



Moderators Report Principal Moderator Feedback

Summer 2024

Pearson Edexcel GCE
In A-Level Geography
Paper 4 (NEA)

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The 2024 series is hopefully the last series where the cohort had their GCSE interrupted by COVID – 19. In 2022 at GCSE there was not a requirement for centres to carry out fieldwork and so for some of the cohort this was the first time they had either carried out teacher directed fieldwork and certainly carried out their own fieldwork. Centres and candidates must therefore be congratulated in making sure that for the majority of candidates there was a pleasing range of both physical and human fieldwork data collection techniques on view. It was also pleasing to see that many of the innovative techniques such as using the historic photo function in 'Street View' on Google Maps as well as the increased harvesting of data from social media has now become a commonplace and well used techniques.

As with 2023 there was a good balance between physical and human titles with again a pleasing number of investigations being carried out in relict glacial landscapes.

Titles

As with the 2023 cohort, Centres have taken on board the advice offered in previous series that the best investigations had titles that allowed the candidate to investigate the extent to which the impacts of regeneration varied or the extent to which coastal management schemes were successful. In particular it was pleasing to see that many centres and candidates had taken on board previous advice and defined what they meant by 'success' or 'effectiveness'. This allowed some candidates to use spectrums to show the extent (from none to complete) not only for their titles but also for their individual key questions.

This approach is strongly recommended as it allows the candidates to analyse, synthesise and draw conclusions from their fieldwork data that are far more sophisticated than those titles which have more simplistic titles that set out to examine say if one area is of higher quality than another or 'How does...'

Although it was good to see fewer completely desk based projects, there was evidence that some of the Key Questions did revert to what are essentially EPQs. These should be discouraged as although the use of secondary data can be essential in some investigations, the collection of primary data is at the heart of an Independent Investigation.

In the main, there was evidence that the planning sheets were carefully completed with approval given. The principal Moderator would like again to emphasise that it is within guidelines for the centre to **ask** their candidates about what sampling methods might be appropriate or **how** the survey might be designed but not **suggest** which methods may be appropriate. This should be recorded on the planning sheet so the moderator can be assured that guidance provided has been within guidelines. Unfortunately there was some evidence that either no advice was given or this was 'retro-fitted' after the fieldwork data collection had been carried or even at the same time of the submission of the coursework.

The specification clearly states that teachers **must**

- confirm that the provisional title has the potential to meet the assessment criteria and offer general guidance on any necessary amendments.
- review each candidate's Geography Independent Investigation Form. Within this review teachers should ensure that the proposed investigation can suitably access the specification requirements and give general guidance on the methodology and analytical tools that the candidate plans to use.

It is inevitable that there will be changes from an initial proposal to the finished investigation and centres and candidates should not be concerned if there are such changes. This is very much part of the enquiry process.

Some candidates would also benefit from having Key Questions that were formulated in a more analytical and less descriptive way. For example 'How does the beach profile change along the beach' and 'How does sediment size change' are descriptive questions less likely to lead to an analytical investigation. Instead they should be 'To what extent is the beach profile steeper at site X as opposed to site Y, or 'To what extent is the sediment size smaller at site X as opposed to site Y. This allows the use of statistics, particularly the confidence limits of statistical tests to answer this question.

There continues to be a wide variety of both physical and human coursework titles submitted this year. The success of regeneration schemes in urban areas was again the most popular urban title but it was pleasing to see some candidates attempting projects investigating studentification as well as the extent to which perceptions of both rural and urban areas vary.

There was, unfortunately, an increase in the number of titles that were very similar to each other within a centre. This may be the result of third party providers reopening for business after the pandemic. This sometimes resulted in whole centres having effectively the same title and using the same data (and in some cases the same photograph). Third party providers can be very useful in providing equipment and guidance in using a variety of fieldwork equipment but centres and candidates are encouraged to develop their own titles/key questions as well as fieldwork data collection techniques. This allows them to ensure that their data collection techniques are relevant and also aids their analysis, synthesis and the drawing of their own conclusions to their individual titles.

Overall, the titles were at a manageable scale and the Principal moderator was pleased to see that there are fewer titles which are impossible to complete such as the impact of globalisation on an identified area. Yet there was still evidence of unsuitable titles such as the impact of internal and international migration on a named area or the impact of both Covid - 19 and e-commerce on shopping centres. Whilst these are of obvious interest for the candidates and at a university level may be successful dissertations they are unsuitable for a 4-5000 word Independent Investigation. Centres are reminded that they can give advice on the Independent Investigation form that such titles are unlikely to meet all of the mark

scheme criteria and suggest the candidate rethinks their title and key questions to a more manageable project. If in doubt over the amount of support that is allowed, centres are encouraged to use the CAS service offered by Pearson, the online and face to face training sessions and the exemplar materials provided the Pearson web site.

Finally, it was pleasing to see that following comments made in the last report, there was less evidence of using an example of good practice obtained from the training material provided by the board as a 'template' for the whole of the Independent Investigation (which was submitted for the 2018 series!). Instead, many candidates have now developed their own independent way of completing their Independent Investigation.

Purpose of the investigation

The best candidates continued to demonstrate accurate and relevant geographical knowledge and understanding of location, geographical theory throughout the investigations rather than just in the first section usually titled 'Introduction'. Models and theories were to the fore in many of the very best investigations and it was pleasing to see that many centres had explored more contemporary definitions of sustainable or vibrant communities and not only continued to use the Egan wheel as a tool for assessing the success of regeneration. There was also far less use of very dated and usually irrelevant models such as Burgess and Hoyt.

Many investigations continue to show good practice and many allowed the moderators to develop a good sense of place using annotated maps, photographs and background information on the area under investigation. Once again, however, in some cases the location maps that were included but were too small or too faint (often sourced from google maps) to see or had no scale, titles or annotations. It was good to see that there were fewer maps with irrelevant information such as shops and restaurants.

The Principal moderator is pleased that many candidates are now demonstrating accurate and relevant comparative contexts in this section of the NEA but would like to stress that these are not just to be used in the 'Introduction' but should be returned to at the end of the investigation in the conclusion. Here candidates are encouraged to see how similar/different their conclusions are to other similar situations. They should not be overlong and are definitely not a second study.

Most investigations now have a reference list at the end of the project or have footnotes. Centres are encouraged to read the most recent advice from Pearson on the use of AI in these investigations.

A useful checklist for students might be to make sure that they self-assess their work using the following list

- ✓ *Accurate and relevant geographical knowledge*
- ✓ *A model and / or theory that can be tested*
- ✓ *Applies understanding to find coherent and relevant links*

- ✓ *Investigates a wide range of relevant geographical sources throughout the project*
- ✓ *Research information is used to construct a justified aim*
- ✓ *Manageable scale*
- ✓ *Appropriate framework*

Field Methodologies and Data Collection

There was a range of techniques used for primary data collection – both quantitative and qualitative as well as a range of secondary sources. Some centres made good use of ARCGIS to collect data. The techniques used from the 2022/23 cohort were also much in evidence particularly the use of Google Street view, webcams and online surveys.

Sampling frameworks still seem to be an issue for some candidates. There is still little justification in relation to the key question or investigation title why one sampling technique was used as opposed to another. Instead generic advantages/disadvantages are often used. Such an approach makes it difficult to access the very highest marks in this section. Although there was more evidence of sample size being calculated for questionnaires using tools such as survey monkey, unfortunately these were often very small and in some cases were less than 5 respondents. Centres are encouraged to advise candidates that whilst questionnaires can be a very useful tool they must understand that the analysis and synthesis of such small data sets is unlikely to lead to convincing conclusions. There was also a continued issue that there were few maps to show how, where and why data collection points were located.

The best candidates still used tables to summarise data collection methods with how/when/sampling/ethical consideration/problems/limitations – which were printed landscape. The better ones also had a clear link to the sub questions and so why the data was being collected.

There is unfortunately still evidence of data being collected by a large group which led to some investigations only having a tangential link between their title and the data that was collected. These investigations then found it challenging to have meaningful conclusions as often the group data collected had little relevance to their individual title. Centres should ensure that where group data is collected all of the candidates use this data meaningfully. This was of particular concern with coastal investigations where sediment size and shape, beach profile data as well as flood risk and management bi-polar surveys were collected as a group but then candidates used all of this data regardless of the actual title of the investigation. It would be better for candidates to develop their own bi-polar assessments which are tailored to their own project title as well as devising their own questionnaires.

There was also some evidence of a creep of EPQ style investigations that relied almost totally on secondary data and had only minimal primary data collection. It is important to note that investigations based purely on secondary data has not been appropriate for past cohorts and were not considered appropriate in 2024.

It was however pleasing to report that most candidates have come to grips with what constitutes the ethical dimensions of field research methods. There were far fewer projects where the only considerations were a vague risk assessment (which in any case is not required for the investigation).

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ *Chooses appropriate methods*
- ✓ *Range of data*
- ✓ *Designs a valid sampling framework*
- ✓ *Temporal sampling (when and how often)*
- ✓ *Spatial sampling (where and why)*
- ✓ *Ethical dimensions*
- ✓ *Reliability*
- ✓ *Accuracy*
- ✓ *Precision*

Data representation, analysis and interpretation

Candidates are continuing to use a pleasing range of both cartographical and graphical presentational techniques. There was evidence that geolocating packages such as 'Survey123' and ArcGIS are increasingly being used to present their data geographically. Weaker candidates, however, seem still beholden to only a few of the suggested graphs in excel and are still relying on a small variety of graphs for all their data with no cartographical methods used at all. Centres and candidates are encouraged to explore using such data representation techniques and then geolocating them on a map to highlight spatial variations.

The use of statistics to aid the analysis of the data collected continues to be mixed and the Spearman's Rank test in particular was not well understood. There was continued evidence of errors such as using only 5 pairs of data as well as the incorrect calculation of the result. In some cases there was no reference to the level of confidence of results or an indication of how this was determined. Others also failed to link their statistical findings to their enquiry questions.

There is still a lack of coding used to analyse questionnaires. Although this is a high level skill it allows far better use of the data collected than a more traditional use of pie/bar charts for the individual questions.

As suggested in last year's report centres are encouraged to recommend the RGS 'A Student Guide to the A Level Independent Investigation (Non-examined Assessment—NEA)' to their students with help on choosing the appropriate statistical technique.

There was, however, one element that was observed in some of the work seen that had an impact on the marks awarded - the lack of synthesis of the results. In some cases, there was competent analysis of the work but it was presented in a very linear way and lacked cross

referencing with other results. This meant that such projects found it difficult to fully synthesise the results that they had gained.

This was particularly the case where group data had been used. Candidates analysed each element of the data competently but due to either the irrelevance of the data collected or the unsuitability of the key questions/titles struggled to either link the data sets or link the data collected to their titles.

Another common problem that candidates could not always overcome was that when answering a key question that focused on how did a geographical element change - deprivation, perception, sediment size or vegetation type - they then struggled to link this to other parts of the investigation.

Centres are encouraged to suggest to their candidates that the best projects not only have a linear approach to the analysis but draw across the primary and secondary data to synthesise their results. Candidates should be encouraged to use more diagrams (mind-maps, spider etc) to try and show how their data links together to answer (or contradicts) their working hypotheses/key questions.

The Principal moderator noted, however, that there far less use of 2011 census data and far more use of the 2021 census data available here <https://census.gov.uk/census-2021-results>

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ Statistical skills
- ✓ Geographical skills
- ✓ Synthesis of results
- ✓ Statistical significance
- ✓ Appraisal of techniques and methodologies
- ✓ Clear and technically accurate presentation
- ✓ Rational evidenced based conclusions

Conclusions and Critical Evaluation

This continues to be an area where some of the candidates do not full appreciate the number of marks (24) on offer. Centres and candidates are advised to reflect that for convincing conclusions to be drawn, there must first of all be an evaluation of the results obtained from their field work, in particular the weighing up of the strengths and weaknesses of their results before coming to a conclusion. In many cases there was simply an affirmation of the results that the candidate had collected with little thought as to the extent to which say a perception of an area could really be based on the opinion of a handful of respondents to a questionnaire or the success of sea defences on one day's data collection.

Centres and candidates are encouraged to review the evidence for each Key Question in this section, evaluating which piece of evidence is stronger than the other and so allowing them to

come to a convincing conclusion. Statistical tests, particularly an appreciation of the confidence limits of the particular test carried out will be useful to aid this process.

The best candidates often used some type of graphical representation of a spectrum to show the extent to which they had proved (or disproved) their key question/hypothesis.

The Principal moderator is concerned, however, that where a comparative context had been referred to in the purpose section, there was, generally, limited reference made to this in the conclusion. This is a key part of the investigation as it sets the conclusions drawn by the candidate to other real world examples and allows the candidate to assess the uniqueness or otherwise of their study.

The Principal examiner was pleased, however, that there is much evidence of good evaluations of the data collected and in particular the impact of the reliability of the data collection programme on the accuracy of the results and so the validity of the conclusions drawn. Centres are to be congratulated in ensuring that this crucial part of the investigation is now being given the weight it deserves in this final section.

Yet the best candidates displayed a balanced and concise, well-developed arguments which were fully supported by the drawing together of a selection of relevant evidence.

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ *Synthesises research findings to produce convincing conclusions which are fully supported*
- ✓ *A balanced appraisal of the reliability of the evidence and the validity of the conclusions*
- ✓ *Accurate and relevant geographical knowledge of*
- ✓ *Location*
- ✓ *Geographical theory*
- ✓ *Comparative context*
- ✓ *Coherent and relevant links between the conclusions and a broader geographical context*

Summary

From the evidence of the 2024 cohort the Principal Moderator would advise centres that the best projects were

On a manageable scale

Utilised an appropriate framework

Choose appropriate methods collecting a range of data

Utilised a valid sampling framework that considered both temporal and spatial sampling

Considered ethical dimensions

Ensured that if group work was used they adapted this to their own investigation

Ensured that there were clear and technically accurate presentation techniques as well as the correct statistical analysis of the data

Synthesised their data

Developed rational evidenced based conclusions

Evaluated how the limitations of their data collection programme influenced the accuracy of their results and so the validity of their conclusions

