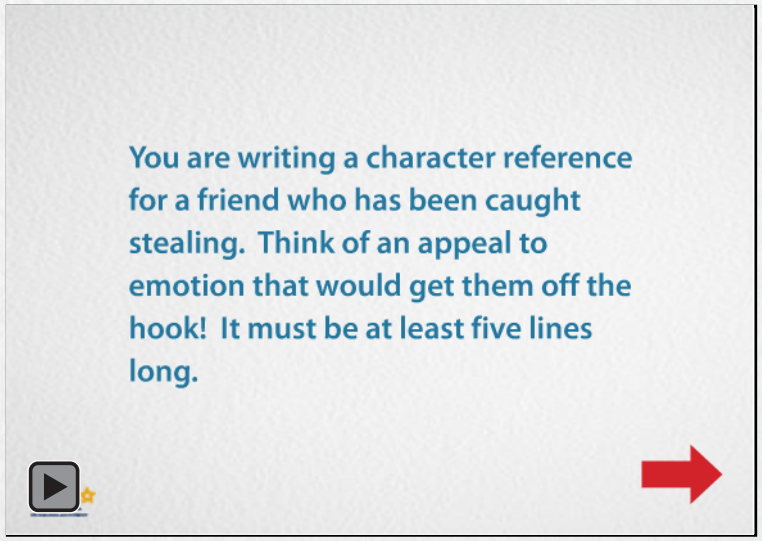
The following support materials can be found within the **Skill 2 pdf portfolio**.

2.06 False appeals printable worksheet.doc

2.07 False appeals answers.doc

2.08 Write your own irrelevant appeals activity.ppt

Click on the red arrow to preview



MAKING JUDGEMENTS ABOUT REASONING

As we have seen, reasoning can be flawed in many different ways – it can rely upon an assumption, a flaw or an irrelevant appeal, but another very important factor to consider is whether or not the reasons are relevant to the conclusion. Consider the following examples:

I don't like wholemeal bread. Therefore, I should try to get a job in a bank.

Peter is a really funny guy. So, you should go to the cinema on Tuesday.

In both of these examples, the reasons given just do not fit with the conclusion. They leave you thinking, 'what does bread have to do with working in a bank?' or 'what does Peter's comedy talent have to do with Tuesday evening's leisure activity?'

Not all arguments with irrelevant reasoning are as obvious as the ones above. Consider the relevance of the reasons in the following argument:

Children are at risk when they use the internet. Therefore, children should not be taught ICT.

At first glance, it might seem that the risks children face when using the internet is a perfectly good reason not to teach ICT, but on closer analysis we see that 'internet' and 'ICT' are actually different things. Teaching ICT does not necessarily mean that children will be exposed to the risks of the internet, so this reason is irrelevant to the conclusion.

The following support materials can be found within the **Skill 2 pdf portfolio**.

2.09 Finding best fit printable worksheet.doc

2.10 Finding best fit printable answers worksheet.doc

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