



A-LEVEL GEOGRAPHY

7037/C: Non-Examined Assessment
Report on the Examination

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General observations

It is reassuring to be able to report that the moderation team encountered few problems during this summer's moderation process and that only a small proportion of marks submitted by centres were adjusted. Most centres are meeting the requirements of the specification and are approaching this component with utmost professionalism. Self-reliance and initiative were evident in many studies and where students were allowed the opportunity to choose their location, focus and techniques, true independent decision-making was possible, which often led to inspired and ambitious work.

It is gratifying to observe that several of the points raised in the 2018 report and by the advisory team have been picked up by centres this year. There have been some improvements in the quality of teacher assessment of submitted work, a greater level of clarity and detail provided by students on CRFs, an overall reduction in the average length of investigations, a greater emphasis on appropriate and more sophisticated methods of data representation and analysis, and a more focused use of literary sources.

The majority of centres demonstrated a secure grasp of the mark scheme and were able to apply it appropriately to their students' work, although a few found it difficult to tease out the finer points in the strands and levels. Assessment should be based upon the 'best fit principle' to find the appropriate level to award student's work for each section of the marking criteria. Internal standardisation generally proved effective at removing inconsistencies and improving the accuracy and application of the assessment criteria. In a small number of centres, however, this process needs attention. On occasions where there was more than one teacher assessor, there was evidence that insufficiently meticulous and rigorous internal moderation took place before the sample was sent to the external moderator.

Centres differentiated well between students and where appropriate, used the full spectrum of the mark range. It is also encouraging to report that meaningful and detailed annotation of Student Record Forms is taking place in most centres. Samples sent for moderation indicate that the titles developed by students were firmly rooted in the specification and generally fit for purpose. The vast majority of submitted pieces of work were well designed and competently executed investigations. Inevitably, there was a wide range of outcomes but at the highest end of the mark range there were many outstanding, imaginative and insightful scripts. This reflected well upon the high quality of teaching and hard work of the students.

A mix of different practices was demonstrated by centres as they facilitated the work of their students. Some allowed freedom to select titles and environments which enabled students to collect information in their own time, whilst ensuring that the work was carried out safely. Others arranged for students to work in small groups on similar themes, once they had submitted their proposals for independent work. A wide range of approaches such as these is acceptable, and much depends on practical circumstances within the centre.

Many centres use external providers to deliver part or all of the requirements for Non-Examined Assessment. These centres often provide appropriate tuition and support. AQA has published a document on best practice for using such providers, indicating the importance of visiting a range of environments and highlighting ways of ensuring independence. Whatever approach is taken teachers need to balance the requirements of their students, the ability of the provider to offer an appropriate learning experience and the requirements of the specification. One approach is to use the centre visit to provide a range of skills and techniques which can be used transferably in the home location by the student. A further way is to allow students to use data they have collected at a centre to compare with a location in their home area. Where students are intending to complete

the full fieldwork requirements for the A-level individual investigation, time should be built into the process to allow for individual development and approval of titles and hypotheses/questions, having visited a range of environments first.

Centres applied the requirements for throughout the research and the write-up phase. There were very few instances of misinterpretation of the regulatory guidelines concerning Non-Examined Assessment. The main points to bear in mind are that teachers must not mark work provisionally nor share any comments so that students can then improve their work. Once submitted, work cannot be returned. Furthermore, centres are not allowed to provide primary or secondary data not collected by the student either individually or as part of a group. All secondary sources should be researched and compiled individually, even if students have worked collaboratively in collecting primary data.

Centres are reminded that if any form of malpractice is suspected, AQA will investigate. Where malpractice is found to have taken place a penalty is imposed dependent on the circumstances and severity of the malpractice.

Themes selected for investigation

A wide range of impressive work covering different areas of the specification was submitted this year. There was a roughly even split between broadly 'physical' and 'human' geography investigations, and some integrating elements of both. The 'physical' pieces were dominated by *Coastal Systems and Landscapes*, although *Water and Carbon Cycles* appeared quite frequently, with rather fewer enquiries conducted in glacial environments. Ecological investigations focusing on plant succession and diversity, usually in a sand dune or salt marsh environment, were also popular. Investigations rooted in the water cycle were occasionally less successful, in that although the specification content offers many opportunities for fieldwork investigations based on basin hydrology, a focus on fluvial processes or channel characteristics in a geomorphological context is not suitable. Centres that approved proposal forms that were simply tests of the Bradshaw model disadvantaged their own students in the awarding of marks particularly for Area 1 of the mark scheme. Similarly, it is not possible to justify most meteorological investigations as these are not based on the A-Level specification content.

The *Changing Places* specification unit yielded some excellent investigative studies; this theme is by far the most popular selected by students as the basis for their investigations and is often linked with elements of contemporary urban environments. Rather less frequently, students chose to develop titles based on local aspects of globalisation, population, migration and resource security, but across the entry virtually all potential themes contained within the specification pertaining to fieldwork were explored, even *Hot Desert Environments* and *Hazards*. However students should be cautious about selecting titles, often derived from earlier GCSE work, which focus for instance on the legitimacy of the Burgess model in a small town or the effectiveness of the Butler model of tourism development in a coastal resort, these being difficult to relate to specification content.

The most effective work was often produced by students who developed an evaluative question as a title, with no more than 3 sub questions or hypotheses that were closely related to each other. Indeed, there were many successful enquiries that were based on a single hypothesis or research question. The most ingenious and often high scoring scripts tended to emanate from students who pursued an independently sourced theme that had inspired them during their A-Level Geography course, and which enabled them to demonstrate a real enthusiasm for and insightful understanding of the subject.

Student Record Forms

The majority of Student Record Forms were completed thoroughly. The most impressive student proposals were clearly articulated, with appropriate titles, hypotheses or research questions, locational focus, methodologies and sampling strategies. However, the CRFs showed much variation in the way they were completed by students and commented upon by teachers. A few centres failed to include all the student forms in their submission whilst others were completed in a way that suggested that they had been written retrospectively to match the outcome of the research.

There is frequently a close correlation between the detail and substance of the CRFs and the quality of the ensuing work. The proposal is a working document and a way of managing adaptation within the enquiry rather than an exact blueprint, and students may make minor changes to their plans as the enquiry progresses. In some cases, the number of methods, sampling strategies and even the number of hypotheses may alter as the student reflects on the task in hand. The link to the specification should include evidence that the central theme has a solid and real connection to some specification content, ideally using numbers and page references to show the linkage. Questions or hypotheses should be manageable and achievable. The focus section gives the opportunity to provide brief details about the theoretical background and a justification for the location/spatial area in which the investigation will take place. In the methodology section students should outline both design and data collection techniques, ideally linked to the sub-questions or hypotheses. Proposed sampling sizes and strategies should also be indicated.

Many centres provided effective and realistic general guidance so that students could develop their investigations individually. The approval stage is the main opportunity for teachers to provide feedback to students, ensuring that the investigation structure is realistic and feasible, the locations chosen are suitable, that the programme of data collection is appropriate to the investigation and will yield sufficient data commensurate with the requirements of a 4000 word study. Under the new regulations, centres are challenged to find the right balance between supporting the students, whilst also enabling them to take control and demonstrate independence. In a few instances, teacher guidance on the CRF was too specific, and conversely there were cases where the title was simply approved without any written general advice or direction; hence opportunities for reducing breadth and subsequent very long studies were missed. Centres are reminded that AQA offers an advisory service for teachers to submit student proposals for further advice if they wish to do so. This offers teachers the chance to gain input from senior advisers on the suitability of proposals, as well as obtaining guidance on other aspects of the NEA.

Note that it is not necessary to include all versions of the CRF if more than one has been submitted by the student. Only the final approved version is attached to the work. Similarly, where internal standardisation has produced more than one mark, only the definitive agreed result should be inserted. A very small minority of centres took insufficient care to ensure that students' work was truly independent. This was most evident when titles and hypotheses varied by just a few words across the cohort. Very similar or identical titles may result from discussion or collusion between students. Those with similar aims can collaborate on sampling and data collection and share data, but the work cannot be teacher directed. Students should also avoid producing formulaic work with similar presentation and analytical techniques, outcomes and evaluations. In a few instances, students appeared to end up with a mass of data collected in one large group and were unsure of what to do with it. It seemed to be a case of, 'here are all the possible techniques/data you could use, now create some suitable hypotheses'. In these circumstances some investigations began to look worryingly similar, and such a narrow focus did not allow students to play to their strengths or

indeed their interests. It is not good practice for example for an entire cohort to be focusing on the impacts of a coastal management scheme.

Administration

Most centres completed all aspects of administration efficiently and on time. However, there were reports this year of centres submitting marks and dispatching work to moderators well beyond the deadline of 15 May, which caused some inconvenience and delay. In general, work was very well presented for the moderation process with the relevant administrative forms enclosed. Clerical errors were rare, but centres are urged to ensure that an independent check of submitted marks is made before final dispatch. This avoids a delay in the process. The Centre Declaration Sheet should accompany the scripts submitted for moderation, signed by all teachers involved in the assessment of the work. The Student Record Forms must also be signed by both the student and the teacher to confirm the authenticity of the work, and the teacher must approve the initial student proposal, predating the collection of data. When sending sample work to the moderator, it should be removed from binders/bulky folders. Please secure work using a treasury tag or by placing inside a manila folder. All scripts should be suitably labelled prior to dispatch. For a small number of centres there was an issue with bulky reports containing batches of questionnaires and other recording sheets. Some studies included overlong appendices, which added little or no value to the quality of the submitted work. In a very small number of cases, samples of work for moderation were presented loose-leaf and without any page numbers. This made the moderation process very difficult.

Quality of Teacher Assessment

Marking of student work generally showed consistency and accuracy. Most centres used the recommended internal standardisation process and supplied evidence. Many teachers provided meaningful and comprehensive annotation on the work itself as well as on the CRFs, with comments on the students' work reflecting where credit was being given. This is extremely helpful during the moderation process and enables moderators to make a more informed assessment. It is often useful to signpost the areas and strands of the mark scheme using abbreviations and brief comment based on the assessment criteria (eg 1a L4). Conversely there were some examples of work where there was little evidence of either marking or annotation. It is a requirement that before the work is sent for moderation there should be a clear indication on the script where the marks have been allocated. For a minority of centres, merely placing several ticks on a page or writing 'excellent work' did not help the moderation of a student's work. The wording should reflect the mark scheme criteria. Most centres completed the CRF documentation with great care and real detail, although some were content to 'lift' from the mark scheme without personalising comments. Individual centre feedback reports made available on results day (via Exams Officers) help to identify any areas where marking and/or internal moderation may need to be addressed in future years, whilst a number of advisory points are given under the four mark scheme headings.

Length of written report

It was noted in 2018 that many investigations were significantly longer than the recommended word guidance, with some being over 10,000 words. These dissertation length studies were much less in evidence in 2019 but overlength is still an issue for some students. Centres must advise students of the guidance and remind them of the impacts of producing work that fails to meet the assessment criteria. The guidance of 3-4,000 words was introduced by all exam boards to give students a clear indication of the length and nature of the report required for the NEA. Securing manageable and focused investigation titles for each student through detailed discussion at the

outset could greatly assist this process. Although there is no direct penalty for exceeding the word guidance, shorter and more succinct pieces of work tended to be tightly structured and coherent. They were also more manageable from a student's perspective. Some over long reports were self-penalising either because they included locational or theoretical material that was only marginally relevant to the study, or because they became fragmented multi-hypothesis studies where the links between the various elements were tenuous at best. Sometimes the work included too many accessories (maps, leaflets, posters, over long appendices etc) that added to the bulk of the report or the study lost focus as it failed to reconnect to the original aims and theory, so the style became long winded and descriptive.

The written report

The advised structure to the written report is that it should be linked closely to the mark scheme. It is recommended that it follows a logical sequence, starting with the CRF, and covers the four areas of the mark scheme. Some students submitted work that only partially covered the four areas, or alternatively combined several of the strands under a single heading. In the most successful work seen the enquiry route was obvious from the outset, and the work maintained a rigour and clear sense of purpose with the issue under investigation being firmly rooted in geography.

Area 1 Introduction and Preliminary Research

a) Define the Research Questions

Almost all students identified a specific research question or hypothesis which was linked in some way to the specification. Sometimes the links were stated ambiguously as broad units of the specification. Elsewhere all aspects of the specification content were listed indiscriminately, with little focus on the key terms or variables. The discriminator was how precise the link was - the best tied it in specifically and then explained how they derived their title. It is recommended that students selectively identify the most relevant parts, and that they comment on the rationale for the connection. In some cases, students failed to recognise that certain topics link to several aspects of the specification, and focused on one section only. For instance, a study of the impacts of migration on the character of a place might encompass aspects of *Changing Places*, *Population and the environment* and *Global Systems and Global Governance*. Not all had the most appropriate link; for example, studies of salt marshes were linked to *Coastal Landscapes*, whereas the key focus was to *Ecosystems under stress*, specifically plant succession. To achieve Level 4 the study should include the relevant wording of the specification content, and a suitable comment or justification for the link.

Good practice involves the identification of a clear and well-focused question or hypothesis for investigation. Unfortunately, a number of submissions in 2019 were based on broad and unmanageable titles, making the task of answering the question very challenging within the 4000 word guidance. Some attempted to address a number of discrete questions or hypotheses which were not directly related. This led to a fragmented approach and the development of several mini studies, from which it was difficult to draw a unified conclusion. Each sub-question/hypothesis needs to assist the aim of the investigation, not distract from it. It is recommended that titles have a locational and theoretical context. The study may legitimately subdivide into 2 or 3 connected sub-questions/hypotheses but these should be closely connected to the underlying theme. Successful titles are often evaluative, involving an assessment of something (eg 'how far does?' 'To what extent...?'), and capable of being answered (even if only tentatively) using a range of data which are appropriate to the theme. Some titles or research questions explored issues where the student already knew the answer (eg 'Does the quality of environment vary between areas X and Y?' or

‘The number of plants varies with distance from the high-water mark on Beach A’). If students develop descriptive titles that are truisms, there is the risk that the investigation becomes very descriptive and uninspiring for the student. They offer only limited scope for meaningful data collection and evaluation.

b) Research relevant literature sources and understand and write up the theoretical or comparative context for a research question

Most students provided some literary background, but a number relied heavily on the approved textbook(s). The literature review can help to set the context, including locational details. The student may use it to explore parallel examples and places, or to obtain the most up-to-date thinking about a topic and research local opinions to see how these fit in with national thinking on an issue. It should include geographical models, concepts and theories that are relevant to the idea or focus of study. The most astute students may even evaluate the research based on age, author, source etc, as well as checking whether the outcome is agreed by other authors. Some saw the literature review as a separate component largely unrelated to the rest of the study rather than an integral part that should be referred to at key points during the investigation, especially in the interpretation of results and conclusion. The most able students had a reasonable number of sources that had been carefully selected, were pertinent to the study, considered different perspectives, were fully referenced and acknowledged, and were thoroughly embedded in the study. They also made a convincing link between their geographical theory and the hypotheses or research questions, often by providing a detailed rationale for each one. Some had too many sources and merely reported what had been found without making individual comment or linking the information to the investigation. A number simply consisted of a few web pages giving background to the selected location with very limited geographical theory. Others provided a lengthy list of apparent sources in a bibliography, but there was little or no evidence of these being used in the written report. A few provided quite complex theoretical information at the beginning, but this was not used or alluded to in the rest of the investigation.

The locational context was very often presented broadly, usually by downloading maps at three different scales, but often the precise locations where the data had been collected were not shown with adequate clarity. Indeed the spatial context was often rather unclear and specific locational or comparative details were not given. Some investigations drifted into consideration of the historical background or other irrelevant material. In the less effective reports this section tended to be where students became unfocused. For example, lengthy accounts of physical processes copied directly from a textbook are of limited value as the information is generic and not tied to the specific fieldwork context. In a very small number of centres where students had carried out similar investigations it appeared that that they had been directed to certain literature as they all used the same sources for their research, which compromised the independence of the study.

Note that whilst a risk assessment is an essential part of the planning process it is not a requirement of the mark scheme, unless perhaps it successfully links with aspects of the ethical dimension. Some students wasted a considerable number of words writing detailed risk assessment documents which were of no value in relation to the assessment criteria.

Area 2 Methods of Field Investigation

a) Observe and record the phenomena in the field and devise and justify practical approaches including sampling

Data collection was discussed and implemented with varying degrees of success. It was encouraging to see a diverse mix of methodologies being employed, often showing originality and initiative, and students were generally conversant with the suitability of both qualitative and quantitative methods. The more effective investigations demonstrated evidence of a well-designed planning phase, careful selection of a range of 3-6 appropriate methods, clear indication of the number of sites visited and surveys undertaken, explanation of the sampling techniques involved and justification of the methods being adopted in relation to the purpose of the enquiry. Less successful investigations named data collection methods but provided limited clarification of why the method was used or how it linked with the sub-questions or hypotheses. They mentioned sampling but were confused about what was involved or why a particular sampling technique was appropriate. In the poorer quality scripts, methods were selected indiscriminately and inappropriately, with only limited reference to the title or question.

Almost all students collected some primary data, supporting it with a variable amount of secondary information. Some did not fully appreciate the role of secondary data, which is information derived from published documentary sources and has been processed, such as census data, research papers, text books, and information from websites. Some believed it to be the same as a literature source, and for a few there was an over-reliance on secondary material and a tendency for the investigation to drift away from the findings of their own field investigations. This particularly applied to some human geography investigations based on urban inequalities where IMD and census information predominated, with the addition of an EQS or a few photographs as the only primary sources. However secondary data was of great value where used to support the primary data collected. This applied particularly to investigations where change over time was involved, such as urban regeneration enquiries, studies of demographic change, studies of rates of coastal erosion, changes on a high street or change to a place over time. Some students made use of meteorological or river discharge data or wave height data, which enabled them to make comparisons with their own (unrepresentative samples) and add greater conviction to the reliability of results. There was no evidence that students were relying on virtual fieldwork scenarios, but in a few cases laboratory experiments on infiltration were presented wrongly as evidence of primary data collection.

To achieve Level 4 students must show strong evidence of a range of data collection methods, both quantitative and/or qualitative that are relevant to the research question. These should be fully justified with specific times, dates and frequencies stated. Ideally group and/or individual contributions should be clearly identified. Often, where group work had been undertaken, this was not the case. In some instances, the range of approaches was limited, and in others the number of techniques was wide-ranging, but these only had limited connection to the enquiry purpose. A few centres allowed students to use a range of common methods regardless of what the task was, which was not conducive to independence. A number of students relied on well-established surveys for EQS derived from websites, field study centres or even past exam papers - there is often scope to individualise the data recording sheets, making them specific to the purpose of the enquiry. A few students simply cut-and-pasted sections of a fieldwork guide when outlining and justifying the sample and technique.

Where the study is split into sub-questions or sub-hypotheses it is good practice to link the method(s) to each in turn. If students wish to use a tabular format to explain methodology, they

should devise their own tables with suitable sub-headings rather than being provided with a standard version produced by the centre. Some methodology tables were too simplistic and did not allow the students to cover all aspects of the mark scheme through the poorly chosen headings.

b) Demonstrate practical knowledge and understanding of field methodologies appropriate to the investigation of human and physical approaches

Most could explain how the data was collected so that it was clear and often replicable. Students should be advised to undertake step by step explanation of each technique almost as a set of instructions. In some instances, data collection techniques followed a centre recipe approach, and in a few centres it seemed that students had fitted their titles to the data collected on a field trip, rather than sorting out the title, then deciding on the appropriate data needed. Given the word guidance and the need for a focused approach to enquiry it is obviously essential to incorporate only those techniques that address the questions or aims of the investigation. A recent trend has been the increased use of phone apps to collect accurate data, for example clinometer and distance measurements, recordings of noise levels and light meter results.

Some of the best enquiries included both a methodology table and a description of procedures, using diagrams, maps and photos to illustrate specific detail. Some inserted examples of data recording sheets with explanations or annotations of the questions posed or data headings. It was relatively unusual for data collection methods such as questionnaires to be piloted. However, a pilot survey can give a clear insight into the feasibility and timings of the investigation, as well offering a practical opportunity to trial. Such pilot surveys were used to good effect and included by students this year to pre-test questionnaires, find out when there are most visitors, talk to shop owners and find out if they can be interviewed at a convenient time, take photographs in case the weather is poor at a later date, complete a brief risk assessment and consider ethical issues or try to work out the best sites to collect data.

c) Implement chosen methodologies to collect data/information

The requirement for this strand is to show that the methods of data collection have yielded information that is of good quality in supporting the aims of the investigation. The amount of data is an issue as getting the right balance is difficult - some have too little and others have too much, making the subsequent stages of the write-up onerous. The volume and quality of data becomes evident in tables of data, and other presentation techniques. Needless to say, there is no credit for methods of data collection that are described and explained but are not then executed in the field, no matter in how much detail they have been outlined. Similarly, where the sample size is small and representative, and often well below expectations, this should be recognised in the subsequent evaluation of methodology. Some students had limited numbers of questionnaires and visited few study sites yet seemed unaware of the implications of this in terms of reliability of results; a smaller number had far too much data which made the task more difficult due to duplicity and length.

It is essential to collect appropriate, plentiful and meaningful data if all levels of the mark range are to be accessed. There were some cases where the time spent in the field was restricted to part of a single day. The student only had time to complete a few surveys or a single set of observations yet felt justified in making confident conclusions based on very limited evidence. In the most extreme cases students completed just 10 questionnaires or 10 pedestrian counts and little else. Basing judgements upon this tiny sample is hardly convincing in terms of testing any question or hypothesis. Where only minimal data was collected, with small and/or unrepresentative sample, all three methodology strands were likely to score low marks. This can have a knock-on detrimental

effect on data presentation and critical analysis, and even the conclusion. There may be practical reasons why time spent collecting primary data is constrained, but this element needs further attention in some centres, and is the main reason why some marks were reduced. However, the majority of students had a comprehensive and balanced data collection programme designed to elicit sufficient information and evidence to explore the themes and aims of the enquiry. The methods adopted were linked clearly to each sub question and there was little or no superfluous information. Note that the number of methods for data capture is far less important than the compilation of a body of useful and relevant information targeted at the enquiry. Some methods are quick to complete and produce relatively little data, whereas others may take all day and yield a significant amount of useful information.

Students do not need to include all of their raw data collection booklets and recording sheets with their investigation. There were several instances where the student felt compelled to include every questionnaire, adding considerably to the bulk of the script. It is sufficient to include a small sample of the raw data collection tables as evidence of primary data collection conducted.

Area 3 Methods of Critical analysis

a) Knowledge and understanding of the techniques appropriate for analysing field data

The mark scheme indicates that presentation, analysis and interpretation should be integrated and not considered separately from each other, so ideally the presentation of data should be found alongside the commentary and explanation of results and certainly not added as a supplement at the end of the report. To access Level 4, students must use a range of methods of data presentation and analysis, which are accurate, appropriate and well applied. This first strand of critical analysis refers to the suitability and quality of techniques used to present and analyse data. Many moderators reported this year that students were becoming more confident in attempting complex spatial ways of displaying their data, including isoline and choropleth maps and maps with superimposed proportional symbols. Some applied more sophisticated GIS and visualisation techniques that allowed students to plot their results on digital overlays using software such as Google Maps, Google Earth, ArcGIS Online or Aegis. Students are also applying techniques of statistical analysis with greater competence than was evident in the first year of assessment.

Overall, students demonstrated a wide range of both cartographical and graphical presentational techniques. Interestingly photographs tended to be underused or poorly annotated and maps often left incomplete without the normal conventions. Inevitably, perhaps because the methods are chosen independently, some students continue to opt for well-rehearsed means of presenting data, so there were numerous basic graphical techniques, often repeated many times. These often lacked the spatial element that would have been afforded by mapping the data as located symbols or graphs. For many, the starting point of the analysis should be a spatial display of the overall results. The indiscriminate over-use of computer-generated graphs using *Excel chart wizard* should be discouraged.

A good selection of presentation methods assists meaningful analysis. Many students tried to use statistics as part of their analysis, with varying degrees of success. If an investigation includes a range of quantitative data students should not miss opportunities to analyse the data statistically. The most successful students used statistics meaningfully and critically, showing an understanding of significance and the ability to evaluate the chosen methods appropriately and forensically. Students should be encouraged to indicate the hypothesis at the start of a statistical test so that the context is clear. However it is not necessary to produce repeated full calculations of correlation tests - a single worked example is sufficient, with other results calculated on the computer and then

interpreted. There were misconceptions, for example where students tried to apply Chi squared tests for correlation, whilst conversely some attempted to use a Mann Whitney U test to establish a relationship between two sets of data. Often there were insufficient pairs of data for a Spearman's Rank Correlation (ideally a minimum of 12 values) or insufficient data to carry out a Chi Squared test (where the minimum frequency should be 5). A number of students who did use a statistical test avoided significance testing as a final step. Quoting the final outcome is important, but students should indicate what it means in the broader geographical context of the investigation. Qualitative techniques for presenting and analysing data may be more appropriate in certain investigations. Again it is possible to include more complex techniques of analysis such as well annotated photographs, mapping with superimposed symbols and annotations, or colour coding and graphical representation of interview transcripts. Many students used techniques such as polarising, theming, categorising or making linkages when coding text as part of qualitative analysis. As with methodology, the crucial aspect is the appropriateness of the techniques used as opposed to a rigid number of qualitative and quantitative skills.

b) Demonstrate the ability to interrogate and critically examine field data to comment on accuracy and the extent to which it is representative and use the experience to extend geographical understanding

Most students interrogated their data systematically and commented on each set of results obtained. Description of outcomes was convincing, and the majority backed up their findings with detailed evidence, but rather less impressive were the explanations offered for these results which tended to be speculative as opposed to evidence-based. However, the most effective scripts included logical and organised interpretations, with precise and plausible reasons for the results obtained, often making links between different data sets. Patterns and trends were identified, showing an understanding of the 'bigger picture', with data manipulation to the fore.

Most realised the need to examine and give explanations for anomalous results although strangely, some felt that anomalies were an inconvenience that got in the way of a successful outcome, rather than an opportunity to show greater geographical insight. Students are also sometimes reluctant to acknowledge that the lack of a relationship between data sets or a result that is the opposite of the one expected is no less valid than one that shows a strong link. Quite often the messy geography of the real world, based on primary fieldwork data, is disconcerting to students who are expecting their results to match the expected outcomes. Of course, so much depends on how comprehensive the data set is to begin with - a tiny unrepresentative sample is not likely to yield interpretations or conclusions which the student can be confident about.

Often what was missed from the interpretation was the requirement to indicate the degree to which the data is representative. Moderators were sometimes able to see evidence for this in the evaluation section, but it should form part of the critical examination of the field data. Similarly, only limited attention was given to the accuracy of data, which is also part of this strand.

Inevitably outcomes for this strand varied a great deal, from students who simply described the data in a basic manner to those who critically examined and interrogated the information collected and provided thorough explanations which linked to a wider context. Some were hampered in their interpretations by the poor use of presentation and analytical techniques.

c) Apply existing knowledge, theory and concepts to order and understand field observations

This strand requires students to apply knowledge and understanding to find links between the investigation and the broader geographical context, ie to show insight into the connections between the information collected and other aspects of geography. Note that the AO targeted here is AO2 - so the student should be revealing insight into wider aspects of geography connected to the enquiry as he or she is interpreting the results. The majority of students showed some awareness of some of the implications of the findings and returned to the theoretical aspects that drove the study. There were excellent examples where students engaged with theory and geographical concepts throughout in their explanation of the data and the results. Some referred again to their literature review and took the opportunity to refer to the wider context throughout the investigation, including the final conclusion.

This element of the mark scheme tends to be a real discriminator. In less creditworthy scripts, the underpinning theory was not integrated into the analysis, nor was it used to help explain the results. The data was seen in isolation, so very little credit could be awarded. In this section it is strongly advised that the key ideas that form the basis of the literature review should play a crucial part in the explanations or interpretations of data. This leads to a more coherent written discourse where the wider geographical picture is at the forefront of the analysis. It is all the more crucial, therefore, to ensure that the literature review is focused and relevant to the study.

Area 4 Conclusions, evaluation and presentation**a) To show the ability to write up field results clearly and logically using a range of presentation methods**

This part of the mark scheme requires the student to produce a structured and logically sequenced report, following the stages of geographical enquiry, and to use a mix of presentation techniques that are embedded within the report. It focuses on the overall presentation of the report, its organisation, structure, sequence and clarity. Most students knew how to write up the work as an enquiry sequence and there were many studies that were well organised, with titles, contents, pagination, well written paragraphs, techniques integrated into the study, full enquiry sequence, bibliography and appendix. Some even included an abstract or executive summary. Generally, the work was well presented, and centres are clearly giving good advice on the appropriate structure of the report. In most cases the outline follows the exact features of the mark scheme.

Amongst the less creditworthy scripts there were some where the structure did not show a logical sequence, or where the presentation techniques were part of an appendix with little or no link to the main text. Some left out important parts of the investigation such as the conclusion or evaluation, perhaps because they ran out of time. Quite a few included impressive presentation techniques of all types but showed limited ability to write up the results clearly or in detail. Where the range of presentation techniques was limited, the marks for this strand were similarly reduced.

Some work displayed serious SPAG errors that could easily have been sorted by the use of spell checking. Moderators also reported a lack of contents and page numbers in some submissions, the occasional use of the vernacular eg 'gotten' 'majorly' which is not acceptable in an academic piece. There were also some errors in formatting - it is disappointing to see text obscured by images at this level. It would also help if certain images such as maps and graphs were of a sensible size and in colour, as it wasn't always easy to interpret keys if they were in grey scale.

More centres might provide guidance on how to present a bibliography following a recognisable format eg Harvard Referencing.

When assessing this strand, the full range of presentation techniques should be considered, which encompasses all forms including location maps and photographs, as well as those depicting the data collected.

Many students continued to make too much use of an appendix, perhaps because they saw this as a way of increasing the word count without exceeding the 4000 word guidance available for the main text. The written text must function independently of its appendix and is the material that is assessed. Supporting arguments must not depend on material located in the appendix. For example, data should be presented, analysed, summarised and discussed in the main body, but some raw data or sample recording sheets or tables of data could be placed in the appendix. There is little or no value in placing lengthy planning documents or other secondary information in the appendix.

b) Evaluate and reflect on fieldwork investigations, explain how the results relate to the wide context and show an understanding of the ethical dimensions of fieldwork research

An effective evaluation should be multi-faceted, examining critically several of the strands of enquiry. To achieve Level 4 students must show a highly effective evaluation of the knowledge and understanding gained from their field investigation. They must have a perceptive evaluation of each stage of the fieldwork investigation including the ethical dimensions of the field research and provide perceptive and well-considered reflections of further research and extension. Most focused initially on the evaluation of methodology, often within a methodology table, outlining the limitations, strengths and possible improvement to each technique. This was often done in a basic way and had the potential to drift into a wish list for what could have been thought through more carefully.

A significant proportion were limited to practical or logistical issues including a list of reasons as to why the results 'didn't work', such as bad weather, poor equipment, even lack of time. There was much generic consideration of methodological issues which linked to these practicalities rather than focusing on each method in turn. Suggestions for improvement also tended to be limited such as do more, collect more data, and go and collect more results on another occasion and at another site.

Others showed greater perception of the wider picture, taking into account the limitations of sample size and its unrepresentative nature. They went on to consider the results and how some data contradicts other findings. They looked at whether results would be different if collected in a different place/time and if there was a link between inaccuracy and problems with methodology.

The more able students reflected on their findings in relation to the original task set and realised the tenuous nature of their conclusions in relation to the broader geographical context. They considered whether or why the conclusions might not be applied to other places/contexts and tried to explain why the conclusions might be invalid or wrong. Some suggested realistic ways to extend and improve their studies and identified avenues for further research. A few used this as an opportunity to identify gaps in their own research and how future researchers could use this investigation as a starting point for further fieldwork. Not many questioned the validity of their initial aims and most were reluctant to query the theory that underpinned their investigation.

The majority of students gave some attention to the ethical dimension of fieldwork, although some only cursorily so. To access Level 4 some reference should be made to this aspect. The ethical dimension deals with issues in collecting the data which may impact on people and/or environment. Quite clearly it should be specific to the investigation methods rather than a generic list of points. The length and balance of this section which may appear in methodology or evaluation may depend on the nature of the enquiry. Some human geography enquiries which involve much interaction with the public, may need more consideration of the need for anonymity and potential cultural sensitivities. Those where data is collected in more remote locations may stress the need for awareness of damage to fragile environments and possible contamination of study sites. Some students covered the ethical issues very well, linking their comments to individual methods in a methodology table.

c) Demonstrate the ability to write a coherent analysis of fieldwork findings to answer a specific geographical question

In this strand the student should look again the initial aims, commenting on the extent to which hypotheses or questions were supported by evidence, and present their findings the form of a concise synthesis. The more able students developed their analysis into broader conclusions linked to geographical theory and saw the significance of their conclusions. They also developed clear lines of reasoning, demonstrating a comprehensive enquiry process. Some of the less effective work consisted of an extension or repetition of the interpretation of results, or was simply a brief summation stating whether the hypothesis was supported or refuted by the evidence. On occasions, this strand was overmarked - a minimalist approach consisting of a short paragraph stating that all hypotheses were proven is unlikely to access higher level marks. Better reports recognised the tenuous nature of the conclusions and avoided a dogmatic approach, especially where the evidence was partial or limited. Many students wrote the conclusion on a hypothesis by hypothesis basis which ensured that these mini conclusions related back to the original aims and hypothesis. A significant proportion, however, failed to provide an overall summative conclusion, so failed to draw the various strands of enquiry together at the end. A few incorrectly introduced new material into this section, whereas it should be a natural summary of the results already analysed and interpreted. Some produced ambitious conclusions, culled perhaps from textbook information, which sounded plausible but were not evidence-based.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.

Use of statistics

Statistics used in this report may be taken from incomplete processing data. However, this data still gives a true account on how students have performed for each question.