A-LEVEL

A-LEVEL
GEOGRAPHY
(7037)

EXAMPLE RESPONSES

Marked responses
Paper 1   Hazards   Q05.8   20 marks

Understand how different levels are achieved and how to interpret the mark scheme.

0 5 . 8 'The Disaster Response Curve (The Park Model) has contributed to improved understanding and therefore management of the impact of tropical storms.'

To what extent do you agree with this view?

[20 marks]

Assessment objectives

A01: Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales. [10 marks]

A02: Apply knowledge and understanding of in different contexts to interpret, analyse and evaluate geographical information and issues. [10 marks]

The command word phrase "To what extent…" signals that both the 'analyse' and 'evaluate' elements of AO2 are being assessed by this question.

AO2 also requires that:

"For each set of assessments, this should involve the Learner working with their knowledge and understanding as well as showing critical thinking skills, by:
- relating them to novel situations that are not clearly indicated in the specification;
- developing further material that is covered in the specification; or
- making links between such types of material, which are not signalled in the specification."

GCE Subject Level Guidance for Geography, Ofqual, March 2015

This question meets this requirement as it necessitates students to make links within the topic (eg Hazards) that are not signalled in the specification.

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2

Mark scheme

Look at these responses with the specimen mark scheme on the website. You'll find this on the ['Assess'](#) page of the A-level Geography page.

Guidance on using level of response mark schemes is provided in the section: *Level of response marking instructions* on page 3.

AO1
K & U   **knowledge and understanding** of place(s) and environments
C & P   knowledge and understanding of key **concepts and processes**
S & T   awareness of **scale and temporal** change

AO2
A & E   **analysis and evaluation** in the application of knowledge and understanding
Links   **links** between knowledge and understanding to the application of knowledge and understanding in different contexts
Conc   **evaluative conclusion** which is applied to the context of the question

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3

Student response 1

The Park Model plots the quality of life after a disaster against the time after the disaster has occurred. The model usually shows the deterioration of the quality of life of the people affected and the speed at which the country returns to normality. The curve shows how fast human responses are.

Hazards associated with tropical storms include heavy rain and storm surges leading to coastal and river flooding and strong winds and landslides. These hazards can have serious impacts including destruction of land and property, loss of life and injury. Human responses to these hazards include preparation, mitigation and adaptation. Other responses include fatalism and risk sharing. In areas where tropical storms are common, the people living in these areas will have more experience with these types of storms, and so the management of the impacts may be more effective. Management of these storms include early warnings, evacuation plans and building design built to withstand storms. When Hurricane Sandy hit in 2012, the inland states were not particularly prepared for any storms since storms never usually reach that far inland. Since then there have been calls for $20 billion to be spent on New York flood defences after 41 people out of the 111 died there.

The Park Model helps demonstrate how good the management/mitigation of the disaster was by showing how long it took to return to normality. By using stage 4 of the model, the speed of response and time it took to recover can be measured by the steepness of the curve. However, when evaluating the effectiveness of the response to the disaster, it is important to take into account what was done in the run up to the disaster in regards to the modification of vulnerability and the event. The Park Model shows little information about this which therefore makes it difficult to compare curves as what was done up in the run up to the event is crucial. Perhaps the Hazard Management Cycle and the Park Model should be used together in order to gain even more understanding and better the management of tropical storms as the hazard management cycle contains preparation and mitigation before the disaster hits.

Stage 5 of the Park Model reflects on the nature of the recovery and the strategies used to modify the vulnerability and prevent further disasters. Therefore it's important in future planning as the effectiveness of the response to the last disaster can be evaluated and therefore raises the question of how can the recover be sped up? Meaning, the model can help planners ascertain the normal progression of an incoming storm and mitigate against the expected impacts of the disaster.

On the otherhand, the Park Model doesn't take into account spatial variation meaning that it assumes that all areas of a country recover at the same rate. This is not the case as shown by when Typhoon Haiyan hit the Philippines in 2013. Large cities hit like Tacloban recieved aid much faster than smaller, more rural areas. This meant the speed of response was much faster in Tacloban and this area would reach stage 5 of the model much more quickly than the more rural areas. Therefore one curve for a whole country may not be an accurate representation of the speed of recovery and response.

Furthermore, the Park Model can't effectively be used for more than one event as shown by Hurricane Sandy in 2012. This hurricane hit many states of the USA and the Caribbean so more than one area was affected. Therefore multiple park model curves may need to be constructed which may be inconvenient.

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4

Overall I partially agree with the statement. Although the Park Model may have slightly contributed to improved understanding and management of the impact of tropical storms, there are many other factors that have helped people who have just had a lot of experience with storms would have a very large understanding of the impacts of tropical storms. The Park Model, however, used with the hazard management cycle would have a larger contribution to improved understanding and management of tropical storms.

Examiner commentary

Taking a best fit approach, this answer is just into Level 3. The response shows an awareness of the model but is somewhat too long on theoretical description rather than application of model. Clear evidence of analysis and evaluation eventually emerges.

Comment [E14]: The student has made an evaluation of the extent to which the question statement is valid.

Comment [E15]: Evaluation conclusion – evidence of low Level 3.

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5

Student response 2

The Disaster Response Curve is used to show how a hazard such as a tropical storm affects a country, or place, and further shows the time taken for the place to recover.

I do agree that the Disaster Response Curve has contributed to improved understanding and therefore management of impacts of tropical storms. This is due to the fact that along the y-axis of the model the line begins at the point at which the place being measured is at with its wealth (Q of L) and GDP, so therefore physical shows us how wealthy a country is and makes it easy to compare this to other Park Models of other places. Being able to easily compare the Park Models of different places to see their wealth is important in the management of impacts of tropical storms as it gives us an indication of how well the country is able to prepare its people for the tropical storm, as they have more money to do so. This may be through the use of strong buildings to with stand the impacts of the storm, or maybe down to education, but the wealthier a country is, the better prepared it can be. This will be reflected in the line that drops down from when the hazard strikes once again easily visible to see the extent of the damage done depending on how deep the line drops. This once again makes it easy to compare places using the Park model. Being able to compare the Park Models of different places allows us to see how badly they were affected, and so allows us to understand what needs to be done to a place that was badly affected in order to minimise the effects, and impacts of tropical storms.

Further, the Park Model allows us to see the time taken for relief to occur in a certain place, and whether the place ever has managed to return to the same condition it was in before the hazard. This contributes to improved understanding and management as it physically shows how long it took for the relief to happen, and so plays an important role in future planning so that relief could occur even quicker to reduce the impacts.

However, I believe that for full understanding and therefore management of tropical storms, the Hazard Management Cycle (HMC) is needed to be used in conjunction to the Park Model. Even though the Hazard Management Cycle is fairly generic with little data on specific figures, it is benefitial in showing how the effects of preparedness before the event and relief after the event come in to help the place experiencing the hazard to cope. Using the Hazard Management Cycle along with the Park Model would therefore give a better understanding than that of the Park Model alone, as the stages before and after the event would be clearer and so would help for in the future for knowing what went well in mitigation strategies, and what went well in the relief.

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6

Examiner commentary

Taking a best fit approach, this response reaches low Level 2. Park's Disaster Response Curve is not well understood – links to development are made but not well or clearly. There is some sense of understanding of the use of the model but it could have been applied more effectively, eg by using a supporting case study. The comparison with other models is useful but again not well developed.

Student response 3

The Park Model shows a line that indicates the quality of life of an area after a hazard has struck.

The Park Model helps to visualise the impact the hazard has had which therefore makes it easier to compare and contrast with other events to understand what factors worsen the impact of the hazard. For example Park Models of Hurricane Sandy (Super storm Sandy) and Typhoon Haiyan show that the initial quality of life was different so therefore Taclobhan would experience a more devastating impact and recover more slowly. Although the Park Model is good to visually compare it is not good at showing quantitative data making the comparison problematic as it does not show number of deaths, homes destroyed etc. Haiyan caused many more deaths than Sandy but this is not shown in the model only that the quality of life was altered negatively.

Furthermore it is detailed at showing rate of recovery and if quality of life had in fact improved after. For example Hurricane Sandy resulted in the creation of new flood defences and the New York Mayor's office starting a scheme to help rehouse people and give them compensation to help their quality of life return back to normal. This helps to manage future situations when hazards occur as it can be seen what techniques help to accelerate recovery. However it does not show what was done before the event to to help mitigate, for example the evacuations in some areas of Tacloban were not featured along with mentions of the monitoring of the Typhoon as it approached the Philipennes. The lack of mentioning of the techniques area to help mitigate means that the same techniques might not be used to help in other situations.

The Park Model can be applied to many hazards as it is very versatile and therefore can be applied to all tropical storms. This means the application of the model to a particular storm can be used for all however it only shows a single event impacting on a single area. This is not realistic when applied to tropical storms, there is often other hazards that follow and the magnitude of the storm impacting multiple areas. Sandy reached a large portion of the east coast of the USA in land USA and Carribean Islands such as Haiti. Also Haiyan first hit Tachloban and even though the strength of the storm decreased it still reached areas such as Vietnam or China. Furthermore both storms also were accompanied by storm surges which lead to a large amount of flooding which would elongate the recovery period but was not pictured separately on the model therefore not showing the full picture of the storm and not helping to develop a full understanding.

Comment [E26]: AO1 2
Some knowledge and understanding of key concepts – Level 2.

Comment [E27]: AO1 3
Clear and accurate knowledge and understanding of key concepts – Level 3.

Comment [E28]: AO2 2

Comment [E29]: AO2 3
Detailed evaluation of limitations – reaches Level 3.

Comment [E30]: AO1 3
Clear and accurate understanding of key concepts underpinned by case study knowledge.

Comment [E31]: AO2 3

Comment [E32]: AO2 3

Comment [E33]: AO2 3
Clear evidence on links in this section.

Comment [E34]: AO2 3 / 4
Analysis and evaluation high Level 3/low Level 4.

Comment [E35]: AO2 3 / 4
Top Level 3/low Level 4 conclusion.

Examiner commentary

Using a best fit approach this response reaches the top of Level 3. There are very clear elements of Level 3 and some evidence of Level 4. Knowledge of Park's Model is clear and use of the model through analysis and evaluation is strong in places. There are clear links and quite a novel approach is taken.

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9

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