

Assessing student's capacity to use ICT tools to investigate AND think critically



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Changing Places:

Changing Assessment

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One of the great opportunities that exists in the modern classroom has been brought about by the proliferation of individual computers and devices. The ubiquitous nature of technology has enabled a vast array of teaching and learning strategies aimed at leveraging the immense capacity afforded by computers and the internet.

This has had significant implications for the way in which we measure learning and assess student development. Many traditional forms of assessment have knowledge and understanding as their core tenants (and rightly so). However, in an age where information is omnipresent and obtainable almost instantaneously merely testing a student's recall of facts can be somewhat redundant.

What we have attempted to do is utilise the power of laptops (or other forms of technology) and assess student's capacity to use these tools to investigate as well as think critically. Often these outcomes are assessed in the form of research tasks that involve students working either in class or at home to gather information. This is then either tested on or communicated in a variety of different formats. As Geographers our intention is to engage students with spatial technologies and geographical skills and tools such as satellite imagery, aerial photography and population pyramids.

We took the opportunity to adopt a different approach with our Stage 5 Geography unit of An Urbanised World (Changing Places). This task was set in the context of an IB school and as such was looking at the areas of:

- 1 Investigation specifically this involved assessing how well students collected and recorded appropriate, varied and relevant information & an understanding of connections, extensions and challenges, and
- 2 Critical Thinking looking for extensive discussion of geographic concepts, issues, models and theories & synthesis of information to make valid and well supported analytical arguments, incorporation and interpretation of different perspectives. (adapted from IB: MYP Individuals and Societies).

PRE-TASK: During the writing process all questions were googled to see what the students would encounter when simply typing the questions into a search engine. We wanted to see what they did next, when faced with information were they able to collect types that were varied and relevant.

DELIVERING TASK: Students were given a period (50 minutes) and were allowed to use their laptop throughout the entire test. The answers were handwritten into the separate Question booklet. NOTE: in early versions we had include a short multiple-choice skills section worth 10 marks. Once students had filled in the separate multiple-choice answer sheet they were then allowed to open their laptop and proceed with the remainder of the task.

POST TASK: In another year where we ran a similar styled task (Environmental Change and Management) we noticed that some boys were trying to access their notes during the task. We had not foreseen this. As we were not assessing content knowledge as such, and it was the students own notes we were not concerned, and on some level pleased, with students trying to synthesise as much knowledge as possible.

STUDENT FEEDBACK: On completion of the task we gave students an opportunity to reflect on the task in general and more specifically how they had performed. The vast majority enjoyed the task compared with more traditional tests. When given the marking rubric and asked to estimate what they had demonstrated nearly all of them made an accurate prediction.

Note: Appendix 2 is an editable Word version of the task. Extra lines for student answers can be added to this version. Please give credit when using this task.

ASSESSMENT: An Urbanised World

Part 1 - Inquire and respond

Short Answer: Attempt Questions 1 – 4

Answer in the spaces provided in this booklet

Refer to stimulus material where appropriate

You are permitted to use your computer as a research tool in order to investigate specific content in support of your answers.

Allow about 30 minutes for this section

Criteria: Investigating

In your answer you will be assessed on your ability to:

- Formulate and conduct focused research
- Justify the relevance of research within your responses
- Use research methods to collect and record appropriate, varied and relevant information as supporting evidence

Source A: Air quality in Jakarta, a small riverside settlement in Jakarta, peak hour in Jakarta



Source B: Text outlining the causes and consequences of urbanisation in Jakarta

One of the consequences of rapid urbanisation in Indonesia has been the dramatic growth of Jakarta, Indonesia's capital and largest city, located on the north-west coast of Java. Parts of Jakarta, Indonesia's capital city, could be underwater by 2050 due to a devastating combination of sinking land at 17cm/year and sea level rise, with over 50% of the city situated below sea level. Traffic and flooding are treated as common occurrences in Jakarta, yet the impact of congestion and the risks posed by natural disasters are substantial. Congestion alone is costing Metropolitan Jakarta \$3 billion annually. Some 40% of Jakarta is below sea level and faces serious flooding risks. These issues are not going to go away on their own. Indonesia is urbanizing at an extraordinary rate. Today a little bit over half of Indonesia's population live in cities. In less than ten years, by 2025, that ratio will be 68%. Two-thirds of all Indonesians will be city residents. Today, only 48% of urban households have access to safe water. Only 11 suburbs have sewerage coverage. Only 2% of city residents have access to centralised sanitation systems. In order to respond to growing cities, local governments must prioritize developing infrastructure in order to directly address issues.

Refer to Source A, Source B and your own research to answer Question 1 parts (a) and (b)

Question 1

a. Identily, with evidence,	consequences of urbanisation in Jak	arta?

b. Outline ways that Indonesia has reduced the negative impacts of urbanisation in Jakarta since 2000. Justify your reasons with evidence.

Suggested articles for research:

- Governor Ahok's Policy to Solve Jakarta's Traffic Jams NewCities
- Jakarta at 30 million: my city is choking and sinking it needs a new Plan B The Guardian
- Air pollution in Jakarta, an invisible health threat The Jakarta Post

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Recently, Indonesian President Joko	Widodo decided to	o relocate the In	ndonesian Capit	al from Ja	akarta to
Palangkaraya in Central Kalimantan.					

a.	Jakarta is situated on which Indonesian island?
b.	How would you classify Jakarta as an urban settlement?
C.	What evidence can you find to support your answer?
J ,	our own research, how and why has Jakarta's population changed over the last 50 years and predic is will change into the future.

Question 3

Recently, Indonesian President Joko Widodo decided to relocate the Indonesian Capital from Jakarta to Palangkaraya in Central Kalimantan.

Source C: Aerial photo and satellite image of Palangkaraya in Central Kalimantan





a.	The suggested site, Palangkaraya in Central Kalimantan, is situated on what island?
b.	With reference to Source C and Google Maps/Earth, describe how the land is used in and around Palangkaraya.

Question 4

a. Plot the location of Palangkaraya on the map (Source D) below. Mark with an 'X'.

Source D: Map of Indonesia and surrounding countries



b. Using Source D (above), and online research contrast the population pyramid structure of Singapore with Indonesia.

	Suggested source for research: populationpyramid.net
C.	Outline one Social, Economic, and Environmental consequence of the pyramid structure for either Singapore <u>OR</u> Indonesia (circle choice)
	Social
	Economic
	Environmental

Part 2 – EXTENDED RESPONSE

Answer Question 5 Answer in the space provided. Allow about 20 minutes for this section

Criteria: Critical thinking and communication

In your answer you will be assessed on your ability to:

- Discuss concepts
- Synthesize information to make valid, well-supported arguments
- Analyse sources and data for usefulness
- Interpret different perspectives and implications
- Communicate information and ideas effectively
- Structure information and ideas in an appropriate format

Ouestion 5

At a press conference on Monday, President Joko Widodo will deliver a speech and decide whether to move the capital city to Palangkaraya or keep it in Jakarta.

He needs your help to research and write the speech.

Instructions:

Using your answers to Questions 1–4, research, and your own knowledge, write a speech that addresses the following aspects:

- a. What problems have been caused by urbanisation in Jakarta? What are the main reasons for the move to Palangkaraya?
- b. If you want to move the capital: Explain what solutions will you recommend to make sure the problems in Jakarta are not repeated in Palangkaraya? Support your response with evidence.
- c. If you do not want to move the capital: Explain what solutions will you recommend to ensure that the consequences of urbanisation in Jakarta are reduced? Support your response with evidence.

Mr Speaker, fellow Ministers, and staff, last Monday I announced that, due to the devastating consequences of urbanisation in Jakarta, we have to

End of Examination