

https://dspace.org/

Refining geography teaching : an error analysis.

Thella, 'Mamashome Amelia

2009-01-07T09:59:30Z
http://hdl.handle.net/10539/5925

Downloaded from a DSpace repository. https://dspace.org/

Table 9 **Errors found each of the Error Categories in the June 2006 COSC Geography Trial Examination**

Error category within the Geographical sub topic	Actual Error	Confirmation of error		Additional errors		Most common
		Teacher A	Teacher B	Teacher A	Teacher B	
1. GEOGRAPHICAL ERROR CATEGORIES						
1. Error in Content Knowledge (Geo)						
Question (Q) 40 Population Studies	Did not state the population characteristics correct for a typical developing country.	Yes	Yes	No	No	N = 38
Q11 Population	Did not state what the population of Africa south of the Sahara was.	Yes	Yes	No	No	N = 18
Q 10 Settlements	Did not state the problems which might be experienced by the people living in the squatter settlement in figure 6.	Yes	Yes	No	Not able to differentiate between squatter settlement and the suburbs.	N = 32
Q11 Settlement Studies	Did not state the problems experienced by people living in modern residential areas.	Yes	Yes	No	Do not know how to reduce traffic in the city centre.	N =5
Q 22 Weather & Climate	Did not name the cloud that forms low in the sky and brings light rain.	Yes	No	No	No	N = 31
Q3 Weather and Climate	Did not define Relative Humidity	Yes	Yes	No	No	N = 11
Q 1 River processes	Did not state the methods by which the river transports its load.	Yes	Yes	No	No	N = 30
Q 2 Weathering	Did not differentiate between chemical and physical weathering.	Yes	Yes	Identifying with definitions	No	N = 29

Q 1 River Processes	Did not name the wearing down of rock particles by colliding with other during transport by a river.	Yes	Yes	No	Confuse river processes with marine erosion.	N = 28
Q1 River Processes	Did not name one large river in Africa south of the Sahara which enters the sea by delta.	Yes	Yes	No	No	N = 23
Q1 River Processes	Did not state the main physical features of a delta.	Yes	Yes	Formation of a delta.	No	N = 10
Q1 River Processes	Did not explain how a delta named in (b) (ii) may have been formed.	Yes	Yes	No	No	N = 14
Q 3 © Weather & Climate	Did not state where an instrument should be cited to obtain accurate	Yes	Yes	Cannot account for their citation.	No	N = 27
Q4 Marine Erosion	Did not show on the diagram how the stack may be formed.	Yes	Yes	No	Do not know what a stack is.	N = 7
Q 10 Settlement Studies	Did not give examples to show how towns in Africa south of the Sahara differ in their functions excluding Botswana, Lesotho and Swaziland.	Yes	Yes	No	No.	N = 27
Q 5 **Folding & Faulting**	Did not describe the physical features of one of the ranges.	Yes	Yes	No	No	N = 25
Q 10 Settlement	Did not state the three pieces of information that could be used to make a settlement hierarchy.	Yes	Yes	Confuse them with the factors affecting the location of settlements.	No	N = 24
Q 1 River Processes	Did not describe the physical features of a delta	Yes	Yes	No	No	N = 23
Q 1	Did not name and describe the processes of mechanical weathering which cause rock weathering.	Yes	Yes	Identifying with their definitions.	No	N = 23
Q 2 Weathering	Did not explain how climate, rock composition, relief and pollution of the atmosphere may influence the rate of rock weathering.	Yes	Yes	No	No	N = 22
Q 10	Did not say what problems are	Yes	Yes	No	No	N = 22

Settlement Studies	experienced by people in modern residential areas of large urban settlements.					
Q 5 Folding and Faulting	Did not name a range of young fold mountains either in North or South America and in one of either Europe or Asia.	Yes	Yes	No	No	N = 21
Q 5 Folding and Faulting	Did not describe the physical features of the relief and drainage of a volcano.	Yes	Yes	No	Cannot explain how fumeroles are formed.	N = 20
Q 4 Marine Erosion	Did not name and describe in detail the processes involved in one of the marine erosion.	Yes	Yes	No	No	N = 19
Q 2 River Processes	Did not differentiate between chemical and physical weathering.	Yes	Yes	Identifying with their definitions.	No	N = 17
Q 3 Weather and Climate	Did not define Relative Humidity.	Yes	Yes	No	Do not know that RH is measured in percentage.	N = 15
Q 26 Settlements	Did not state which factor most influences the location of the huts in a valley.	Yes	Yes	No	No	N = 7
2. Error in Interpreting Diagrams						
Q 37 Population Studies	Did not identify the most important future priority for the government.	Yes	Yes	No	No	N = 40
Q 30 Settlement Studies	Did not say what could explain the relatively high rent value in area x.	Yes	Yes	No	No	N = 31
Q 10 Population Studies	Did not explain why education, contraceptives jobs *etc* may help reduce birth rates.	Yes	Yes	No	No	N = 27
Q 15 Map Reading	Did not interpret the diagram showing a contour map of a volcano to show the landforms marked **x, y and z.**	Yes	Yes	No	No	N = 25

Q 1 River Processes	Did not describe the physical features of a river and its valley in its mountains course using figure 1.	Yes	Yes	No	No	N = 21
Q 36 Population Studies	Did not show the statement that was true of the population pyramid.	Yes	Yes	No	No	N = 21
Q 2	Did not explain how Chemical and Mechanical processes may work together to weather rocks using fig. 3.	Yes	Yes	No	No	N = 20
Q28 Settlement Studies	Did not say what is true of both settlements **X** and **Y** in part of a city in a tropical country.	Yes	Yes	No	No	N = 18
Q10 Settlement Studies	Did not use the evidence from figure 6 to describe the main features of the squatter settlement.	Yes	Yes	No	No	N = 12
Q39 Population Studies	Did not identify a diagram showing over population.	Yes	Yes	Cannot define population.	No	N = 10
3. Error in Calculations						
Q3 (v) Weather & Climate	Did not calculate relative humidity.	Yes	Yes	No	No	N = 39
Q3 Map Reading	Did not calculate the distance between the road and the bridge.	Yes	Yes	Cannot calculate the gradient.	Do not know how to use the scale.	N = 37
Q13 Weather and Climate	Did not calculate the range of temperature.	Yes	Yes	No	No	N = 36
Q10 River Processes	Did not calculate gradient	Yes	Yes	No	No	N = 31
Q23 Weather and Climate	Did not use the instruments given to read and calculate relative humidity.	Yes	Yes	No	No	N = 29
Q11 Population	Did not calculate the population of Africa South of the Sahara in 1900 from the population graph	Yes	Yes	No	Cannot calculate natural growth.	N = 27
Q33 Population Studies	Did not calculate birth and death rates.	Yes	Yes	No	No	N = 20

4. Error in applying the acquired knowledge						
Q6 Map Reading	Did not show the upper limit of sugar cultivation on the south side of Tamarin Mountain.	Yes	Yes	No	No	No = 42
Q 8 **Map Reading**	Did not identify the grid square on the map.	Yes	Yes	No	No	No = 40
Q18 Weathering	Did not apply the concepts of freezing and thawing on the graph.	Yes	Yes	Confuse freezing and thawing with exfoliation.	No	N = 39
Q20 River processes	Did not apply the concepts of freezing and thawing on the graph.	Yes	Yes	No	No	N = 36
Q3 Weather & Climate	Did not define the term "relative humidity'	Yes	Yes	No	No	N = 11
5.Error in Reading Maps						
Q32 Settlement Studies	Did not identify the transport policy most likely to reduce atmospheric pollution in a city.	Yes	Yes	No	No	N = 43
Q2 Map Reading	Did not find the features located within a grid square 875817.	Yes	Yes	No	No	N = 42
Q1 Map Work	Did not find the grid reference.	Yes	Yes	No	No	N = 39
Q10 Population Studies	Did not say why many countries in Africa South of the Sahara have a high birth rate.	Yes	Yes	No	No	N = 10
Q3 Weather and Climate	Did not account for the features of the Stevenson's screen.	Yes	Yes	No	No	N = 8
Q3	Did not say why the Stevenson's Screen should be placed on the grass.	Yes	Yes	No	No	N = 6

6. Error in drawing and labeling diagrams						
Q 4 Marine Erosion	Did not draw a labeled diagram with bands of alternating soft and hard rock lying at right angles to the coast to show the effects of marine erosion.	Yes	Yes	No	No	N = 34
Q 5 Folding and Faulting	Did not describe with the aid of a labeled diagram to show how rift a valley may have formed.	Yes	Yes	No	No	N = 28
Q 3 Weather and Climate	Did not label the features of a Wet and Dry bulb thermometer.	Yes	Yes	No	No	N = 21
7. Error in reasoning						
Q3 Weather & Climate	Did not say why one thermometer gives a lower reading than the other.	Yes	Yes	No	No	N = 20
Q1 River Processes	Did not say why the volume and speed of water in a river change from place to place and from time to time.	Yes	Yes	No	No	N = 19
Q5 Folding and Faulting	Did not say why there are no young fold mountains in the parts of the world labeled x on the figure.	Yes	Yes	No	No	N = 15
Q10 Population Studies	Did not say why many countries in Africa South of the Sahara have a high birth rate.	Yes	Yes	No	No	N = 10
Q3 Weather and Climate	Did not account for the features of the Stevenson's screen.	Yes	Yes	No	No	N = 8
Q3	Did not say why the Stevenson's Screen should be placed on the grass.	Yes	Yes	No	No	N = 6
Q3	Did not state why the Stevenson's Screen should be placed on the grass.	Yes	Yes	No	No	N = 16

2. NON-GEOGRAPHICAL ERRORS						
1. Error in interpreting examination questions						
Q 9 Map Reading	Did not interpret the key as required.	Yes	Yes	No	No	N = 32
Q 5 Folding and Faulting	Did not describe the young fold mountains.	Yes	Yes	No	No	N = 29
Q 10 Settlement Studies	Did not give examples to show how countries in Africa south of the Sahara function excluding Botswana, Lesotho and Swaziland.	Yes	Yes	No	No	N = 27
4. Problems with English as a medium						
Q 2 Weather and Climate	Did not explain well how climate, rock composition, relief and pollution level of the atmosphere Influence the rate of weathering.	Yes	Yes	No	No	N=10