

Inter-subject comparability studies

Study 1a: GCSE, AS and A level geography and history

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Contents

1 Personnel	3
2 Materials	4
3 Instruments	5
3.1 Taxonomy	5
3.2 Form A	6
3.3 Form B	6
3.4 Form C	7
3.5 CRAS analysis	7
4 Findings of the review of examination materials	9
4.1 Average ratings on Form B	9
4.2 Outcomes of CRAS analysis	9
4.3 GCSE comparison	11
4.4 AS comparison	12
4.5 A level comparison	13
4.6 Overall findings	13
5 Findings of the review of candidates' work	15
5.1 Materials and methodology	15
5.2 Outcomes at GCSE, AS and A level	15
6 Conclusions	18
Appendix A Reviewers	20
Appendix B The taxonomy	21
Appendix C Detailed analysis of GCSE, AS and A level geography and history	28
GCSE geography (OCR Avery Hill 1587)	28
GCSE history (OCR The Modern World 1607)	29
AS geography (Edexcel 8215)	30
AS history (Edexcel 8264)	31
A level geography (Edexcel 9215)	33
A level history (Edexcel 9264)	34

1 Personnel

The team comprised six reviewers, three of whom had geography as their main subject and three history. In addition two of the consultants, one from each subject, were asked to act as lead consultants. The names of participants are provided at the end of this report in Appendix A.

2 Materials

	Geography	History
GCSE	OCR	OCR
	Avery Hill (1587)	The Modern World (1607)
A level	Edexcel	Edexcel
	(8215/9215)	(8264/9264)

Table 1 The syllabuses used for the study

The syllabuses for review were selected, primarily, on the basis of the size of candidate entry. The exception to this principle was OCR B (Avery Hill) GCSE geography, which has the second highest GCSE geography candidature, but was selected in preference to AQA A (the highest entry syllabus) because of the closer similarity of its scheme of assessment to OCR GCSE history and of its approach to Edexcel A level geography syllabus B.

3 Instruments

3.1 Taxonomy

Study 1a made use of a taxonomy of examination attainment. This taxonomy had been developed originally as a means to try and compare performance in art and design examinations from different types of qualification. This had involved a process whereby experts identified what particular pieces of work had in common and where they differed. It had gone through several iterations.

What emerged during that exercise was that, although the factors identified had significant subject-specific aspects, there was a great deal that on the surface at least appeared to be applicable across a much wider range of subjects. In principle, it seemed that the taxonomy had the potential to become a high-level way of identifying the cognitive demands of examinations, level by level.

For this study, it was decided to see if this was indeed true. The lead reviewers in the study were asked to work together to revise the taxonomy where necessary to reflect the quite different purpose to which it was being put, in particular adapting or removing those parts that were explicitly related to art and design. The revised version was then shared with participants at the original briefing meeting and some minor further amendments made.

The taxonomy was useful in setting the scene before the review began. It enabled the different subject experts to sign up to a common approach and therefore acted as an effective standardisation tool for all the review instruments to be used. In particular, it usefully highlighted the elements that were common between the subjects. For example both history and geography require candidates to understand the consequences of processes, the former with an emphasis on temporal change, the latter on spatial change.

The taxonomy also drew attention to differences between the two subjects in the original design of assessment objectives and their weightings. For example, in geography, knowledge and understanding are separate objectives while in history they are combined. In the course of the study it became clear that this difference was more apparent than real, because it drew attention to the intrinsic difficulties in the categorisation of indicators or objectives, in particular identifying the extent to which it is possible to distinguish between recalled knowledge and learnt understanding, or how critical understanding is demonstrated through thinking and analytical skills.

As a generic tool, reviewers were agreed that the taxonomy worked well by emphasising that the two subjects had many features in common while highlighting differences. In general while the subject assessment objectives might be worded differently, the main intellectual skills defined in the first three common learning objectives of the taxonomy had similar demands in both subjects. Greater contrasts occurred in assessment objectives covering enquiry, organisational and communication skills. In history the skill of written communication plays a significantly more dominant role than in geography. In geography written communication sits within a much broader range of skills, which include a greater emphasis on personal enquiry and practical skills.

Reviewers found that the taxonomy had limited direct use in the review of examination materials. However, they felt that it could be potentially very useful as a source for comments on differences in candidates' work. This is consistent with the way the taxonomy was first conceived and generated.

3.2 Form A

Reviewers used Form A to provide a factual analysis of the specifications, question papers and mark schemes. A generic Form A, as used across QCA review work, was considered by the lead consultant(s) and slight alterations were made to the questions to focus reviewers' attention more clearly on issues relevant to the particular nature of the task.

3.3 Form B

Reviewers used Form B to identify differences in demand between the subjects they were reviewing at individual qualification level. One Form B was completed by each reviewer for each pair of review subjects/levels. Reviewers were asked to complete the form in the light both of their comments on Form A and their completed CRAS forms (see below).

Reviewers used a five-point numerical scale to make overall judgements about demand, for GCSE, AS and A level in each subject, ranging from 1 (very undemanding), to 3 (about right) to 5 (very demanding) to assess the qualification for each subject reviewed, as illustrated in Table 2 below. After making each numerical judgement, each reviewer was asked to give a brief summary of the reasons for that judgement. Reviewers then used these numerical judgements and their explanatory comments to make comparative summaries of the demand in the two qualifications. Each reviewer came to a conclusion about overall demand.

Кеу	Very undemanding		About right		Very demanding
Score per team member	1	2	3	4	5
Maximum team score	6	12	18	24	30

Table 2 Numerical scale for judgements

3.4 Form C

Reviewers completed Form C as a summary of all their judgements. Form C enabled reviewers to gain an easy overview of their pattern of judgements across levels as well as between subjects. Reviewers transferred the numerical judgements made on Form B for each individual qualification to Form C and then, where necessary, added summative comments. The sections in Form C were identical to the sections in Form B.

3.5 CRAS analysis

The CRAS analysis was used to enable the reviewers to reach judgements about the cognitive demand of the question papers, based on the nature of the questions, rather than the subject content. Reviewers were asked to assess the extent to which the question papers made demands in terms of:

- the complexity of the processes required to answer a question
- the extent to which the resources needed to answer the question were provided on the paper
- the level of *abstractness* of questions
- the extent to which candidates were required to generate a strategy in their answers.¹

To do this, they used a numerical scale and recorded their judgements on forms designed for the purpose.

Reviewers were given a detailed explanation at the initial briefing about each aspect of the CRAS analysis and there was a general discussion about the ways in which the demands of a particular question could be manipulated by making adjustments to the question in terms of *complexity, resources, abstractness* or *strategy*.

¹ These factors had been identified in a study into question structure by University of Cambridge Local Examinations Syndicate (UCLES) commissioned by QCA. Each factor has the capacity to make examination questions more or less difficult, irrespective of the subject content. The exact interpretation of the four factors is often, to a degree, subject dependent. Explaining any subject-specific aspects was one of the tasks carried out by the lead reviewers.

For this study reviewers used a ten-point scale, with the assumption that foundation tier questions would be likely to fall within the range 1–4, higher tier questions 3–6, AS questions 5–8 and A2 questions 7–10. This provided a four-point scale for each level, with what seemed a reasonable degree of overlap. It was made clear, however, that reviewers did not need to restrict themselves to the range for the level. In the event, most ratings fell within the target ranges, but there were some occasions when reviewers rated particular factors outside that range.

4 Findings of the review of examination materials

4.1 Average ratings on Form B

A summary of the main findings of the analysis forms is provided below. Full details of the findings are provided in Appendix C.

Table 3 The aggregate and average ratings (i	(in brackets) for syllabus materials on Form B
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	Level			
Subject	GCSE	AS	A level	
Geography	19 (3.1)	16 (2.7)	21 (3.5)	
History	25 (4.1)	21 (3.5)	21 (3.5)	

From Table 3, it can be seen that for both GCSE and AS, reviewers judged that history was more demanding than geography, but that both subjects were considered to be in line for the A level overall. It can also be seen that in every case except geography at AS, the ratings suggested that the subjects were slightly too demanding, with GCSE history being seen as significantly demanding.

4.2 Outcomes of CRAS analysis

The outcomes of the CRAS analyses of the question papers are provided in Tables 4 and 5 below, together with an overall average for each level. Coursework units were not included in this part of the analysis.

GCSE units	Complexity	Resources	Abstractness	Strategy
1 F	3	3	3	3
2 H	4	4	4	4
3 F	3	3	3	4
4 H	5	4	4	5
Average	4.3 (higher tier) 3.	1 (foundation tier)		
AS units	Complexity	Resources	Abstractness	Strategy
1	6	7	6	6
2	7	7	6	6
3	Coursework			
Average	6.3			
A2 units	Complexity	Resources	Abstractnes	s Strategy
4	8	8	8	9
5	9	9	9	9
6	8	8	8	9
Average	8.5			

Table 4 The outcomes of the CRAS analysis for the geography question papers

Table 5 shows the outcomes of the CRAS analysis for the history question papers. GCSE history is untiered, and so only one set of papers was used. Where there was a coursework/non-coursework option, the analyses considered the non-coursework question papers only.

GCSE units	Complexity	Resources	Abstractness	Strategy
1	5	7	5	6
2	5	5	6	6
Average	5.6			
AS units	Complexity	Resources	Abstractness	Strategy
1	6	6	7	7
2	7	8	7	7
3	6	8	8	8
Average	7.3			
A2 units	Complexity	Resources	Abstractness	Strategy
4	9	9	9	10
5	9	9	9	9
6	9	8	9	9
Average	9.1			

Table 5 The outcomes of the CRAS analysis for the history question papers

From the tables it can be seen that in general the papers did follow the expected progression up the ten-point scale. It can also be seen that reviewers consistently judged the history papers to be rather more demanding than the geography ones. It is particularly striking that the average rating for the untiered GCSE history papers was higher than for either of the GCSE geography tiers, even the higher tier papers. In fact, the mean rating for the GCSE history papers was not far below the expected maximum for GCSE, suggesting that reviewers found the papers very demanding. It can also be seen that the main sources of the differences between the two subjects were in terms of *resources* and *strategy*. It is important to note at this stage that these views were considerably revised by the script review.

4.3 GCSE comparison

- The schemes of assessment were similar in many respects, though the emphasis in geography was on a problem-solving issues approach compared with the linear approach and literate emphasis of history.
- Geography had a greater breadth and balance of content. History offered a range of options and consequently a centre's choices could result in a narrow historical experience for their candidates.
- History questions in general were open-ended with high language demands making them accessible mainly to candidates with better language and comprehension skills. The questions also tended to be repetitive in style and required large amounts of recall.

- Geography questions were more accessible to the full ability range through the use of tiering, structured questions and accessible language. However, there was a greater variety of tasks and skills, and questions were less predictable.
- The resource-based questions in history that required interpretation and analytical thinking were very challenging for the whole ability range. Resource-based questions in geography were demanding for the foundation tier.
- The complexity and demands of coursework were similar in both subjects.
- Tiering in geography provided for differentiation by task, whereas in history there was little variety of task and differentiation was by outcome.
- On the evidence of the question papers, the history assessment was judged to be somewhat more demanding than geography especially for foundation candidates.

4.4 AS comparison

- The two syllabuses had different approaches to the design of the AS component of the full A level qualification. Geography was broad and aimed to ensure coverage of broad areas of knowledge, understanding or skills. In contrast history offered and appeared to encourage narrowness of study.
- The geography syllabus had a clear focus on the interrelationship between people and their varied environments and the issues related to management that arise from those relationships. The history syllabus had no specific historical rationale; rather, it placed great emphasis on providing the opportunity for teachers to construct their own course from the available options.
- Geography had a greater breadth and balance of compulsory content. In history centres were free to choose any combination of option unit.² This could result in a very narrow historical experience for candidates.
- History questions in general were open-ended essay style with high language demands. They were more suited to candidates with better language and comprehension skills. The questions tended to be repetitive in style and required large amounts of recall.
- Geography questions used short structured questions with more accessible language. They were more accessible to the full ability range. However, there was a greater variety of tasks and skills, and questions were less predictable.
- Reviewers were of the opinion that the content of both syllabuses was 'about right' and sat comfortably between GCSE and A level in demand. However, they considered that the open-ended essay questions in history were more demanding than the short

² In AS, unlike the whole A level, there were no limitations on course structure in the subject criteria, although centres might fulfil some of the overall A level criteria requirements in their choice of AS units.

structured questions with low mark tariffs in geography and that overall the incline of demand from GCSE to AS was markedly steeper for history than for geography.

4.5 A level comparison

- The content of the geography syllabus had greater breadth than that of history. In history, the breadth and demand depended on the choice of options by centres with potential for different demands and a narrow historical experience.
- There was a greater variety of assessment tasks in geography than in history. In history the tasks and the wording of questions followed very similar and familiar formats across qualifications and units of assessment.
- The wording of questions on history papers had much higher quality of written communication demands and tasks placed a greater emphasis on literary skills. The open-ended essays required considerable intellectual and communication skills to structure a logical response.
- The nature and variety of tasks in geography required complex preparation, independent working and the use of analytical strategies.
- Reviewers identified significant differences in the format and therefore potentially the demand of synoptic assessment in the two subjects. In history questions were set on specific periods of history that could differ from previous periods studied. They did not require the demonstration of knowledge and understanding of connections across other parts of the syllabus but they did require high levels of skills to be demonstrated in this new knowledge context. The geography synoptic unit had less emphasis on new knowledge but did require high level thinking and analytical skills and the ability to draw on understanding from other parts of the syllabus.
- The depth of knowledge and understanding required was difficult to judge for both syllabuses, though the mark scheme for geography appeared to be less demanding. The top mark band used 'sound' as a qualifier rather than 'comprehensive', which was used in history.
- Overall reviewers considered that at A level the syllabuses had very different assessment characteristics with an emphasis on different assessment objectives but they were of similar demand.

4.6 Overall findings

 Reviewers were of the opinion that the language demands of the history assessments were much greater than those for geography. However, geography required a greater ability to respond to a variety of tasks and to demonstrate a range of enquiry, organisational and communication skills.

- The large number of option routes through history narrowed the coverage of content and had the potential to lessen the demand. It also produced variation in demand between option routes. By comparison the geography syllabus required coverage of a breadth of content.
- In geography, questions were often structured to provide an incline of demand. This
 contrasted with the history assessments, which usually allowed for differentiation by
 outcome and in which questions were generally more predictable and familiar in style
 and content.
- An analysis of the numerical judgments on Forms A, B and C and in the CRAS analysis showed that the following:
 - The syllabuses of history and geography were most similar in demand at A level. At GCSE and AS level, reviewers found that history was more demanding than geography.
 - At GCSE, reviewers judged that the level of demand in geography was appropriate, whereas reviewers found that history was slightly overdemanding. At AS level, the level of demand in geography was judged to be about right overall, though some reviewers identified a greater overlap with GCSE higher tier than in history. History at AS was judged to be slightly overdemanding with a steep incline of difficulty from GCSE.
 - History questions at GCSE and AS were seen as being more abstract and requiring more strategy than in geography.
- Overall, reviewers found that the intrinsic characteristics of the two subjects as identified by the taxonomy were very similar. However, they did identify significant differences in demand made by the two subjects through their schemes of assessment, with geography concentrating heavily on knowledge recall and history rewarding extending answers, with more limited requirement for specific knowledge.

5 Findings of the review of candidates' work

5.1 Materials and methodology

QCA conducted two pilot exercises comparing A level business studies and economics and GCSE modern foreign languages. These involved only a review of examination materials. Partly as a result of feedback from that work and partly by design, subsequent work has also included a review of candidates' work. Study 1a was the first one to attempt this. As a result this part of the exercise was itself very much a pilot. The results were not therefore analysed in the same way as with later studies. However, they were very striking and raise some important questions and they are reported here.

Awarding bodies provided the complete examination work of candidates, that is, all their externally assessed units. The review did not include coursework. Candidates were selected whose performance across different examination papers was reasonably balanced. Work was drawn from about the middle point of the range of attainment covered by each level, that is, the E/F boundary for foundation tier GCSE, the A/B boundary for GCSE higher tier, and mid C for both AS and A2. (Although it does not represent a separate qualification, A2 material was used partly for pragmatic reasons and partly because it is graded to a distinct standard different from A level.)

It is important to note that reviewers reported that although they found the task of making these comparisons challenging, they found it achievable. In fact, they found it positively illuminating about many of their earlier judgements.

5.2 Outcomes at GCSE, AS and A level

Reviewers were asked to make comparisons between geography and history candidates at the same grade and to identify which candidate demonstrated overall better performance for the grade. The table below shows the outcomes of these comparisons.

Level	History	Geography	Ratio
GCSE foundation tier	57	6	9.5:1
GCSE	55	14	4:1
higher tier			
AS level	45	15	3:1
A level	18	29	2:3

Table 6 The outcomes f	from compa	arisons
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The findings above seem to suggest that, at GCSE, candidates taking history have to perform significantly better to gain a particular grade than those taking geography. The pattern at AS was similar but less pronounced. Only on the A2 papers was the position reversed, with the geography candidates judged to be slightly stronger. In the terms of the public debate, it would seem that history is much harder than geography at GCSE. This was not, however, the way the reviewers explained the results. Rather they felt it revealed some very important, and on the surface surprising, truths about the ways the two subjects are assessed.

The most striking aspect of the results was that the differences were most pronounced at foundation tier, and gradually reduced becoming closely balanced at A2. This was paralleled by the approaches to assessment that the two subjects employ. They were most similar in A2 papers, where both subjects employed largely open-ended questions requiring candidates to select and deploy their own knowledge and understanding. They were most unlike at GCSE foundation tier. Indeed, at GCSE, history question papers were untiered, so that they had to discriminate the whole GCSE ability range. Geography used a tiered structure, with papers targeted at either grades A*–D or C–G. In principle, therefore, one might expect the geography papers to provide better evidence of attainment of candidates in the middle of the targeted range at foundation tier than the history papers.

The experience of this exercise suggested precisely the opposite. History papers, even at GCSE, included a lot of open-ended questions, requiring candidates to select information and ideas from a range of relevant material. Geography papers were much more tightly focused. There were many low-tariff part questions that required a specific body of knowledge. Candidates who were weak in that particular area simply could not answer and the papers were much more effective at exposing gaps than in providing information about what candidates did know. The irony therefore is that an assessment instrument designed to work for candidates at foundation tier differentiated less effectively than one which had to cater for candidates from a much wider range of attainment.

This did not mean that reviewers felt the history GCSE papers to be much better than the geography ones. The history questions were not only open-ended, but also relatively narrow and predictable, making it much easier for supposedly higher order skills to be pre-learnt. They also allowed candidates to conceal significant gaps in their knowledge. Geography tested a wide range of skills, while requiring those skills to be demonstrated in specific and relatively unfamiliar contexts. In some sense, the difference between the GCSE papers was similar to that between the A level syllabuses. The geography subject content involved relatively little selection from a substantial body of knowledge. The history content was, probably necessarily, very extensive with an almost incalculable range of possible routes, but

its very flexibility meant that it was possible to choose very narrow and somewhat repetitive courses.

Reviewers were clearly of the view that their judgements did not reflect the relative attainments of the candidates, but the extent to which the assessments had allowed them to display what they knew, understood and could do. They were also conscious of the extent to which these views were inconsistent with the judgements made about the question papers in the review of examination materials. In fact, the comments made about the methods of assessment during the syllabus review identified the key differences in terms of open-ended against tightly focussed questions. What the review of candidates' work revealed starkly is how difficult it is for subject experts to judge how relative novices experience assessment. It also illustrated that an undemanding assessment is not necessarily easy for candidates or a demanding one difficult. What experts find hard to judge is how difficult a task is for novices, instead they judge the demands a task makes.

Reviewers also commented favourably on the taxonomy. They felt that the strands within it provided full coverage of attainment in the two subjects. They suggested some slight amendments to wording and to the location of particular elements. These have been incorporated into the version given in Appendix B.

6 Conclusions

Reviewers commented on several features of the syllabuses and their associated assessments, which had implications for understanding the nature of demand in assessments and for establishing comparability between syllabuses.

The review identified several ways in which accredited syllabuses are proving not to be strictly comparable. Reviewers noted that the designers of both the history and geography syllabuses had used strategies to meet the common criteria and yet respond to their own client groups. One strategy was to increase the numbers of option routes for content or assessment type to be both teacher- and centre-friendly. These may in practice significantly reduce comparability and/or narrow the coverage of the subject. Some syllabuses adopt a particular approach or ethos but this is more apparent in the mark scheme and/or its application than in the content information. Sometimes additional information is provided in syllabus handbooks that have not been part of the accreditation process, but are essential for a full picture of the demand of the syllabus. This was the case with the Edexcel handbook for A level history.

The taxonomy highlighted apparently unnecessary differences in assessment objectives used by the two subjects to assess identical characteristics. However, the review did identify several differences between the subjects. Reviewers noted that there were several possible explanations for such differences. They could:

- genuinely reflect inherent differences between the subjects
- represent the traditions and preferences of the subject community, or
- simply be an artificial construct designed to match the particular pattern of assessment objectives.

The A, B and C Forms and CRAS Forms identified that the type of assessment task adds to or subtracts from the demand of the assessment of any particular content area by changing the extent to which the assessment objectives are addressed. Increasing the demand of written communication, the range of different skills or the variety of resources within one assessment all have the potential to change the demand of a question and content area. They can also present different demands for different groups of candidates with different abilities and aptitudes. In the case of history and geography, it raised the question of the extent to which understanding should be required to be demonstrated mainly through extended prose in history or mainly through the use of a variety of different tasks and resources in geography. This question is of particular importance when the findings of the script review are taken into account.

Reviewers also commented on key differences between subject syllabuses in the demands they make on teachers as compared with the demand on candidates. The history syllabuses were characterised by a large numbers of optional routes. Teachers make the selection for their chosen areas of study, presumably on the basis of their own strengths and interests and those of their pupils. It is also possible to plan for a narrow area of 'repetitive' study which encourages consolidation. By contrast, most of the choice in the geography syllabuses is made by candidates from alternative questions provided on the examination papers. This difference raised questions about the comparability between the syllabuses.

The review of candidates' work raised some important questions about the assessment strategies used by the two subjects, especially at GCSE. In geography, heavy demands were made on candidates' specific knowledge before they could begin to answer a question. This proved much more demanding than reviewers had anticipated. The demand in history was much more linked to candidates' ability to select knowledge and deploy it to answer open-ended questions. Reviewers judged this skill to be more demanding but the review of candidates' work suggested that even lower attaining candidates were better able to display their understanding than expected.

Appendix A: Reviewers

Main subject geography

Glennis Copnall (lead consultant) David Lewis Miles Mizon

Main subject history

Vanessa Musgrove (lead consultant) John Warren Alexandra Woollard

Appendix B The taxonomy

Со	Common indicators		Content areas		In a GCSE context		In an A level context	
	Common learning objectives	Key indicator	Sub-themes G	Sub-theme H	Level 1 indicator foundation	Level 2 indicator intermediate	Level 3a indicator advanced AS	Level 3b indicator advanced A2
1	Knowledge of specified content	i) recall, select, deploy knowledge	i) places themes and environments	i) events, individuals and issues themes within topics and periods	recall some basic facts	recall and select accurate, detailed facts	recall , select and deploy accurate detailed facts	recall, select and deploy accurate and detailed range of facts
		ii) use of technical language	ii) key concepts	ii) key concepts	occasional accurate use of simple terms	use a range of basic terms accurately	use advanced terms accurately	use a range of advanced terms accurately

2	Understanding	i) explain	i) the significance	i) the significance	recognize	explain key	explain key	provide
	of features,	features,	and nature of	and nature of	some simple	aspects of	aspects and	developed
	processes and	processes and	physical and	events,	reasons	content	concepts	explanation of
	concepts	concepts of	human	individuals,		effectively	clearly	key aspects
		content areas	processes and	ideas, attitudes				and concepts
			interactions in	and beliefs in				
			context	historical				
				contexts				
		ii) understand	ii) causes and	ii) causes and	occasional	understand a	sound	sound
		features,	consequences of	consequences of	understanding	range of	understanding	understanding
		processes and	processes and	processes of	of simple	feature,	of features,	of a range of
		concepts of	patterns at	temporal change	ideas	processes and	processes	features,
		content areas	different spatial	in short and long		basic concepts	and some	processes and
			scales from local	term			concepts	concepts
			to global					
		iii) question	iii) potential and	iii)	some	simple	questioning of	substantiated
		approaches to	limitations of	appropriateness	awareness of	questioning of	limitations of	questioning of
		features,	evidence,	of concepts and	bias	opinion and	evidence	reliability of
		processes and	approaches	evaluation of		approach		evidence and
		concepts of	concepts and	interpretations				approaches
		content areas	theories used					

3	Application of	i) application of	i) analyse the	i) analyse	identify some	apply and	draw on	draw on a
	critical thinking	knowledge	processes	historical	basic	analyse a	knowledge	range of more
	and analytical		characteristics	interpretations of	knowledge	specified area	and	complex
	skills		and patterns of	topics individuals	and	of knowledge	understanding	knowledge and
			unfamiliar	issues or themes	understanding			understanding
			geographical					
			contexts					
		ii) analysis	ii) evaluate	ii) evaluate		to support	to support	to support well
			values, attitudes,	values, attitudes,		some basic	evidenced	evidenced valid
		iii)	interpretations	interpretations		interpretation	and sound	interpretation
		interpretation				and some	interpretation	and
						simple	with clear	appropriate
						evaluation	evaluation	evaluation
		iv) evaluation	iii) develop an	iii) develop an				
			argument and	argument and				
			substantiated	substantiated				
			judgements	judgements				
		v) draw			state simple	reach	develop	develop
		conclusions			conclusions	evidenced and	evidenced	evidenced and
						clear	conclusions	well justified
						conclusions	and	conclusions
							judgements	and
								judgements

	vi) identify	iv) understanding	iv) demonstrate	identify some	understands	sound	developed
	connections	of the	breadth of	straightforward	connections,	understanding	understanding
		connections	historical	and simple	causes and	of causal	of interactions
		between different	knowledge by	links	effects	relationships	and links in a
		aspects of	making links and			and	range of
		geography	drawing			comparisons	contexts
			comparisons				
			between different				
			aspects of				
			periods, themes				
			or topics				
	vii)						
	demonstrate						
	breadth of						
	context						

4	Use of	i) use source	i) use	i) use historical	extract straight	extract	extract	extract relevant
	practical/	material	geographical	skills	forward	information and	relevant	information
	operational		skills		information	applies	information	from a range of
	skills				from simple	selected	and applies	complex and
					sources	techniques	appropriate	applies
							techniques	techniques
								effectively
		ii) apply	ii) analyse, and	ii) analyse and				
		techniques	evaluate	evaluate sources				
			evidence –	in historical				
			primary and	contexts				
			secondary	and historical				
			resources – and	interpretation				
			geographical					
			interpretations					

5	Communication	i) select and	i) communicate in	i) communicate in	communicate	communicate	communicate	communicate
	of knowledge	use a form of	a clear and	a clear and	through brief	clearly and	clearly and	using fluent
	and	communication	effective manner	effective manner	statements	appropriately	coherently	and coherent
	understanding				with limited			language
					language			structure
		ii) organise	ii) cartographic		select some	select and	select and	select and
		information	and		information	organise data	organise data	organise data
			diagrammatic		within a	and information	and	and ideas
			skills including		provided	appropriately	information in	effectively for
			use of IT		structure		a logical	intended
							structure	purpose

6	Working	i) devise	i) devise and	i) devise and	devise and	devise and	manage their	manage their
	independently		carry out	carry out	carry out a	carry out tasks	own work and	own work and
		ii) carry out	investigation of	investigation of a	simple task,	appropriately,	time to carry	time to devise
			specific	specific historical	with on-going	within a	out specified	and carry out
		iii)complete	geographical	question,	support	structured	tasks	an investigation
			question,	problem or		environment		through a
		an investigation	problem or	issue(s)				sequence of
			issue(s)					tasks
			ii) demonstrate a	ii) demonstrate a	record some	record and	select and	select and use
			range of	range of	outcomes of	modify	use	appropriate
			collection skills	collection skills	their work	outcomes of	appropriate	and effective
						work	forms of	forms of
							recording to	recording to
							complete	complete a
							tasks	task

1-3 Intellectual skills

4-6 Enquiry, organisation and communication skills

Appendix C Detailed analysis of GCSE, AS and A level geography and history

GCSE geography (OCR Avery Hill 1587)

This syllabus took an issues-based, problem-solving and enquiry approach with assessment objectives that covered knowledge, understanding and skills in equal proportions. Each of the key content themes (two physical geography and two human geography) focused on a sequence of key ideas that had to be covered. The themes and the key ideas had the potential for both breadth and depth. However, the detail and illustrative content of the syllabus did not make clear to what extent depth was required. In order to teach this content and meet the requirements of the question papers and the mark schemes, teachers would require additional information about the Avery Hill approach. Overall, the syllabus appeared to place a greater emphasis on description, awareness and values than on understanding.

The scheme of assessment was demanding in the variety of tasks and skills required. One examination paper comprised structured questions requiring short answers and only limited extended writing. The second was a decision-making/problem-solving exercise in the form of a compulsory structured exercise on one of the content themes. Centres were notified of this themed topic two years prior to the examination. Both the written papers contained a variety of resource stimuli which required, from question to question, different skills and application. Additionally candidates were required to complete two different pieces of research and investigative writing, one of which had to include practical fieldwork.

The examination papers were tiered but characterised by a large component of common questions. The foundation tier used the same resources as the higher tier, though questions were structured to provide a lead into topics. Most questions were straightforward and written in accessible language, for example 'Name two ways in which water shortage could be reduced.'

Knowledge was the framework for the syllabus but this was not tested in isolation and simple factual recall was not a major part of the assessment. Understanding was assessed largely through an applied context. Critical thinking was a key part of the philosophy of the syllabus and this was emphasised by the demands of Papers 3 and 4 in which candidates had to develop arguments and make judgments. Skills were given a large weighting. Candidates were required to demonstrate a variety of communication skills and working independently was an integral part of the coursework component. Overall, reviewers considered that the

breadth of compulsory content and variety of tasks and skills required was 'about right' for GCSE though some aspects were demanding, particularly for the foundation tier.

GCSE history (OCR The Modern World 1607)

This syllabus took a linear, content-based and source-evaluation approach to allow candidates to gain an historical perspective on the main issues of the contemporary world.

Assessment objectives covered knowledge, understanding and skills in roughly equal proportions but knowledge and understanding were combined. The relationship between knowledge and understanding was made clear through the mark scheme rather than the syllabus. The content themes focused on breadth and depth. Breadth was achieved through a core content of seven topics covering international relations over a 90-year period, while depth was achieved through a choice of three out of seven depth studies, covering the history of an individual country over a period of about 30 years. (The only exception was a study of Britain and the Great War 1914–18 that could only be studied for coursework.) The content of each core topic and depth study was outlined in a series of key questions with focus points exemplified by specified knowledge. The emphasis of the syllabus appeared to be the understanding of causality and change over time, combined with the interpretation of sources and supported by knowledge recall.

The scheme of assessment was demanding in the nature of the written communication required. One examination paper comprised a series of structured questions following a set pattern, requiring answers ranging from paragraph length to extended writing. Only one section used resource stimuli, while the other two relied entirely on candidate recall. The second paper comprised a series of interpretative/evaluation questions based on written and pictorial resource stimuli connected to a key question in the core content. Centres were notified of the key question two years prior to the examination. The questions required written communication ranging from a paragraph to extended writing. There were no short-answer recall questions. Additionally, candidates were required to complete two different pieces of coursework, each one on a different depth study. One piece had to be an investigation into the role of an individual and the other on a key issue or theme, for example, the practice of government. The coursework was usually a set assignment. The assessment objectives had different weightings within the three assessment components. Paper 1 assessed almost exclusively knowledge and understanding (AO1 and 2), while Paper 2 predominantly assessed skills (AO3). The two pieces of coursework were equally weighted between AO1/2 combined and AO3.

All the examination papers were untiered with differentiation being implemented through levels of response in the mark scheme. Candidates had choices in all sections of Paper 1 but no choice in Paper 2. In Paper 1 the questions were considered to be generally demanding and abstract with few lead-ins, but with a standard approach for which candidates could be prepared. However, both the nature of the resources and the abstract/less accessible nature of the questions in Paper 2 were considered to be very demanding, particularly for those candidates at the lower end of the ability range.

Knowledge with understanding was the key to this syllabus. It required knowledge in both breadth and depth of the key issues of the twentieth century. Paper 1 in particular relied on the application of candidates' own knowledge. Critical thinking and the operational skills of interpretation and evaluation were particularly important in Paper 2, which required comprehension and analysis of a range of sources within an historical context. Written communication was the basis for assessment. Candidates had to demonstrate a high level of written skills in order to communicate clearly and coherently and to organise answers in a logical way. Candidates were required to work independently by managing their own workload within specific time constraints. Overall, reviewers considered that the breadth and depth of content was 'about right' for GCSE but the nature of the assessment tasks and emphasis on written communication made the assessment demanding, particularly for those candidates at the lower end of the ability range.

AS geography (Edexcel 8215)

The syllabus content was broad and balanced, being divided equally between themes from physical and human geography and with all parts of the syllabus compulsory. The overall focus was on issues and environmental management in four settings: coastal, river, urban and rural, with the assessment objectives covering knowledge, understanding and skills in equal proportions. Knowledge was required of each of the themes, especially through definition of key vocabulary and exemplar case studies. Depth of understanding was required, particularly of key concepts relating to processes in physical geography, such as littoral cells and changes of sea level, though those in human geography were more straightforward.

The scheme of assessment comprised two examination papers and a 2,500-word piece of coursework. The two examination papers followed identical formats using an incline of structured questions and included a broad range of resources as stimuli. There was also a final section to each question which required knowledge and understanding of a case study. The coursework unit required an investigation of an environmental site. This investigation placed high demands on candidates' ability to show understanding of practical and analytical skills in relation to one of the syllabus themes as well as the ability to work independently.

Candidates had no choice in content coverage but did have a choice of question on the examination paper, though the syllabus was designed to prevent candidates avoiding more difficult or less popular aspects of the content, such as physical geography processes. However, the syllabus did contain a number of 'hidden choices' in which exemplification was limited to, for example, 'one biome'. This effectively reduced the content coverage and resulted in open and rather predictable questions to ensure that the wording was accessible to a full range of case study choices.

The examination placed little demand on candidates in terms of the ability to write in depth. Many questions required only very short answers and had small mark tariffs. Nevertheless, the mark scheme did require sound knowledge and understanding to be demonstrated and case study questions required more extensive responses. Depth was provided by the choice of exemplars and breadth by variety of scales required, from local to global. However, the questions were very open and provided opportunities for well-rehearsed, regurgitated responses. The main challenge of the examination was the requirement to extract relevant information from a range sources and to apply appropriate techniques in the analysis of data.

Knowledge of content was important in this syllabus, particularly in the extended writing section. Knowledge of geographical terminology was also important. Understanding and application were assessed in a closely linked manner since candidates had to extract relevant information from sources, to apply relevant techniques and to analyse it critically to demonstrate understanding. Candidates were also expected to use a variety of written communication skills, from short answer to structured paragraphs and extended writing. Overall, the demand of the content was considered to be 'about right'. The structure of the question papers and the language of the command words made the examination very accessible to the full range of candidates. However, it was considered that the large number of short questions, if not balanced in practice by appropriate application of the mark scheme, could be judged to be more similar to GCSE than A level in style and demand.

AS history (Edexcel 8264)

The general aim of this syllabus was to enable candidates to explore, understand, acquire and develop their knowledge of and interest in history. However, the guiding principle seemed to be to provide centres with as much flexibility as possible in the choice of content and type of assessment. However, the awarding body did require a centre rationale for the choice of content options within the three units of assessment. Assessment objectives covered knowledge, understanding and skills in roughly equal proportions, although knowledge and understanding were combined into assessment objectives 1a and 1b (AO1a and AO1b),

thereby making knowledge and understanding the dominant assessment objective. There was no requirement for either breadth or depth of content at AS level. There was no limit on the time period covered in topics within units and it was possible to study all three units on one country. The pathways through the units appeared to encourage a study of Tudor history or nineteenth or twentieth century history of Germany, Italy, Russia or the United States. Variety in the study of history was apparently offered through different forms of assessment. The content for each topic outlined in the syllabus was very basic, with a topic title followed by four bullet-pointed themes. In order to gain a more detailed insight into the nature of the assessment for each unit and the content required, it was necessary to use the teacher's guide. (The content indicated in the guide, however, often seemed to be more about what not to cover.) The teacher's guide had not, apparently, been accredited and it was unclear how the awarding body ensured that all teachers of the AS had access to the guide.

The scheme of assessment comprised three assessed units. Units 1 and 2 were written examinations, while Unit 3 could be assessed through a written examination or a coursework assignment of between 1,750–2,250 words. Unit 1 was a source-based paper, emphasising the skills assessment objective (AO2) but required support from recall of knowledge, particularly in the last sub-section. Unit 2 assessed only knowledge and understanding (AO1) through one sub-divided question requiring mini-essay answers. Unit 3 used one or two resources to act as stimuli to answering a sub-divided question, mainly focusing on knowledge and understanding (AO1). The coursework was set out in the same way, with the candidate producing work in a non-examination environment. Reviewers questioned the comparability of demand of the coursework assignment with a one-hour compulsory question in an examination.

One factor affecting the depth required by the AS was the amount of choice available to candidates within the syllabus. The major choice of which topic to cover within each unit would fall to teaching staff, who may base their choice on a variety of factors, such as popularity of topics, own specialist knowledge or available resources. Once this choice had been made, the candidate was required to develop an in-depth knowledge and understanding of the topic chosen. This was made even more necessary by the lack of choice within the examination papers. Unit 1 had one compulsory question, Unit 2 had a choice of one out of two questions and Unit 3 had a compulsory question. Questions on each topic were guaranteed but the candidate had very little choice. This made the use of the teacher's guide, which was not necessarily available to all, even more important.

The examination placed a high level of literacy demand on the candidates both in reading and written communication skills. At the very least, each question required a logically organised

32

paragraph of writing in response, and most required extended writing. Although some effort was made to 'modernise' the language of sources used, some of the language used in source material was challenging. On the whole, the wording of the questions was accessible to most, but the questions were often abstract and open in nature. In Units 1 and 3 particularly, there appeared to be a 'lead-in' question that was more accessible. Questions followed a set pattern with common stems and commands, such as 'describe', 'explain', 'to what extent ...?', to which it was possible to develop a rehearsed response. The mark schemes indicated the need for explanation and understanding but rarely the depth of knowledge required. Written communication was built into the mark scheme and to gain a high level it was necessary to have extremely well-developed written communication skills.

Knowledge and understanding were the key to this syllabus. The significance of events, individuals and ideas was a constant theme across the units, and candidates were required to recall, select and deploy accurate detailed facts to demonstrate understanding of these key themes. Through the application of analytical skills, candidates were required to develop arguments and demonstrate links. Furthermore, particularly in Unit 1, the analysis and evaluation of sources indicated the use of operational skills. Written communication was integral to the whole syllabus, as clear, effective and organised writing was essential to the level of response mark scheme. In both coursework and the written examinations, candidates were required to manage their own knowledge. Overall the demand of the content was considered to be 'about right' for AS, but the lack of choice within examinations, the nature of the openness, accessibility and abstractness of questions, combined with the extent of independently managed written communication required, led reviewers to consider the AS demanding.

A level geography (Edexcel 9215)

The three A2 units (Units 4, 5 and 6) of the syllabus built on the AS units, which established a foundation of knowledge and understanding in both physical and human geography. The A2 units required more in-depth study, with detailed knowledge and understanding required in relation to issues and concepts of more challenging content areas, such as weather and climate, changes to the global economy. There was also a compulsory requirement for the study of both physical and human geography topics. The units continued their emphasis on management of the environment but extended this to include study at a global level. Additionally, deeper understanding of connections between different aspects of geography and a greater ability to synthesise were required.

The scheme of assessment was designed to prevent candidates narrowing their studies. For example, in Unit 4 the questions covered both physical and human geography themes, as well

as questions on cross-theme topics. In Unit 6 all questions were compulsory and there were some limitations on the choice of coursework report. Depth of knowledge and understanding as well as research skills were required for the potentially narrower topic areas of Units 5 and 6. To balance this requirement, there was pre-release information for Units 5 and 6, with the former in the form of a generalisation of the essay topic to be examined and the latter in the form of a resource booklet.

The assessment tasks across the three units were very varied in style. They included structured essay questions with a resource stimulus in Unit 4 and a research essay in Unit 5 on a pre-released title. Unit 5 also required an externally set and marked coursework report. The synoptic unit (Unit 6) required several compulsory short 'tasks' based on an issues analysis/problem-solving resource-based exercise, using a very wide range of resource materials including graphic, textual, photographic and cartographic. This unit placed a wide range of demands on candidates' skills and understanding, though not on recall, and required high levels of critical analysis and conceptual understanding. The combination of pre-release materials, information inserts and additional reading materials, together with compulsory questions and a clear requirement for synoptic understanding, presented an assessment task with high levels of demand.

Reviewers considered the questions in Units 4 and 6 to be clearly worded and accessible to the full range of candidates. In Unit 5 the apparent demand of the research essay questions was judged to be considerable, though the actual demand was probably lessened because the questions followed the wording of the syllabus very closely.

Overall, knowledge and factual recall were given high priority in this syllabus but they were linked to understanding and application of critical thinking. In each unit candidates had to draw on resources and demonstrate an ability to analyse and make valid judgements. Written communication was a key part of each unit assessment but especially Unit 5. Candidates were also required to work independently in their preparations for both Units 5 and 6. Reviewers were of the opinion that the range of different types of assessment and the demands of both breadth and depth across the three units represented a significant increase in demand from AS units and across the assessment objectives.

A level history (Edexcel 9264)

Many of the points made in the AS section above are also applicable to the A2 units.

The three A2 units were designed to combine with the three AS units to create the A level qualification. There was no formal link between the assessment objectives of knowledge,

understanding and skills at AS and A2, but there was an assumption that understanding and, in particular, critical thinking and application of analysis would be more developed at A2. The assessment objectives had roughly the same weighting as at AS. Once again, there was flexibility in the choice of content and assessment type within the syllabus. However, there were certain requirements at A2. If only one country had been studied at AS, then one of the A2 units had to cover another country and if no unit had covered British history at AS, then a British unit had to be studied at A2. This was to meet the requirement for breadth and an accreditation requirement to include British history in the course. The choice of content at A2 was teacher-led and, despite the requirements mentioned above, the pathway chosen could be very narrow. For example, it was possible for a candidate to take five units on nineteenth or twentieth century Germany and one British topic. (See comment in AS section about the crucial role of the teacher's guide.)

The scheme of assessment comprised three assessed units. Unit 4 was assessed either as a written examination or as an individual assignment researched by the candidate, written up under examination conditions and marked externally. Unit 5 was assessed either by written examination or by a comparable coursework assignment, and Unit 6 by written examination. The scheme of assessment was designed to increase breadth and depth of both content and assessment. The assessment objectives of knowledge and understanding were dominant in the weighting in Unit 4, but the skills emphasis moved away from source interpretation/analysis to a combination of critical thinking and analysis in Units 5 and 6. Unit 4 built on the skills developed in Unit 2. In Unit 2 the assessment task was sub-divided into two questions focusing on describe and explain respectively, while in Unit 4 they were brought together into one traditional A level-type essay question, for example 'To what extent ...?' In Unit 5, breadth was established through a study of change over time, with the time period encompassing at least 100 years. Unit 6 was designed as a synoptic unit which combined the skills of the other five units. There was, however, no unit that required candidates to use knowledge from previous units and reviewers guestioned the synoptic nature of Unit 6. It was considered that Unit 5 could be more usefully considered synoptic, but even then there was no assessment of previous knowledge.

The assessment tasks across the three units relied heavily on extended writing. Only in Unit 5 was there a 'lead-in' type question. In general the questions were open-ended and abstract, leading to a high level of demand in written communication. Units 5 and 6 used sources with varying accessibility of language, with some of the earlier sources being quite challenging. Sources were used in both units to facilitate analysis rather than as a tool of interpretation and evaluation. Reviewers considered that the equal time allocation of 75 minutes to write one traditional extended essay in Unit 4 and three sub-divided questions, one an essay type, in

35

Unit 5 was not well apportioned. Reviewers also questioned whether the nature of the coursework/individual assignment was of comparable demand to the written examinations in Units 4 and 5. In particular, the Unit 4 individual assignment required a personal enquiry of a topic chosen by the candidate, followed by an internal examination of four hours in length, compared to a written examination requiring one essay question to be answered in 75 minutes. Once again, however, as with AS, the limited amount of choice available to candidates (one out of two questions in Unit 4 and compulsory questions in Units 5 and 6) seemed to increase the depth of knowledge required.

Knowledge and understanding linked to the skills of critical thinking and analysis were the key to this syllabus. The syllabus treated this as the synoptic element of the A level course. Knowledge and understanding of the specified content in the form of key events, ideas and individuals had to be applied in order to demonstrate an argument. The interpretation and evaluation of sources featured less at A2 but sources were used as a tool of analysis. The assessment tasks required the synthesis of source information with candidates' own knowledge to reach a reasoned conclusion. Candidates had to demonstrate high quality written communication skills in order to fulfil the requirements of the assessment objectives. The open-ended nature of the questions required a high degree of independent working and, if the individual assignment was chosen for Unit 4, then independent enquiry skills were needed. Overall the content, the demands of breadth and depth and the progression from AS were considered by reviewers to be 'about right' for A2. However, the nature of the demands made on written communication skills, the open-ended, abstract nature of the assessment tasks and the level of independent working required led reviewers to consider the A2 relatively demanding.

Reviewers also expressed concern that the variety of content pathways and the flexibility of assessment choices made it difficult to assess demand in history both at AS and A2, as it was possible for candidates to have very different experiences of the syllabus and its assessment.