



## **General Certificate of Education**

# **Critical Thinking 1771**

**CRIT2**

**Unit 2 Information, Inference, Explanation**

# **Report on the Examination**

*2010 examination - June series*

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Set and published by the Assessment and Qualifications Alliance.

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## CRIT2 Information, Inference, Explanation

### General comments from the Chief Examiner

#### Introduction: The examination as a whole

June 2010 was the first anniversary of the AQA AS-Level in Critical Thinking. It was also the first examination of Units 3 and 4, and so of the first full A-Level. As with any new award there are lessons to be taken from the experience. Generally speaking the question-papers discriminated well. There was a very wide range of ability evident in the scripts, and the papers allowed the most able candidates to demonstrate their more advanced thinking-skills and understanding of the concepts, whilst giving the less-accomplished opportunities to gain a basic level of marks. However, there were also areas of the syllabus and corresponding questions in the exam where too many candidates were missing the point and failing to earn marks that should have been within their grasp.

There is no doubt Critical Thinking is a difficult subject, if judged on the basis of the awards. High grades are not easily gained. This has proved so since CT's inception, not only for AQA but for other boards and other related awards, both in the UK and internationally. There are some obvious reasons for this. Firstly CT is taught in the main by non-specialists whose own academic backgrounds vary widely. Many teachers feel that it takes them out of their comfort zone, not because they lack the requisite knowledge, but because of the general, cross-curricular nature of the subject. Those whose territory is maths or science are sometimes daunted by the discursive elements; arts and humanities specialists by activities involving maths and statistics. Some, it has to be acknowledged, teach it reluctantly. No subject is well taught if not taught with enthusiasm, and Critical Thinking is no exception. Indeed it is probably more dependent on the enthusiasm of the teacher than most subjects. Having said that, there was also clear evidence of some excellent teaching and thorough preparation in many centres, not just of the most able students but of many who were, at best, of average ability.

A second reason for sometimes lower-than-expected attainment in CT is insufficient time to prepare students for the examination. Whilst many centres do make adequate time-table provision, which for the AQA award is a recommended *minimum* of 2 hours per week, a proportion do not, and enter candidates who are not sufficiently immersed in the discipline or confident in the skills. Coupled with this is a perception that because Critical Thinking has less 'content' than other AS-/A-Levels, the syllabus can be covered in significantly fewer hours. This is a misconception: there is a body of knowledge and understanding that is essential to success, and this is laid out and explained in the Specification. If the concepts and related terminology are not well-understood even the most naturally able candidates will struggle to gain the highest marks in the exam. The concepts are not difficult and the terminology is neither technical nor extensive; but much of it will be new to students at the start of the course, and also quite abstract. Moreover it is not just knowledge *of* the concepts or of what terms mean that are tested in CT but their *application*, and it is this which takes time and repetition to bring to the required level.

By its cross-curricular nature much of the conceptual content is not unique to CT, but is drawn from other disciplines. To give one example: in Unit 2 a question may arise that involves data in the form of *averages*. The concepts of mean and median are taught from Key Stage 2 onwards in maths and statistics, and Unit 2 assumes that candidates are familiar with them.

Candidates taking CT are not tested on their ability to explain or calculate an average, though in the process of answering the question they may need to make simple calculations of that kind, and again it is assumed that they can, given their general education up to GCSE. What a CT question will typically test is the candidate's ability to assess reasoning based on such data: What can and/or cannot be reliably *inferred from* it? What might *explain* it (if, for instance, it is surprising, counter-intuitive or anomalous in some way)? What *implicit assumptions* are made in drawing a particular *conclusion* from it? And so on. The true content of Critical Thinking is the conceptual apparatus required for these tasks: inference, explanation, claim, conclusion, assumption, etc. And these too are notions that have their place in other curriculum subjects. (Applying them is, in the jargon, a *transferable* skill.)

The point to take from this is that no teacher or student need be intimidated by the difficulty or complexity of the content of CT, nor of the quantity of what has to be learned. But it must be recognised that there *is* a content (albeit a slender one) and that students need to be thoroughly familiar with it, and practised in applying it in all sorts of contexts, for success in the subject. CT is a set of high-order thinking skills, common to all disciplines and drawing on all.

To end on an encouraging note, a number of this year's candidates consistently demonstrated these skills to a very impressive level, and many others did so to a commendable level. It is hoped that the individual examiners' reports on specific units will assist centres to build on this success and raise performance in future years.

### **General Comments from the Principal Examiner**

#### **Common Success**

- Giving a clear conclusion
- Including or anticipating one or more counter-arguments
- Identifying and often basing the argument on principles
- Resolving a conflict between principles with a compromise
- Exploring the meaning of public land, open land, access, privacy and ownership
- Identifying fundamental assumptions, e.g. the basis of private property in general
- Detailed consideration of the implications of public access to open land

#### **Common Problems**

- Limited assessment of the degree of support evidence provides
- Giving reasons for the statement and reasons against, then concluding one way or the other, but without showing why the reasons for the conclusion outweigh those against it
- Flaws in the argument – including rhetorical flourishes, exaggeration, stereotyping
- Lack of charity – the temptation to interpret a counter-argument at its weakest is powerful but should be avoided. E.g. Some answers reduced arguments for public access to greed or envy. Candidates should consider a weaker conclusion to their own argument if that helps to avoid attacking straw men.

- Ignoring one part of the statement
- Not distinguishing ownership from access – making open land public does not entail that it becomes owned by the state
- Not defining open land – e.g. assuming that it includes the back gardens of most houses
- Assuming that the market price or having been able to pay a high price for something is just or moral without explaining why (e.g. that prices reflect scarcity or that money comes from hard work)

In the previous report (January 2010), three points of advice were given about essay answers on CRIT2: (1) Give a clear conclusion; (2) refer to principles in your argument; and (3) use source material to develop the point you are making.

- (1) There is substantial evidence of improvement in this session and most candidates gave reasoned support for a clear conclusion.

Where conclusions were less clear it was sometimes because an answer ignored one of the two parts to the statement (public land *and* protection or compensation).

- (2) Many candidates have begun to use principles well. Most answers were grounded on a principle and the very best answers began to explore the need to prioritise or resolve conflicts between principles such as equality, privacy, property and liberty. For example, one answer justified private property rights by their benefit to the economic development of societies. I would encourage teachers to help students to explore such conflicts where possible.

- (3) Progress on use of the source material was less strong. It may have proved harder to use evidence from the source documents than in previous papers. A large number of candidates continue to use the source documents uncritically, sometimes repeating flawed arguments which should already have been exposed as such from questions in Section A.

Candidates should consider using a few pieces of particularly important evidence and explore the extent of the support it gives in detail rather than making frequent but unexplored references to the source documents. Many answers made excellent use of the candidate's own knowledge, even if it was anecdotal (e.g. personal experience of rambling). Again, such use could be improved further by more explicit evaluation of the significance of such evidence. Often, this can be done briefly and the depth of evaluation needed depends on the importance of the evidence to the argument overall.

The pie chart giving details of land ownership was frequently used well in discussion of equality.

Most answers concentrated on the implications of public access or its denial. The quality of answer was often discriminated by the detail, scope and originality with which the implications were explored. The consequences for farms, wildlife and eco-systems were fairly frequent examples.

An alternative strategy was to dispute a basic assumption of the question statement, that there is any legitimate basis to private ownership. While this approach was frequently argued in a naïve way, when done well it provided a strong foundation from which to deal with many of the common counter-arguments, such as that people have a right to control access to land they have paid for.

Finally, the best answers made attempts to justify the assumptions of their own arguments. For example, there was a lot to be argued about in terms of whether paying for property gave a moral right to it and if so, what that right is justified by.

### **General Advice**

Under the time pressure of the exam, some candidates failed to focus on the specific demands of the question. For example, when asked ‘how justified is...’ no judgement about the degree of justification was made, making the comments difficult to interpret. It could help to begin each answer by echoing the question phrase.

A small number of candidates did not understand what to do when asked to ‘comment critically’ on an argument. They made comments about the text but no evaluation of the argument was advanced. Again, it could help those candidates to begin answers with a phrase such as ‘The argument fails / is weak / is strong because...’.

When assessing arguments, candidates frequently referred to a lack of evidence for claims. As mentioned in the January 2010 report on CRIT2, in the vast majority of cases, this type of response does not refer specifically enough to the reasoning being examined to pick up many marks.

By briefly considering the following questions, candidates could help to make their comments more specific:

- What evidence would support this claim?
- Is it likely that there is such evidence to give support (in common knowledge or elsewhere in the source documents)?

Sometimes it is appropriate to point to a lack of supporting evidence for a claim. However, if an argument relies on a claim but makes no attempt whatsoever to support it with evidence, it could be more fruitful to interpret it as an explicit assumption and then to explain why the assumption is plausible or implausible, rather than simply noting that no evidence is provided.

Many candidates are already employing such a strategy well (even if they do not use the terminology of assumptions in doing so).

### **Time Management**

Time management did not appear to be too much of a problem for the vast majority of candidates. A minority of candidates miss one or two low mark questions. A very small minority of candidates do not leave themselves enough time for Section B. Again, only a very small minority miss out large numbers of questions and thus appear not to be adequately prepared for the exam.

Please remind candidates that work completed outside the box in the answer booklet is not marked (however, it is perfectly legitimate to write more than fits on the answer lines provided).

### **Question 1**

This question was answered very well, with many candidates receiving full marks. Since it only asked for the reasons to be identified, quotation was a good strategy. Sometimes candidates gave the same reason twice, in a slightly different form of words (usually the fact that walks on coastal paths were interrupted).

### **Question 2**

Only a few candidates received full marks on question 2, many receiving one or two marks.

Very good answers explicitly related the evidence to the meaning of 'revolution'. Very few candidates gave a balanced view, identifying reasons for and against the claim.

To be successful, candidates needed to distinguish clearly between the coastal path plan and past attempts to secure public access to land, but frequently did not do so. A fair number of candidates successfully argued that the coastal path plan was continuous with past campaigns (implicitly distinguishing them by the need for such an argument).

Several candidates misunderstood what it was claimed that Tony Blair and his government had done. Some very weak responses did not answer the question but reported the text instead.

Finally, some answers did not match the reasons given for them.

### **Question 3**

Generally well answered.

The best answers made specific references to the text to support their assessment of the arguments.

The small number of positive assessments rarely went beyond an assertion of agreement.

The question required candidates to focus on the arguments attributed to the Lords. A fair proportion of candidates diluted their answers by looking at one or more of the following:

- the fairness and / or reliability of the attribution
- the credibility or reliability of the Lords
- the argument of the author rather than the Lords' arguments

### **Question 4**

Generally done well.

A clear and concise plausible explanation received two marks.

### **Question 5(a)**

Often answered very well. As a summary, both parts of Fox's argument were needed for both marks (i.e. about the price paid and the awkwardness of undesirable visitors) rather than great depth on just one part.

### **Question 5(b)**

It was rare for candidates to receive the full four marks for this question.

The assumptions identified could have been either explicit or implicit and most candidates went for explicit assumptions about undesirable visitors.

Candidates need to take care to be as precise as possible about the extent of what is assumed. In this case, many answers lacked the precision necessary, mistakenly interpreting Fox as saying that *all* visitors would be undesirable or drunk, for example.

The question asked for assumptions to be assessed. Therefore, a list of assumptions was insufficient and it is always advisable to give clear reasons for your judgement that an assumption is plausible or implausible.

Finally, as in Question 3, candidates sometimes concentrated on Fox's reliability or credibility and therefore failed to evaluate the 'quality of Fox's reasoning'.

### **Question 6**

Answers to Question 6 were mixed. Few candidates gained the full three marks by showing an understanding of principles, conflict and other factors, such as money. The idea of showing balance in the answer was interpreted leniently, with explicit limits to the extent of agreement sometimes being sufficient to move from two to three marks.

Very few candidates disagreed with the comment.

The best answers identified the principle or principles at stake and demonstrated their role in the dispute with some reference to Document B.

A lot of answers failed to make any conflict clear and showed a lack of understanding of what a principle is. For example, candidates expressed what was presumably intended to be a principle as a 'wish' or 'want' or 'desire' for something. Better responses referred to rights or mentioned what 'ought' or 'should' be the case.

Some answers referred to the right to appeal, however, while such a right may be a matter of principle, it is not what the dispute over the coastal path is about.

Finally, a few candidates expressed their agreement or disagreement with the coastal path, thus failing to answer the question.



### **Question 7(a)**

A tough question for virtually all candidates, despite the help of the flow chart.

Most answers received zero, while most of those that correctly identified the condition as neither necessary nor sufficient did not give the correct reasons for doing so.

### **Question 7(b)**

The answers to 7(b) were much more successful. The answer itself could be very brief: All it took to identify the conditions was to give their number on the flow chart, although most candidates wrote them in full.

### **Question 7(c)**

Again answers to 7(c) were much better than 7(a), however the following faults were common:

- The distinction between a right and permission was unclear
- Ownership and rights of access were confused
- Concentrating on who has access rather than the justification for their access
- Giving a limited legal explanation

### **Question 8**

A number of candidates continue to find questions requiring calculations very challenging and this question was left out by a small number of people. The mathematics required is not hard. It is recommended that candidates use a calculator if confidence with numbers is an issue.

For this type of question it is important that answers clearly make a judgement about the degree of support provided by the data.

### **Question 8(a)**

Generally answered well.

### **Question 8(b)**

This question was generally answered well for two marks, with candidates seeing that the calculation using population and households supports the statement.

However, only a small number of people went one step further and identified the limits to the support provided by the data in general.

### **Question 8(c)**

This question was the least well answered in Question 8. Only a very small number of candidates spotted the limitations of data about land ownership when trying to work out the population density of residential areas.

### **Question 9**

A large number of students received three or four marks for their answers to this question, with some very strong answers naming a flaw, identifying where it occurs in the argument and explaining why the flawed reasoning fails (twice, for four marks).

It is the assessment of the argument that matters most, so candidates did pick up credit for being able to explain what is wrong with the argument even where application of the technical vocabulary was lacking. However, it is clearly an advantage for candidates to have mastered both the terminology and application of the concepts.

Curiously, some candidates went on to use the argument from Question 9 to support their answers to the final essay question, repeating its errors.

### **Question 10**

There were some outstandingly well argued responses to this question, where the level of detail and appreciation of the subtleties of the issue was impressive. Unfortunately, some candidates were rather bored by the issue (one or two said so!), which was a shame because there are some fundamental and controversial issues about ownership, privacy, freedom and equality underlying this debate.

### **New Numbering System and New Style Answer Book**

Centres are thanked for preparing so thoroughly their candidates to work with the new numbering system and the new style answer book. The majority of candidates responded well to the changes to the June 2010 exams, but where difficulties were experienced, centres are asked to draw candidates' attention to the comprehensive range of guidance material that is available on this subject in order that they are confident about what is required of them in future examinations. Support available on this issue includes Guides for teachers and students, and specimen question papers and mark schemes showing the changes in action. All documents published in support of the changes to exams can be accessed via notices published on all qualification homepages, all subject notice boards, and on the parent and student area of the web.

### **Mark Ranges and Award of Grades**

Grade boundaries and cumulative percentage grades are available on the **results statistics** page of the AQA Website - <http://www.aqa.org.uk/over/stat.html>