Level 2 Award

Thinking and Reasoning Skills

OCR Level 2 Award in Thinking and Reasoning Skills **J930**

OCR Report to Centres

January 2013

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OCR REPORT TO CENTRES

Overview

It is pleasing to report another successful sitting of this qualification with some excellent scripts seen, especially in B901. The quality of performance was generally encouraging with most candidates able to use specialist terminology correctly, which often proves to be an effective discriminator between candidates of differing abilities. The majority of candidates engaged with the stimulus material on both papers with intelligence and enthusiasm.

The two papers were set at appropriate levels with more able candidates stretched to produce some very high quality answers and other candidates able to attract partial performance marks for weaker responses to the more open questions with larger mark tariffs. The rubric for both papers in the qualification is straightforward and there was very little evidence of candidates running out of time to complete the questions.

There was a fall in the number of centres choosing to take advantage of the January examination series this year and this was especially notable with the B902 paper. Centres should be aware that the January series will continue for this qualification as it is not affected by the changes to GCSE and A-level. There was also an unusual, but very noticeable difference in the profile of the candidates for the two papers. B901 was mostly sat by candidates in post-16 education, whereas for B902 the candidates were largely drawn from year 10 and below. It was clear from the scripts marked that the differences in these profiles seemed to have an impact on performance in certain skills.

This Level 2 Award has always been intended to appeal to and be accessible to a wide range of potential candidates and this has certainly proved to be the case. Centres have successfully entered candidates from the end of Key Stage 3 all the way up to post-18 adult education and we would continue to encourage this as the skills being assessed are relevant and accessible to gifted and talented 13 and 14 year-olds through to adults.

Having said this, it seems clear that younger candidates often find it easier to demonstrate their AO2 wider thinking skills in examinations than they do to display their AO3 skills to synthesise, construct and develop their own arguments. The specification makes it clear that there is a stronger emphasis given to the former in B901 and to the latter in B902. It is therefore not surprising that, given the difference this series in the profiles of the candidates for the two papers, we saw a higher standard of performance in B901 than we did in B902.

Centres entering younger candidates in particular are therefore encouraged to take note of the guidance given in previous examiners' reports on how best to prepare candidates for the assessment of AO3 (skill three), as this is the most common area of relative weakness. Both of the reports issued in 2012 should be helpful in this regard. It will also be helpful to focus on the basic critical thinking skills of understanding arguments which are tested as part of skill one. Some weaknesses in the application of this skill were apparent across both papers this series, particularly in relation to the use of argument maps and the distinction between arguments and explanations. There is obvious synergy between the ability to recognise and identify the structure of other people's arguments and the ability to construct and develop one's own.

B901 Thinking and Reasoning Skills

General Comments

The question paper proved to be accessible and of an appropriate level of challenge. Most candidates were familiar with the technical terminology in the questions and almost all were able to complete the paper in the allocated time.

In Section A, candidates engaged well with questions expecting them to demonstrate their wider thinking skills. Candidates were generally comfortable assessing credibility and the usefulness of evidence. Argument maps are an area in which candidates can improve.

In Section B, candidates' own arguments were generally relevant and the standard of counter-arguments was better than in previous series. As always, the more successful candidates were those whose arguments included developed reasons and used clear structure.

Comments on Individual Questions

Section A

Question 1

The argument contained a conclusion and an intermediate conclusion. In part (a) more successful candidates were those who were able to identify the final sentence as the main conclusion of the argument.

Part (b) proved to be a challenging question, with only a small minority of candidates being able to achieve both marks. Candidates were expected to identify that there were two independent reasons in the argument. The map should have shown this by there being two separate lines or arrows leading from the reasons and there should have been no use of a plus (+) sign. Some maps appeared to be confused because there were both two lines and a plus sign and such answers could not be credited.

For the second mark, candidates were expected to show that the two reasons supported an intermediate conclusion and that this intermediate conclusion supported the main conclusion directly and on its own.

Most candidates appeared to be at least vaguely familiar with the notion of an argument map but the accuracy of such maps could be significantly improved.

Question 2

The overwhelming majority of candidates were able to distinguish between a list of information and a rant. Candidates found it much harder to distinguish between argument and explanation.

The statement in part (a) was an explanation because it sought to explain why bicycles were being stolen, whereas the statement in part (b) was an argument to support what someone ought to do.

Question 3

Most candidates were able to make comments about credibility that attracted some marks. The most successful candidates were those who were able to name a credibility criterion and to write a developed explanation. Many candidates did not name a credibility criterion in the space intended by the question but were, nevertheless, able to be credited with some marks for a relevant explanation.

Question 4

Most candidates were able to identify some weaknesses in the survey, but many found it challenging to identify four separate weaknesses. The best answers tended to be those relating to sample size and the representativeness of those asked. Successful responses also discussed the relevance of the question and the method of questioning. Less successful candidates suggested that the survey must be unreliable because the teacher did not ask everyone in the class or everyone in the school.

Question 5

Although questions about necessary and sufficient conditions have proved to be challenging in previous sessions, the format of the question on this paper proved much more accessible. The overwhelming majority of candidates were able to identify the necessary condition.

Question 6

The majority of candidates were successful in identifying the sufficient condition, although a minority incorrectly selected 'being a father'.

Question 7

This question proved to be a good discriminator, with successful candidates being able to understand key differences between the graphs and the information they presented. In parts (b) and (d), successful candidates interpreted the data accurately.

In part (c), good answers were those that identified plausible conclusions to explain the increase in bike crime.

Question 8

This murder problem proved more challenging than the matrix puzzles on previous papers. In part (a) successful candidates were those who worked out that the murderer could not have been Annabel because she never went into the garden. Identifying Gerald as the likely victim proved to be the most challenging part of this question. Because candidates were told that Beth, Gerald and Annabel were related, it was unlikely but not impossible that Christine was either the murderer or the victim.

Question 9

This question required candidates to interpret a code and it proved slightly less challenging than the preceding murder problem. Some candidates used complex working out to solve the problems and may have spent too much time on the task. In part (c) some candidates were unsuccessful because they answered in numerals.

Section B

Question 10

This analogy question proved to be more accessible than similar questions on previous papers. Successful candidates were those who both identified a relevant difference and explained its moral significance.

Some less successful candidates identified basic differences between bears and dogs, whereas the answers of the more successful candidates related to the training or its purpose.

Question 11

Most candidates were able to identify two other possible alternatives to banning circuses, such as circuses without animals or better treatment for the animals.

Question 12

This was a straightforward question, successfully answered by the overwhelming majority of candidates. The minority of less successful candidates sometimes identified things that were generally illegal, such as drugs or guns.

Question 13

This question proved to be a good discriminator. Successful candidates were able to identify several reasons why the claim was weakly supported by the evidence. Less successful candidates sometimes answered using credibility criteria.

Question 14

For this question, candidates were expected to write an argument in support of a claim that had three parts. As always, the quality of the reasoning was the main discriminator, with the presence of two relevant and developed reasons being the main criterion of a top band answer.

Many candidates could have improved their answers by improving the structure of their responses. Use of paragraphs, indicator words and a clearly stated conclusion would have improved the clarity of many arguments.

Most candidates were able to argue that circuses are bad for animals. Most referred to the examples of animal cruelty in the document.

Many candidates who argued that circuses are bad for people referred to the incident with the elephant killing its trainer, although some were more imaginative and creative, arguing that watching animals performing tricks is morally damaging to the human audiences.
Many candidates who argued that circuses serve no useful purpose in the modern word did so by claiming that their only function was entertainment, thereby weakening their argument. More successful candidates argued that the function of entertainment was obsolete because the modern world offers many superior alternatives.

Question 15

The overwhelming majority of candidates correctly interpreted the way the word "unnatural" was being used in relation to circuses.

Question 16

This proved to be a more challenging question, with candidates finding it much harder to interpret the way the word "unnatural" was used in relation to police dogs.

Question 17

In previous sessions, candidates have found it considerably more challenging to develop counter arguments than to produce arguments of their own, but less of a difference was noted in this paper. The overwhelming majority of candidates understood the instruction to write a counter-argument, with very few arguing in the wrong direction. Most candidates recognised that there were three parts to the claim.

As always, examiners looked for developed reasons as the main discriminator of a top band response. Many candidates could improve their answers with better structure, use of argument indicator words and by stating the conclusion precisely.

Most candidates argued that air travel was a positive thing and so should not be banned, offering relevant reasons describing the benefits of air travel. More successful candidates responded to the reasoning in the claim as well as its conclusion by challenging the assertions that air travel was unnatural and dangerous.

Many candidates argued that air travel was not dangerous in comparison with other more dangerous forms of transport. Other candidates attacked the link between the reasoning and the conclusion by arguing that things should not be banned just because they are dangerous.

Questions 15 and 16 were intended to encourage candidates to think about how the word "unnatural" can have different meanings and this appears to have been successful. Many candidates successfully argued that air travel can be seen as a result of man's natural desire to invent and explore. Less successful responses included the surprisingly common reason that flying is natural to birds and it must, therefore, be natural for humans.

B902 Thinking and Reasoning Skills Case Study

General Comments

There was a significant fall in the size of the entry for B902 compared with last January, although there was no discernable difference in the standard of the entry and the spread of marks was very similar. The paper successfully differentiated between candidates of varying abilities and a normal distribution of marks was achieved. It was a pleasure to read many of the scripts from candidates who had clearly enjoyed engaging with the topic of the Pendle Witches.

The B902 paper continues however to pose candidates more difficulty than B901. With pre-release materials available for study in a significant time period leading up to the examination, it is expected that candidates should arrive at the exam venue with a good knowledge of the topic and specific materials being used for the questions. This is not always obvious in the scripts seen and it remains disappointing that so many candidates find it difficult to address the specific demands of the questions when it comes to those testing skill three in Section B. Whilst the focus of question 18 may not have arisen in discussions in class, the issue of whether the witches deserved a pardon addressed in question 17 certainly should have done. As has been suggested in previous reports, centres are strongly encouraged to practise the skill of presenting and developing arguments with their candidates, making direct use of the pre-release materials.

Four of the first five questions tested skill one and it was clear that a significant minority of candidates were unable to apply this skill with consistent accuracy. These sorts of critical thinking questions form the basis for many of the other skills tested in this qualification, not least skill three and AO3. Centres should continue to practise skill one with simple arguments to ensure candidates can recognise arguments, identify components, translate these into a basic argument map and begin to identify unstated assumptions. Again, it should be possible to pick out arguments from the pre-release materials for this purpose.

There was very little evidence of candidates running out of time on this paper and there were no rubric infringements, which is to be expected on a paper with no optional questions.

Comments on Individual Questions

Section A

Question 1

This was a generally well answered question with candidates demonstrating the ability to identify common argument components. Nearly all were able to identify 'so' as the obvious conclusion indicator word, although a significant minority of candidates could not distinguish between the main conclusion and the intermediate conclusion.

Question 2

This question proved to be quite a good discriminator, with roughly half the candidates able to gain full marks across the two parts. Those candidates who made mistakes in this question either failed to identify the joint reasoning or believed there was an intermediate conclusion.

Question 3

Most candidates were able to identify this as an explanation, but over a quarter got this wrong, with the most common mistake being to see the statement as an argument. Again, this is a skill one question which emphasises the need for centres to emphasise the difference between a

forward facing argument with a persuasive element and a backward facing explanation. The common element of the indicator word 'because' often causes confusion in candidates and this proved to be the case with many here.

Question 4

Only just over half the candidates got this question right. Many, incorrectly, chose the final alternative, 'treating people in accordance with the law'. This was presumably because they associate the key word 'justice' with a legal setting. It should have been clear to candidates however, that Florrie was using the word to ask for people to be treated fairly.

Question 5

Candidates often find assumptions questions challenging and this proved to be the case here with only a third able to provide a valid assumption. The question did, however, prove to be a very good discriminator with candidates at distinction level across the whole paper performing much better here than those on pass grades. Many incorrect answers repeated what Florrie was saying, which is never going to correctly identify a gap in an argument. Others, quite reasonably described her argument as containing a Tu Quoque flaw, but again this can never be the answer to a question asking for an assumption. The most common successful answers tended to focus on the fact that her argument depended on there being commonality between the German witch executions and those in Pendle.

Question 6

This question was again a good discriminator and, surprisingly, candidates found it easier to explain the problem with the reasoning than to name it. Fewer than half the answers we received were able to identify an irrelevant appeal, but more than half could see that just because most people believe something it doesn't necessarily make it true. Centres need to emphasise the difference between flaws and appeals as part of skill two.

Question 7

The majority of candidates correctly identified a slippery slope flaw here, confirming the fact that students usually find this the easiest of the common flaws to spot.

Question 8

This proved to be a more demanding question than had been anticipated and candidates at all ability levels found it challenging. In part (a) many candidates incorrectly underlined the response to the counter-argument, rather than the counter-argument itself. This led to a number of answers to (b) which gave reasons which opposed the counter argument, thus attracting no marks. A significant number who gave a correct response to part (a) however, were also unable to provide their own reasons with many simply repeating or paraphrasing the original counter-argument. The best answers gave reasons which focused on changes in legal practices today compared to the seventeenth century.

Question 9

This proved to be another challenging question which reflected the experience of previous papers which have tested candidates' ability to evaluate analogies. Many candidates understood that a weakness in an analogy is a significant and relevant difference between the two things being compared. Far fewer, however, were able to develop two explanations which included both sides of the analogy to gain full marks.

Question 10

This was generally a well answered question with the vast majority of candidates identifying a draught as the most plausible alternative in (a). There was more variety in the answers given to part (b), but digging in the wrong place, the inability of primary age children to successfully identify 'witch-related' objects, and the absence of such objects in the first place were all commonly given creditable answers.

Question 11

This question discriminated very successfully. A disappointingly large number of candidates seemed unaware of the fundamental difference between vested interest and bias. As a result many incorrectly focused on Rachel Turner's background within the area or her personal belief in witchcraft. Stronger responses, however, were able to explain clearly her vested interest based on her potential financial gain from the success of Malkin Farm as a tourist attraction.

Question 12

This was another well answered question with most candidates able to give at least two valid answers across the three parts. Part (a) proved to be the best answered question with part (c) surprisingly giving the most difficulty. In the latter, many candidates simply focused on the owning of pets when it was necessary to relate the answer to communicating with them.

Question 13

This was another question which discriminated well across the ability range. Only the most able candidates were able successfully to explain two weaknesses in the credibility of Old Mother Demdike's evidence. These answers tended to use her blindness weakening her ability to see and bias arising from the family feud as the basis for their explanations. There were also some successful answers using reliability as a criterion. There were a number of candidates, however, whose apparent lack of familiarity with the pre-release materials and/or with skill 4 meant that they were unable to provide anything which could be credited in answer to this question.

Question 14

It was very pleasing to see many very accurate answers to this question with well over half the candidates gaining at least five of the six marks available. It is not possible to know exactly how long candidates spent on answering this question, but with 10% of the marks for the whole paper available here they seemed to recognise the value of investing time in identifying the correct responses. There was very little evidence indeed of letters being entered at random into the Venn Diagram.

Question 15

This question proved to be the least well answered on the paper and was also the question which attracted the highest number of no responses. Across all the candidates, nearly half gained no marks at all from the four available for this question. The question assessed candidates' creative thinking skills in generating hypotheses: part of skill ten in the specification. Although this skill has not been tested often across the six papers set so far for the qualification, it is important that it is covered by centres. Despite the common use of the term 'hypothesis' across a range of school disciplines, it seemed that a number of candidates did not fully understand what was being asked for here. Those who did often produced responses giving a partial hypothesis which only dealt with one aspect of the situation presented. Most of these were more comfortable with providing an alternative hypothesis to explain the men's deaths than with why the women claimed to have engaged with witchcraft.

Section B

Question 16

Questions in section B, with its focus on AO3, are always good discriminators and this proved to be the case again, starting with this question asking candidates to provide their own reasons in support of a common claim. Very few candidates were unable to gain marks for this question, but only 20% gained full marks. Whilst development was not expected here for two marks in either part, it was necessary to provide a reason which would offer clear support to the claim given. Full marks were less frequent than partial marks due to a lack of clarity or due to the need for assumptions to be included in order for the reasons to support the claim. Quite a lot of vague points about how the past affects the future were provided.

Question 17

As with many past papers, the majority of responses to this skill three question were awarded marks at level 2 in the mark scheme. A full range of responses was seen but it remains disappointing that a relatively small minority of candidates are able to access the level 3 marks. This question should have allowed candidates to demonstrate their prior engagement with the documents, alongside their AO3 skills to develop extended arguments. The best answers seen were those which engaged directly with the issue of a pardon for the Pendle Witches, rather than relying almost entirely on the inadequacies of the trial by 21st century standards. A number of candidates chose to use evidence from the documents which earlier on in the paper they had already identified as being flawed, such as the example from Germany used in question 5.

Question 18

There were slightly more answers to question 18 which reached level 3 than to question 17, but there were also more non-responses, possibly due to time issues for a small minority of candidates. Again, too many candidates chose to focus their answers on the unfairness of the trial. This was tangential to the argument asked for, opposing the use of the Pendle Witches' story as a tourist attraction. The best answers again engaged directly with the conclusion and contained well developed reasoning supported by some evidence.

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