

Teacher Guide

Cambridge
International
AS & A Level

Cambridge International AS & A Level
Global Perspectives & Research

9239

Cambridge Advanced



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Appendix A

Introduction

The aims of this Teacher Guide

This teacher guide is suitable for use with Cambridge International AS and A Level Global Perspectives & Research. It offers

- An explanation of the structure, content and assessment
- An explanation of the skills required and advice on how to deliver these
- Advice on choosing your course resources and stimulus materials
- Advice on planning and implementation
- An exemplar scheme of work

You should use this Teacher Guide if you are teaching the following groups:

- Candidates sitting the AS Level Global Perspectives & Research (9239) from June 2015
- Candidates sitting the A Level Global Perspectives & Research (9239) from June 2016

This Teacher Guide is not suitable if you are teaching the following groups:

- The 9766 and 9777 Cambridge Pre-U Global Perspectives and IRR, UK and International versions
- The Cambridge Pre-U Global Perspectives Short Course (1340)
- Cambridge AS Global Perspectives (8987) which has its last examination in November 2015

Section 1: Aims, Assessment Structure and Assessment Objectives (AS and A Level)

1.1 Aims of the Global Perspectives course

The Global Perspectives course aims to equip learners with the skills they need in the rapidly changing intellectual and technical environment of the twenty-first century. It prepares and encourages learners to engage confidently with contemporary world affairs by developing skills in researching, processing, using and evaluating information and arguments about issues that inevitably have a global impact.

Cambridge Global Perspectives aims to develop learners by:

- providing opportunities to acquire disciplined and scholarly research skills
- promoting a critical, questioning approach to information using the language of reasoning
- prompting self-reflection and independence of thought
- creating opportunities to understand and engage with key global issues wherever they live and work
- nurturing an awareness and understanding of, and respect for, the diversity of perspectives on global issues
- offering an interdisciplinary approach to global issues
- encouraging development of independent learning skills in preparation for study in higher education and lifelong learning
- promoting an understanding of appropriate research skills
- engaging in the research process on an academic topic of their own choice which reflects their interest
- providing opportunities for the exercise of the higher-order thinking skills of analysis, synthesis and evaluation
- providing opportunities to develop oral presentation and communication skills.

By studying global issues, learners will broaden their own understanding, empathy and tolerance. They will be encouraged to develop, scrutinise and present their own points of view with confidence. They will learn technical skills such as how to deconstruct and reconstruct arguments, and interpretative skills such as reflecting on the implications of their research and analysis from a personal perspective. They will also learn to communicate their findings and ideas as reasoned arguments.

1.2 Assessment structure

The assessment structure for the AS and the first year of the A Level Global Perspectives & Research from 2015 onwards are the same (consisting of components 1, 2 and 3). These form a foundation course developing the skills listed above. All information is available in the respective qualification syllabuses but for convenience some has been reproduced below.

Component	Task	Duration	Weighting AS Level	Weighting A Level	Type of Assessment
1	Written Examination	1 hour 30 minutes	30%	15%	Externally assessed
2	Essay	1750–2000 words	35%	17.5%	Externally assessed
3	Team Project: Presentation, Reflective Paper	Maximum 8 minutes presentation and 800 word reflective paper	35%	17.5%	Externally assessed
4	Cambridge Research Report	The report must not exceed 5000 words	–	50%	Internally assessed and externally moderated

1.3 The assessment objectives

Throughout the course, candidates will gain knowledge and understanding of the background to a range of global issues and will appreciate the diversity of perspectives within them. This knowledge and understanding will underpin and inform the skills they will acquire but will not be separately assessed.

The three assessment objectives in Cambridge International AS and A Level Global Perspectives & Research (reproduced from the syllabus) are:

AO1 Research, analysis and evaluation

Candidates should be able to:

- analyse arguments to understand how they are structured and on what they are based
- analyse perspectives and understand the different claims, reasons, arguments, views and evidence they contain
- synthesise relevant and credible research in support of judgements about arguments and perspectives
- critically evaluate the strengths, weaknesses and implications of reasoning in arguments and overall perspectives
- critically evaluate the nature of different arguments and perspectives
- use research to support judgements about arguments and perspectives
- design and manage own research project using appropriate research methods and methodology (A Level only)

- select and analyse appropriate concepts, arguments, perspectives and evidence from a range of source material and use these in own research report (A Level only)
- evaluate specific research methods and methodology as used in own research report (A Level only).

AO2 Reflection

Candidates should be able to:

- research and consider alternative perspectives objectively and with empathy
- consider the ways in which personal standpoints may have been affected by the research process
- evaluate the impact of alternative perspectives and conclusions on personal standpoint
- identify the need for further research in light of the research findings
- reflect on the scope, nature and limitations of own research report (A Level only).

AO3 Communication and collaboration

Candidates should be able to:

- work effectively in a group to identify an appropriate local problem with global relevance and consider a range of possible solutions (AS Level only)
- select and present relevant information in an engaging, coherent and well-structured way to a non-specialist audience (AS Level only)
- present complex global concepts, perspectives and arguments effectively using multimedia (audio and/or visual) appropriate to the presentation (AS Level only)
- use appropriate technical terms and cited references effectively
- provide an oral explanation and justification of own report findings, choice and use of research methods and methodology (A Level only).

1.4 The relationship between the scheme of assessment and the assessment objectives

For the purposes of assessment, learners are asked to demonstrate different combinations of skills through different forms of presentation. Individual components provide the opportunity for particular skills to be tested in sufficient range and depth to give all candidates the chance to reach their maximum potential across the qualification as a whole. For example, AO1 (Research, analysis and evaluation) is tested emphatically within Component 1 although it is evidently necessary in all other components as well. Though there is a focus on this objective in the written examination it is taught as part of an indivisible continuum of skills. Teaching and learning in Global Perspectives is a holistic, creative process that develops skills using an iterative process that encourages independent thinking.

Component	AO1 %	AO2 %	AO3 %
1 Written Examination	100	–	–
2 Essay	57	29	14
3 Team Project: Presentation, Reflective Paper	57	14	29
4 Cambridge Research Report	80	7	13

The Cambridge Research Report is assessed against all three assessment objectives, with AO1 accounting for the majority of marks (60 out of 75). However, these are equally split between three distinct aspects of AO1: research, analysis and evaluation, with 20 marks awarded for each. AO2 and AO3 are also assessed, with the focus on the communication aspect of AO3.

Detailed information on the description, nature and assessment of the four components is available in the syllabus document, Section 4 *Description of Components*.

Section 2: The Global Perspectives course (AS Level)

2.1 Skills and content

The aims of the course relate to what learners can do rather than what they know. So there is no fixed content that learners must learn by the end of the course. It is likely that they will learn a great deal of new information during the course but this will vary from learner to learner and school to school, depending on the topics chosen for study. The skills they will develop are as follows:

- analysing and making judgements about different views and arguments
- researching important issues of global significance
- communicating arguments in different ways
- considering and reflecting on the implications and consequences of judgements
- working as part of a team
- empathising with others and understanding and respecting a variety of views on global issues
- articulating and communicating a personal perspective that builds on skills of interpreting, evaluating and assessing evidence.

Skills are developed through the analysis and exploration of issues of global significance using a method called the Critical Path (explained below), carried out in an open, critical and disciplined way.

These issues of global importance will have significance beyond any local or national context. For example:

An oil spill off the coast of America and what the oil company, BP, should do about it, could be seen as a local issue. However, the issue of environmental disaster, how it should be prevented and how it should be dealt with are of global importance. The consequences of the oil spill off the coast of America are also likely to be far-reaching; if local interests lead to a national policy that promotes renewable energies in the USA, the implications, effects and consequences will be felt around the world.

Initially the issues may arise within one of the broad themes of:

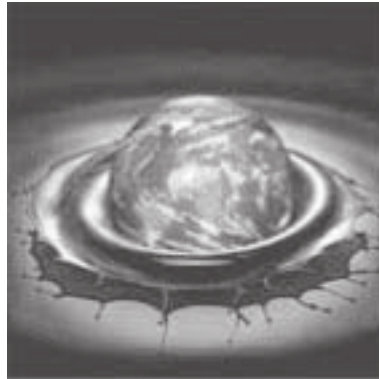
- Economics
- Ethics
- Environment
- Science
- Technology
- Culture
- Politics.

However, the nature of these issues allows exploration using the other themes. For example:

Using the themes to analyse oil spills as a global issue

Ethical

- Who is to blame and what is blame?
- Would we gain anything by attaching blame?
- Why don't other specialists step in to help?
- Are we fundamentally a greedy society?
- What would the wildlife make of all this?
- Is damage to the US environment more important than the damage to the environment in poor, less developed countries, e.g. Niger or Haiti



Technological

- Why can't they cap the well?
- Plastic booms versus hurricanes?
- Effectiveness of technology if something goes wrong
- Knowledge of available technology
- Should we drill so deeply if we cannot guarantee safety?

Scientific

- Oil dispersants: their impact and effectiveness
- Alternative: Biofuel

Economic

- Who pays?
- The cost of the clean-up
- The cost to investors and pension funds
- The cost to the environment
- The hidden costs to BP e.g. boycotts of their products, and fines

Environmental

- Perceived and actual damage
- The impact on:
 - Wildlife
 - Fishing industry
 - Tourism
 - Human health
- Short and long-term impacts

Political and Cultural

- American politics – Obama talks tough
- British politics – different parties, different views
- BP or British Petroleum?
- Effects on the electorate in each state and country
- Are the middle-eastern countries laughing? Concerned or neutral?

The syllabus lists a range of pre-selected topic areas, each of which presents multiple aspects for analysis (roughly aligned with the thematic areas above). Cambridge recommend that at least four of these topics should be studied during the course to enable development of the skills of the Critical Path. That list has been reproduced below. These topics effectively provide the subject matter which learners use as a medium for the development of the required skills. When learners come to choose the particular topic they wish to study for their essay in Component 2 they must draw from amongst those topics studied during the

course. This ensures that the topic is of sufficient breadth and depth to generate a great range of questions giving the learner the opportunity to achieve as many marks as they can.

Alternatives to oil	Industrial pollution
Architectural priorities	International law
Artificial Intelligence	International sport
Arts in an international context	Medical ethics and priorities
Biodiversity	Migration and work
Changing national identities	Political systems
Climate change	Religious-secular divide
Cultural heritage	Rise of global superpowers
Endangered cultures	Standard of living/quality of life
Ethical foreign policies	Sustainable futures
Ethics and economics of food	Technology and lifestyles
Gender issues	Tourism
Genetic engineering	Transnational organisations (e.g. UN, EU, NATO)
Global economic activity	Transport
Impact of the internet	Urbanisation

2.2 What are global perspectives?

Learners should be encouraged to think in terms of perspectives when investigating these issues. A perspective comprises more than just one argument. For example, those who favour increasing overseas aid to poor countries may be influenced by many considerations – ethical, religious or practical – they may think that richer countries have ethical responsibilities and that may involve a world view about the obligations of states and individuals; they may be moved by particular religious beliefs which underpin their lives but are not strictly ‘arguments’; they may be influenced by practical considerations of increasing world demand for products, or avoiding dangerous wars which destabilise regions, or preventing rival powers taking advantage of unrest caused by poverty.

Within a broad perspective there may be a variety of arguments, beliefs, assumptions (for example that instability is caused by poverty, or that richer nations have responsibilities). The opponents of overseas aid are also likely to be motivated by a variety of considerations. To understand the issue, it is necessary to deconstruct the perspectives rather than just look at individual ideas and arguments.

2.3 What is a supported argument?

The learner will need some initial guidance on what constitutes a supported argument as they may not have had to state their own views before in academic writing. Examples from previous learners’ work or from the ‘Example Candidate Responses’ materials (available to registered centres on the Teacher Support Site at www.teachers/cie.org.uk) are useful for demonstrating how the argument may appear.

When they first encounter a topic, learners should be advised to write down their initial reflections and then each subsequent point when a new revelation sheds more light on the issue. This will not only give them a map of their own learning but will also help to highlight points they may wish to articulate within their argument. It will remind them of the evidence supporting their own view. This is especially important for the presentation in Component 3. These notes can be made alongside those indicating the significance and

the consequences of each perspective they encounter. This makes it much easier for a learner to remember how their own thoughts have progressed, rather than struggling to piece it together at the end of their work.

A supported argument is the learner's own view but it is a considered, informed view; considered in the light of all their acquired knowledge on a topic. It should be supported by their observations of the evidence – not just the facts of the case but also the cultural and social significance of any relevant knowledge or value within each perspective. This process allows learners to ultimately take a critical view of their own perspective which itself is likely to be influenced by the values of their own culture. This gives a context to their home culture.

2.4 What is the Critical Path?

The Critical Path is a teaching and learning process, a method of both investigation and exposition that enables teachers and learners to develop the skills required for Global Perspectives in a regular, systematic way. The model aims to produce above all, independent, reflective learners.

It is this skill-set rather than any specific content knowledge that is assessed in Global Perspectives. You can see this by looking back at the assessment structure and the description of the papers above.

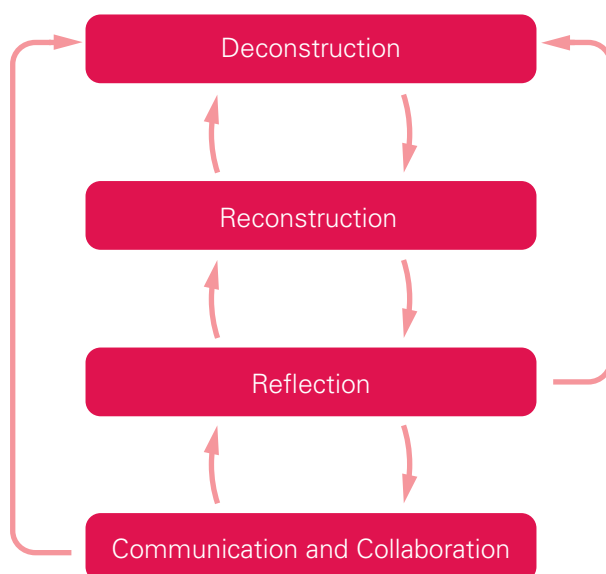
The Critical Path can be seen as a repeating spiral; by following it, learners visit and revisit skills, each time with less structured support from you as the teacher, until they are able to use them confidently. As their confidence increases, so their ability to think independently and reflectively improves.

There are four, repeated steps in this spiral path:

- Deconstruction –** Conduct a detailed analysis and evaluation of a point of view
- Reconstruction –** Carry out research, identify and evaluate evidence and sources for and against competing points of view
- Reflection –** Explore the impact of research on personal perspectives
- Communication and collaboration –** Communicate views, information and research effectively and convincingly

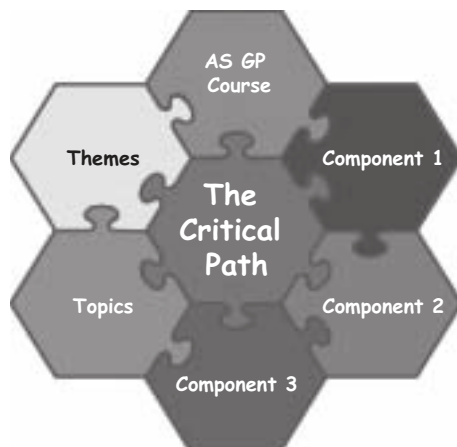
Communication is not merely the last part of the process in which learners tell others about their thoughts. It is an important part of the learning process in which learners must become active thinkers. In order to persuade others, they have to engage with issues, organise, select and control material, revisit the thinking they have done previously and consider the best means of communicating to others. This means that they will need to practise these skills several times on a smaller scale as part of the spiral nature of the Critical Path model during the learning process.

The Critical Path as an iterative process



The assessment objectives of Global Perspectives echo the steps of the Critical Path process and the examination components emphasise certain combinations of skills but teachers should beware of thinking that each component tests a specific assessment objective on its own. The Critical Path is part of the teaching and learning process and not a description of distinct stages of assessment.

2.6 How does the (AS) course fit together?



In many respects, the Critical Path is the key to the whole course. The three assessment components, the themes and topics all revolve around it in an iterative process. In order to design your course, attention must be paid to gradually introducing each of the jigsaw pieces.

Think:

- Gentle start with simple deconstruction exercises – fully scaffolded.
- Introduce each element of the Critical Path in stages.
- As part of this staged approach, build in topics, then themes.
- Finally introduce the assessment components.
- By stages, remove the scaffolding.

Section 3: Using the Critical Path (AS Level)

3.1 What does the Critical Path mean for your teaching?

In each topic that they study, learners will need to research an area using questions to open up the issues (with the help of their teacher). They should consider the quality of arguments and evidence. They should research the evidence base, considering different perspectives and building up the fuller context, including locating the issue in the global context, and in doing so they should use research and thinking skills. Learners should reflect on the evidence base, arguments, ideas and issues and their own perspective (initially in response to questioning, but increasingly independently). They should present their reasoning and reflection to their peers, building on the research, evaluation and reflection they have done.

In this way you can see that the Critical Path provides a framework around which teaching and learning activities can be organised.

3.1.1 The teacher as facilitator

As learners repeat and hone these skills across several topics they will become more independent and this means that the teacher gradually transforms into a facilitator, negotiator, motivator and manager, rather than a communicator of information. Each time you take your learners through the steps of the Critical Path they will need less structured support. It will be important for you to:

- introduce ideas and stimulus materials
- introduce thinking reasoning and research skills so that learners can think about their thinking and learning
- help learners to frame questions in areas that interest them
- respond to learners' interests
- respond to current world affairs
- prompt learners to think for themselves
- question learners in a way that helps them to develop their thinking and reasoning skills
- remind learners to use their thinking and research skills
- set the framework for the thinking classroom
- build in one-to-one meetings with individual learners
- set up and organise projects that allow learners to succeed in independent work.

It is likely that you will use seminars, group work and learner-led classes to a greater extent than in a subject that is driven by content. It is also likely that you will run teacher-centred lessons helping learners to develop their thinking, reasoning and research skills – giving them the tools to use in their independent work.

Although learners will focus on different issues in each repetition of the journey through the Critical Path, they will essentially be practising the same skills each time and developing greater subtlety and independence in their use each time.

3.1.2 General teaching tips

You can begin building the skills needed for the Critical Path process early in the course, by following some of these suggestions:

- Allow some independent research early in the course that gives learners the chance to develop a critical sense, even on a limited scale, e.g. following up some points in an article deconstructed for Paper 1 and then discussing in class how this was done and the validity of the sources used.
- Establish early on the idea of a perspective, and how it differs from, say, a single argument.
- Establish early on the practice of meetings with individuals and groups to discuss progress and help them to frame questions and research plans.
- Build in some practice with presentation skills before the formal presentation for Component 3 – even if only a short talk or poster which one group might undertake and another group could evaluate.
- When choosing topics for the Component 2 essay, an element of presentation could be introduced, in which learner groups might introduce their ideas, establish what the contrasting perspectives would be and discuss the local and global implications of their choices.
- The skills developed in Global Perspectives should enable candidates to perform better in other subjects. It may be useful to discuss with candidates how the skills can be transferred.
- Use ideas and arguments from learners' other subjects to show how the Global Perspectives skills are useful and transferable.

3.2 Teaching how to use the Critical Path

3.2.1 Deconstruction

The initial exercise when using the Critical Path is deconstruction.

Deconstruction is about:

- Identifying and critically comparing different perspectives
- Differentiating between fact, argument, opinion, rant, speculation, prediction, explanation, hypothesis, account and belief
- Identifying the key components of a claim or argument, such as conclusion, assumption, reasoning and evidence
- Understanding the implications of conclusions, assumptions, reasoning and claims
- Evaluating the strengths and weaknesses in the arguments, reasoning and claims.

Deconstructing the research area

The first and necessary task is to choose an area to investigate. For example, the learners and their teacher might be interested in biofuels, especially in the light of increasing food prices and hunger riots. Here, you could choose from a range of approaches. You may want to:

- discuss the general area of biofuels to discover what learners know and help them to organise their preliminary thoughts
- ask learners to research information on biofuels
- introduce a variety of stimulus material illustrating different perspectives to provoke learners to think
- introduce an argument firmly embedded in one perspective for structured deconstruction tasks.

Your choice of area to investigate will depend on the stage of the course and the specific aims for the session. It is worth remembering that structured deconstruction tasks may seem more purposeful in the light of general thinking around an issue and planning towards a presentation. So, even though there are no marks specifically attached to deconstructing the research area, this is a valuable part of the whole teaching and learning process that is the Critical Path.

Some exploratory questions to be used early in the process (perhaps after some initial information gathering) might include the following. This would count as deconstructing the research area.

- Which theme(s)/ topics would biofuels come under? Why?
- In what ways are biofuels of global importance and why?
- What do you think are the main issues involved in biofuels?
- At this early stage can you identify any different perspectives on this issue?

These questions should lead to a discussion of the ethical, economic, environmental, technical and political aspects of biofuels and are likely to raise a number of questions that learners might be interested to think about. For example:

- Is it right to turn rainforest into maize fields so that we can keep driving our cars?
- Is it ever ok to use food for fuel instead of for feeding people?
- Are all biofuels the same? How much do the differences matter?

This discussion will enable learners to start planning their research in different perspectives. Giving learners an overview of the discussion area, and an understanding of the usefulness of deconstruction in thinking through issues, helps them to see the point of the technical deconstruction exercises.

Deconstruction of argument

The teacher or the learners might provide an argument for deconstruction. This might come from a website, a newspaper, an academic journal or a book. Academic articles and books are useful, but can prove challenging for learners to deconstruct, especially early in the course. Below is an example of a newspaper article.

Biofuels will not feed the hungry

Between 1990 and 2005 the proportion of children under five who were underweight declined by one fifth. But that progress is now under threat. Rising food prices mean that malnutrition and starvation once again threaten many of those at the bottom of the world's economic ladder. While recent spikes in prices are unlikely to be permanent, producers should stop wasting food by subsidising biofuels and give the World Food Programme the funds it needs to distribute calories to those who cannot cope by themselves.

International market prices for wheat, corn, soya beans and dozens of other commodities have doubled or trebled in recent years. The result is poverty – for millions, a doubling of food prices means destitution – and increased malnutrition. World Food Programme officials have told the Financial Times that the agency may have to cut food rations, or even the number of people it reaches, unless donors provide more cash to pay higher prices

Some factors affecting prices for the world's poor are clearly temporary. Bad US and EU harvests in recent years, plus drought in Australia, have reduced grain stocks. There has also been a particular squeeze on internationally tradeable oils and grains, as producers such as Russia introduced export quotas in order to control prices at home. Finally, record shipping rates have made food yet more expensive in the poorer, importing countries that need to buy it most.

Other factors suggest a more permanent change. Food production consumes energy – for machinery, for transportation and most of all to manufacture fertiliser – and if oil prices remain high it will have a lasting effect on food. Cuts to food production subsidies, most notably in the EU, will also have a permanent effect on supply.

(But) the biggest structural change is biofuels. In the space of a few years, the USA has diverted about 40m tonnes of maize to produce bioethanol – about 4 per cent of global production of coarse grains. That rapid growth is largely the result of subsidies – which must halt. The environmental benefits of maize biofuel are ambiguous at best and it should not be favoured over growing maize for food.

Those governments that are subsidising biofuels need to cough up and help fund the World Food Programme.

(Source: Adapted from the Financial Times, permission has been sought)

Deconstruction questions

The following questions can be used when attempting to deconstruct most arguments. The sample answers are a guide to how a learner might answer these questions, but they are not intended as model answers. There are other good answers to most of these questions, especially those aimed at evaluating the strength of the argument. If you and your learners disagree with these answers (or with each other), discuss the answers and try to persuade each other.

(In the case of the biofuels article, the reader's opinion about the strength of this argument will depend to some extent on whether they accept the unstated principles that the author clearly holds dear: that governments have a duty to ensure that there is enough food for everyone in the world, and that feeding all the world's people is more important than combating climate change.)

Questions and sample answers

Q: Is this an argument, an explanation, a report, facts, opinions or a combination of these?

A: This text is an argument. It supports the author's conclusion with reasons. It uses some report and opinion as part of the support for the conclusion.

Q: What does the author want to persuade us to accept? Has the author stated or only implied this conclusion?

A: The author wants us to accept the statements: “Producers should stop wasting food by subsidising biofuels and give the World Food Programme the funds it needs to distribute calories to those who cannot cope by themselves.” And “Those governments that are subsidising biofuels need to cough up and help fund the World Food Programme.”

Q: On what grounds, or for what reasons is the author trying to persuade us to accept this conclusion?

A: The author wants us to accept this because food prices are high, high food prices cause poverty and malnutrition, and biofuels are a significant contributing factor to high food prices. Furthermore, the rapid growth in biofuels is the result of subsidies, and the environmental benefits of maize biofuels are ambiguous, at best. So maize biofuels should not be favoured over growing maize for food, so (main conclusion) governments/producers should stop subsidising biofuels and contribute to the World Food Programme.

Q: What else would you need to accept in order to accept the conclusion? (What unstated reasons are there? What does the author believe but doesn't actually say? What is the author keeping quiet about?)

A: The author assumes that feeding the whole world is more important than addressing global warming by funding alternatives to fossil fuels. An alternative perspective might be that we should allow the weakest few to die out in order to ensure the long-lasting success of the rest, and that long-term success is best achieved by finding alternatives to fossil fuels, including biofuels.

(Addressing this assumption and possible challenges would lead to some interesting reconstruction work. So we can see that deconstruction work can help learners to begin to understand different perspectives, and that it is an important building block in the Critical Path.)

The author assumes that maize biofuels are the main or only sort of biofuel. It may be that there are other kinds of biofuel that are not edible and not grown on land that could produce food. If so, there would be no case for governments/producers to withdraw their subsidies from biofuels altogether, just from those that threatened food production.

Q: What evidence does the author use to support their reasoning? (Note that reasoning is the structured organisation of the author's own thoughts, and evidence is the information, facts, statistics and references to others' ideas that the author uses to support their own reasoning).

A: Evidence used by the author here includes:

- The report of what the World Food Programme officials told the FT, that they “may have to cut food rations or even the number of people it reaches, unless donors provide more cash.”
- “International market prices for wheat, corn, soya beans... have doubled or trebled in recent years.” (This evidence could be checked) and further backed up by specific increases but, providing that a check of prices backs up the general claim. It is not a weakness that the author has summarised the evidence in this kind of report rather than providing it in detail).
- “In the space of a few years, the USA has diverted about 40m tonnes of maize to produce bioethanol – about 4 per cent of global production of coarse grains.”

Q: What additional evidence would be useful to make a judgement about this reasoning?

A: It would be useful to know what has happened since 2008 to the cost of oil, shipping and food production. This would help us to judge whether the author's predictions and thinking were accurate. As shipping and food production have traditionally used oil, it would be interesting to see whether the development of biofuels affects these costs. The author claims that the environmental benefits of maize fuel are ambiguous at best – it would be useful to research further evidence to see whether this claim can be supported or countered. In an argument about cutting subsidies for biofuels, it is not sufficient to simply assert that they are not beneficial: this needs to be shown.

Q: What sort of evidence/argument might weaken or counter this reasoning?

A: Evidence that the high food/oil prices were only temporary in 2008 would counter the reasoning. If food prices have fallen since then, and if oil prices have fallen, the case for removing subsidies for biofuels would be much less strong. This could be researched during the reconstruction process.

Evidence that maize or other biofuels did have a significant beneficial effect on the environment would counter this reasoning by showing one of its reasons to be wrong. This could also be researched during the reconstruction process.

An argument showing that biofuels did not affect the amount of food available to the world would counter this argument, especially if it was based on evidence that the USA has not 'diverted' food maize but has found ways of growing biofuels on land that does not yield good food crops.

Research into arguments supporting biofuels might produce other ideas here.

Q: How strong/effective is the author's reasoning? Does the conclusion follow from the reasons or is it too strong? Are there any flaws that weaken the reasoning (if so how much and how much does this matter)? Is the evidence appropriate?

A: There is some merit to the author's reasoning. If maize biofuels are diverting food from people, and if in a time of high food and oil prices people are suffering because there is not enough food, then, at least for a time, governments should prioritise food production. One way of doing this would be to reduce incentives such as subsidies for biofuels. However, the reasoning does not fully support the conclusion. The author's clear bias against biofuels as 'wasting food' is evident in some emotive passages of reasoning, and after an objective look at the causes of high food prices, the author states without showing that biofuels are the biggest structural change, and that their benefits are not clear. It seems that the author is allowing belief to do the job of reason here, which is not rational and therefore unconvincing. More work needs to be done to show that biofuels are as important in the change in food prices as the author believes they are. Furthermore, it is not clear why a diversion of maize in the USA to biofuels should lead to a rise in the prices of wheat, corn and soya beans. The generalisation from maize biofuels to biofuels in general also weakens the author's case, as it would be reasonable for governments to subsidise biofuels that did not threaten food production, even in a global food crisis. Overall, the argument is quite strong – it certainly persuades me that this is an issue worth thinking about. But it leaves room for disagreement, and I would need to do further research and more thinking before deciding whether to agree or disagree with the author.

Q: Does the author include counter argument (different views)? If so, how relevant are they? How well has the author answered them?

A: The author has included some reasoning to show the other reasons why food prices might be high, but has not considered any real counter to his own argument. That is, he has not considered any reasoning why biofuels should be subsidised, or why feeding the world is not that important in this extract. How much does this matter?

Q: So, overall, how much of this reasoning do you accept (based on earlier thinking)?

A: I accept that there is a real question about whether biofuels should be subsidised and whether they are generally good for the environment. I need to find out more about what it means for a government to subsidise something – how does this affect what happens and how is it related to other market forces? I need to think about whether I think that making sure everyone has enough food to eat is a duty for all governments. I'm really troubled by this idea. As a human being I feel that it is right to help those in need and provide each person with basic needs. But I can see that there are too many people in the world.

The world can't really cope with all of us. And global warming will make growing food more difficult, so we might need to make a difficult decision now to avoid worse situations in the future. And shouldn't my government do what is best for the people in my country? Isn't their duty to us before to other people in the world? But if biofuels don't help the environment, then we really shouldn't subsidise them. So I need to find out about this.

(Note that the learner is planning out some reconstruction work (I need to find out ...) and is beginning to reflect on the issue and on their own relationship to it. It is worth making learners aware of these different kinds of thinking when they emerge spontaneously. It will help them both to see the point of deconstruction and to understand their thinking.)

Q: How useful is this reasoning to your research?

A: It's very useful. I can certainly use it. Thinking about this article has helped me to plan further research. I know some of the information I'm going to look for, and some of the different perspectives that are involved. There's the ethical question of how we should treat other people and whether we should act on our duty and our feeling about what is right, or whether we should consider doing something that seems bad because it will be better in the long run. There are the economic questions about government subsidies, and what is the best choice economically. There are the environmental and technological issues about what is best for the environment. And there are the political issues about governments' choices and duties.

Does deconstruction end here?

No, during the research process, learners should gradually begin to deconstruct articles automatically. By the end of the course it should be a matter of habit for them to ask of any argument:

- What does this author want me to accept and on what grounds?
- How effectively does the author persuade me to accept the conclusion?
- What further evidence do I need?
- What further issues does this material raise for my research?

There is no need for learners to do detailed technical deconstruction activities on every piece of reasoning they come across. Rather, they should gradually develop a questioning habit of mind.

3.2.2 Reconstruction

Having deconstructed the research area and an argument, it is time to set the issue back into the broader context. This means researching the evidence base for two or more different perspectives, evaluating these evidence bases, and ensuring that the issue is seen in the global rather than in only a local context.

Reconstruction is about:

- Analysing the evidence base and support for different perspectives
- Identifying sources of evidence and establishing credibility
- Making a reasoned and balanced judgement based on evidence
- Explaining the context of the arguments
- Establishing the reliability of any conclusion.

The deconstruction of argument activity above has produced a number of questions that the learner wants to research further, but the teacher will also need to discuss other issues with the class to ensure that other perspectives are introduced, not just different opinions that are rooted in the same perspective.

Research skills

Learners are expected to:

- identify and use relevant tools for the research process: catalogues, databases, bibliographies, search engines
- identify relevant resources for the research process: books, journals, theses, websites
- select and store relevant resources
- evaluate the usefulness and reliability of the resources consulted
- return to earlier stages of locating relevant resources if necessary
- keep notes and records.

In the first iteration(s) of the Critical Path, you might provide a number of relevant sources in the form of a reading list, and expect learners to find known materials. Later in the course, learners would be expected to find a range of relevant materials independently, including books and websites.

Evaluating the usefulness and reliability of resources

Not all of the information available to learners is of equal value in conducting research. Learners need to learn how to tell the difference between resources that can reasonably be used in their study, and resources that should be avoided. This will depend on a number of factors, including the area that the learner is researching.

- Is the writer likely to be selective or to interpret the evidence in a particular way? Most authors do, as most authors are embedded in a particular perspective. It is important to identify and consider that perspective, bearing in mind how it will affect the reasoning.
- Has the author checked the facts? Is the author using the most recent facts where appropriate, bearing in mind the time it takes to collect information? Learners should cross-check information!
- Is the publication suitably recent? For example, using a publication from 1997 on biofuels would be inappropriate, but a 1997 introduction to ethical or political theory might be fine.
- Is the quality of reasoning and argument strong? Has the author jumped to conclusions? Has the author made reasoning errors that mean that the conclusion cannot be accepted? Even highly respected academics sometimes make such errors. For example, a few years ago a number of studies showed that hard work was necessary to genius, brilliance and success. Many writers argued on the basis of this that young people who showed talent should not therefore be especially nurtured, because it was hard work, not talent, that led to success. The people arguing this included academics and policy makers. But the reasoning confused necessary and sufficient conditions. That is, it ignored the fact

that hard work might be necessary for success, but that does not mean that it is sufficient. Talent and ability are probably also necessary for success. So there is a case for nurturing children with talent, and encouraging them to work hard as well.

- How can the resource be used to help the learner's reasoning/development of ideas?

However, there are several questions that learners can ask in most cases. These include:

- Is this written by an expert? Is it: a seminal text, a minor publication, a reasoned argument in a reputable magazine by an expert, an opinion in the newspaper written by a journalist with some/ no expertise, a rant? If an expert starts ranting, do we take them seriously? Is there a consensus of opinion on this matter? Is this material part of a healthy academic debate or is it a far-fetched theory discounted by most experts? Is this material produced by an individual with unusual opinions who finds the internet the best space for sharing these ideas?
- Might the writer have any reason to lie?

Possible sources

Let's look at some of the sources that a learner might use to help their research when following on from the deconstruction task about biofuels, above. The comments given here report the learner's thinking during the research process, not what they will write in an essay or presentation. The comments start with ideas about reliability, then move on to reflection on the issues and the research plan.

Source: <http://bio.org/ind/advbio/bioworldbiofuels.pdf> Biofuels report: market realities, perspectives and challenges, Jim Greenwood, CEO of the Biotechnology Industry Organisation, 2006.

This came up under an internet search for 'Perspectives biofuels.' It looks quite promising as a source, until you see the date. A 2006 document will not help me to investigate changes since 2008 that would affect my opinion on whether biofuels should be subsidised. But I looked at bio.org/ to see if they have got any new evidence, information or arguments. This site really pushes the benefits of biotechnology, so it could be a useful source of information from the perspective of people who will benefit from biofuels. They don't seem to take negatives into consideration, but to push the positives. I'll need to bear in mind that they might be selecting just the most positive evidence.'

Source: 'Famine, Affluence and Morality,' Peter Singer (written 1971) in *Western Philosophy: an anthology* ed. Cottingham, Blackwell Publishing 2nd edition, 2008.

This is an old text but it seems to be an important one. It's about the morality of whether we should help people in need in other parts of the planet. I think I need help to understand this one. I want to understand the background of why we should help people, but this is a difficult text. I can see why he thinks it is good to help people who are suffering, but I don't follow why he thinks it is wrong not to help them. Can this text help me decide what to do about biofuels? Well, if he's right it might support the author of the first article, when he assumed that feeding the whole world is more important than addressing global warming by funding alternatives to fossil fuels. Check – is Peter Singer's view mainstream or unusual?'

Source: www.scientificblogging.com

It's scientists writing, and many of them seem to know what they are talking about, but some of them seem to be getting over-enthusiastic about their special ideas. Some of it is too scientific and I don't understand it. But some of them also have summaries that are easy to understand. I think I could use some of this. I'll keep a note of it for later, it might be useful for other topics. This one makes me question the idea that blogs are ranting and not much good. It seems that some blogs might be useful, so I'll have to judge them as I go. It would be easier to just say they were all weak.

Source: www.euractiv.com/en/climate-environment/eu-should-involve-developing-countries-biofuels-debate-news-483458

Although it's a European source, this one starts to express a different perspective. It reports the view of a Malaysian biofuel producer. He's got a vested interest in getting Europe to buy palm oil, but that doesn't mean he's wrong to say that the EU should consider the views of developing countries about biofuels, especially as it's often them growing the fuels and they have to plan and invest. There is some useful evidence I could follow up about palm oil being efficient – does palm oil grow where maize doesn't? Is palm oil usable for food? I could also follow up ideas about governments and who they have a duty to. European governments are making decisions that affect people everywhere in the world. This could have really serious consequences. Do they have some kind of responsibility to make these consequences good ones?

Other possible sources include:

- Heywood, A. *Political Theory* Palgrave Macmillan, May 2004. This would be a good starting point for learners who wish to follow up thoughts about governments and their relationships with people and approach the issue of biofuels from a political perspective.
- Thomson, A. *Critical Reasoning in Ethics* Routledge, June 1999. This is an excellent book for helping learners to reason through issues from an ethical perspective.
- www.biodieselmagazine.com
- www.greenenergy.com
- ClimateChangeCorp.com
- www.ethicalcorp.com
- [http://www.odi.org.uk/events/biofuels_07 index.html](http://www.odi.org.uk/events/biofuels_07_index.html) (a presentation by Rachel Slater).

Note that Heywood and Thomson provide theoretical frameworks that can be applied to various issues. They have been included on the list because the learner was showing signs of interest in politics and ethics, and raising questions that would best be answered with the aid of a theoretical framework. For a learner who was raising economic questions, an economics textbook (such as Cambridge AS/A2 Economics by Bamford et al) might be useful. For general help and guidance with critical analysis, Butterworth and Thwaites, *Thinking Skills: Critical Thinking and Problem Solving* Cambridge University Press, April 2013, is very useful.

Do learners need to know political, economic or ethical or cultural theories?

Learners do not need to know any particular theories. They should be able to look at issues under the broad themes of Economics, Ethics, Environment, Science and Technology, Politics and Culture. They should be able to think about issues from an economic or an ethical perspective. For example, some learners may find that a simple introduction to theory helps them to organise their thoughts and deepen their reflection. Other learners are inclined to hold onto theory as a replacement for thinking.

However, it is important to note that an understanding of theory is not an end in itself. It should not be taught as it would be in a main subject, but should, like any other source, be approached critically. Learners should judge the perspective and usefulness of theory, just as they would with articles from the newspaper. Theory should always be applied to real issues of global significance in our world. Learners with an interest in theory should be encouraged to use it to extend their understanding of real world issues and to consider the implications of the theory or the consequences of the theory in relation to real issues, such as biofuels. The following questions might help.

- What is the just or fair choice to make about biofuels? How do ethical theories help me to make the right decision about biofuels?
- What are the opportunity costs of biofuels? How do economic theories help me to make the right decision about biofuels?
- What are the political implications of biofuels? How does political theory help me to make the right decision about biofuels?
- Is the right ethical decision the same as the right economic decision? Is the right political decision the same as either the right ethical decision or the right economic decision? Are these decisions the same from the perspective of a Malaysian palm oil producer, an American oil company, a European driver and a Nigerian farmer?
- How can we judge between these competing ideas?

Bringing ideas together

Once learners have researched the evidence base for two or more different perspectives, they need to evaluate the evidence base. The evidence base consists of information, ideas, arguments and even the beliefs that underpin those ideas and arguments. The strengths and weaknesses of arguments, the fundamental beliefs underpinning the perspective, the consequences and implications of each perspective can all be used to evaluate and judge between perspectives.

3.2.3 Reflection

Not only is reflection an important part of the assessment of the course (in AO2 it has an entire assessment objective to itself), it encompasses a variety of linked characteristics in learners.

Reflection is about:

- deep thought based on previous thinking
- asking difficult questions and trying to find the answers to them
- considering consequences and implications and how much these matter
- weighing evidence
- weighing consequences and responsibilities
- following ideas through
- questioning our own beliefs in the light of evidence and other perspectives
- trying to decide what we think
- finding a personal perspective that takes other perspectives into consideration, possibly synthesising different perspectives.

As a teacher, it is helpful to think about reflection in two distinct ways. Firstly, reflection is a skill which needs to be developed organically by learners over their time on the AS, and the A-Level as a whole if

they are pursuing the qualification. These general skills and reflective attitudes will be assessed in the essay paper as they reflect on the evidence from different perspectives in order to reach a conclusion, and in the research report as they reflect on the arguments and evidence they have found. The Team Project also relies on reflection in this sense as learners reflect on the issue they have identified and the different perspectives on it which they find together. However, this component also demands reflection in another, more focused sense as they are required to write an 800 word reflective paper. This section of the Teacher's Guide therefore begins with some advice on developing reflective skills in a general sense before moving on specifically to how to prepare learners for the reflective paper.

How do I teach learners to reflect?

Many learners have grown up in an environment that rewards 'knowing the answer' rather than personal thought. Some will feel liberated and valued when asked what they personally think. Others will feel lost.

Reflection is a deeply personal activity. It can best be taught by:

- allowing learners to think for themselves
- providing opportunities for thinking
- questioning learners in a way that prompts thinking
- rewarding attempts to think things through with interest and the generation of further questions.

Some reflection can be done during conversation and questioning, but quiet thinking is also important. One useful technique for promoting quiet thinking is to encourage learners to keep a logbook. Learners do not need to share all of their reflection. This logbook could contain:

- notes on research
- reflections on the issue researched
- reflections on the research and learning process
- reflections on the lessons and the new learning styles
- responses to the course.

It is important to encourage learners to reflect and not just to write down evidence they have found.

The Critical Path can double back on itself. Reflection may indicate the need for more research. This might either be research that the learner should do as part of their present project, or the learner may find that there is a broad area needing further research that cannot be included in the present project. This is an important distinction. If reflection reveals that more research is needed within the scope of the present project, then the learner will have to revisit the reconstruction, and possibly the deconstruction, stages of the Critical Path.

As part of the reflection process, learners should apply a healthy scepticism to the conclusions they have reached. That is, they should be aware of the provisional nature of these conclusions. They should be subtle and nuanced, and they should not claim too much.

Let's look at two examples of teachers working with learners:

Example A

Teacher A: *Can anyone tell me what a biofuel is?*

Learner X: *A plant used as fuel.*

Teacher A: *I want to build on this for a full definition. Y, can you help?*

Learner Y: *A biofuel is a fuel such as methane produced from renewable biological resources such as plant biomass and treated municipal and industrial waste.*

Teacher A: *Yes, well done Y. Why do some people oppose biofuels?*

Learner Y: *Because biofuels are diverting up to 4% of US grain to fuel production.*

Teacher A: *Good.*

Example B

Teacher B: *Can you remember what a biofuel is?*

Learner X: *A plant used as fuel.*

Teacher B: *What sort of plant? Any plant?*

Learner X: *They use maize and palm oil, and I've read about them using algae. I don't know if any plant would do. I suppose some of them aren't very good.*

Teacher B: *No, I don't know either. We'll have to find out. Do biofuels only come from plants?*

Learner Y: *A biofuel is a fuel such as methane produced from renewable biological resources such as plant biomass and treated municipal and industrial waste.*

Teacher B: *You've looked it up Y, well done. So, what does that mean? Do biofuels only come from plants or are there other sources of fuel from biological resources?*

Learner Y: *I don't know.*

Teacher B: *What do you think it means by, 'treated municipal and industrial waste'?*

Learner Y: *I don't know. Do they get fuel from rubbish?*

Learner X: *Oh yes! You're right Y. I read about things decomposing in landfill sites and making gas that we can burn for energy. Methane.*

Teacher B: *So what do you think about using biofuels?*

Learner Y: *Biofuels are diverting up to 4% of US grain to fuel production.*

Teacher B: *Why does that matter?*

Learner Y: *Because the World Food Programme officials have said that they might not have enough food for all the starving people.*

Teacher B: *So what's the connection?*

Learner Y: *Food from the US could be sold or given to starving people instead, I suppose.*

Teacher B: *So, Y, what do you think about putting fuel into a car instead of feeding people with it?*

Learner Y: *I think it's wrong. But I think global warming is wrong too. And I don't think it's such a simple dilemma as that. I think the problem is more complicated.*

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Learner X: *I don't think it's complicated at all, Y. Our lifestyle is just selfish and we've got to change it.*

Learner Y: *But that's it, we've got to change our lifestyle, not just see it as an alternative between food and fuel. And that's difficult. If I could see people starving in front of me, I would give them food. But I can't. I'm just driving my car to school on a cold, wet day.*

Teacher B: *Go on, this is very interesting.*

Learner Z: *I'm not even sure we'd give food to people if we could see them. We walk past beggars every day, and we're just rude about them. We call them scroungers. And people who depend on state hand-outs and charity, we look down on them.*

Learner X: *But it's different. Hardworking people who can't eat because of bad harvests and because of our choices about biofuels are different from lazy good-for-nothings who are lucky enough to live in a rich country and don't want to work.*

Learner Y: *Isn't that a sweeping generalisation?*

Teacher B begins by revising previous concepts and testing understanding of them, then moves on to asking for reflection. Y is not a confident learner, and tends to cling to known facts. But interest and questioning reveal that Y has been quietly reflecting and has seen some of the complexities of the situation. The discussion broadens out beyond biofuels, which is an important part of reflecting on the whole context. Teacher B may now find that she has a lively debate on her hands. Her task will be to ensure that learners are genuinely reflecting and going beyond their previous thinking, not just reaffirming their existing beliefs and prejudices.

The following books give useful further guidance on teaching reflection:

Fisher, R., *Teaching Thinking* (3rd edition), Continuum, 2008

Matthews, R and Lally, J. *The Thinking Teacher's Toolkit*, Continuum, 2010

How do I prepare learners for the reflective paper?

The reflective paper requires learners to produce more formal, written reflection on a specific learning experience, that of their work on the Team Project. In order to do this, it is helpful to teach learners some specific academic models for reflection. The e-learning materials provided by Cambridge provide some useful ideas for doing this, particularly in the 'Focus on the Team Project' module. After discussing some initial ideas about what reflection might be in the context of the Team Project and how they might approach it (including keeping a reflective log and thinking reflectively throughout the process), it would be useful to introduce Gibbs's reflective cycle as a possible structure for pulling together their ideas and experiences in preparation for writing the reflective paper:



Source: Gibbs, G. (1988) *Learning by doing; a guide to teaching and learning methods*, Oxford: Further Education Unit

It is important to realise here that knowledge of this cycle as a theory of reflection is not a required piece of content for the course. Rather, it provides a structure for learners to follow to ensure that they are analysing and evaluating the process of collaboration. As with all of the components of Global Perspectives, learners are being rewarded for their ability to evaluate – to evidence strengths and weaknesses in a particular position, argument or situation, then to reach a judgement on the basis of these.

Finally, it is important to consider how the mark scheme for the reflective paper assesses learner work. Marks are awarded for reflection and collaboration, but it is important to remember that collaboration is not being directly assessed: how could it be, after all, as the paper is externally assessed and the examiner is not in a position to watch your learners working together. In fact, it might even be quite hard for you to see all that they are doing! Instead, they get marks by showing that they can reflect on a collaborative experience. It is therefore important to underline to learners that it is their responsibility to collect evidence throughout the Team Project on the process of working together and in particular of negotiating different solutions within the group. They then need to summarise this in a structured, evidenced and evaluative way in the reflective paper – it is this 800 word piece that will be the only evidence on which marks can be awarded.

3.2.4 Communication

Communication (including in the form of mini-presentations) occurs during the course, and in most cases it is part of the learning process rather than part of the assessment process.

Communication is about:

- Working with others to identify problems and working towards effective and workable solutions
- Presenting in an effective and organised way
- Presenting complex perspectives to non-specialist audiences
- Presenting arguments effectively and persuasively
- Using the proper techniques to present research findings reliably.

As discussed above, the need to present (to articulate their thoughts to others) encourages learners to engage with the issues, the evidence base and their own thinking and to organise all of these into a suitable format. During the course, presentation of ideas and thinking processes can take many forms including:

- role plays – sympathetic engagement;
- discussions – using evidence, answering others' arguments, reflecting on issues;
- debates – using evidence, answering others' arguments, organising thinking into a formal structure;
- seminars – engagement with the issues, evidence and argument, control and management of material;
- displays – combining visual and written presentation, organising material;
- short talks – getting to know the material, organising it into a structure;
- games such as 'Just a Minute' in which learners have to talk about a subject for a minute without hesitation, deviation from the subject or repetition – confidence and rapid reflection, access to thoughts we didn't know we had;
- essays – using and evaluating evidence, exploring perspectives, organising material into a coherent argument, forming and arguing for a judgement;
- formal presentations – developing a sustained, reasoned case which takes other perspectives into account, engages reflectively, sympathetically and intellectually with issues and perspectives and uses evidence to support this reasoning, organising the argument and visuals to communicate through speech not writing.

So, learners might make a display about biofuels, they might hand in a research diary, they might organise and take part in a seminar. Games and role plays could be mixed in with more formal presentations. All of these would help the learners to process, deal with and organise the material they have found.

Teachers need to consider how to set up an opportunity to prepare and deliver presentations at or near the beginning of each cycle of the critical path. The nature of the presentation will shape the reconstruction and reflection stages, so it is important to plan it in the very early stages of deconstruction of the research area. For example, if learners are going to present a display, or talk to the class, they will need to know this early so that they can search for an appropriate visual representation of the ideas they wish to communicate. This may be pictures, cartoons, a flow diagram of their argument or any other appropriate visuals. The learner will also need to take into account that a presentation intended to be spoken cannot be as dense as one intended to be read.

The nature of the presentation set up will also affect the quality of thinking that is done during early stages of the cycle. The instruction to 'do a display on biofuels' is likely to lead to information gathering and presentation of information without much organisation, evaluation or reflection. A more effective set of instructions might be:

Teacher A: *We've started to look at the issue of biofuels. We've deconstructed one argument, and you've raised some questions that interest you, and thought of some lines of research to follow up. Karim, for example, wants to research some political theory about a government's duties, and Ana wants to explore some algae based biofuels to see whether they can provide energy without taking land away from food production. In four weeks' time you are going to present the results of your research in a display. Your display must:*

- *answer a question of global significance about biofuels which we will set over the next week;*
- *include relevant images which really interact with your ideas;*
- *show at least two different perspectives (political v economic v ethical or small farmer v car driver v oil tycoon for example);*
- *use and evaluate at least five sources;*
- *show how you are going to judge between the perspectives;*
- *show your own reflection and thinking about the issue*
- *be presented to a very high standard in A1 format.*

Learner Q: *What if we do some research and change our mind?*

Teacher A: *About the question or the answer?*

Learner Q: *About the question. Now I might just go with the idea from the first article we looked at, because I haven't thought of anything that interests me more. But what if I find some ideas that are more interesting?*

Teacher A: *It depends when it happens. If there's still time for a change of focus, we'll talk about it. If it's two days before the deadline, it's too late.*

Setting a strong question towards the beginning of a cycle of the critical path can determine the success of the learning in that cycle. A weak question or no question can lead to description, fact collection and simple use (or cutting and pasting) of information from other sources. A strong question demands engagement, processing and organisation. So, what are the characteristics of a strong question?

A strong question:

- requires a judgement to be made (on an issue of global importance)
- allows for debate between different perspectives
- allows for the answer to be in the middle ground or to synthesise different perspectives
- is simple – one idea rather than many
- can be answered with the resources available to the student in the word limit allowed.
- really interests the candidate.

Let's look at two different possible questions:

Q1: *What different attitudes do people around the world have to the relationship between parents and children?*

Q2: *Should young people honour their parents (and if so, how far)?*

Question 1 does not require a judgement to be made and is likely to lead to a description. It is likely to bring up information about different perspectives, but not to encourage candidates to engage with them or to evaluate them. There is no debate to be had here. It might meet the last three criteria in the list, although to be done within a word limit it would need to be narrowed down.

Question 2 does require a judgement; there is certainly a debate to be had, and very different perspectives (generational, Chinese/Indian v European/American). There is only one key idea here to be discussed, and it allows for some deconstruction of the word 'honour'. It could be answered within a limited word count using resources available in libraries and the internet. This is an issue that certainly might interest young people and which can be treated in a global way.

So, Question 2 is a better question for an examined presentation, and would be better than Question 1 to structure the bulk of a cycle through the Critical Path. Does this mean that Question A should not be used at all? Not necessarily. A general, information seeking question may be needed in the very early stages to help learners get to grips with the issues. If asked whether young people should honour their parents, most learners are likely to answer either 'yes' or 'no' depending on their cultural background. They may not be aware of the different perspectives and may need to seek information on differences before they are in a position to make a judgement about them.

Organising ideas, issues and evaluative use of source material into an argument does not come naturally to most learners. Rather than teaching learners the content, teachers will need to spend some time teaching learners how to organise and manage material and how to develop arguments. The following are some strategies that may help.

1. Start early by asking learners to express and justify their opinions. Ask them to think more deeply about their opinions. Present evidence which should make them question their opinions. Ask them to test their opinions in the light of opposing views – not just as opposition to be defeated but as persuasive reasoning which might affect their opinions or alternatively might be argued against. Ask, 'if someone can't defend their opinion against a persuasive opponent, should they change it?' Question the role of emotion and gut feeling in opinion and in judgement. Discuss whether all opinions are of equal value, or whether a well thought through and supported judgement has more weight than an opinion based on prejudice. Repeat this process with judgements formed about academic issues, and expect learners to form a judgement and support it, but to be prepared to amend this judgement in the light of new arguments and evidence, possibly from different perspectives.
2. Get learners used to the need to frame and express their own thoughts by always asking them what they think and why. Make sure that they know that the answer is not in a book somewhere, it's a judgement that each student must make and support for themselves. Make sure that they understand that an essay or presentation is about the process of their own judgement formation.
3. Teach learners the basics of developing an argument. One very simple exercise is: take an answer to a question (the conclusion). Give three (or four or five) reasons to accept this conclusion, and make sure they are good reasons focused on the precise answer / conclusion, not just general advantages or disadvantages. Then think of two, three or four reasons why we should accept each of the reasons (this will make them intermediate conclusions). Then think what sort of evidence would be needed to support the reasoning. More on this can be found in Butterworth and Thwaites, *Thinking Skills: Critical Thinking and Problem Solving*, Cambridge University Press, April 2013. Remember that these skills need to be placed in the context of the longer arguments required by the GP course.

4. Ask learners to plan their answers (possibly using structures such as that described in 3 above). Schedule a discussion with each individual while the class are researching. Ask the student questions such as, 'that's a really interesting idea, but how will it help you to answer your question?' and 'is that really a different perspective?' and 'how are you going to answer this point?' and 'are you using this argument or just describing it?' and repeatedly, 'how will this help you to answer your question?' For example, 'Ana, you've found out a lot about algae based biofuels, and you clearly understand the science behind it. I'm not yet sure how this will help you to answer your question about whether governments should subsidise biofuel production. Can you explain the link?'

Both technical and written presentation skills are useful as they serve as tools to help learners communicate their thinking. So, this means that learners should think about how any visuals they use interact with the words they use to communicate ideas and reasoning. Good ideas include but are not limited to the following.

- Relevant images or cartoons (which should be referred to with words).
- Diagrams or flow charts showing the line of reasoning on a poster (these can be very helpful to an audience following a complex argument).
- Key ideas summarised in few words.
- A clear spoken presentation in good quality recording with no background noises accompanied by a written transcript (especially useful for Component 3).

Less effective ideas include but are not limited to the following.

- Collages of pictures which have no deep connection to the words/ideas/arguments and are not referred to.
- A different animation technique on every slide.
- Irritating sounds and bleeps on slide transition, especially if they are much louder than your voice (the examiner will be using headphones).
- Pink writing on a green background.
- Writing which bounces around the screen while the audience (examiner) tries to read it.
- Lots of tiny writing crammed into each slide.

Audio recordings which are fuzzy, inaudible, spoken too fast so that lots of ideas can be crammed into eight minutes or slowed right down so that limited ideas can be made to last fifteen minutes.

Audio recordings in which the misbehaviour of other class members is more audible than the learners examined.

The e-learning materials contain a substantial amount of detailed guidance and lots of ideas for learners giving presentations, particularly in the 'Focus on Multimedia' module. You can draw on this to give them practice in a range of presentational media over the course, but also to introduce them to best practice in that method. Given that the component 3 presentation is given live to an audience, you should also draw on some of the advice in that module – and your own guidance – on effective performance techniques and give them the opportunity to practise these.

One important point to bear in mind is that for the component 3 presentation, learners are making an argument for their solution to the problem that has been identified. This means that although other perspectives will be engaged with as counter-arguments, the expectation is that the presentational medium is used for its most useful purpose: to make a supported argument for a particular point of view which uses its structure and presentational techniques to engage the audience and convince them of a particular position. Learners should be prepared for this 8 minute presentation with that purpose in mind.

3.2.5 Collaboration

Learners will need to be helped to work effectively as a team in the early weeks of the course.

Collaboration is about:

- Working with others to identify problems
- Working together towards effective and workable solutions.

It may be that you build in some simple teamwork tasks at the start of the course which could be as simple as sharing the sourcing of material to stimulate a specific part of a whole class discussion. As with the preparation for other components, you will need to build up learner's skills throughout the course as part of the iterative process.

Teaching the skills

If learners are to be prepared for the Team Project, teachers will need to teach some essential skills, monitor learners' progress, and provide guidance. These may be done on a class basis, or in small groups, or individually, whichever is most appropriate at any given time. The teaching of essential skills is likely to have taken place during class work carried out in preparation for the Team Project, though it may be necessary to revisit some of what has been taught at the point when the skill is required, if learners are still unsure. The following outlines a process that may help guide learners through the Team Project, either as individuals or in their teams, and sometimes both:

Planning the project (group activity)

- Selecting and defining the focus of the project and the issue to be investigated
- Planning the research to ensure there is sufficient scope for multiple perspectives to be considered by individual team members
- Making sure the issue has local significance and global implications
- Allocating the different research areas
- Developing an appropriate question

Carrying out the research (individual activity)

- Focusing the research to consider a range of perspectives
- Selecting appropriate and credible sources of information

Using the research (individual activity)

- Analysing research to assess current situation – causes and effects
- Drawing conclusions
- Developing ways of addressing the issue based on the research

Report presenting (individual activity)

- Reviewing, selecting and organising information
- Communicating effectively and concisely

Reflecting (individual and group activity)

- Working reflectively
- Evaluating the strengths and weaknesses of the group work
- Considering how research findings have impacted positively and/or negatively on personal perspective
- Come to an agreed set of solutions to the issue

Forming groups

Learners produce the Team Project in groups of two to five. Groups may be formed in a variety of ways. For instance, learners may be assigned to groups based on common areas of interest, or based on their different strengths in terms of what they can bring to the project, or they may be randomly assigned. Teachers may wish to assign learners to groups themselves. When teams have been formed (but before beginning on the project) teachers will need to provide guidance on:

Working as a group (group activity)

- Contributing positively to group work and discussion
- Allocating work fairly within the group
- Making decisions as a group
- Resolving conflict
- Managing time

Roles and responsibilities

It is important for learners to understand the variety of roles necessary for groups to work effectively and efficiently. They should be encouraged to try a variety of roles themselves during the early stages and therefore gain a greater understanding of their own strengths and weaknesses. Their observations will also help them to understand what makes a successful team. Some roles they might consider are:

- Facilitator/Leader
- Note taker
- Ideas generator
- Devil's advocate
- Progress chaser/timekeeper
- Expert
- Mediator
- Presenter

The 'Focus on the Team Project' module of the e-learning materials contains more detailed advice on how learners can think about their place in a group, drawing on Belbin's work on team roles. Again, it is important to note here that knowledge of this theory is not assessed, or required – it is simply a possible practical framework, and aid for learners in thinking about their role in a group more analytically.

Learners should be encouraged to make observations about group work in the early stages so that they get a greater understanding of team dynamics and information that they can feed into their reflective report. Some possible team traits to watch for might be:

- Who participates
- Who doesn't
- How do people take turns?
- Who talks to whom?
- Who responds to whom?
- How are interruptions handled?
- Is silence OK?

Section 3: Using the Critical Path (AS Level)

- Is anyone dominating the conversation?
- How are decisions made?
 - By consensus?
 - By voting?
 - By one person?

There will also be a need to help learners to identify a local issue with global implications. Below are some possible Team Project issues (UK context) but learners might equally start with the topics list or local newspapers and source their issues there.

Topic 1	Local Issue	Global Relevance
Science and Technology (Transportation – Aviation)	There is a debate currently going on over whether Stansted airport should be expanded, or a new airport built in the Thames estuary	With globalisation, there is increased demand for air travel and several countries have had to expand their capacity (e.g. Hong Kong, Singapore, China etc.) in order to remain competitive.
Possible question for group report to address		
How important is it for Britain to increase its air carrying capacity and what is the best way to do it?		
Possible perspectives		
Local people, domestic airlines likely to be affected, airline travellers, environmental groups, politicians, the business/commercial world, etc.		

Topic 2	Local Issue	Global Relevance
Culture (Crime – Gangs)	There have been problems with gangs and stabbings in our local area. There was a recent case in the area of a fight between two rival gangs in which one teenage boy was stabbed.	There are many countries in the world where gang warfare is a problem and the problem mainly affects young people.
Possible question for group report to address		
Why has there been an increase in the amount of knife crime and what can be done to reduce or eradicate the problem?		
Possible perspectives		
Young people themselves, the police, the local authorities who are responsible for leisure facilities in the area, parents, teachers, youth workers etc.		

Topic 3	Local Issue	Global Relevance
Ethics (Medical ethics – Assisted suicide)	There was a report in our local newspaper recently about a man with a terminal illness who wanted his doctor to be able to help him commit suicide when the time came because he would be physically unable to do it himself.	Many countries have and will have ageing populations and will face mounting costs for health care.
Possible question for group report to address		
Is it ever acceptable for a doctor to assist a patient to die?		
Possible perspectives		
Patients, doctors, palliative care workers, religious leaders, high court judges, the general public etc.		

Section 4: Planning (AS Level)

When setting up your course in Global Perspectives it is helpful to consider the following organisational issues:

- If you have a significant number of learners you will need to set up a coordinator and a team
- Your team will need to agree content incorporating some flexibility to deal with any contingencies that might affect timing
- You will need to agree an approach to
 - sharing objectives
 - learner’s responsibility for own learning
 - using assessment to promote learning
 - how much demand there will be for written work
 - training in research skills, finding sources, using the library
- You will need to agree a basic structure for the year
 - mocks, exams
 - deadlines for Component 2
 - dates of filming and deadline for submission for Component 3 material
- You may need a skills progression flow chart – so that if multiple teachers teach the same learners on the same topic, they are aware of the previous learning that has taken place and what is required next
- Integrating any outside speakers/presentations by members of staff/visits to conferences etc. into the course
- Ensure your course has a sense of progression and is not just a series of topics

4.1 Balance skills and subject-matter

It is important to establish a good balance between skills and subject-matter in a Global Perspective course. Learners will be assessed on the skills specifically detailed in the assessment objectives, taught through the topic areas listed in the syllabus (and reproduced in Section 2 of this guide). These topics or issues of global significance, (like the texts in English Literature), constitute the medium within which these skills are developed, then honed. In the process of that development, learners learn to research and investigate with increasing independence. Following on from this, they learn to view and evaluate all of the available information – the arguments, opinions and beliefs – from a variety of perspectives and can practice coming to their own conclusions (based on the evidence before them) and articulate their views in essays and presentations.

In planning the course the teacher should break down the teaching and learning that form the necessary steps to achieving the assessment objectives and find appropriate resources to facilitate the skills development. A sample scheme of work is included at the end of this section to illustrate one way of breaking down these skills into a progressive programme.

4.2 Progression of skills; moving from structured classes to seminars

In order to create independent thinkers teachers need to move from a structured classroom approach that allows initial techniques to be explained and demonstrated, to seminar-based lessons in which the teacher increasingly becomes a facilitator and learners can practice and deliver their work.

The progression of skills is reflected in the assessment structure. Learners will need to see Component 1 and be familiar with how the skills of deconstruction are tested here. They need to choose a question and practise their essay technique for Component 2 and to have sufficient skills in place to be able to develop their team work skills and presentation for Component 3.

It is important therefore that lessons are built in to the programme in which learners are introduced to the 3 elements of the assessment and understand what they must do. They will need to be made familiar with the structure, style and format of the assessments.

It can also be helpful to let learners mark each other's work or see previous work so that they can get an idea of what is expected of them.

4.3 Sample scheme of work

Below is an example of a scheme of work from an institution which has had experience of delivering AS Global Perspectives over the past few years.

In this scheme of work you can see that the skills have been broken down into a progression alongside the time available within the terms. Learners are instructed in basic deconstruction and research skills first and then allowed to practise these. Deconstruction skills in particular need a sufficient amount of practise to be properly retained. Next, seminar lessons are introduced in which learners have a platform for practising their presentation techniques on a set of defined issues. Seminar lessons continue with the introduction of higher level sources such as books, and presentations are given on more involved issues. At the same time learners are introduced to the assessments and are able to work on their responses for Components 2 and 3.

Sample Scheme of Work for AS Global Perspectives

First Term: First Half

Week 1	Introduction to the course: initial group research activity.
Week 2	What is an argument? Reasons, conclusions, argument indicators with short examples. Begin to develop a research question on a global topic, using this to introduce tools for clarification.
Week 3	Evaluating argument strength, context and perspective. Introduce a number of short, actual arguments around the same topic of contemporary interest (e.g. the war in Afghanistan, the legacy of 9/11, etc.). Introduce criteria for evaluating argument structure and context. Introduce and define perspectives as world-view and as combination of conclusions, assumptions, value judgements, evidence and context. Use to group arguments.
Week 4	Introduce advanced Google searching and subscription library resources, linking to evaluation of sources. Learners use skills to locate and group their own sources around the topic and evaluate them. Include local links and reflect on process of team work.
Week 5	Introduce a further new topic from syllabus list (e.g. biofuels). Show initial common source (could be audio-visual) and follow with structured grouping and analysis of selected further sources. Establish and evaluate initial questions.
Week 6	Introduce techniques for constructing a presentation poster. Learners work in teams on a question linked to the issue and produce a poster.

First Term: Second Half

Week 1	Introduce new issue, exploring the development of questions, evaluating sources, evidence and perspectives.
Week 2	Introduce techniques of sequencing selections from sources and link to essay-writing. Use to write a short essay on this topic.
Week 3	Look at more detailed techniques for giving presentations and show best-practice in PowerPoint.
Week 4	Use to produce a PowerPoint presentation answering a research question in this topic. Learners research an issue in groups then produce short, individual presentations proposing solutions from different perspectives. Each learner produces a short statement reflecting on their experiences.
Week 5	Switch to seminar format, splitting class in two (half-group in each seminar with additional independent research time). First seminar introduces sources on a topic in ethics (e.g. ethics of global pharmaceuticals, or stem cell research).
Week 6	Continue with seminars to introduce opposing perspectives, group sources, produce arguments and get learners to discuss possible questions. Leads to first possible Paper 2 essay.

Second Term: First Half

Week 1	Work through specimen Component 1 in class, linking to deconstruction skills established so far.
Week 2	Following this, begin second seminar sequence on a contrasting topic (e.g. multiculturalism). Use to introduce higher level sources (e.g. books) and for learners to give their own presentations in seminars.
Week 3	Continue this seminar sequence, with 2–5 learners per seminar giving extended presentations using posters, PowerPoint, etc.
Week 4	Continue this seminar sequence, with 2–5 learners per seminar giving extended presentations using posters, PowerPoint, etc.
Week 5	Continue this seminar sequence, with 2–5 learners per seminar giving extended presentations using posters, PowerPoint, etc.
Week 6	Complete second seminar sequence, leading to another possible Component 2 essay completed for homework.

Second Term: Second Half

Week 1	Begin work for Component 3 , briefing learners on exam board requirements. Form teams who then undertake initial research to identify a local issue with global significance.
Week 2	Teams continue work to research issue and identify alternative perspectives, each individual keeping a reflective log.
Week 3	Teams complete group research and learners begin to prepare individual presentations.
Week 4	Learners complete individual presentations
Week 5	Slots allocated for individual presentations to be delivered to an audience. Time is also allocated here for teams to reflect together on their different solutions.
Week 6	Learners work on reflective paper and also review Component 2 work completed – opportunity to complete an additional Component 2.

Third Term: First Half


Week 1	Final practice for Component 1, reviewing deconstruction skills and exam technique. First full mock exam.
Week 2	Review first mock exam and have second mock.
Week 3	Continue Component 1 practice.
Week 4	Continue Component 1 practice until exam. Opportunity also to conduct a final review of Component 2 entries with some learners, if required.
Week 5	Continue Component 1 practice until exam.
Week 6	Continue Component 1 practice until exam.

4.4 Planning the delivery of topics

The next stage of the planning process would be the topics you have chosen to teach and how they would be rolled out. At the beginning of the course, learners will obviously need a considerable amount of support (scaffolding) as they begin to build up their skills on the Critical Path. Repetition of previously learned skills combined with the progressive injection of new elements will strengthen the learner's understanding of the requirements of the course.

An example of a introduction to a topic with planned progressions and assessment opportunities may be used as follows:

TOPIC 1 – THE IMPACT OF THE INTERNET – ‘TRIPADVISOR’



Click on the link below to get started...

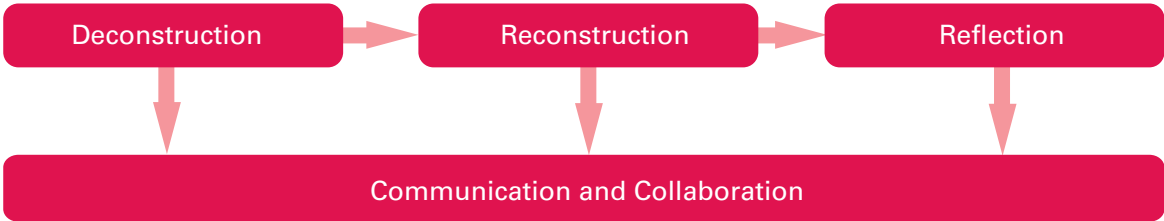
<https://www.youtube.com/watch?v=t5Y1uRS8VV0>

DID YOU KNOW? – TripAdvisor is the world's largest online source of travel information with websites operating in 34 countries scoring an average 280 million hits per month.

THE DEBATE – Should we trust TripAdvisor?

CRITICAL PATH LINK: **DECONSTRUCTION AND RECONSTRUCTION – THE BASICS**

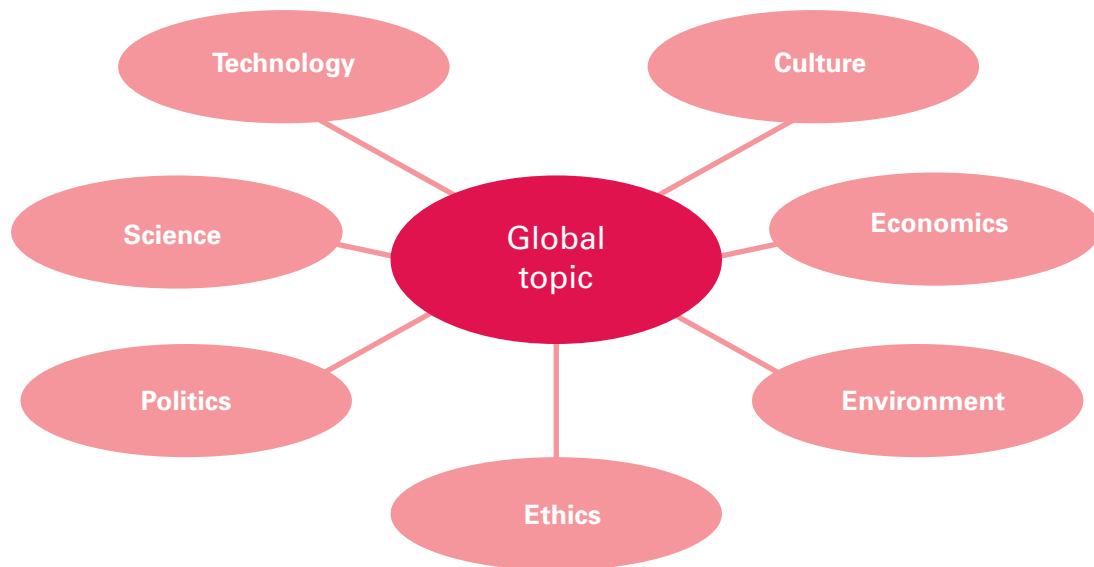
The Critical Path



```
graph LR; A[Deconstruction] --> B[Reconstruction]; B --> C[Reflection]; A --> D[Communication and Collaboration]; B --> D; C --> D;
```

GLOBAL PERSPECTIVES TOPICS: **IMPACT OF THE INTERNET**

THEME: **ETHICS**



TripAdvisor Fact Sheet

TripAdvisor® is the world's largest travel site*, enabling travellers to plan and have the perfect trip. TripAdvisor offers trusted advice from real travellers and a wide variety of travel choices and planning features with seamless links to booking tools. TripAdvisor branded sites make up the largest travel community in the world, with more than 260 million unique monthly visitors**, and over 125 million reviews and opinions covering more than 3.1 million accommodations, restaurants, and attractions. The sites operate in 34 countries worldwide, including China under daodao.com. TripAdvisor also includes TripAdvisor for Business, a dedicated division that provides the tourism industry access to millions of monthly TripAdvisor visitors.

TripAdvisor, Inc. (NASDAQ: TRIP) manages and operates websites under 21 other travel media brands:

www.airfarewatchdog.com, www.bookingbuddy.com, www.cruisecritic.com, www.everytrail.com, www.familyvacationcritic.com, www.flipkey.com, www.gateguru.com, www.holidaylettings.co.uk, www.holidaywatchdog.com, www.independenttraveler.com, www.jetsetter.com, www.niumba.com, www.onetime.com, www.oyster.com, www.seatguru.com, www.smartertravel.com, www.tingo.com, www.travelpod.com, www.virtualltourist.com, www.whereivebeen.com, and www.kuxun.cn

*Source: comScore Media Metrix for TripAdvisor Sites, worldwide, June 2013

**Source: Google Analytics, worldwide data, July 2013

TripAdvisor sites feature:

- More than 125 million travel reviews and opinions from travellers around the world.
- More than 3.1 million businesses and properties in 134,000+ destinations, including:
 - 748,000+ hotels, B&Bs, and specialty lodging
 - 500,000+ vacation rentals
 - 1,695,000+ restaurants
 - 335,000+ attractions
 - 17,000,000+ candid traveller photos
 - More than 80 new contributions are posted every minute

TripAdvisor Mobile:

- 69 million people have downloaded the various TripAdvisor apps.
- Our apps are currently downloaded at a rate of 28 times per minute.
- In 2012, mobile and tablet each accounted for 10–15% of total sessions to TripAdvisor, and unique visitors doubled in 2011.
- In the third quarter of 2013, on average TripAdvisor had 108 million unique monthly visitors on mobile, up 175% year to year.
- TripAdvisor is constantly pushing the limits of mobile innovation using GPS and social technologies, to help travellers plan and have the perfect trip.

Other TripAdvisor Facts:

- More than 57 million emailable members worldwide.
- More than 80 new contributions are posted every minute.
- On average, nearly 2,800 new topics are posted every day to the TripAdvisor forums.
- More than 90 percent of topics posted in the TripAdvisor forums are replied to within 24 hours.
- TripAdvisor provides easy access worldwide to leading online travel agencies including Expedia, Orbitz, Travelocity, hotels.com, Priceline, Booking.com, and more.
- TripAdvisor was founded in February 2000 and operates sites in 34 countries and in 21 languages including sites in the U.S., the U.K., France, Ireland, Germany, Italy, Spain, India, Japan, Portugal, Brazil, Sweden, The Netherlands, Canada, Denmark, Turkey, Mexico, Norway, Poland, Australia, Singapore, Korea, Thailand, Russia, Greece, Indonesia, Argentina, Taiwan, Malaysia, Egypt, Venezuela, Peru, Chile, and Colombia. TripAdvisor also operates in China under the brand daodao.com and Kuxun.cn.
- TripAdvisor, Inc. employs more than 1,900 people as of September 2013.

http://www.tripadvisor.co.uk/PressCenter-c4-Fact_Sheet.html

Activity 1: Where do you stand? Should we trust TripAdvisor reviews?

Write your name on a post-it note and place it on a value line with 100% yes at one end and 100% no at the other (a wall in your classroom would make a good base) with a justification for your positioning included on the note. Either keep the post-it notes up on the wall and/or photograph the line.

With the teacher's help, your class could now start a preliminary discussion on the debate topic.

Activity 2: Google the TripAdvisor website and go to it. Criticise the website and add to the following arguments:

Arguments For:

1. TripAdvisor leads the market
2. Most people post genuine and honest comments
3. TripAdvisor operates in 34 countries

Arguments Against:

1. There are other travel advice centres
2. Not everybody is honest – you can write what you want
3. One bad experience for one person could significantly affect the star rating

Activity 3:

Look at all the arguments for and against TripAdvisor that you have compiled. Identify the 3 points you consider to be strongest in each list and state why you think they are convincing arguments. Compare your 2 lists and decide whether the arguments for or against are the most convincing and again state why you have reached your conclusion. On completion of this task you will have undergone an introduction to deconstruction by analysing basic arguments.

IN MORE DETAIL: TOURISM THROUGH THE ETHICS THEME**CASE STUDY, MAURITIUS – Study the following data:****Tourist arrivals**

- Tourist arrivals for the first three months of 2013 attained 265,838. This represents an increase of 1.5% over the figure of 261,995 registered for the first quarter of 2012.
- Tourist arrivals from Europe decreased by 7.5% to 158,722 with a 12.8% fall in arrivals from France, the leading market. As regards the other major tourist generating countries, the following performances were recorded in tourist arrivals: Germany (+14.1%), United Kingdom (+17.7%) and Italy (–30.0%).
- Tourist arrivals from Africa increased by 16.0% to 69,553. Arrivals from Reunion Island, the major market of the region, rose by 21.9% and those from the Republic of South Africa increased by 4.4%.
- Tourist arrivals from the Asian market went up by 36.5% to reach 29,997, with India, the major generating country of the continent, registering a growth of 16.3%. The performance of other Asian countries was as follows: United Arab Emirates (+205.6%), Hong Kong (+106.4%), Malaysia (+76.1%), People’s Republic of China (+67.3%), Singapore (+25.6%) and Japan (+16.0%).
- Tourist arrivals from Oceania rose by 1.5% and those from America went down by 19.0%. Tourist arrivals from these two continents numbered 7,300, representing only 2.7% of the total.

<http://statsmauritius.gov.mu/English/StatsbySubj/Pages/tourism12013.aspx>



WIKIPEDIA
The Free Encyclopedia

According to Statistics Mauritius, total tourist arrivals to Mauritius in 2011 was 964,642. In 2012 emerging markets, Russian Federation and People’s Republic of China, registered positive growths of 58.9% and 38.0% respectively.

Country	2011	2012	% Change
France	302,004	262,100	▼ 13.2
Réunion	113,000	139,169	▲ 23.2
South Africa	86,232	89,058	▲ 3.3
United Kingdom	88,182	87,648	▼ 0.6
India	53,955	55,197	▲ 2.3
Germany	56,331	55,186	▼ 2.0
Italy	52,747	40,009	▼ 24.1
Other countries	212,191	237,074	▲ 11.7
Total	964,642	965,441	

http://en.wikipedia.org/wiki/Tourism_in_Mauritius

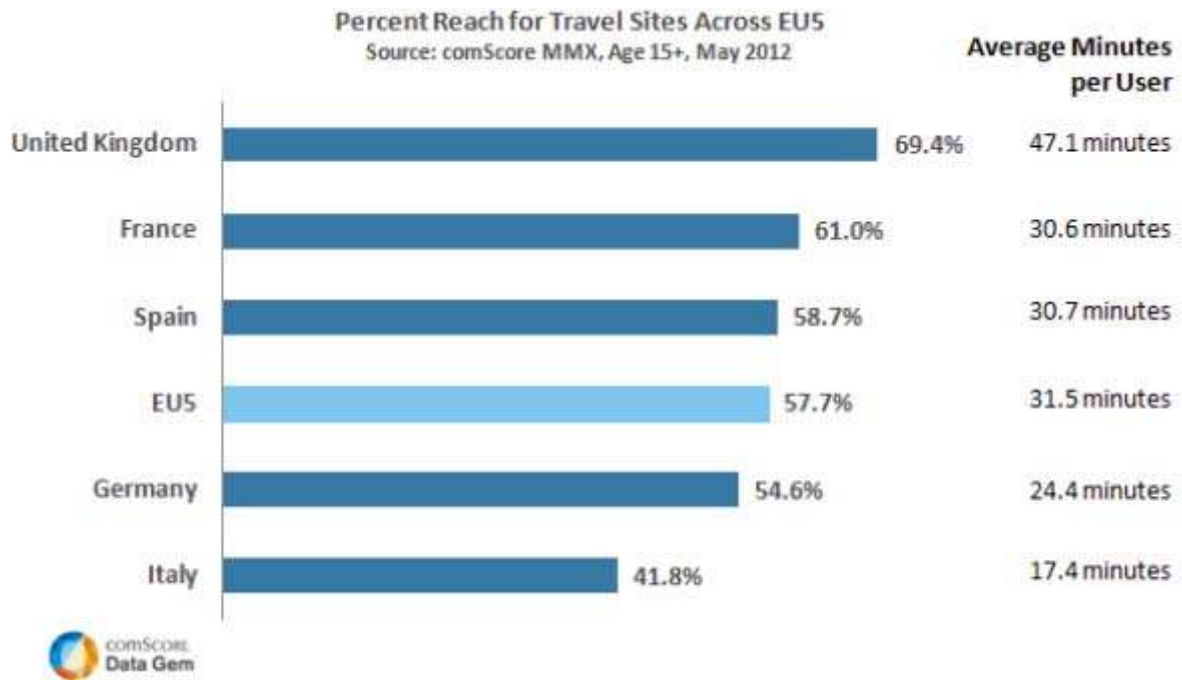
Holiday Hunting: Top 10 Travel Sites in Europe – APRIL 24, 2013



<http://www.comscoredatamine.com/2013/04/holiday-hunting-top-10-travel-sites-in-europe/>

7 Out of 10 Brits Surf Travel Sites – JULY 6, 2012, ENGAGEMENT, EUROPE

Nearly 106 million users accessed a travel site in the EU5 (France, Germany, Italy, Spain and the UK), reaching 57.7 percent of the internet audience in May 2012. The UK (69.4 percent reach) ranked as the top market for penetration of sites like Priceline.com and TripAdvisor not just in EU5 but in Europe overall. France (61.0 percent reach) ranked second and Spain (58.7 percent reach) completed the top 3. The UK also ranked first in the EU5 for engagement, with an average user spending 47.1 minutes on Travel sites in the month.



http://www.comscore.com/Insights/Press_Releases/2012/07/7-out-of-10-brits-surf-travel-sites/

TripAdvisor Media Group Leads as Top Travel Destination for Smartphone Users

In July 2012, nearly 40 million people age 18 and older visited a travel destination via mobile browser or app on their smartphone, representing 2 in every 5 smartphone owners accessing from a device running the iOS, Android or RIM operating systems. TripAdvisor Media Group led as the top travel destination for smartphone owners with an audience of 6.7 million visitors, while Expedia Inc. secured the #2 spot with nearly 6 million visitors. Southwest Airlines led as the top airline in the ranking reaching an audience of 4.1 million visitors, while Delta Airlines also ranked among the top 10 destinations with an audience of 2.1 million visitors. Priceline.com secured the #4 spot with 3.5 million visitors while Travora Media, which includes Flightaware and Hotelplanner among other entities, ranked fifth with 2.5 million visitors.

http://www.comscore.com/Insights/Press_Releases/2012/8/2_in_5_Smartphone_Users_Accessed_Travel_Content

TRIPADVISOR ComScore

Monthly Unique Visitors in millions, 2009–2012

October 2, 2012

2009	25
2010	39
2011	50
2012	65
3 year CAGR	38%

Activity 4: Work in pairs and look at the above charts and statistics. Identify the main points, strengths and weaknesses of this data. Are the websites used credible? Does this make it useful or not and why?

Deconstruction Link

Consider; Authorship, Publishing body/Publisher. How recent, Perspectives and Accuracy or Verifiability.

Arguments For – Ethics Theme

2. Most people post genuine and honest comments

Some Good Finds

Often the reviews are dead-on. Fusion Suites, the bed and breakfast ranked as the No. 1 property in Amsterdam, is an amazing find, with enormous rooms located on a tree-lined street near the Van Gogh museum. I had never heard of Eastgate Tower near the United Nations in New York when I took a chance (again) on Trip-Advisor and booked it for a recent family vacation. The \$250-a-night suite had two large bedrooms with two beds in each, two bathrooms, a living room and a full kitchen; it was clean and well-staffed.

The reviewer's user name matters to Michelle Hill, Lake Placid, N.Y.; she travels with her family several times a year. A recent report by someone called "crzy4cncun" was believable, she decided, because it meant that person had a lot of experience in Cancun. In the review, crzy4cncun mentioned that she had a teenager. That was an added bonus for Ms. Hill. She always clicks on a user name to check what other properties that person has written about.

When certain key words ("hurricane" or "construction") pop up, TripAdvisor is at its best. It is one of the few places to find indications that a recent event has affected the hotel's quality.

<http://online.wsj.com/news/articles/SB118065569116920710>

Margaret River Australia

Margaret River has been named the number two tourist destination on the rise in the Pacific region. TripAdvisor, the world's biggest online travel site, yesterday released its annual list of destinations that attracted the greatest increase in positive traveller feedback and interest.

Havana in Cuba received the number one world ranking, while Broome was the only other Australian ranking in the South Pacific region.

Augusta-Margaret River Tourism Association chief executive Pip Close said the award was testament to the region's quality as a "spectacular" tourism destination. "The west coast of Australia has so much to offer and it's certainly making its mark as Australia's best-kept secret," she said. "User review via social media is becoming an incredibly important tool for people's holiday planning, so to receive an accolade of this level from a leading global travel site is invaluable," Ms Close said. "TripAdvisor is the go-to site for so many people these days to assist their travel decisions so this is a formidable achievement for Margaret River and for WA."

TripAdvisor described Margaret River as "a region and bustling market town famed for its wine, incredible surfing, gorgeous coastline, multi-chambered caves and mysterious karri forests".

<http://au.news.yahoo.com/thewest/regional/south-west/a/20245093/margaret-river-get-tripadvisor-nod/>

Activity 5: Study the use of language in the two articles above. Identify the key words that make these articles convincing. Which article is the most convincing and why?

Arguments Against – Ethics Theme

2. Not everybody is honest – you can write what you want



WIKIPEDIA
The Free Encyclopedia

Criticism and legal actions

TripAdvisor has been criticised for allowing unsubstantiated anonymous reviews to be posted about any hotel, B&B, inn or restaurant.

Around 30 hotels have been blacklisted by TripAdvisor for suspicious reviews, including a Cornwall hotel that bribed guests to leave positive reviews of the hotel.

TripAdvisor has stated that reviews are not posted to the website instantly, but are subject to a verification process which considers the IP address and email address of the author, and tries to detect any suspicious patterns or obscene or abusive language. The website also allows the community of users to report suspicious content, which is then assessed by a team of quality assurance specialists. TripAdvisor also alerts the owner or manager of a TripAdvisor-listed establishment whenever a review is posted on their listing.

In September 2011, the UK Advertising Standards Authority (ASA) launched a formal investigation into TripAdvisor after receiving complaints that its claims to provide trustworthy and honest reviews from travellers are false. The ASA found that TripAdvisor 'should not claim or imply that all its reviews were from real travellers, or were honest, real or trusted', and as a result of the investigation, TripAdvisor was ordered to remove the slogan "reviews you can trust" from its UK web site. It changed its hotel review section slogan to 'reviews from our community.'

TripAdvisor stated that the branding change had been planned for some time and that changes began in June 2011, before the ASA investigation. ASA commented that "it was concerned that consumers might be fooled by fraudulent posts since the entries could be made without any form of verification," but recognised that TripAdvisor used "advanced and highly effective fraud systems" in an attempt to identify and remove fake content.

<http://en.wikipedia.org/wiki/TripAdvisor>

Activity 6: Is information downloaded from Wikipedia trustworthy? In groups discuss the problems associated with information from this source and propose possible solutions.

TripAdvisor's reliability has been called into question after Accor's manager of communications in Sydney admitted to anonymously posting more than 100 hotel reviews on TripAdvisor. Peter Hook published glowing reviews about the hotels owned by his employer, Accor and Sofitel, and critical reviews about the hotel group's rivals.

"As a first time visitor to Phnom Penh I didn't know much about the hotel scene so booked a brand I knew well. It turned out to be a good choice," Hook wrote about the Sofitel in Phnom Penh. In contrast, in a 2010 review Hook criticised the rival Intercontinental Hotel in Adelaide as "the ideal location but stuck in a time warp and rather expensive".

Using TripAdvisor's app which displays a name, photograph and location taken from each user's Facebook account, Hook was revealed as the author. Hook has been stood down from his role at Accor and the hotel group said Hook's actions were a breach of its social media policy.

The chief operating officer of Accor said in a statement, "We reaffirm our wish to increase our watchfulness on this point... Accor was working closely with TripAdvisor to take whatever action is necessary" to ensure the credibility and transparency of online travel reviews and forums.

<http://www.smartcompany.com.au/marketing/advertising-and-marketing/31954-accor-hotels-manager-caught-posting-over-100-fake-tripadvisor-reviews.html#>

Activity 7: Deconstruction –

Study the use of language in the two articles above. Identify the key words that make these articles convincing. Which article is the most convincing and why?

Activity 8: Reconstruction –

**Undertake a web search to find other reports or articles of useful and false postings on TripAdvisor. Use the evidence you have found and reflect on where you stand now on the question:
Should we trust TripAdvisor reviews?**

Deconstruction Link

You will find several fallacious arguments in the arguments above and in your own researched articles. See if you can identify some.

Try using www.scholar.google.com

Activity 9: Read the article below. Does the article help in your decision making process?

TRIPADVISOR REVIEW OF INN GOES VIRAL – HUFFINGTON POST UK

A scathing, one-star review of a restaurant – and the owner’s decidedly elegant riposte – has gone viral. User ‘S1nsand’ branded his experience at The Blade Bone Inn in Reading as “one of the worst evenings out in a while” on TripAdvisor. The self-described “real foodie” went on to slam the “practically inedible” beef rib and made reference to the “very incompetent and rude” waiter. S1nsand states he paid for just a third of his bill, before ending the review with a ream of “constructive advice” listed in bullet points.

Owner KirenPuri (who also happens to be the misidentified “waiter”) has come out swinging however, with a +1,000 word response in which he describes the customer as a “disease upon our wonderful industry”. Puri says the money left by the customer was deposited in an Air Ambulance charity box, stating: “If that is the value that you put on a meal in my restaurant, I would rather not have it. You are after freebies and money off. If you are going to constantly do this, have the decency and ask for a reduction on the bill at booking or free courses.” He adds: “You claim to be foodies. I have never met a self-professed foodie start his meal with a bowl of chips.”

http://www.huffingtonpost.co.uk/2013/08/28/tripadvisor-review-of-blade-bone-inn-goes-viral_n_3829675.html

TAKING THINGS FURTHER:

Deconstruct the following more advanced scholarly 2 articles:

1. Reliability of Reviews on the Internet: The Case of TripAdvisor

http://www.iaeng.org/publication/WCECS2013/WCECS2013_pp453-457.pdf

2. Social media and Tourism Destinations: TripAdvisor Case Study

<http://www.iby.it/turismo/papers/baggio-aveiro2.pdf>

3. How do the contents alter your opinions?

ASSESSMENT OPPORTUNITIES

Activity 10: Start a Tennis Argument:

HOW TO MANAGE A TENNIS ARGUMENT

Objective

The purpose of this activity is to encourage pairs or groups of learners to debate a contentious subject they are studying by offering evidence, not opinion.

Rules

1. The teacher divides the class in two.
2. One half of the class gathers evidence to defend one point of view; the other half finds evidence to support the opposite point of view.
3. The learners use their notes, textbooks and other sources to back-up their point of view. Each point they make MUST be supported by evidence, not just opinion.
4. Once the information has been consolidated, the teacher sets up the room like a tennis court, with the two sides sitting opposite one another. The teacher sits in the middle, in the umpire's chair, where s/he adjudicates the argument.
5. The teacher invites a pupil from either side to argue. A point is made, which the opponent then has to counter.
6. A second point is offered, which again has to be refuted and so on.
7. The teacher can score the game like a tennis match or can simply encourage a verbal rally to develop.
8. Once the two opponents have used all their arguments, the teacher can either pronounce a winner or simply compliment both on the skill of their argument.
9. The next pair are then asked to play.
10. The teacher can be as competitive as s/he wants, awarding 'games' to one side or the other, so that an overall winner can be announced.
11. Alternatively this method can also be adapted to become a team event with 'speakers' and 'information feeders' etc.

Activity 11: Write a brief essay on the arguments for and against, highlighting the strengths and weaknesses of each case put forward. State why you think these points are strong or weak and summarise by giving your own justified opinion in conclusion.

Sample Paper 2 Essay Titles

- To what extent should we consider TripAdvisor reviews reliable?
- Are local sources of knowledge (e.g. MTPA) more reliable than TripAdvisor?
- Should businesses in the tourism sector monitor TripAdvisor reviews?

Activity 12: Produce a team presentation and reflective paper on one impact of tourism locally which also has global implications.

The above are example questions only and learners should be encouraged to think of their own depending on which particular aspects of the unit stimulate their thinking. Some of the above questions will be research based but others lend themselves to surveys and interviews being conducted in the industry/workplace.

Section 5: Planning (A Level)

5.1 Moving from AS to A Level

The Cambridge Research Report is designed as the final stage of the two-year Global Perspectives & Research A Level qualification. It should not be seen as a stand-alone or 'bolted-on' component. Learners are using the skills they have acquired in the first three components, but applying them in a broader and deeper context.

It is very important to make clear to learners that Component 4 is an organic continuation from the previous parts of the course. They need to reflect at the outset on what they have already gained in terms of specific skills and experience, and how they might apply these to their work on the Cambridge Research Report. To help them with this you might ask them to complete and discuss the skills audit in Appendix A.

5.2 Roles and responsibilities

So far we have referred to some distinct roles among teaching staff in setting up and managing the work of learners towards Component 4. These might be summarized as follows:

- The Cambridge Research Report Coordinator, who has responsibility for the programme as a whole and ensures quality and consistency in the teaching and marking
- The Component 4 Teacher, who delivers any generic Cambridge Research Report-related teaching to the whole class as a defined group of learners
- The Cambridge Research Report Supervisor, who oversees individual learners in 1:1 meetings.

The left-hand column of the table shows the learner's journey from the beginning to the end of the programme to provide a timescale.

Learner

	Cambridge Research Report Coordinator (management and quality assurance)	Cambridge Research Report Teacher (whole cohort teaching)	Cambridge Research Report Supervisor (1:1 supervision)
Introduced to Cambridge Research Report requirements	Decides on model to fit in with curriculum	Briefs learners on requirements	Helps to refine questions if highly specialised
Identifies and refines research	Briefs staff and sets up training programme	Delivers workshop on how to develop and refine questions	
Develops independent study skills		Delivers workshop on research and time management skills, academic conventions, plagiarism	
Submits Outline Proposal Forms (OPF)	Oversees OPF submission process		Oversees learner's response to comments on OPF from Cambridge
Undertakes research with 1:1 supervisions	Conducts regular meetings with supervisors to monitor them and the progress of their learners		Conducts 1:1 supervisions throughout research period
	Oversees administrative processes		Completes Cambridge Research Report Monitoring Form
	Conducts marking training and standardisation		
Submits Cambridge Research Report	Oversees <i>vivas</i>		Carries out assessment training and standardisation
Undertakes <i>viva</i>	Oversees marking		Conducts <i>viva</i>
	Carries out internal moderation, prepares sample		Carries out marking
	Submits marks and external moderation sample		

If the number of learners is small in your school you may find that some of the staff roles outlined will tend to merge together. For example, if your cohort comprises only 5–10 learners then it is likely that the Coordinator may be the same person who delivers the general teaching and acts as supervisor to all the learners (possibly with some subject specialist-supervisor input from other staff members). If your cohort is extremely large (a whole year group of 100+ learners) then you may need several teachers and an even wider group of staff who will act as supervisors. Decisions about who will undertake what role will need to be agreed by school management early enough to ensure that resource needs can be met.

Cambridge Research Report Coordinator

The responsibilities of the Coordinator fall largely into two main areas, the form and scheduling of the delivery model, and the overseeing of the academic standard throughout the course.

This will include:

- deciding on and constructing a model of delivery that fits in with your own curriculum, bearing in mind the demands on learners and staff (both logistically and academically) in relation to other programmes to which they are already committed, and the requirements of the qualification
- becoming entirely familiar with the requirements of the syllabus, what is to be expected from both learners and supervisors; what they will have to do and when they will have to do it by
- making supervisors aware of the standard required from the outset and monitoring progress throughout the course – organising and managing training and support for this
- preparing information for parents explaining what is involved in the Research Report and what the expectations of learners and supervisors will be throughout the course
- training staff on the marking standard and monitoring consistency via internal moderation procedures
- ensuring that all deadlines and administrative requirements are met.

Component 4 teacher (whole class teaching)

For the Research Report there are a range of skills required that build on those developed through the Global Perspectives course. These lend themselves to whole-class teaching, such as:

- how to develop and refine an appropriate question
- research skills and techniques (e.g. keeping a research log)
- time management
- appropriate academic conventions for presentation of the report (including referencing). It is also important that all learners understand:
- the meaning and significance of plagiarism
- the help that can be expected from their supervisor (and what they cannot do).

Ideally these areas should be delivered to the whole class at the start of the Component 4 teaching but you may also want to consider whole-class teaching at key points throughout the year to reinforce links between parts of the course (and the group as a whole) and to motivate learners by allowing them to compare progress. In order to differentiate this role (delivering to whole class groups) from that of supervising individual learners in a 1:1 capacity, we will refer to it in this document as the 'Component 4 teacher'.

You will need to consider these whole-class lessons in terms of both management and content. Here are a few key questions you will need to think about to get started.

- When will they start and how often will they run?
- Will they be held within curricular or extra-curricular time?
- Who will deliver them and what will they cover?
- Will they be classroom-based or online?

If you decide to have whole-class teaching continuing through the year, there are a few things to be aware of:

- there may be conflicts with what is happening in supervisory groups
- general skills-teaching might become specific advice
- learner take-up might be inconsistent, depending on the delivery model.

Who undertakes the role of the Component 4 teacher will depend on the timing of your school year and other assessments and whether there are different teachers for the first three components of Global Perspectives and the Research Report.

For example, the role of the Component 4 teacher may be undertaken by a Global Perspectives teacher at the end of the first year if there is time left after learners have taken their assessments in other subjects. More detail on how this might work is given in Section 7.3 below (on Schemes of Work).

Cambridge Research Report Supervisor

The supervisor is responsible for having 1:1 meetings with learners, providing advice and monitoring progress. The supervisor will also be responsible for authenticating learners' work and assessing the final report.

The exact stage at which the supervisor begins to support an individual learner will depend on the organisation of the programme within your school. It is likely that they will have some involvement in helping the learner to develop their research proposal and refine their research question. The extent of this involvement will depend on the staff available at the time when learners are working on their questions; it may be done collaboratively with the Component 4 teacher. For example, in the initial stages when topics are being selected, that teacher might conduct seminar-style workshops for learners to discuss subject-specific issues and approaches with input from other staff members with appropriate expertise. A suggested plan for this is given in Section 7.3 below.

Possible responsibilities of the Cambridge Research Report Supervisor

1. Helping learners understand the nature of the task
2. Helping learners to find a suitable subject and refine it into a formal question
3. Helping learners identify the main issues and possible research strands for their topic
4. Helping learners identify and locate appropriate sources of information/evidence
5. Helping learners understand and develop the necessary organisational skills
6. Helping learners develop their proposals for submission to Cambridge (and advising on their revision following feedback)
7. Providing learners with opportunities to discuss their research either individually or in small groups
8. Monitoring learner progress
9. Authenticating learner work (the supervisor will need to conduct a *viva* to help check this)
10. Marking learner work

Responsibilities 1–6 may be undertaken by the Component 4 teacher rather than individual supervisors or done collaboratively between the two roles. The extent to which the assistance provided comes from the Component 4 teacher or supervisors will need to be agreed within your school.

While learners will be expected to carry out their research on their own, their work should be supported by ongoing opportunities in group or individual meetings to discuss progress and ask questions. Supervisors may monitor progress to check that the learner remains on schedule, and will need to take the steps necessary to be able to authenticate with confidence that each report is the work of the individual.

Once the learner embarks on the research and on writing the report there must be minimum intervention by the supervisor. Learners will be expected to carry out all research on their own and, once drafting has begun, complete the process and prepare their report without further subject-specific assistance.

The supervisor may not:

- offer to provide detailed subject guidance for a learner
- undertake any research on behalf of a learner
- prepare or write any subject-specific notes or drafts for a learner
- correct any part of a learner's subject-specific notes or drafts
- prepare any part of a learner's report

Learners will be required to sign an official declaration indicating that the report is their own, unaided work. The supervisor responsible will be required to countersign this declaration, verifying that these regulations have been observed. This declaration must accompany the report on submission to Cambridge.

The supervisor is responsible for assessing the approach each learner has taken to the research and the level of independence they have shown, as well as for marking the final Cambridge Research Report. The supervisor acts as a sounding-board for the learner so the supervisor's academic background should be related to the learner's chosen topic area wherever possible.

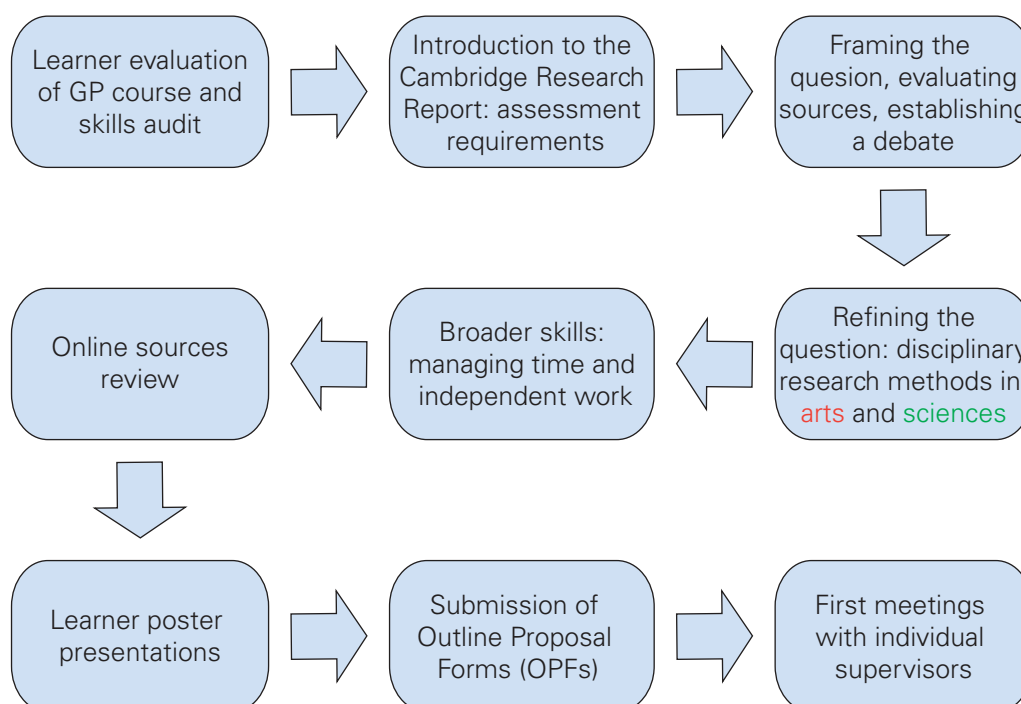
During the course of research, the supervisor and learner will meet regularly to discuss progress and to provide a critical discussion of ideas. However, the support offered by the supervisor should not undermine the learner’s own independence. The key to this is that the supervisor should react to questions from the learner and then suggest ideas that the learner can then act upon. More detailed guidance would compromise the integrity of the independent work and thus limit the level of marks available to the learner. Further advice on this is available in Section 7.5.

5.3 Schemes of Work

It is important when coordinating the Cambridge Research Report that it is not seen as another classroom-delivered course, which is planned as a series of regular lessons with a specific sequence of content to be covered. Just as study for the three AS components moves learners from dependence to increasing independence, and from conventional teacher-led work to learners working in teams and perhaps seminars, by the time they come to complete the A-Level they will need to deepen that independent working in order to complete the research report. However, this will also need support and necessitate a number of stages of planning in the scheme of work.

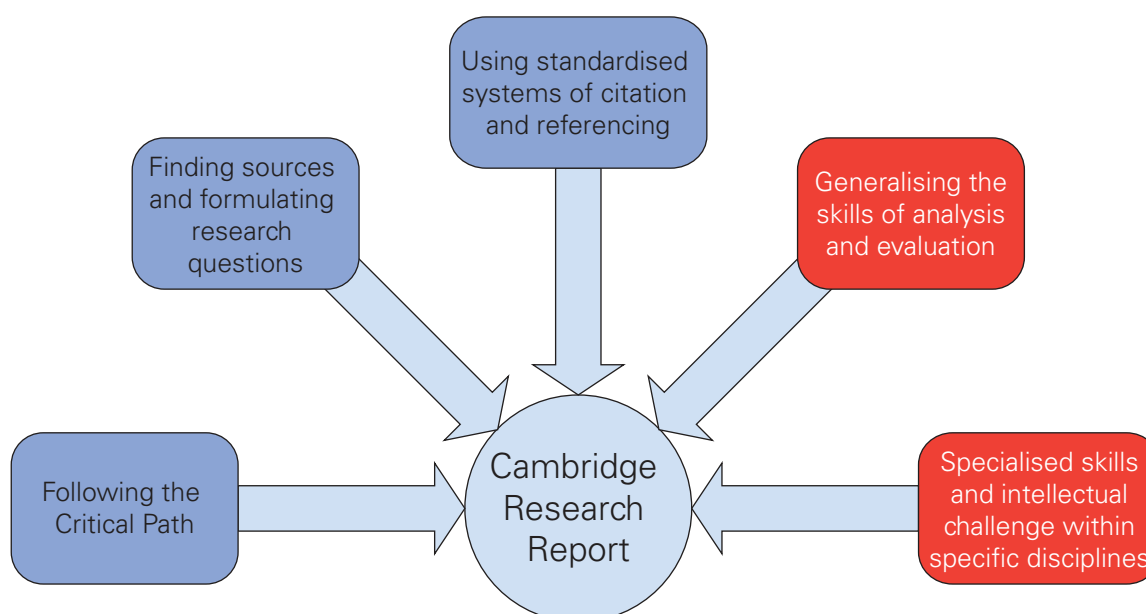
Essentially there are three different kinds of teaching and learning activity to take into account when planning for the Cambridge Research Report. First, learners will need to take part in structured transitional lessons to introduce them to the requirements of the component and to assist them in identifying an appropriate research question and initial proposal. Second, learners will spend the majority of their time working with their own specialist supervisor, meeting them roughly every two weeks in tutorial style sessions lasting about twenty minutes per learner. Between these sessions they will be working on their own on their projects. Finally, it would be sensible to maintain some central delivery of key skills to the whole group at key milestones over the life of the project. These sessions however would be occasional in nature and would not be concerned to address specific aspects of individual projects.

Here is an example of how a Centre in the UK move their learners through the structured transitional lessons. You will see that the model includes identifying and refining the question which occurs before the first 1:1 meetings with supervisors takes place. Your own model will of course be suited to your individual needs and resources.



Once learners move to the stage of meeting their own individual supervisors, the structure of the course and their approach to learning will shift significantly. The expectation is that learners will meet their specialist supervisor individually or in small groups roughly every two weeks. Outside of these times they will be working independently on their project and in this sense they will be challenged to operate more autonomously than they may have done previously in their educational career. The nature of these sessions means that there can be no lesson-by-lesson central scheme of work. Instead, the learner and supervisor will be working to specific milestones which are dealt with in more detail in the next section. They will, however, need to agree on a mutually convenient time at which they will meet and be able to keep to that for the period of the project.

Finally, it is helpful to maintain a periodic schedule of sessions for the whole group on core research, study and writing skills for the research report. These are likely to be led by the teacher co-ordinating the Global Perspectives course as a whole (or perhaps who has oversight of component 4 specifically) and will deal with the required skills at a generic level, linked to key milestones in the project. The diagram below summarises some possible topics which could be covered:

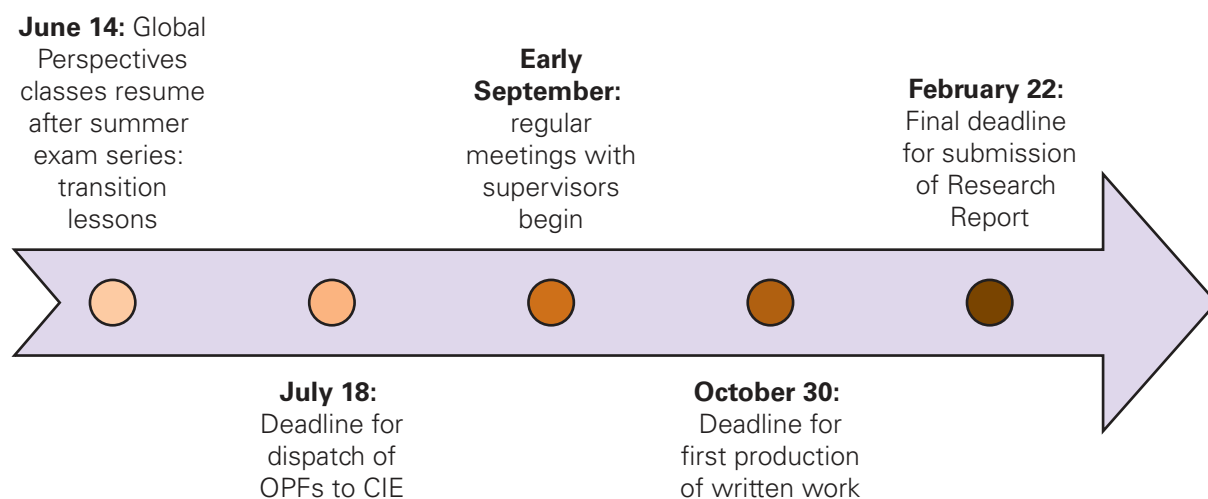


As can be seen from this diagram, some of the generic skills (shown in blue) required by learners will already have been taught as part of the first three components, but need to be reinforced in the context of the research report. Others (in red) are new, and learners will need to consider how they can be applied to their own project. The advantage of dealing with these in central lessons is that explicit links can be made with learning earlier in the course and the entire cohort can also be given a consistent presentation of these core skills. Some of these elements will be introduced during the transitional teaching; others will best be dealt with when learners are implementing them in their own projects. For example, learners could have a session on evaluating sources in their own discipline after their proposals have been approved and they are beginning to research in more detail. There could also be sessions on specialised skills required in different disciplines within the arts and sciences. One key session would be on writing up the report, which might involve discussing key sections (introductions, conclusions, evaluation of sources) at different levels of effectiveness as well as approaches to citation and referencing. This would best be placed shortly before learners are expected to submit an initial draft.

5.4 The importance of milestones for both supervisor and learner

Experience has shown that the teaching of the research report is most effective when done within the framework of a common sequence of milestones and deadlines. The first consideration is the status of the two-weekly meeting between learner and supervisor. Despite its different content and structure, it should be regarded no differently to any other lesson. Unless there is a legitimate reason, notified in advance, this is an appointment neither party should break. It should be monitored and followed up in terms of attendance just like any other lesson.

There are some other key milestones which should be implemented for all supervisors and learners. Here is a timeline showing how they have been organised in one school:



Within this particular Centre, the initial transitional lessons take place in the second part of the summer term. In some institutions, this might be at the conclusion of AS exams or lower sixth mocks. This then prepares learners to submit the compulsory Outline Proposal Form (OPF) by July 18, before they depart for the long summer break. Clearly this will differ depending on the structure of your school's year and holiday periods. However, it is important to have a whole-cohort deadline for submitting the OPF which allows for feedback from the Cambridge consultant. This is because it is a crucial first step for learners to test the viability of their project upon which the rest of their work depends. The study of the OPF feedback is also an ideal first activity for supervisors and learners to engage in together as it means that the evaluation of the learner's question, argument and sources will be the starting point for discussion. This is even more the case if the advisor does not immediately accept the proposal, as the response to this is a productive occasion for initial research and discussion.

It has also proven to be useful to set a common milestone for the production of some written work. This might only be 500 words, and it is also important for learners to realise that it may not even make it into the final report. The objective here is to ensure that there is a movement from initial reading, note-taking and discussion to some concrete outcomes at a point where there is some time to develop and revise these properly. Setting this deadline early means there is a good way for the school's Cambridge Research Report coordinator to be alerted to significant issues with learners who have not been able to produce any written work by this stage. They can then work together with the learner and supervisor to resolve this.

Clearly there must be a final deadline for submission of the completed report for assessment and in fairness this should be a common one for all learners. You may wish to set it sufficiently early in the academic year to allow learners to then focus on their final A Level examinations. Beyond this supervisors will wish to set their own suggested milestones with learners, especially beyond the initial writing deadline. This might be for the production of a particular section or the drafting of a conclusion, but will entirely depend on the

nature of that learner's project and should ideally be a mutually agreed target reached after discussion. How that discussion and negotiation should ideally take place within the context of research project supervision is dealt with below.

5.4 Guidance on 1:1 questioning and mentoring

Staff may be new to the role of the supervisor and if this is the case then it is advisable to offer some training on teaching methods and strategies particularly for drawing out the potential of a learner's research and prompting new avenues of thought when they feel they have become 'stuck'. Training events are offered by Cambridge incorporating the development of these skills and these can be found on the Cambridge public website www.cie.org.uk/events where you can also register as a participant.

Here are a few suggestions on what might be expected of the Research Report supervisor in a supervision meeting:

- initiating discussion, proposing new ideas, resuming discussion after a lull
- giving and asking for information and reactions
- restating and giving examples, and confronting
- seeking clarity and summarising what has been said
- timekeeping and keeping individuals to a discussion plan
- encouraging interaction.

The issue for supervisors is often about when to intervene and when to allow learners to learn through discovery. Individuals approach problems in different ways and have different learning styles. Research Report supervisors therefore must be sensitive to the way in which the learner is tackling the problem and not impose their own approach inappropriately.

This is effectively a matter of eliciting responses from the learner rather than telling or imposing answers, both for the management of the learning process and discussion of the learner's ideas and writing. So, for example, a good repertoire of supervisor questions for the management of learning might be as follows:

- When will we meet?
- Can you come with...?
- What do you think you should do next?
- Why?

As can be seen, these suggestions are in line with expectations for learners at this stage to be more independent, taking responsibility for learning decision and increasingly taking the initiative in managing their own learning. Similarly, when it comes to discussing the learner's work itself, these are some examples of suitable questions:

- What do you mean by?
- Why did you write?
- Have you looked at?
- Did you think about?
- Why didn't you?

The pedagogical principle here is one of Socratic questioning, where learning is drawn out from the learner through structured questioning rather than a series of statements or instructions. They are being prompted to recognise weaknesses and solutions for themselves rather than being told about them. *Teaching Thinking* and *The Thinking Teacher's Toolkit*, mentioned in Section 3.2.3 of this guide, are good teaching textbooks which discuss the mechanics of this style of teaching in more detail.

A good way for supervisors to gain an insight into their learners' abilities from the beginning is by reading their essays for component 2. This can indicate what they've achieved so far and how well they have developed the skills of the Critical Path.

Finally, as a point of quality assurance, supervisors should have regular meetings with the Cambridge Research Report Coordinator to check that learners have not been approaching their work in a way that would be sure to lead to relatively low marks. For example, if a learner was engaged on a political topic and was merely describing and explaining the different constitutions of Britain and the USA without making any attempt to consider different interpretations and evidence or to engage in any evaluative analysis, then the coordinator's role would be to ensure that both learner and supervisor reconsidered their approach.

5.5 Evaluating different research methodologies

One key consideration is the selection of an appropriate research methodology for the subject domain of the learner's research report and the implications of this for the requirements of the Cambridge Research Report. Largely, the identification and discussion of methodology is a matter for the learner and their specialist supervisor. Indeed, this is a key reason why specialist supervision is so important, as it is only in this way that supervisors can provide informed guidance within specific subject domains. For example, appropriate research methods and methodologies in literary or historical studies will differ from those in the social sciences, and those in the physical or life sciences, or mathematics, will be different again. The generic approaches to research in this broad subject domain must be the initial point for departure.

Once this has been established, however, much productive work can be done in deciding on approaches to methodology within disciplines, and navigating academic debates around this. Most learners at this level will not have done this before and indeed the extent to which they do this at all will be dependent on the level of sophistication reached by their project. For example, in literary studies, does the nature of the debate demand a focus on the close reading of texts and a methodology of linguistic analysis, or is an exploration of contextual evidence more appropriate, drawing on methodologies closer to the evaluation of historical evidence? The sciences offer a number of different methodologies depending on the type of data to be gathered and its intended usage. It is impossible to prejudge these issues in advance, but a key differentiator for the project will be the extent to which the learner is capable of considering them, and the willingness of the supervisor to encourage them in doing so.

The selection of methodology must, however, still bear in mind the necessary requirements of the structure of the Cambridge Research Report, as set out by the mark scheme and discussed in the previous section. That is, the methodology selected must be describable and justifiable against other alternatives, it must be capable of giving rise to a conclusion and be definable in an introduction, and it must lead to alternative perspectives which can be compared with one another. This final consideration might generate some difficulties for some types of project within the sciences. What follows is some guidance intended to assist supervisors and learners who are engaged in scientific and mathematical research to avoid difficulties.

Guidance for scientific and mathematical research

1. Data and source material need to be evaluated

Data and source material collected by well-planned scientific techniques frequently produce strong evidence. However, part of the Cambridge Research Report task requires learners to evaluate and synthesise ‘alternative perspectives and interpretations’ and to have a ‘developed critical sense’. This means that the evidence based on quantitative research methods needs to be evaluated and assessed. Learners need to ask themselves questions such as:

- Does the data provide evidence which supports the conclusions made?
- Has the data been produced by using the correct and appropriate research methods?
- If the data were generated using statistical tests – were these the appropriate tests and why?
- Might the evidence source have a vested interest in interpreting the outcomes in a particular way?

2. Importance of alternative perspectives and interpretations

It may help if the research question is one that has been tackled by others and is open to different interpretations or arguments.

For example, research into factors that maximise the efficiency of a generator is unlikely to provide opportunities to use the Critical Path approach to analysis and evaluation of arguments, and so will not meet many of the assessment objectives.

However, a suitable alternative might be research into hydraulic jumps. A hydraulic jump is the sudden change in water depth some distance from the point at which a water jet hits a flat surface. An investigation into the factors that affect the hydraulic jump (see the image on the right) allows you to carry out your own experimental work and compare it with claims from current and historical work going back to the nineteenth century.



Hydraulic jumps are observed in numerous situations (e.g. liquid flow in basins) and are significant in a number of industrial processes which can be identified from cursory research. Experimentally there are several variable parameters to investigate (flow rate, impact speed, jet diameter, temperature, surface, viscosity of liquid, surface tension of liquid, etc.) There are many similar research projects involving fluid dynamics, most of which have a long history and yet are still being investigated, e.g. droplet formation from jets.

It is also worth noting that the Cambridge Research Report provides an opportunity to reflect on the historical or philosophical aspects of science and mathematics. Projects of this kind do not necessarily involve research into the science or mathematics itself. However, the research question must be one on which different views can be expressed even if, ultimately, the research leads to a view which has become ‘mainstream’. The Research Report should then justify this view and deal with all the counter-arguments.

3. Examples of research question topics

History and geology of the Earth

Learners may well have studied plate tectonics in geography classes. The idea of continental drift was first suggested in 1596 by the Dutch map maker Abraham Ortelius in his 'Thesaurus Geographicus'. He suggested that the Americas were "torn away from Europe and Africa ... by earthquakes and floods" and went on to say: "The vestiges of the rupture reveal themselves, if someone brings forward a map of the world and considers carefully the coasts of the three [continents]." However this was not accepted and was equally rejected in the early twentieth century by Alfred Wegener (1912).

For Research Reports on topics like this, interesting research questions might centre on the nature of scientific evidence and the response of the scientific community to ideas that are new and challenging. This might well lead learners to consider aspects of the philosophy of science, for example Kuhn's idea of 'scientific revolutions'.

Health issues

The highly contagious and frequently fatal disease smallpox was eradicated in 1975 as a result of 'ring' vaccination programmes. There is concern today about the possibility of an influenza pandemic which is resistant to viral treatments, although there are vaccines to prevent infections occurring in the first place. The Spanish flu pandemic of 1918 was global and is estimated to have killed 50 million people. Poliomyelitis is a viral, infectious disease with no cure and can cause paralysis or death. Three doses of an oral vaccine result in full immunity for 95% of recipients.

India's intensive polio vaccination programme has been extremely successful (150,000 cases of polio in 1985, 741 in 2009, 42 in 2010 and just a single case in 2011), and global eradication of polio by the end of the decade seems achievable.

Answering research questions on issues such as the effectiveness of vaccination programmes and disease control could be supported by mathematical models. The image below shows a basic mathematical model using a spread-sheet application.

	A	B	C	D	E	F
		Data entry in cells below only	Day	No. Infected	% of population immune	No. of deaths
1						
2	Population (millions)	1250	0	741	10.0	0.00
3	Initial number of infectors	741	1	739	10.0	0.00
4	No. new contacts per day	0.10	2	738	10.1	0.00
5	Infectiousness (fraction of non-immune contacts infected)	0.05	3	736	10.1	0.00
6	Survival (fraction of infected surviving with immunity)	0.10	4	734	10.2	0.00
7	Number of vaccinations per day	471233	5	731	10.2	0.00
8	Survival (fraction of infected surviving)	0.20	6	731	10.2	0.00
9	Average duration of infectiousness/infection in days	30	7	729	10.3	0.00
10	Percentage of population immune at start of modelling	10	8	728	10.3	0.00

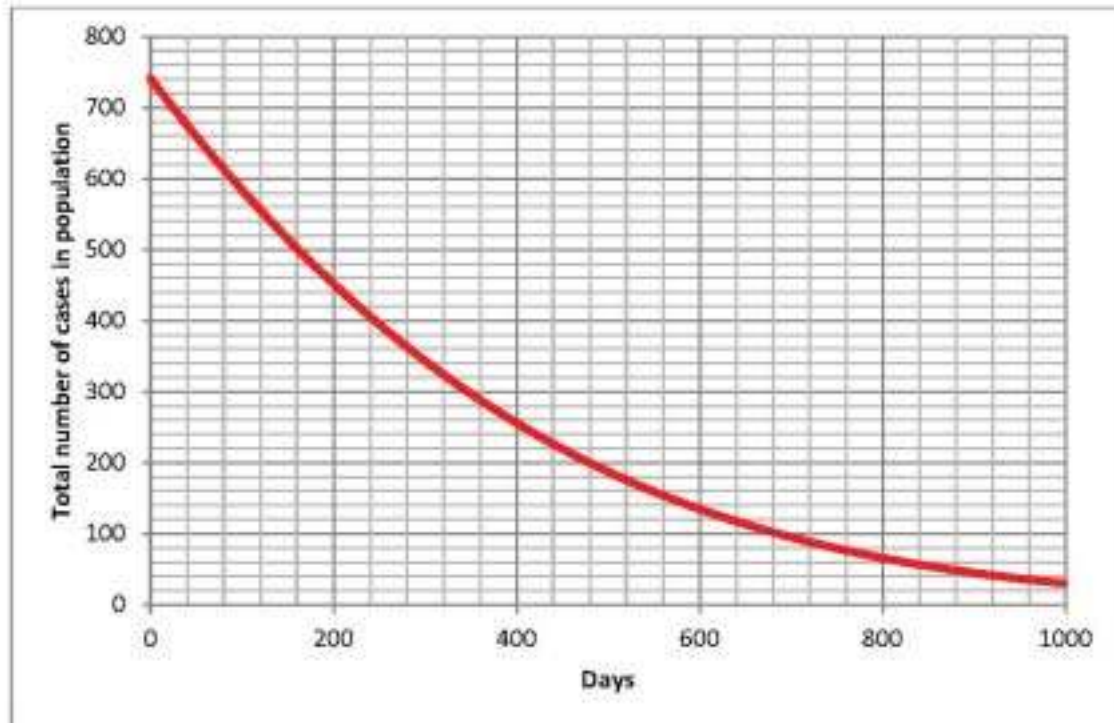
This attempts to model the effects of India's polio vaccination programme from 2009, and can be used to produce graphs as follows:

BBC News (<http://www.bbc.co.uk/news/health-21828245>) Wikipedia (http://en.wikipedia.org/wiki/Flu_pandemic) Wikipedia (<http://en.wikipedia.org/wiki/Poliomyelitis>) Wikipedia (http://en.wikipedia.org/wiki/Polio_vaccine)

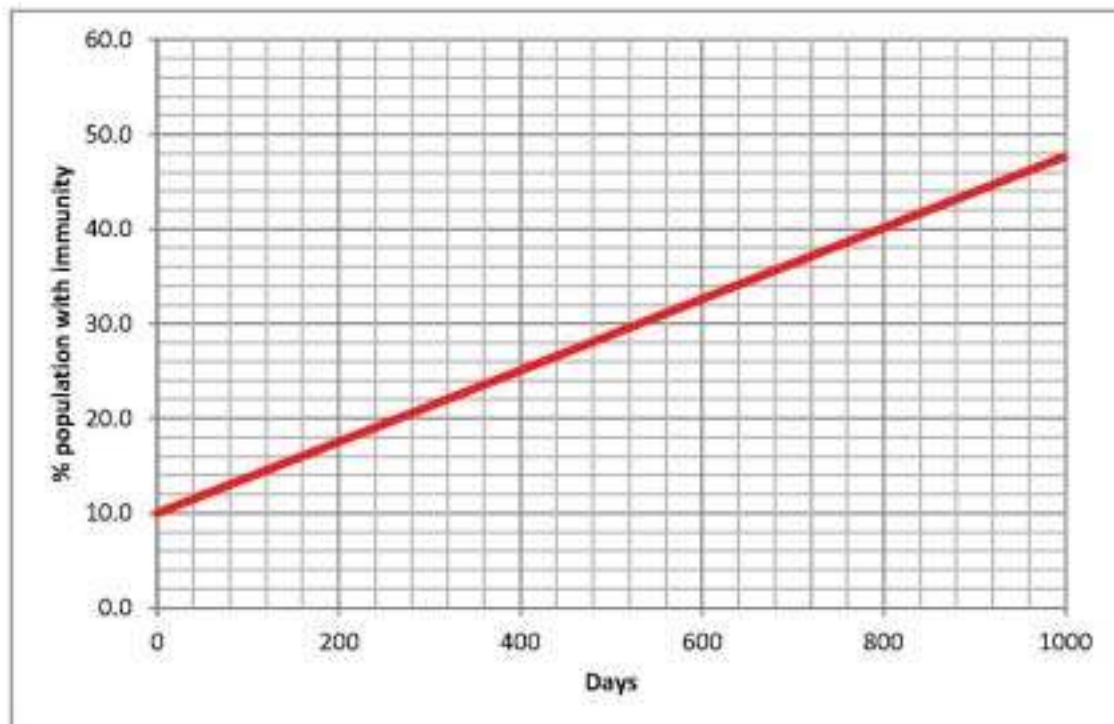
BBC News (<http://www.bbc.co.uk/news/health-17072769>, <http://www.bbc.co.uk/news/world-asia-india-16715392>)

Health issues

Effects of India's polio vaccination programme



Number of cases against time in days



% Immunity of the population against time in days

Models such as these are useful to test the effect of, for example, increasing the rate of vaccination, or to make the point that eradication of a disease does not require 100% immunity within a population.

Health issues

A mathematical model which accurately reproduces data from a closely monitored process can be used to predict or estimate data for a similar process for which there is a limited amount of data. This might form part of an evaluation of statements found in a source of evidence that learners are referencing in their Research Reports or comparing alternative interpretations of the evidence available.

Care must be taken, however, to explain the assumptions of a model like this and to be critical of its simplifications and limitations.

Another possibility would be to consider some of the many questions about the production, costs and availability of certain drugs (e.g. anti-cancer drugs and the National Health Service (NHS) in the UK) which would lead to projects involving science, data analysis and ethical and economic judgement:

The National Institute for Health and Care Excellence (NICE) approves drugs which can be prescribed by the NHS (making them available free or for a small per prescription fixed fee unrelated to the actual costs of the drugs). NICE uses a formula to decide whether or not to approve a drug: this is known as the Quality-Adjusted Life Years formula (QALY). An example of a research question might be 'Is NICE's drug-approval formula flawed?'

NICE

(<http://www.nice.org.uk/newsroom/features/measuringeffectivenessandcosteffectivenessstheqaly.jsp>)

Field work, surveys, etc.

There is a debate about whether population growth or increased consumption has a greater effect upon the environment. This topic would lend itself to a variety of questions which could involve data analysis, economics, geography, ecology, politics and science.

Some supporting evidence could be obtained by learners collecting their own data on matters such as:

- factors taken into account when parents decide upon the number of children they plan to raise (and how they rank the importance of these factors)
- measuring consumption (e.g. number and range of luxury items owned by a household, such as cars, TVs, mobile phones, computers per person, etc.)

Biological field work and economic surveys are good ways to gather evidence to address particular kinds of question (e.g. about the distribution of species in certain kinds of woodland, or the shopping habits of teenagers) and could well form part of a research project. However, the research question is critical – does it allow alternative points of view? Can the results of the learner's fieldwork or survey be compared with data collected by others to validate, criticise or add to it? Is it a question worth asking?

In December 2011 the British government licensed a cull of the wild badger population in part of the south west of England. The decision was claimed to be based on scientific evidence that badgers are responsible for the spread of bovine tuberculosis among cattle. The National Biodiversity Network collects and makes available data from field studies which can be interrogated for a particular species.

National Biodiversity Network

(<http://data.nbn.org.uk/imt/?mode=SPECIES&species=NHMSYS0000080191>)

Field work, surveys, etc.

The following image shows a distribution of data for badgers:



It would be possible to assume that this shows a high density of badgers around Bristol in the south west of England. However, care must be taken to check whether the reason for the large amount of data in this area is due to much more field work being carried out in the area (either intensively over a short period or repeatedly over a long period), and/or whether the absence of badgers in an area is reported as well as their presence.

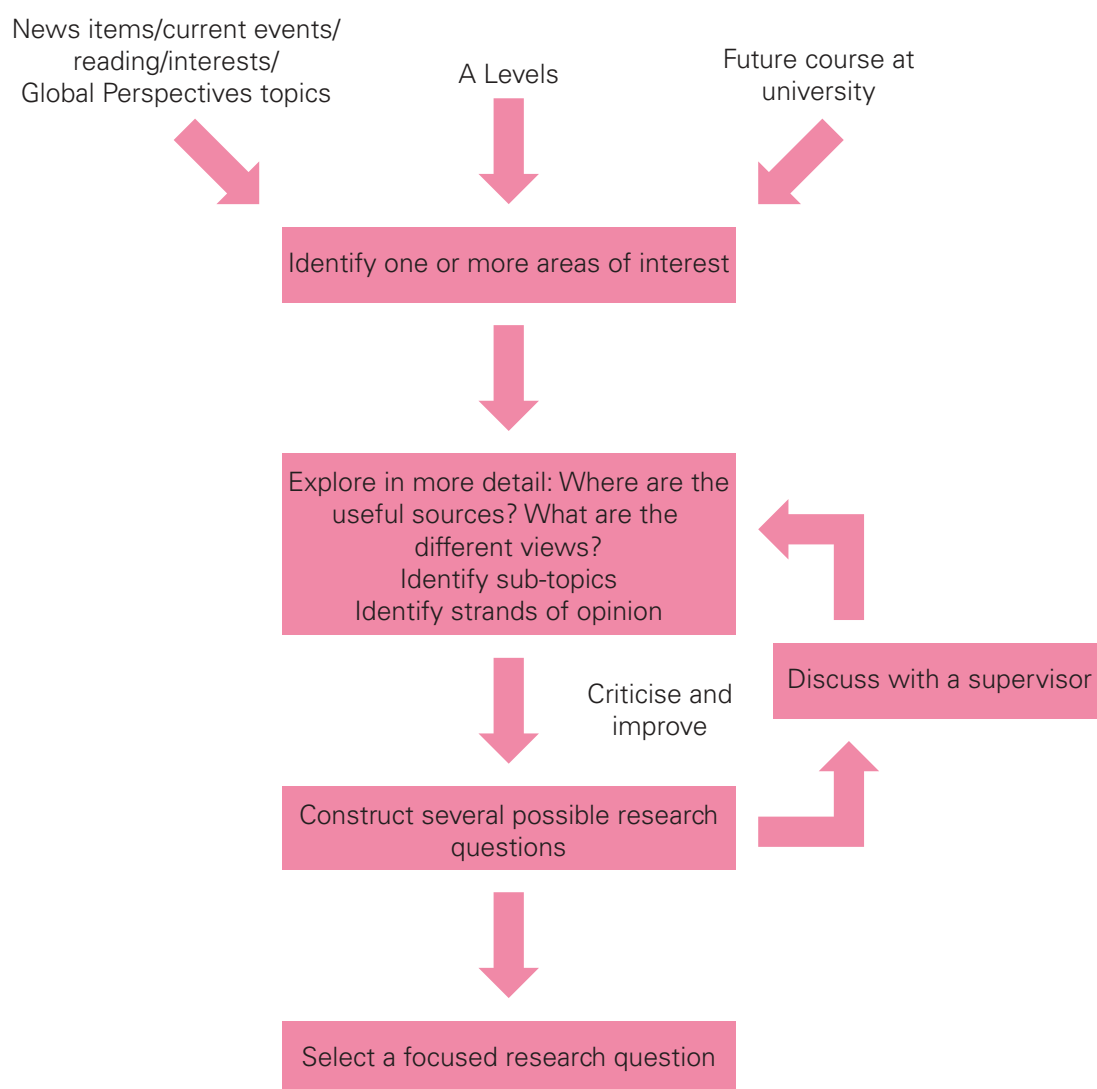
If answering a research question such as 'Are badgers responsible for the spread of bovine TB?' involved comparisons of data sets, it is essential that they are evaluated to consider their duration, scope, purpose and any possible bias.

Section 6: Preparing learners for the Cambridge Research Report (A Level)

6.1 Choosing a topic and identifying and refining a question

Below is a suggested process for identifying and refining a research question followed by some helpful prompting questions for learners.

Planning a research question



Here are some questions learners might ask themselves to get started:

1. Are there any topics from a learner's A Levels that they would like to take further and find out more about?*

For example:

- an English Literature learner might have been excited by a particular poem, author or novel
- a mathematician might be fascinated by Cantor's work on transfinite numbers
- a physicist might be intrigued by the idea of time travel or quantum theory
- a historian might be intrigued by the way empires end and want to investigate the parallels between past and present situations
- a philosopher might be drawn to existentialism and want to find out more about it
- a psychologist might be particularly interested in ideas of sleep and dreaming
- a biologist might be concerned that evolution is being given equal time with creationism in some schools.

However, it is also appropriate in some instances for work of an interdisciplinary nature to be submitted. The Cambridge Research Report provides the opportunity to explore a specialist area of study not previously covered at A Level, or an interdisciplinary theme.

*Whilst a research question may well grow from a learner's A Level, the Cambridge Research Report tests distinct skills. Personal investigations created for other purposes would not be suitable as a Research Report because both the word limit and the requirements of the assessment are different.

2. Are there any current events or ethical issues that a learner might want to explore for the first time, or in more detail?

For example:

- the expansion of NATO (especially to ex-Soviet states)
- the global implications of the rapid developments in India
- the 'war on terror'
- faith and the law
- the use of illegal drugs
- GM crops
- global warming and climate change
- sport and politics (e.g. the Olympics and the World Cup)
- the cult of celebrity
- the influence and responsibilities of popular culture.

3. Can he or she use this to reinforce a decision to study a particular subject at university?

For example:

- for a medic – how should medical resources be allocated?
- for a teacher – do we need a national curriculum and national testing?
- for an engineer – can we make solar energy economic?
- for a lawyer – is anonymous evidence ever acceptable?
- for a computer scientist – can we reverse-engineer the brain?

These are simply ways to start thinking of topics. There are others and, of course, projects may well emerge from sports or other activities in which a particular learner is involved.

The same advice about question-setting for the essay in Component 2 applies here. The topic must give rise to a question, not a statement or set of topic words. In addition, the question must allow for a debate between alternatives: it cannot ask for a descriptive response.

Here, for example, is a list of appropriate questions. All of them are questions which are focused on a debate:

- Is the framework of war poetry the best method of classifying the work of Wilfred Owen?
- Is the development of an eating disorder influenced by culture?
- Is the killing of innocents in war ever justified?
- Is choice an axiom?
- Do the benefits of synthetic biology outweigh the risks?
- Is homeopathy an effective treatment?

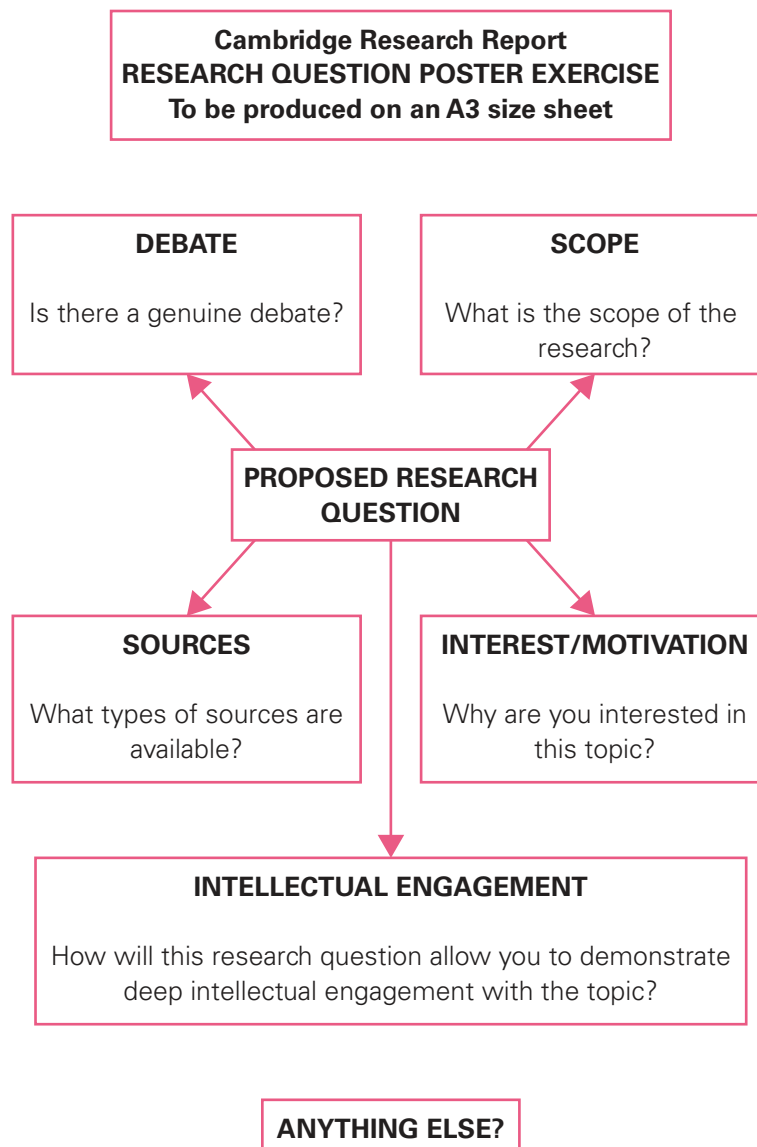
These, on the other hand, are not appropriate:

- The rise of the internet [this is just a statement]
- Genetic engineering [this is just a phrase]
- Explore the novels of Jane Austen [this is a command, not a question and calls for description]
- What is natural selection? [this is a question but has no debate]
- What were the causes of the First World War [this calls for description only – ‘What was the most important cause of the First World War?’ would be better]



The choice of topic can be carried out during the end of period of study for Components 1–3. One suggested way of doing this is to ask learners to bring in a source that interests them and to identify what questions might potentially flow from them at the same time. Learners can then be asked to put together posters answering the following questions:

- Why are you interested in this topic?
- What sources are available?
- What’s the debate?
- What are the main positions held in the debate?

On the following page you will find a template that can be transferred onto an A3 sheet as a set of instructions for learners to create these posters. This is followed by some examples of completed posters from previous learners.



Sample poster 1

<p>Clarification of key terms:</p> <p>'True nature' - For this dissertation, the assumption shall be made that truth is external to the mind, not internal. This idea is based on <i>The Correspondence Theory of Truth</i>- a statement is true if it corresponds to reality (The Cambridge Dictionary of philosophy).</p> <p>'World'- We can clarify the term through a <i>con-example</i>, by defining the word 'mind'. The Cambridge dictionary of Philosophy, in defining the 'philosophy of mind', claims, "Minds are substances that are extended in space, and that are distinct from any physical substances". So, by world we mean physical objects in reality, <i>outside of the mind</i>.</p> <p>'Senses' "Any of the bodily faculties through which sensation is caused (the five- sight, hearing, smell, taste and touch)" (The Popular Oxford Dictionary, p824, Oxford University Press 1978.)</p>		<p>Why is this an interesting topic? Firstly, I think it would be interesting to look into philosopher's potential answers to this, question their assumptions and see if their arguments sway my initial opinion. Also, the idealists and sceptics present the idea that not only may we not experience the true nature of reality, but that there is no world at all outside of our minds. We cannot step out of our minds to check if reality corresponds to what we perceive, or if there even is a world outside of what we experience.</p>
<p>To what extent do we experience the true nature of the world through our senses?</p>		
<p>Idealists Infernalist theory- truth is in the mind; it does not depend on an external world. There is no real object behind one's perception, what is real is the perception. The existence of physical objects is denied, there are just ideas in reality.</p>		<p>Naïve Realists: The information we receive from our senses should be taken at face value. We experience the true nature of the world from our senses.</p>
<p>Sceptics We experience the world indirectly, through our senses, which are often flawed. We can never know if we are having veridical perceptions, or illusory ones.</p>	<p>The Debate This question has many alternative points of view, but I will focus on the following ones in particular; -The Naïve Realists -The Representative Realists -Sceptics -Idealists</p>	<p>Representative realists: We experience a representation of the world through our sense. We do not directly experience reality. (Supported by the argument from physics)</p>
		<p>Sources: Bertrand Russell, 'The problems of Philosophy' (Presenting the Representative Realist viewpoint, giving various counter arguments to other theories, especially the naïve realists) Berkeley's theory of vision. <i>Critical Examination of Berkeley's new theory</i> Or George Berkeley, 'A Treatise Concerning the Principles of Human Knowledge' (Both presenting the Idealist viewpoint) <i>The Journal of Philosophy</i>, Volume LIII, No.9, April 26th, 1956. 'Has Russell proved Naïve Realism self contradictory?' (Presenting the Naïve Realist argument, and suggesting counter arguments)</p>

Sample poster 2

Why are you interested in this topic?
Neuroscience is a very fascinating and complex area of science and there are still so many things about the brain that are undiscovered and which scientists still do not fully understand.

Dreaming is something most people experience on a regular basis and is usually taken for granted. So, why do we dream? In my research I will explore the function, and thus importance, of dreaming.

What sources are available?
Awareness – Biorhythms, sleep and dreaming

- Bio-psychological book by Evie Bentley which concisely covers a range of theories on dreaming, including neurobiological theories, a psychodynamic theory and a cognitive theory.

Stroke Victim Robbed of her Dreams

- Article from the New Scientist which includes some conclusions reached by scientists on the function of dreaming based on a case study of a stroke victim who lost the ability to dream for several months.

Refocusing the Neurocognitive Approach to Dreams: A Critique of the Hobson Versus Solms Debate

- Journal article by G. William Domhoff which examines the ongoing debate between activation-synthesis theorist J. Allan Hobson and psychoanalytic theorist Mark Solms about the nature of dreaming.

What's the debate?
There is a great deal of debate surrounding the function of dreaming, of which there are neurobiological theories and psychodynamic theories.

Some theories are that dreaming...
"has no real function – it only reflects mental activity"

"is a side effect of the removal of irrelevant or faulty connections between neurones"

"is a means of replenishing neurochemicals in the brain"

"is a way of protecting our sleep - if something threatens awakening you experience a dream instead"

The intellectual engagement...

This research question will allow me to explore an aspect of neuroscience which is not covered in any A-Level Chemistry or Biology studies. I will be able to analyse different perspectives posed by scientists, and even psychologists, who have expertise in the field of dreaming, and thus I will be able to come to an intellectually reasoned conclusion based on the selected arguments.

By

6.2 Focusing and developing a research question

Once a topic area has been defined it is important to focus the research question so that it provides access to the full range of marks. Below are some guidelines that learners may find useful and some examples of how to sharpen up the focus of their questions by getting a fuller, deeper picture of their chosen topic.

Some important guidelines

- It must be a *question*. 'Nuclear power. The future', for instance will not be helpful. The learner will be assessed on how well the question has been answered not just on writing generally about a topic.
- Generally, questions should be clear and should have a single focus. The question 'What were the causes of the 1997 Asian Financial Crisis and how well did governments both in Asia and worldwide deal with its ramifications and prevent its recurrence?' has a number of issues – the causes, the reactions of Asian governments, the reaction of other governments, the ramifications and the degree to which its recurrence was prevented. This is likely to be too much for everyone concerned and should be more sharply focused.

Section 6: Preparing learners for the Cambridge Research Report (A Level)

- Questions should be in an academic and not a journalistic form, simply because the focus is likely to be clearer for the learner. 'Arnhem, A Bridge Too Far?' might be fine for a popular history book – but is the learner going to discuss whether the Arnhem campaign failed because of faulty planning? Whether unexpected German resistance was the main reason for the failure of Arnhem? It is important that the learner should be very clear on what he or she is really investigating.
- Is the scope appropriate for 5,000 words of sustained analysis? For example, is it possible to answer the question 'Was the Middle Ages the turning point between the Ancient World and the Modern World' in the word limit? It may well be that both these titles could lead to a strong response but some discussion about possible approaches would be recommended.
- Is there really a debate for the learner to engage with? 'With cancer, prevention is better than cure', discuss. The key test is to think what the alternative view is going to be – is there really an argument that it might be better to get cancer and then cure it? The learner may wish to discuss what is the better use of finite resources for research – which is a different question with different possible views.
- Has the learner actually looked in the library, looked on the internet, asked specialist staff to make sure that resources are available for his or her topic? Or is it a case of 'I will look at specialist articles and do an internet search.' What if the articles are either too general or too difficult or all take the same basic line? The evidence must be reasonably accessible, must be of appropriate depth and must yield the chance to evaluate different perspectives.
- Is there someone in school who feels confident in acting as tutor on a chosen topic? If not, then the learner potentially will not get the same level of support as others and this must be a consideration when choosing a title. If no-one in the History Department has any knowledge or interest in Japan in the Meiji period, then all that can be offered is general help with research and evaluative techniques. This may be fine, but the learner should bear this in mind.
- Is this a suitable topic for the particular learner? This is a delicate matter which may need negotiation. It is much better that learners dip into the topic they are considering as early as possible. It will become very apparent if it is either too easy or too hard with the right sort of discussion. There is absolutely no shame in reconsidering a decision but this should be done earlier rather than later.

Focus (example 1)

Below is an example of a philosophy-based research topic and ideas of how we might begin to focus on the issues to produce a suitable question.

A learner may want to base research on a philosophical topic but asking, for example, 'How does Eastern Philosophy differ from Western Philosophy' is clearly far too broad, any 5000-word research topic based on such a question would at best be superficial. It is much better to look for specific problems within a broad topic. For example, according to the *Washington Post*, the writings of the Chinese philosopher Confucius are apparently making a comeback in modern China after being suppressed during the Cultural Revolution. Perhaps a research question could be based on this? Several lines of approach suggest themselves:

Why was Confucianism suppressed?

Why is Confucianism making a comeback?

But these are still rather unfocused (and certainly not suitable as research questions), and they are bound to remain so until some further research has been done. This is an important point. It is rarely if ever possible to frame a good research question until you have done preliminary research and explored some alternatives. By and large if the questions that emerge are 'What?' 'Who?' 'Why?' then the results will not yield as much as if the questions are 'To what extent?' or 'How far?'

The article in the Washington Post referred to above goes on to say:

'Confucianism is enjoying a resurgence in this country, as more and more Chinese ... seek to adapt to a culture in which corruption has spread and materialism has become a driving value. For many Chinese, a system of ethical teachings that stresses the importance of avoiding conflict and respecting hierarchy makes perfect sense, even if it was first in vogue centuries ago.'

Washington Post, July 24th 2007

Even this brief passage helps. The ethics of Confucianism are contrasted with the (implied) immorality of rampant materialism. Of course, this is one article that might have its own agenda but it is nonetheless leading us towards possible research questions.

The point is, once a topic area has been identified, it is very important to explore it through further research before committing to a final research question. It is also important to be prepared to modify a research question in the light of further work. A very simple internet search on 'confucianism+modern+china' immediately provides both possible sources and different approaches. For example – this article:

'Modern China needs some old thinking' – You Nou, China Daily, 31/7/2006

raises questions about the specific relevance of Confucianism to modern business in China by suggesting that:

'No society can afford to build an economy without a moral foundation,'

a statement which may itself be regarded as controversial, and which might even deflect the focus of research from Confucianism itself to the ethics of economics.

How can we focus this research question?

1. Explore the topic of 'Confucianism and Modern China' by looking for answers to these questions:

- (a) What is Confucianism?
- (b) What do we mean by **Modern** China?
- (c) What was the significance of the 'cultural revolution'?
- (d) To what extent is Confucianism making a comeback?
- (e) To what extent is Confucianism relevant to business?

The questions have gone from 'What' – a factual question; to 'What do we mean' – a definition question; to 'What was the significance?' – a more conceptual question; to 'To what extent', which is related to a situation; to 'To what extent' – related to a concept. To answer (e) would need consideration of what is involved in modern business. As the thought processes develop, so the need to 'unpack' issues and make judgements increases.

- 2. Construct several different research questions and be prepared to explain the different points of view that might be expressed about each one.
- 3. Identify a selection of sources that will be helpful both for investigating the five questions above and for taking this research further. If there are conflicting sources about the extent of the Confucianist revival in China or different business models and views about business ethics, then fine. If not, the learner may have to reconsider.

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In practice, 1, 2 and 3 form a linked process. Out of the original idea will come different questions. These will be formed as some initial research is done. Then the questions will start to guide the research. Then a final question will emerge.

This is a complex process and the learner will need plenty of help. However, the initiative should remain with him or her. Ideas which learners bring can be discussed or modified in the light of suggestions. It is not the teacher's role to suggest topics or to veto topics but to get the learner to ask the right questions.

Models of discussion

Learner: I don't know what to do for the Cambridge Research Report.

Teacher: Why don't you study Confucianism in modern China. I have been reading an interesting book about that.

Learner: Will you help me with that?

Teacher: Yes. I will print out some good articles for you.

Learner: I did think of doing something from my Psychology course.

Teacher: I should do Confucius if I were you.

Not an approach to be recommended

Learner: I want to do something on modern China.
I studied this in History and it was very interesting.

Teacher: Have you thought about which aspect?

Learner: I would like to find out more about Confucianism.

Teacher: Have you done any research?

Learner: I've looked at some websites.

Teacher: Do you think there might be a debate here? Are there different views about it?

Learner: I'll look again and show you.

Teacher: Great.

This looks a more promising approach

Focus (example 2)

Here is a different kind of research project – one that might appeal to a physicist, mathematician or philosopher. It is concerned with the History of Science.

Albert Einstein was one of the intellectual giants of the twentieth century and his ideas, opinions and attitudes, as well as his iconic status, can stimulate a wide range of research ideas. However, care must be taken to avoid very broad and superficial projects that merely reiterate accounts from popular science books or which deal with technical or mathematical ideas beyond the reach of the learner at that stage of their study. Having said this, Einstein's life and work does offer good opportunities for focused research questions that are both accessible and rewarding.

A good way for a learner to embark on such a project is to read a good biography of Einstein's life. This will give an overview of what he achieved scientifically, politically and philosophically, and might prompt a range of questions such as:

- Why did the Nazis try to discredit Einstein's theories?
- To what extent does Einstein bear any moral responsibility for the atomic bombs dropped on Hiroshima and Nagasaki?
- Was relativity 'in the air' or did Einstein truly revolutionise physics?
- Is there a contradiction between quantum theory and relativity?
- What 'God' is Einstein referring to when he says 'God does not play dice?'
- What is the meaning of the equation $E = mc^2$? etc....

It should be clear even from this brief list that many different types of project could be written, requiring historical, ethical, scientific and/or mathematical research. For example, the final question in the list certainly requires the learner to get to grips with some tricky scientific ideas (and this would form part of the project) but the interpretation of that simple equation has been and remains controversial (thus providing different points of view) and raises difficult questions about the nature of mass and energy (linking mathematical and scientific ideas with philosophy).

The second question, about moral responsibility, will inevitably lead learners into the fascinating story of the Los Alamos Project and the moral dilemmas faced by the scientists who worked on it. It is quite possible that an idea that starts with Einstein might end up with a research question about Robert Oppenheimer or about the influence of scientists on political decisions (such as the decision to use the atom bomb).

Refining the research question

Once learners think they may have a focused question they may find filling in a 'Research Planning Sheet' helpful (see below) outlining their topic and the main issues prior to completing their Outline Proposal Form.

Research Planning Sheet

NAME:

(This sheet is for use **within the Centre** prior to the submission of an Outline Proposal Form (OPF) to Cambridge)

Research Question:

Motivation

(a) Why is this an interesting/important question to answer?

(b) Why is this research question interesting/important to you?

Points of View

(a) What is your initial view on this question?

(b) Outline two important alternative points of view taken on this issue.

Resources – indicate sources you have already identified and explain how and where you will be able to gather more evidence for your research.

Submitting an Outline Proposal Form

By this stage both learner and Cambridge Research Report supervisor may have invested time (and some emotion) into the process and may be enthused and have a sense of ownership. The Cambridge consultant is coming to the proposal 'cold' and may see problems or implications from an outsider's point of view. The consultant will have considerable experience of question setting and coursework and will be able to offer advice or ask some questions. It is important that this is seen as part of a process to encourage reflection rather than a definitive judgement. As a thinker who has followed the critical path, the learner has to assess and evaluate the consultant's response and decide whether to act on advice. If a question is not clear to an outsider it may well be worth reconsidering but it is the learner's decision about what to do with the advice given. It is recommended, however, that the consultant's response is discussed with the Cambridge Research Report supervisor.

On the following pages you will find samples of all three stages of the process outlined above, from poster to Research Planning Sheet to OPF, for a single topic. **These stages illustrate how ideas develop organically as a process of reflective research.** The ideas will be developed further, as a result of feedback from the Cambridge consultant and any revelations thrown up by the learner's own research process.

Proposal Poster

The Debate

- One viewpoint is that the democratisation of information, finance and other aspects leads to further development and advancements into new markets for the MEDCs.
- Alternatively, some believe that because globalisation results in the growth of new superpowers like China and India, this could cause the economic dominance of such “western” countries like the UK and USA to lose economic dominance.
- The beauty of this debate is that renowned economists and experts all have different views, demonstrating the possibilities of this question.

Key Terms

- **Globalisation:** “The process by which the whole world becomes a single market. This means that goods and services, capital and labour are traded on a worldwide basis, and information and the results of research flow readily between countries” (OED of Economics, 2003)
- **Economically efficient (Pareto efficiency):** A type of efficiency that results if one person cannot be made better off without making someone else worse off. (Sistema Joint Stock Financial Corp. 2009)
- **Developed Country:** “A country that allows all its citizens to enjoy a free and healthy life in a safe environment.” (Kofi Annan, Former UN General Secretary)

Is globalisation economically efficient for developed countries?

Sources

- Globalisation is a topic widely written about in a number of renowned publications, such as *The Telegraph* and *The Economist* as well as international posts like *The New York Times*, allowing a variety of perspectives from all over the globe.
- Furthermore, many books and journals have been based on the topic of globalisation by some of the most reputable authors, such as Thomas Friedman’s *The Lexus* and *The Olive Tree*. These give detailed expressions about globalisation and their opinion on it.

Motivation

This topic is a perfect combination of my two main intellectual interests – human geography and economics. Globalisation is a paramount topic in both of these subject areas, and after studying a variety of arguments and texts on this, I would like to search deeper into this topic. The whole idea of globalisation fascinates me, and would really like to answer the main question that sticks out when I read about this – is it a good thing for developed countries like the USA or the UK? I hope to have a clear opinion on this question when I have completed my dissertation.

Intellectual Engagement

As a topic that is debated by some of the top economists globally, this is something that goes beyond an average A-level syllabus. The sources that I will be required to read will demand a vast knowledge of not only the topic area of globalisation, but also a good understanding of economics and human geography. Furthermore, large amounts of my time will have to be devoted to further reading in such publications as *The Economist* and *The Guardian*, as well as more detailed literature such as *The Lexus* and *The Olive Tree* by Thomas Friedman, which engages in the topic much more.

Research Planning Sheet

NAME: XXX XXXXXX

(This sheet is for use **within the Centre** prior to the submission of a Research Proposal Form to Cambridge)

Research Question:

Is globalisation economically positive for more economically developed countries (MEDCs)?

Motivation

- (a) Why is this an interesting/important question to answer?

This subject is at the forefront of economics issues in the world today, with a variety of viewpoints being broadcasted, making it an extremely debatable subject. With a number of different opinions to be analysed, this topic can provide a deeply complex argument.

- (b) Why is this research question interesting/important to you?

As I have a keen interest in the human side of geography and economics, this question combines these two topic areas perfectly. I have seen it be well written about in a variety of prestigious publications by renowned authors, and has always fascinated me, and this report provides me an excellent opportunity to explore this subject in further detail.

Points of View

- (a) What is your initial view on this question?

Personally, I believe that globalisation will have a positive impact on MEDCs. As other countries develop, this can lead to stronger economies as international trade rises, as well as it being beneficial for more people as a larger quantity of information becomes available to the public.

- (b) Outline one of more important alternative points of view.

Some economists believe that this up rise in less economically developed countries (LEDCs) such as China and India will cause the economies of classic 'western' countries like the UK and the USA to suffer as these nations increase their hold on the world economy.

Resources

The Lexus and The Olive Tree – Thomas Friedman

Global Shift – Peter Dicken, 5th Edition

http://www.forbes.com/2007/05/11/globalization-outsourcing-nafta-pf-education-in_Is_051_1investopedia_inl.html Lisa Smith, Forbes

<http://www.guardian.co.uk/business/2005/nov/07/politics.globalisation> Larry Elliot, The Guardian

OUTLINE PROPOSAL FORM

Please read the instructions printed overleaf before completing this form

Name of Centre	XXXXX XXXXX XXXXXX	Centre Number	XXXXX
Candidate Name (if required)	XXX XXXXXX	Candidate Number	XXXX
Syllabus Title		Syllabus Code	
<i>If this is a re-submission, please check box</i> <input type="checkbox"/>		Component Number	
Examination/Assessment Session: Year			

Title of Proposal	Is globalisation economically efficient for developed countries?
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Details of Proposal (see over)	
<p>I believe my question is worded in a way that can be clearly defined. Although 'globalisation' has a ambiguous definition, I have used the Oxford Dictionary of Economics (2003) which says it is "The process by which the whole world becomes a single market. This means that goods and services, capital and labour are traded on a worldwide basis, and information and the results of research flow readily between countries". Oxford dictionaries are a renowned source, and by using the economics dictionary I can make it more specific and appropriate. For the 'economically efficient' part of the question, I intend to use the Pareto efficiency, which according to Sistema Joint Stock Financial Corp. 2009 is "A type of efficiency that results if one person cannot be made better off without making someone else worse off". This type of efficiency is the more appropriate for this as my question really wants to analyse whether globalisation benefits the developed countries more than it harms them. The final clarification is 'developed country', and I have found a definition from Kofi Annan who says it is "A country that allows all its citizens to enjoy a free and healthy life in a safe environment." (Kofi Annan, Former UN General Secretary). He clearly has expertise in the subject as he was general secretary of the UN.</p> <p>Globalisation is a well debated topic in the fields of geography and economics. There are a number leading economists who specialise on the subject, such as Phillippe Legrain who has written a number of articles in favour of globalisation, such as 'Don't Take Globalisation for Granted' and Thomas Friedman who wrote 'The Lexus and The Olive Tree', a book on the subject. Alternatively, authors such as Naomi Klein are very much anti-globalisation, and has writtem books such as 'No Logo'. These are all renowned economists on the subject of globalisation, so are very knowledgable and reliable. After critically analysing and comparing alternative perspectives, I shall proceed to forming my own opinion on the matter, based on the strengths and weaknesses of the reasoning used.</p> <p>This is a topic that has facinated me since I came across the term. After studying texts further I have decided that it is something which I would enjoy researching further, and is a topic that motivates me greatly. Moreover, it is a subject area which allows me to engage at such a standard beyond A-level, with the source detail and ability to critically analyse being something that is highly demanding. However, the challenge and topic area is something that excites me, so should be able to engage effectively.</p>	
	Date 17/7/16

Comments:			
	Adviser's Initials		Date

<i>For CIE use only:</i>	APPROVED	APPROVED WITH PROVISIO	NOT APPROVED	More information required	Approval not required; please see comments
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.3 How to plan and carry out research

Once the learner has settled on a research question and discussed it with their tutor they will need a plan of action. *One thing they must not do at this stage is to start writing the report!* In fact, getting to the stage where they can start writing takes some considerable time and effort – the amount of information they gather can be daunting – finding a place to start and selecting evidence is difficult. Having a good plan of action and approaching the research in a disciplined way can help. It is one of the main jobs of the supervisor to prompt the learner and help them to plan and stay on task, and to avoid the temptation to hide away when things are getting on top of them. The supervisor should encourage their learners to come and see them precisely at these times in order to bounce ideas off them and re-energise the project.

Here is some advice that supervisors can give their learners about their research

- They must be clear in what they are asking – make sure they have clarified their research question and defined all the terms in it.
- Break the research into parts and deal with them separately – but be aware of how all the parts fit together.
- Learners will not know all the answers at the beginning – so they should be prepared to be persuaded by strong arguments and to change or adapt their own point of view in the light of the evidence they uncover.
- They need to read and research a lot of material before they can decide what they want to say on the question.
- Learners should make an effort to get a range of views – don't use sources that all agree with one another. They should seek out radical and controversial views and then test them against the evidence.
- Learners should keep a log of their research, noting down sources, key ideas and arguments and full references detailing where it came from. It is also worth identifying bias and trying to judge the credibility of each source at this stage.

When a learner is ready to start drafting their report, they will need to refer back to the evidence they researched, the supervisor will therefore need a record of it!

You can see the continuity and importance of the skills of the Critical Path in the execution of this research and how it clearly defines the role of the Cambridge Research Project supervisor in the 1:1 meetings.

Example – Using the Critical Path:

Research Question: Can the Iraq war be justified on humanitarian grounds?

This is from the proposal

For my research report I intend to deconstruct arguments for and against the justification of the Iraq War as a humanitarian intervention and assess the credibility, and its effect on the strength of reasoning, in the sources mentioned below.

Precise and relatively short definitions of ‘humanitarian’ and ‘intervention’ may be found in the Concise Oxford English Dictionary. Humanitarian can be defined as; “concerned with or seeking to promote human welfare.” (COED 10th edition rev. 2002)

Intervention is defined as; “the action or process of intervening.”

Therefore according to these definitions, or a more detailed clarification of the term ‘humanitarian intervention’ (pending further research) I aim to determine whether or not the Iraq War was launched in order to promote human welfare and improve the lives of the Iraqi people, and otherwise assess arguments as to what the true motivation for the invasion was. Through this I may assess whether or not previous examples of intervention e.g. Kosovo and non intervention (Rwanda) would justify the need for intervention in Iraq and similarly whether events prior to the invasion i.e: 9/11, Al Qaeda and the Kurd and Shiite massacres may be seen to have had any effect on the American motive for invasion. The sources I intend to use are speeches and press interviews from the Bush administration, as well as potentially Colin Powell’s presentation to the UN about the WMD; Alan Greenspan’s memoirs ‘The Age of Turbulence: Adventures in a New World’ – for the opposition view that oil was the true motive. Tony Blair’s speeches and other sources from the British Government; Hans Blix’s opinion, as the chief weapons inspector in Iraq; The United Nations and the reasons why certain countries vetoed the invasion; Tony Benn’s opinion on the conflict as President of the Stop the War Coalition; Aquinas’ Just War Doctrine, potentially as an initial source to help with clarifying the term ‘humanitarian intervention’; the opinion of Human Rights Watch and potentially various essays available on the USIP (United States Institute for Peace) website – which argue the different sides to the argument of the legitimacy of humanitarian violence and other political journals, for example Rod Liddle’s writing in ‘The Spectator’. The breadth of sources available is likely to lead to the opportunity for sustained analysis, however in order to stay within the 5000 word count I intend to assess the reasons for the invasion and not necessarily actual events which have occurred during the course of the war. This will therefore limit the scope of the question.

Feedback from the Cambridge Consultant

This has some promise but the problem lies in the use of the concept of ‘justification’ which may need some unpacking. Is the focus going to be on whether the justifications that Blair and Bush gave were justified, that is rooted in evidence about the danger to humanity from weapons of mass destruction; or is it about whether there was a higher moral justification for regime change given the nature of Saddam’s regime? That leads to wider issues of moral responsibility. Much is going to depend on the approach adopted and the evidence used. Also, the proposal includes a possible discussion about actual motives – so there are a number of possible threads here. First why did the invasion take place? Second was the justification given valid? Thirdly, even if the reasons were humanitarian, can such reasons justify war?

However, we can use this in its unfocused form to illustrate how to approach a research project by applying the Critical Path methods developed and practised in the Global Perspectives course.

Below is a table showing how the Critical Path can be used to help structure a learner's research in relation to the question:

Can the Iraq war be justified on humanitarian grounds?

DECONSTRUCTION

- Analyse the research question:
- What is meant by 'justification'?
- What is meant by 'humanitarian'?
- In what sense could it be argued that the war was for humanitarian reasons as opposed to other reasons?
- What could those reasons have been: strategic, economic, political, personal?
- Can war ever be justified on humanitarian grounds?

Who is undermined and how?

RECONSTRUCTION

Consider different points of view, e.g.

- Blair's arguments that he was preventing the use of WMD or saving the people from tyranny.
- The arguments that Bush was concerned about oil and power.
- Arguments that war can be justified on moral grounds.
- Pacifist views that it is never justified.

Provide evidence for each point of view.

REFLECTION

What aspect of this issue is my real interest?

- Do I want to look at the evidence for motivation in the particular instance of this war?
- Do I want to use this war as an example to discuss the wider moral implications of 'humanitarian war'?
- Can I really integrate the two?
- What actual evidence am I going to use and how am I going to organise it?

COMMUNICATION

- Clear statement of perspective that war was not justified with indication of evidence and why it might be accepted/challenged?
- Clear presentation of alternative perspective with critical use of evidence.
- Initial own view.
- Reflection on the view with awareness of problems of reaching a clear conclusion.

It becomes apparent here that the deconstruction and reconstruction stages of the process are critical. Successful research processes are careful to deconstruct their question, focusing in on key terms, and then to use these to reconstruct opposing perspectives on each one, making clear the basis of the difference between them. This is key to meeting the requirement of the Cambridge Research Report of evaluating different perspectives in a debate. Learners should also be encouraged here to refer back to learning about perspectives from earlier in the course and look to identify specific differences of context, evidence, argument and assumption which would differentiate sources from opposing perspectives in relation to the same question and key terms.

6.4 Finding sources

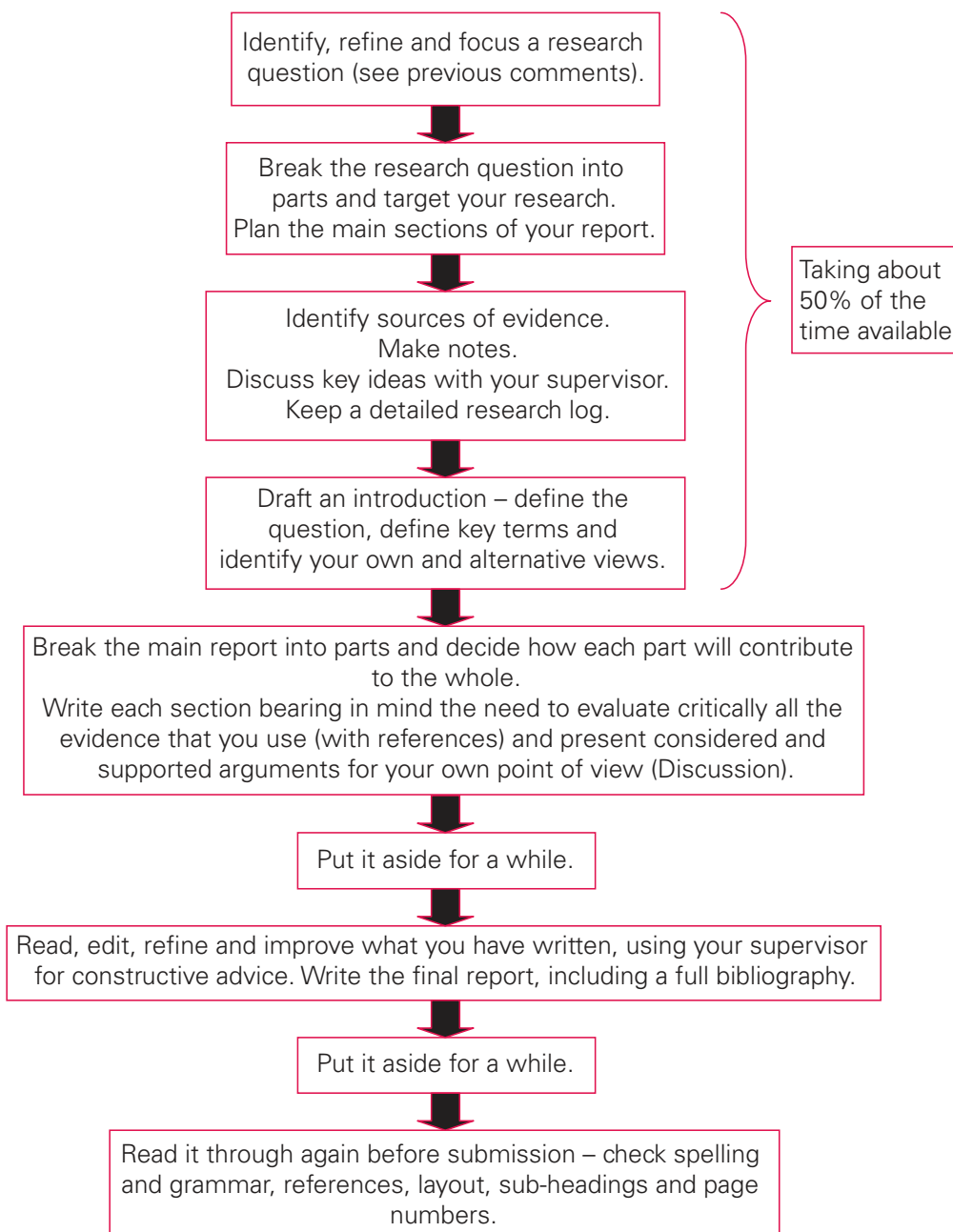
The evaluation of sources in support of an argument is central to the Cambridge Research Report. For this reason, the location of sources must begin at the outset when the research proposal is put together, and this is reflected in the suggested course of transition teaching. It is important however that the sources selected are appropriate for the expected academic level of the research report and for the subject focus chosen by the learner.

Generally speaking, it is expected that sources for the Cambridge Research Report are drawn from an academic or professional context. This may include academic books and journals, commercial research reports and articles in professional journals such as *The Economist* and *New Scientist*. It may include newspaper articles, particularly editorials, but care should be taken here that they offer sufficiently significant evidence and argument for the nature of the question. This is a skill which should have been developed over the course of the first three components, and it is important to explicitly refer back to this. Supervisors will need to be familiar with that content and perhaps some of the learning resources which have been used so that they can make these links for learners.

Most important of all is that learners are encouraged to continue to keep effective written notes, carefully recording full bibliographical details of each source they consult. This will be particularly important for when they construct their bibliography. The same principles for note-taking apply as for previous components, as learners should be focusing on evaluating – weighing up the strengths and weaknesses so they can reach a judgement – the credibility of each source, its argument and the reliability of its evidence. For the Research Report, however, learners should be focused on the relevance of the source to their question and its place within a specific perspective. The Cambridge Research Report is a great opportunity for learners to pursue their own intellectual interests within a particular subject field and to begin to approach arguments and sources within that field critically, deciding which perspective on a particular topic offers the most well-grounded and convincing answer. Their selection and evaluation of sources should be done with this in mind. What is very important is that sources and ideas are not simply described, even at a high level of sophistication. The explicit identification of strengths and weaknesses, and the use of these to make judgements, is a crucial requirement.

6.5 Time management and independent learning advice for learners

A typical profile for a research project might look like the flow chart below



Do bear in mind that this is just an example and that the actual course of any individual research project may well be very different.

6.6 Keeping records

Learners should provide a written or electronic log to show to the tutor as evidence that they have actually done some research between supervisions. The information that needs to be recorded is pretty straightforward and it will make things easier for learners later on, when they are writing up. The log should record:

- Date
- Source
- Brief notes on the evidence
- Comments (credibility/bias etc.)
- Complete specific reference (for books and magazines, including page number(s) – so it is easy to find if they need to return to it).

It is important that learners keep a note of the URL and the access date of any websites they use. For books, the author, title, date and place of publication and the page need to be quoted.

Learner research log

In addition, learners should keep a notebook (electronic or hard copy). This should be brief – it is a record, a prompt for the next stage of their research and is **essential**. Learners should record:

- Details of research as it is carried out.
Websites accessed and their URLs
Books/journals/magazines consulted
(see section 3.7 on how to write footnotes and the bibliography, below – recording this information now will make life easier later for them)
- Brief notes on content.
Include useful quotes (noting carefully where they came from) and comments about credibility/reliability/authority of source.
Questions that occur to them either for further research or to ask their supervisor.
Ideas about how the research fits into their overall plan.
- Preparation and record of meetings with their supervisor.
Questions for the supervisor.
Suggestions made by the supervisor.
Ideas about what to do next.

Learners should be regularly reminded that this research log is a required component of the research report and must be submitted at the end. It will also form direct evidence for the award of marks for the learner's research skills. Besides this, however, it is a powerful tool for more effective research and they should be encouraged to see it as such. This can be done by making links with the reflective paper which formed part of the Team Project. There learners were taught to engaged with a formal reflective cycle and to apply it to an evaluation of their progress in working as a group. Here the reflection is more sustained and focused on the research process itself, but the principle is the same.

6.7 Writing up

Whilst it is important that learners don't write up too soon, it is also important that they don't leave everything until the last moment. The final report must be 4500–5000 words in length so they should try to keep their early drafts under control. Although careful editing will help to reduce the word count, significantly cutting down a text is never easy and can take a great deal of time. Supervisors and candidates also need to remember that the upper limit of 5000 words is absolute and the supervisor is not permitted to mark beyond this point. Footnotes and bibliography are not included in this limit. Learners should not attempt to include substantive argument in footnotes as this will detract from the effectiveness of the report as a whole.

Section 4.4 of the Global Perspectives & Research (9239) syllabus is the necessary starting point for any consideration of the structure and content of the Cambridge Research Report, and teachers and supervisors who are involved with it, as well as learners, should consult this carefully. Beyond this, however, is important not to be too prescriptive about the structure of the Cambridge Research Report: it is desirable that the learner reflects upon this for themselves and develops the most appropriate structure for their own question and the nature of their project.

Having said this, there are some things worth saying about structure. Learners will have already had some experience of essay-writing for Component 2 and should reflect on this when identifying some generic elements of good practice.

We can summarise these requirements as follows:

- Introduction
- Description and justification of research methods and methodology
- Analysis and evaluation of relevant perspectives
- Conclusion

The report will need to be followed by a bibliography: a thorough list of all of the resources used in the research, set out using appropriate academic conventions. As stated above, this is not included in the word count.

NB Evaluation of sources and evidence is integral to any research report so must be carried out in the main body of the text, not tucked away in footnotes.

Learners should remember that they are not writing a definitive study but honestly trying to reach a judgement based on the evidence studied. They should be true to themselves and not attempt to write what they think the reader will want to see but all views should be consistent with the evidence considered. Without this they will just be asserting or relying on unsupported opinion. This would be contrary to everything learnt on the journey along the Critical Path.

This constitutes an appropriate generic structure for the Cambridge Research Report which also matches the expectations of the mark scheme. However, within this learners will have to make their own structuring decisions and discuss them with their supervisors in order to take account of the specific focus of their own question and the arguments and evidence they have located.

6.8 Footnotes and bibliography, referencing and citation techniques

There are three key ideas to keep in mind:

- Learners are expected to present evidence from their research – this may take the form of quotations, data, images, etc. but whatever they use **they must acknowledge it**. *Failure to do this will be seen as plagiarism*. [see below]
- References in the text should point to sources listed in the bibliography. Cambridge does not specify the use of a particular referencing style as this will vary across subject areas. However, popular referencing styles include Chicago referencing, which simply uses a superscripted number corresponding to a footnote detailing the source the quotation comes from (including the page number) and Harvard referencing, which requires the author and date year of publication to be placed in brackets next to the referenced material. Full details of these sources must, in turn, be set out in the bibliography.
- The footnotes and bibliography together should make it easy for anyone reading their project to track down the precise source of their evidence if they wish to do so.

Here are some examples of the way an entry might appear in both Chicago and Harvard styles:

Book references

Chicago:

1. In the main text – superscript number (in numerical order):

Maxwellian field theory of the late 19th c. gave way to theoretical premises about the microstructure of matter based on the concept of the electron¹¹

2. In the footnote – Author surname, (Year of publication), *short title*, page(s):

11. Buchwald, (1985), *Maxwell to Microphysics*, pp.128–31

3. In the bibliography - the full reference would appear as:

11. Buchwald, J.Z. (1985), *From Maxwell to Microphysics*, University of Chicago Press, Chicago pp.128–131

Harvard:

1. In the main text – (Author, year of publication, page(s)):

Maxwellian field theory of the late 19th c. gave way to theoretical premises about the microstructure of matter based on the concept of the electron (Buchwald, 1985, pp.128-31)

2. In the bibliography – the full reference would appear as:

Buchwald, J.Z., 1985. *From Maxwell to Microphysics*. University of Chicago Press, Chicago, pp.128–31

Journal references

Chicago:

1. In the main text – superscript number (in numerical order):

There have been many studies on the relativity effect on planetary motions, including Clemence in 1947¹⁵

2. In the footnote – Author surname, (Year of publication), short title, *Journal*, volume no., page(s)

15. Clemence, (1947), Relativity Effect, *Reviews of Modern Physics* 19, pp.361–4

3. In the bibliography - the full reference would appear as:

15. Clemence, G.M. (1947), The Relativity Effect in Planetary Motions, *Reviews of Modern Physics* vol.19, pp.361–4

Harvard:

1. In the main text – (Author, year of publication, page(s)):

There have been many studies on the relativity effect on planetary motions, including Clemence in 1947 (Clemence, 1947, pp.361–4)

2. In the bibliography - the full reference would appear as:

Clemence, G.M., 1947. The Relativity Effect in Planetary Motions. *Reviews of Modern Physics*. vol.19, pp.361–4

Website references

Chicago:

1. In the main text – superscript number (in numerical order):

Southampton University provide an excellent website for further information on information skills for university²¹

2. In the footnote Author/organisation, (Year of publication or last update), Title of page [type of medium], URL: <http://www.solent.ac.uk/Library/informe/law/referencing/solution2how24.stm> (accessed: date)

21. Southampton University, (2008), *Information skills for University*, [online] URL: <http://www.solent.ac.uk/Library/informe/law/referencing/solution2how24.stm> (accessed: 29th August 2008)

3. In the bibliography - the full reference would appear as:

21. Southampton University, (2008), *Information skills for University*, [online] URL: <http://www.solent.ac.uk/Library/informe/law/referencing/solution2how24.stm> (accessed: 29th August 2008)

Harvard:

1. In the main text – (Author, year of publication, page(s)):

Southampton University provide an excellent website for further information on information skills for university (Southampton University, 2008)

2. In the bibliography - the full reference would appear as:

Southampton University, 2008. *Information skills for University*, [online] URL: <http://www.solent.ac.uk/Library/informe/law/referencing/solution2how24.stm> (accessed: 29th August 2008)

Neither the footnotes nor the bibliography are included in the word count.

The examples of citations and bibliographic entries listed here are only illustrative. Any recognised and consistently applied bibliographical system is acceptable and indeed learners should be encouraged to investigate which is most appropriate for the kinds of sources and arguments they are using in their selected domain of study. This is an important part of the research process and excellent preparation for university. For example, Harvard referencing is more usual in the sciences and social sciences, whereas a footnoted style such as the Oxford system may be more useful for literary or historical reports.

6.9 Plagiarism

In order to write a Cambridge Research Report learners are expected to use and evaluate other people's work. That is fine, as long as all such material is acknowledged. Plagiarism involves passing off someone else's work or ideas as one's own. This might happen in a number of different ways:

- failing to acknowledge quotations (or images/diagrams/data)
- using particular phrases or sentences from another author without giving them credit via inverted commas and a footnote
- writing something that is only very slightly different (e.g. a few words altered) to another author's work (i.e. paraphrasing it)
- buying a project from an internet site and presenting it as one's own
- downloading and pasting text or images from an internet site without acknowledgement
- getting somebody else to write all or part of the project.

The bibliography should include all sources from which learners have taken quotations etc. but it should also include all sources that they have read in their research which have helped them to form their opinions about the research question.

Large chunks of copied text will not be marked and if passed off as their own work learners will be in serious trouble. The least of this is that their project might not be accepted but plagiarism is a form of cheating and this may well affect their other examinations as well.

It is usually pretty easy to spot work that is plagiarised – the style and language are different from those used by the learner, and the learner may not be able to explain the content convincingly to their supervisor. If certain parts of a project are in doubt there are very effective search engines that can usually identify the original source. In addition learners need to be made aware that Cambridge uses plagiarism detection software to verify the learners' work.

Section 7: Resources (AS and A Level)

7.1 Choosing resources

What makes a good Global Perspectives resource? Almost any material dealing with an issue of current global significance can be used as stimulus material. In sourcing materials, both teachers and learners will find working with their library and media technicians invaluable.

Resources can come from:

- newspapers from around the world
- journals
- magazines
- books – fiction, poetry, theory etc.
- websites of charities, non-governmental organisations, government organisations, transnational organisations (such as the UN, the World Bank, NATO etc)
- other websites – comments in response to online newspaper articles are often rooted very firmly in a particular perspective, and often contain reasoning flaws.

Ask yourself the following questions when choosing stimulus material

- Will this material make my learners think?
- Will this material help my learners to understand the issues and perspectives?
- Will this material raise further questions for learners to investigate and reflect on?
- What can I do with this material to make it useful/accessible/interesting?
- Will this material suit my purposes? For example, in a deconstruction lesson, I want a simple argument for analysis – is this material an argument?

7.2 How can I check the reliability of Internet research?

Since the vast majority of research is going to be undertaken online, how can learners work their way through the minefield of search results and hit on reliable and credible sources? The tips below are a useful start:

AUTHORSHIP

- Is the author identifiable? Never use a source whose author is not cited.
- Is the author a professional in their field?
- If the author's name is unfamiliar, is the site linked to an established authority on the subject?
- Has this author been cited by professionals or by another respectable website?
- Does the website belong to an individual, or is it part of a site maintained by an organisation, academic institution, or other group?

PUBLISHING BODY/PUBLISHER

- Is the type of material appropriate i.e. academically robust?
- Is the site sponsored by a respected organisation?
- Is this the author's own site?

HOW RECENT

- Can you identify the date the article was written as well as date(s) revised?
- Does the site include information on how often the site is updated?
- Is there a copyright and date listed?
- Is there evidence of 'linkrot'? Linkrotted sites no longer exist or have simply moved.

PERSPECTIVES

- Can you identify the goals of the site and are these goals clearly stated?
- Is the perspective appropriate?
- Are all sides of the issue fairly presented?

ACCURACY OR VERIFIABILITY

- Does the source include a bibliography and/or citations that can be used for comparing or verifying data and other information?
- Do many mechanical errors (e.g., grammatical errors, typos, etc.) appear in the text?
- Which search engine did you use and is it reliable?

7.3 Examples of English language resources from around the world

Organisation Name	Web Address	Details
BBC	www.bbcworld.com www.bbc.co.uk/ worldservice	International websites from the London based BBC.
Aljazeera	http://english.aljazeera.net/	Qatar based international news and current affairs channel.
New York Times	www.nytimes.com	News and opinion from serious US publication.
The Times	www.timesonline.co.uk	Serious UK newspaper. The Guardian www.theguardian.com/uk and Independent www.independent.co.uk sometimes give alternative views.
Daily Mail	www.dailymail.co.uk	Can be a very good source of arguments which include a lot of rhetorical and emotional tricks.
Mail and Guardian	www.mg.co.za	South African news and opinion.
New Zealand Herald	www.nzherald.co.nz	New Zealand perspective on news.
Straits Times	www.straitstimes.com	From Singapore.
Jakarta Post	www.thejakartapost.com	Asian view from Indonesia.
Bangkok Post	www.bangkokpost.com/news	From Thailand.
New Straits Times	www.nst.com.my	Malaysian source.

Pakistan Dawn	www.dawn.com	View from Pakistan.
Asia Times	www.atimes.com	Hong Kong based.
New Scientist	www.newscientist.co.uk	Good source for 'reasoning in a scientific context' but limited free availability.
Times of India	www.timesofindia.indiatimes.com/	From India. Useful comment and blogs.
China Daily	www.chinadaily.com.cn/opinion/	From China, with a very Chinese perspective.
Scientific American	www.scientificamerican.com	Scientific and technological perspective. Look out also for Scientific American Mind.
Oxfam	www.oxfam.org	Charity, which includes reports, appeals and some arguments.
United Nations	www.un.org/en	In addition to documents relating to the organisation itself, the website includes news, reviews, global issues, resources and reports. There are sections on Peace and Security, Development, Human Rights, Humanitarian Affairs and International Law.
Red Cross	www.redcross.org.uk/education	The Red Cross is a charity. Its website includes some very good teaching resources which put some emphasis on thinking through an issue. Many of these could easily be adapted for use in a course with a significant element of thinking and reasoning skills.
Sociolingo's Africa	www.sociolingo.com	This is a blog run by a person who has a background in sociolinguistics and education, which includes useful resources relating to Africa. Some are rather challenging and learners may need help navigating the site.
Third World Network	www.twinside.org.sg	'Third World Network is an independent, non-profit international network of organisations and individuals involved in issues relating to development, Third World and North-South affairs' according to their website. Again, some of the content is fairly academic.
CIA The World Factbook	https://www.cia.gov/library/publications/the-world-factbook	Information on the history, people, government, economy, geography, communications, transportation, military and transnational issues for 267 world entities.
Eurostat	http://ec.europa.eu/eurostat	The statistical office of the European Union.
ITNSource	http://www.itnsource.com	An excellent video archive of historic newsreel, current news and documentary going back to 1886.
OECD	http://www.oecd.org	A good source of data, analysis and discussion on a range of international economic topics.

7.4 Identifying arguments for deconstruction

Deconstruction involves analysing and evaluating arguments. It is important to provide learners with arguments for deconstruction until they are able to distinguish between arguments and other forms of reasoning (such as explanation) or other forms of writing (reporting, commenting, ranting etc.).

Identifying articles that contain argument can prove more problematic than anticipated. Very often what appears on the surface to meet the definition of an argument turns out to be a combination of opinion and explanation. On the other hand, promising and interesting articles on analysis are often found to be far more complex in structure than expected, and it is particularly important that learners focus on analysis and understanding of wider issues, rather than getting side-tracked into analysing the reasoning in a particular article.

The following guidance may assist in finding appropriate materials:

- Select topics which lend themselves to an interdisciplinary approach.
- An argument by definition attempts to persuade the reader of the writer's claim(s); newspaper reports generally give an account of events, plus evidence and explanation. Passages containing argument are more likely to be found in the editorial pages of newspapers and journals than amongst the reporting pages.
- As a general rule, shorter texts work better than longer ones – but careful editing may retain the structure of the argument whilst cutting unnecessary “padding”. Be careful about using any article which is more than 600 words in length.
- Bear in mind that learners should not be expected to analyse the argument in the fullest possible detail, but firstly to identify the writer's conclusion and the main supporting reasons and evidence, and secondly to evaluate the writer's argument, by applying key questions.

7.5 What resources are available from Cambridge and where can I find them?

7.5.1 Materials

- **The Syllabus**

This is the key document that outlines which skills learners need to develop and how these skills are assessed. Make sure you are using the right version. The year of the syllabus refers to the date of the examination not of first teaching. The syllabuses are available online at www.cie.org.uk. If you click on the relevant subject and level you can see the documents available to be downloaded.

- **Specimen Papers and Mark Schemes**

These give an idea of what the question paper for Component 1 might look like. These show a typical examination and mark scheme. They are available from www.cie.org.uk under the relevant subject and level.

- **Past Question Papers and Mark Schemes**

Your school will have designated an individual as your '**Teacher Support Coordinator**' when registering for the qualification. Usually this is the Examinations Officer although sometimes it can be another individual so please check with your administration. This coordinator will be issued with a login and password to the **Teacher Support Site** <http://teachers.cie.org.uk> and will be able to provide you with your own access details.

Question papers and mark schemes from the most recent examination series will be available to registered Centres on the Teacher Support Site under the relevant subject and level and in the section Past Exam Resources. Earlier past papers and their mark schemes will be made available on the public website www.cie.org.uk as they become available.

- **Example Candidate Responses**

Available on the Teacher Support Site <http://teachers.cie.org.uk> to registered centres are CDs and pdf files containing example candidate responses. Questions, mark schemes and examples of marked scripts are included along with examiner and moderator comments on these CDs, to establish a good understanding of the standard and of the assessment requirements (available in late 2015).

- **Online Learning Area for Teachers and Learners**

Online learning area

We have an online learning area for learners to support the teaching of Cambridge International AS and A Level Global Perspectives & Research. Teachers can log into the area to access resources and bespoke online course content. It also allows learners around the world to collaborate between schools, countries and cultures, helping to foster genuine global perspectives.

If you are interested in accessing the learning area, please create a teacher account by completing our online form at www.cie.org.uk/registergp

If you already have a teacher account, you can access the learning area at <http://learning.cie.org.uk/professionaldevelopment/login/index.php>

Resource list

The resource list for this syllabus can be found at Cambridge Teacher Support <http://teachers.cie.org.uk>

- **Four Example Teaching Units**

Also available on the home page of Teacher Support <http://teachers.cie.org.uk> are four teaching units designed around the concept of 21st Century Skills. The four units are: Social Networks, Charity, Endangered Cultures and Transplants.

7.5.2 Training

Face-to-face training is available in the form of workshops and lectures covering structure, planning and teaching strategies. To see what training courses are currently available in your region go to www.cie.org.uk/events. Online tutor-led training courses are also advertised at this address.

If you have any questions you can email Customer Services via info@cie.org.uk or call us on **+44 1223 553554** or **01223 553554** if you are in the UK.

If you would like to discuss bespoke training please contact our Training Services team at trainingservices@cie.org.uk. Face-to-face training can be arranged to meet your individual school requirements. This bespoke training will be tailored to the particular needs of your staff.

Appendix A

Learner skills audit

Evaluate yourself in the following skills. Give evidence for each skill.

Skill	Rating* and evidence
Reading sources with inference and understanding	
Comparing the content of two sources	
Comparing aspects of the provenance of two sources	
Making a full comparison of provenance and getting a good balance between nature and provenance	
Assessing the importance of different factors	
Offering reasons for your view using sources	
Offering reasons for your view using sources and knowledge	
Meeting deadlines	
Contribution to discussions/activities	
Writing clearly	
Listening and responding to others	
Researching outside your textbook	
*AC = Achieved Consistently; AS = Achieved Sometimes; NA = Not Achieved Evidence: e.g. Essay on the outcome of the American Civil War using sources	

Appendix A

Evaluate yourself in the following skills. Give evidence for each skill.

Skill	Rating* and evidence
<p>*AC = Achieved Consistently; AS = Achieved Sometimes; NA = Not Achieved Evidence: e.g. Essay on the outcome of the American Civil War using sources</p>	

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