Pearson

International Advanced Level Geography

Unit 2 WGE02 – Section B
Geographical Investigations
Exemplar scripts with examiner commentaries

Contents

Introduction

This guide has been created using student responses to the 2017 International A Level Unit 2 (WGEO/02). The answers and examiner commentaries in this guide can be used to show the standards in the IAL Geography assessment.

Unit 2, Geographical Investigations, takes a closer look at how physical and human issues influence lives and can be managed, at a local scale. There are two compulsory topics:

1) Topic 1: Crowded Coasts

2) Topic 2: Urban Problems, Planning and Regeneration.

The paper is divided into three distinct sections.

Both topics are covered in Section A* of the paper which is data response and a mixture of short-answer and longer-answer questions (maximum of 8 marks).

Section B is comprised of compulsory short-answer questions on research and the "familiar" (i.e. students own) fieldwork investigation. The maximum tariff question in this section is 12.

Section C* offers a choice of one fieldwork question, on either Crowded Coasts or Urban Problems, Planning and Regeneration. This is set in an "unfamiliar context", i.e. resources provided for the candidate to interpret and utilise. This typically has a mixture of 2-4 marks questions.

Questions 1 and 2 test a mixture of AO1 and AO2 skills, whereas question 3 (compulsory), 4 (option 1) and 5 (Option 2) are based largely on fieldwork which is examined as an AO3 skill. AOs are explained more fully in the specification (page 57) along with their breakdowns across units.

Paper 1 is worth 40% of the IAS total marks and 20% of the IAL total marks. The examination is 1 hour and 30 minutes and totals 60 marks.

Our command words are defined in our specification, please see page 95, and will remain the same for the lifetime of the specification. Questions will only ever use a single command word and command words are used consistently across question types and mark tariffs.

This document should be used alongside other IAL Geography teaching and learning materials available on the website here.

The May/June 2017 WGE02 question paper, mark scheme and examiner report is here.

*Section A is in another document

*Section C is in another document

Exemplar scripts Section B

Question 3a

Explain how you managed one risk associated with your fieldwork investigation**. (2)**

Number		
3(a)	**AO3 (2 marks)** ***NB:*** *the aim / question / hypothesis provides a context for the investigation and the subsequent parts that follow – no credit for this.* Award **1** mark for explaining the hazard / risk and a further mark for explaining how the risk is managed, up to a maximum of **2** marks. • In urban areas there is a lot of traffic so high risk of being struck by a vehicle (1) which was managed by only using a designed crossing (1). • Fieldwork was carried out in winter so there was a small risk of hypothermia (1) so lots of warm clothes were used (1). • The wet rocks at the coast presented a slip and trip risk (1) so walking boots were used to minimise the risk of falling over (1). • Risk of collecting bias / unreliable data leading to invalid results (1) which could be managed by careful site selection / sample size / design (1). Nature of risk, and risk management will vary depending on the location as well as the context of the investigation.	**2**

Script 1 and 2

State the title or question of your fieldwork investigation:

To assess the extent of regeneration taking place in Doha.

(a) Explain how you managed **one** risk associated with your fieldwork investigation.

(2)

One risk of our investigation was being aware of the flowing traffic when conducting our fieldwork therefore we stayed together in groups wearing school tesc t-shirts being easily visible.

State the title or question of your fieldwork investigation:

To investigate the human and physical factors affecting biodiversity in the mangrove swamp the ~~mangrove ecosystem~~ in Al Khor

(a) Explain how you managed **one** risk associated with your fieldwork investigation.

(2)

There was a risk that we could get our ~~feet~~ feet cut on the plants in the Mangrove Swamp So we wore apropriate footwear like trainers or walking shoes to stop that from happening

Mark/level awarded: 2

Examiner commentary: The answers identify the risk in each case, and then go on to develop their explanations about how that particular risk could be managed.

Script 3

State the title or question of your fieldwork investigation:

Effects on coastal ecosystems from coastelisation in Unawatuna beach, Sri Lanka.

(a) Explain how you managed **one** risk associated with your fieldwork investigation.

(2)

Ensuring that the sampling method did not include bias by carring out random sampling.

Mark/level awarded: 1

Examiner commentary: An unusual interpretation of "risk", i.e. risk to the fieldwork being unreliable, but in this context it was allowable. There is no 2nd mark since the sampling idea was not developed.

Question 3b

Explain how you used two qualitative techniques as part of your primary data collection. **(4)**

Question Number	Answer	Mark
3(b)	**AO3 (4 marks)** Award **1** mark for explaining a valid type of qualitative data and a further expansion mark up to a maximum of **2** marks each. Nature of qualitative techniques utilised will vary depending on the location as well as the context of the investigation. • Interview data from a number of respondents were used (1) to find out about attitudes towards rebranding in the city (1) • Questionnaires (open questions) used to gauge opinions from stakeholders (1) such as impacts of change (1) • Field sketches were undertaken (1) to give an accurate representation of the landscape to help with later analysis (1)	**4**

	• Digital photographs were taken of the fieldwork equipment (1) so that this could be later used to help evaluate the methods and their reliability (1). • Field notes recorded aspects of the site location and a description (1). This helped with the analysis and follow-up to link together understanding of geographical processes in the area. Allow questionnaires as a semi-qualitative technique (open questions).	

Script 1

1 Structured interviews

These were used to identify and get an oral opinion on the traffic and congestion situation of the areas we observed. The candidates also gave opinions on local transport policies.

2 Questionnaires

These gave the candidates in our sample to further highlight or touch upon the solutions which they have seen and any cost involved.

Mark/level awarded: 3

Examiner commentary: The first part, about structured interviews, is given 2 marks, but the second part on questionnaires only 1 mark. There isn't enough detail, nor is it clear enough that this questionnaire is explicitly qualitative, rather than quantitative.

Script 2

1 Our investigation was also based on the nature of the data, Qualitative and Quantitative data which included - Qualitative techniques we used as a part of our collection was through the presentation of surveys,

2 presentations, Questionaires. We also had a hotel count, shop count, and tourism count as well included in our collection.

Mark/level awarded: 0

Examiner commentary: This is an explain question, so there can be no marks for simply naming or listing techniques as is evidence in this answer.

Question 3c

Explain how you used secondary data to support your fieldwork investigation **(6)**

Question number	Answer
3(c)	**AO3 (6 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** Content depends on students' choice of research question. Secondary data includes the following ideas: • Used to find out more about the population / people of an area, e.g. local census statistics. • Assisted in design of sampling framework: number of sites, spacing, sample sizes, sampling method, plus methodology: equipment, operator error etc • Secondary data was used to contextualise and challenge primary fieldwork data • Secondary data can be used to give baseline data, e.g. to work out rates of coastal recession using GIS and historical maps • Secondary data could provide opinions from a range of online and other sources to provide textural context. • Secondary information was used to provide quantitative data for statistical analysis, e.g. the calculation of median deprivation indices for contrasting local areas Nature of responses will be heavily dependent on the context of the fieldwork and the environment in which it was undertaken. However, examiners should reward for detailed clear and specific data and information which are supported with depth and detail in terms of factual accuracy and realism.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–2**	• Limited understanding of the relationships between geographical questions and the background information, geographical context and research question (AO3) • Uses a limited range of fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Limited evidence of an ability to draw conclusions and the evaluation is simplistic, limited to one stage in the route to enquiry. (A03)
Level 2	**3–4**	• Some understanding of the relationship between the background information, geographical context and research question (AO3) • Uses some fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Some evidence of an ability to draw conclusions and the evaluation is relevant, but restricted to one or two stages in the route to enquiry. (A03)
Level 3	**5–6**	• A full understanding of the relationship between the background information, geographical context and research question (AO3) • Evaluates fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Clear evidence of an ability to draw conclusions and the evaluation is full, across a number of stages in the route to enquiry. (A03)

Script 1

We gathered secondary data from old photographs (e.g of the Doha skyline) ~~to~~ from years 1940 onwards to visually look at how much regeneration has taken place in Doha. We looked at the News and read articles from the Key players of regeneration such as the Emir, the Royal family, the Ministry of Interior and construction companies to provide us information ~~of~~ on events of regeneration, and their views on how to regenerate Doha. We also watched TED talks, which told us that Doha wants to regenerate itself as a city of sport and culture while developing sustainably. The developments of Aspire, and the new project, 'Downtown Doha' has shown us that Doha is already rebranding due to the Aspire and Aspetar being one of the most high class facilities in the world. Downtown Doha's energy will be supplied through solar panels which is a sustainable way as renewable energy is being used. We also looked at Blogs such as Qatar living to provide us with information on the events occuring in Doha such as the colour run, Qatar tennis open which meant celebrities from visiting Doha and events in the Souq for National Qatar day. This proved that Doha has been succesful in rebranding itself as a city of sport and culture.

such as the no. of houses being built in ~~e.g~~ near Doha

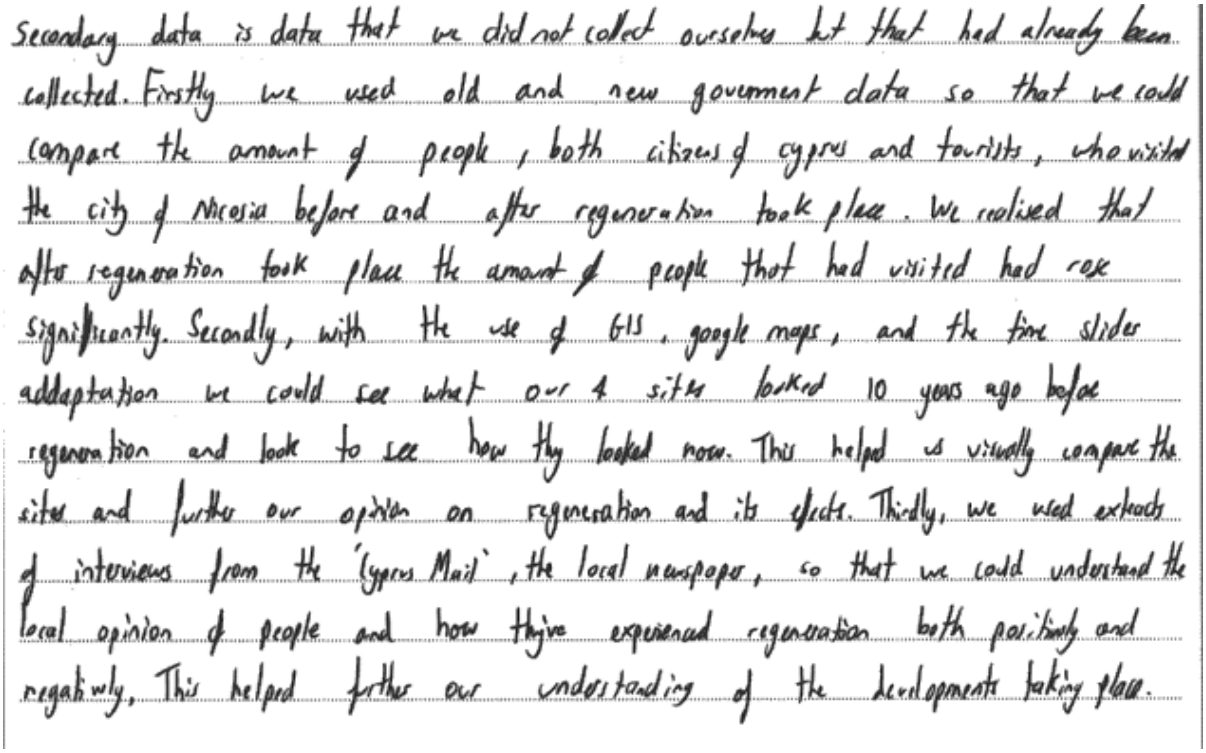
(sport)

Msheirab - ie

Mark/level awarded: 6

Examiner commentary: A maximum score on this response. Level 3 with detailed clear and specific data and information which are supported with depth and detail in terms of factual accuracy and realism. There is a really good range of ideas presented here, and does enough on the "how" , i.e. explanation, to secure 6 marks. Examples of explanation included, "…to provide us information on events of regeneration", "….the new project Downtown Doha has shown us that it is already rebranding", "…watched TED Talks that told us….".

Script 2

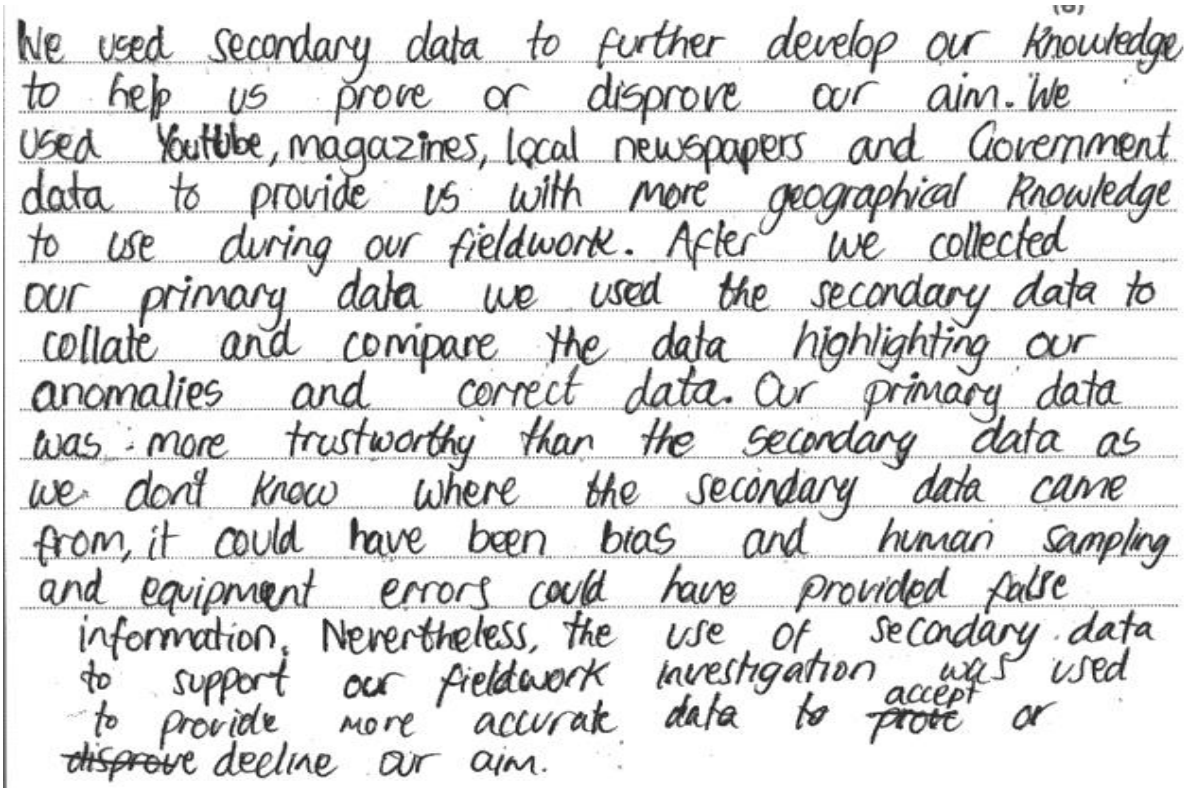


Secondary data is data that we did not collect ourselves but that had already been collected. Firstly we used old and new government data so that we could compare the amount of people, both citizens of cyprus and tourists, who visited the city of Nicosia before and after regeneration took place. We realised that after regeneration took place the amount of people that had visited had rose significantly. Secondly, with the use of GIS, google maps, and the time slider addaptation we could see what our 4 sites looked 10 years ago before regeneration and look to see how thy looked now. This helped us visually compare the sites and further our opinion on regeneration and its effects. Thirdly, we used extracts of interviews from the 'Cyprus Mail', the local newspaper, so that we could understand the local opinion of people and how thy've experienced regeneration both positively and negatively. This helped further our understanding of the developments taking place.

Mark/level awarded: 6

Examiner commentary: Another maximum score on this response, but this candidate provides a better explanation of how secondary data is utilised. In comparison with the previous example, there are less convincing details of the actual secondary data (more detail required). Nevertheless, Examiners agree it was worthy of the maximum 6 marks.

Script 3



We used secondary data to further develop our knowledge to help us prove or disprove our aim. We used Youtube, magazines, local newspapers and Government data to provide us with more geographical knowledge to use during our fieldwork. After we collected our primary data we used the secondary data to collate and compare the data highlighting our anomalies and correct data. Our primary data was more trustworthy than the secondary data as we don't know where the secondary data came from, it could have been bias and human sampling and equipment errors could have provided false information. Nevertheless, the use of secondary data to support our fieldwork investigation was used to provide more accurate data to accept or ~~prove~~ ~~disprove~~ decline our aim.

Mark/level awarded: 3

Examiner commentary: A Level 2 response which tends to be generalised in its explanation of secondary data, with limited specific information and examples. There is some information of how secondary data is used in the investigation, but this tends to be partial rather than developed for Level 3. For example, the comment, "YouTube, magazines, local newspapers" is quite generalised. They would have been better naming specific video or newspapers to give more specific detail.

Question 3d

Evaluate the success of your primary fieldwork design and data collection methods **(12)**

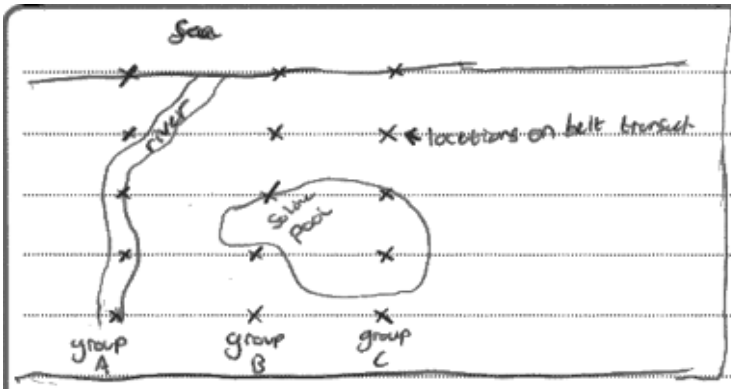
Question number	Answer
3(d)	**AO3 (12 marks)** **Marking instructions**
	Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** Content depends on students' choice of research question. Evaluation should include some the following: • The nature of initial research to inform the context of the enquiry as well as the identification of an appropriate topic to study through the route to enquiry • Design of sampling framework: number of sites, spacing, sample sizes, sampling method – linked to specific methods of data collection • Methodologies: these will depend on specific methods chosen but can include evaluation of the equipment used, operator error; success of recording sheets / tallies • Inaccessibility of sites / lack of ability collect data due to time of day, seasons, or unanticipated hazards such as bad weather • • Ethical issues could be considered e.g. appropriateness of questionnaire questions • This impacts on both the range and quality of data and in turn has effects upon the accuracy of the results and the validity of conclusions • Appropriate data analysis and whether the data collected could be easily collated and analysed, or was generated in a form that made this stage problematic. • Conclusions could be referred to if data collection yielded unusual / unexpected / anomalous results which affected the reliability / validity of conclusions.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• Limited understanding of the relationships between geographical questions and the background information, geographical context and research question (AO3) • Uses a limited range of fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Limited interpretation, analysis based on the data / information collected. (AO3)

Level	Mark	Descriptor
		• Limited evidence of an ability to draw conclusions and the evaluation is simplistic, limited to one stage in the route to enquiry. (A03)
Level 2	**5–8**	• Some understanding of the relationship between the background information, geographical context and research question (AO3) • Uses some fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Interpretation and analysis based on the data / information collected form part of the response(AO3) • Some evidence of an ability to draw conclusions and the evaluation is relevant, but restricted to one or two stages in the route to enquiry. (A03)
Level 3	**9–12**	• A full understanding of the relationship between the background information, geographical context and research question (AO3) • Evaluates fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Critically considers the role of interpretation, analysis based on the data / information collected. (AO3) • Clear evidence of an ability to draw conclusions and the evaluation is full, across a number of stages in the route to enquiry. (A03)

Script 1

To collect data for our Feild work we used an Interupted belt transect Stopping every 20 meters for 300 meters through the Mangrove Swamp and at each of our 15 locations we used a Salinity probe to measure Salt content of the water, the depth of the water, the percentage of our quadrat that was covered in Flora and fauna and the type of flowra and Fauna found. This helped us gather a lot of quantative data for our investigation which is good because quantative data can be easily graphed. However there were some flaws with our data collection. although we did a Spearmens rank on our data and deduected that it was 95% accurate If we were to of Stoped every 10meters instead of 20 meters We would have gotten more accurate results. As well as that calculating the percentage cover of flora and fauna was not 100% accurate as it was just an estimate If we were to measure it properly the results would be more accurate. As well as that the areas in which each group did their Sampeling wasn't the Same as Some groups had more locations within the very Saline pool at the back of the mangroves and others only had one or two, Some groups also had multiple readings within a river that wasn't very Saline because it was flowing while other groups had no locations in the river to check so every groups results were considerably diffrent. This is Shown by the diagram on the next page showing how different the points taken could have been for Some groups.



As shown in the Example diagram the results can significantly differ from group to group, however because we had so many groups we were able to take an average at each distance for quantative data like salt content. our risk perception walk was good as it allowed us to identify threats like construction sites and amount of tourists in the area that we couldn't see through secondary data on the internet however as we didn't have a route properly planned out for the walk we cant have seen all the risks to the mangrove ecosystem so we would of had to do it for a longer period of time to get more accurate results.

(Total for Question 3 = 24 marks)

Mark/level awarded: 10

Examiner commentary: This is the longest response on this exam paper at 12 marks, and this candidate provided a solid Level 3 answer. It has the right focus on the correct part of the investigation (i.e. design and methodology). It uses convincing comparisons and also has place specific information which all supports the focus. In order to get 11 or 12 marks, examiners commented that the evaluation would need to have more on the "success" elements. For example, the response may have included ideas about how different readings (and perhaps anomalies) in the river data affected reliability, which ultimately influenced the success of the investigation.

It might be worth reminding candidates that success of data collection process is not necessarily that it supports the hypothesis; the hypothesis may have been incorrect to start with and so successful data collection might allow rejection of the initial hypothesis and the development of a new and better one.

Script 2

The initial aim of our investigation was to identify and see 'How transport and congestion problems been solved in urban areas?' Our initial hypothesis was that transport problems have not been solved in the area we selected. The sample site we selected was the Southern Expressway which is close to the city of Galle and was a rather spatial area. We opted to use qualitative methods such as questionnaires and structured oral interviews and carried out random sampling as this reduced biasness. Our sample size was 7 people with a range of between 15-60 years and a mean age of 36 years. Even though it was a spatial area; it had a low population density at the time of our investigation; ~~as~~ this reduced the reliability of our experiment to an extent. Through our questionnaires and structured interviews, we were able to yield a variety of different ~~answers~~ results. Firstly over 60% of the sample stated that the construction of the expressway has aided in reducing the journey times for commuters from Galle to Colombo and vice versa which means that they are able to avoid congestion and bottlenecks and get to work faster. Secondly, many people said that the roads were now much more smoother and comfortable than it was before and this has improved the whole experience of the journey. Almost 58% of the sample stated that the construction of the expressway has had a positive effect on tourism as this expressway links

Cities like Galle and Matara in the South straight to the airport. This has improved the GDP of the country to a certain extent and aided cities and urban areas both in the South and West to grow.

However, over 67% stated that this project was too costly and the government needs to invest in other forms of infrastructure. ~~Throug~~ We analysed our primary data by plotting pie charts and carrying out a Chi-Squared technique which showed that our observed outcomes ~~co~~ did not entirely coincide with the expected outcomes which may have been due to the lack of sample size. Thus in conclusion we can state that through this primary research and data collection; our hypothesis was disproved and problems in these urban areas have been solved to a certain extent in terms of traffic and congestion.

(Total for Question 3 = 24 marks)

TOTAL FOR SECTION B = 24 MARKS

Mark/level awarded: 8

Examiner commentary: This style of response was found to be typical in this part of the exam where candidates lack the ability to select the correct focus for the question in terms of which part of the enquiry pathway should be evaluated. The response provides detailed information about the results for example on the first page which are not relevant to the design or methodology. It is only the last paragraph which gives evaluative comments in relation to the fieldwork and outcomes. The information is simply too buried within lots of other less relevant writing.