Geography subject report

2024 cohort

January 2025

Contents

Introduction

The annual subject reports seek to identify strengths and opportunities for improvement of internal and external assessment processes for all Queensland schools. The 2024 subject report is the culmination of the partnership between schools and the QCAA. It addresses school-based assessment design and judgments, and student responses to external assessment for General and General (Extension) subjects. In acknowledging effective practices and areas for refinement, it offers schools timely and evidence-based guidance to further develop student learning and assessment experiences for 2025.

The report also includes information about:

- how schools have applied syllabus objectives in the design and marking of internal assessments

- how syllabus objectives have been applied in the marking of external assessments

- patterns of student achievement.

The report promotes continuous improvement by:

- identifying effective practices in the design and marking of valid, accessible and reliable assessments

- recommending where and how to enhance the design and marking of valid, accessible and reliable assessment instruments

- providing examples that demonstrate best practice.

Schools are encouraged to reflect on the effective practices identified for each assessment, consider the recommendations to strengthen assessment design and explore the authentic student work samples provided.

Audience and use

This report should be read by school leaders, subject leaders, and teachers to:

- inform teaching and learning and assessment preparation

- assist in assessment design practice

- assist in making assessment decisions

- help prepare students for internal and external assessment.

The report is publicly available to promote transparency and accountability. Students, parents, community members and other education stakeholders can use it to learn about the assessment practices and outcomes for senior subjects.

Subject highlights

190
schools offered
Geography

96.72%
of students
received a
C or higher

8.35%
increase in enrolment
since 2023

Subject data summary
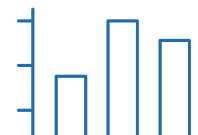
Subject completion

The following data includes students who completed the General subject or Alternative sequence.

Note: All data is correct as at January 2025. Where percentages are provided, these are rounded to two decimal places and, therefore, may not add up to 100%.

Number of schools that offered Geography: 190.

Completion of units	Unit 1	Unit 2	Units 3 and 4
Number of students completed	3,005	2,946	2,711

Units 1 and 2 results

Number of students	Satisfactory	Unsatisfactory
Unit 1	2,758	247
Unit 2	2,796	150

Units 3 and 4 internal assessment (IA) results

Total marks for IA
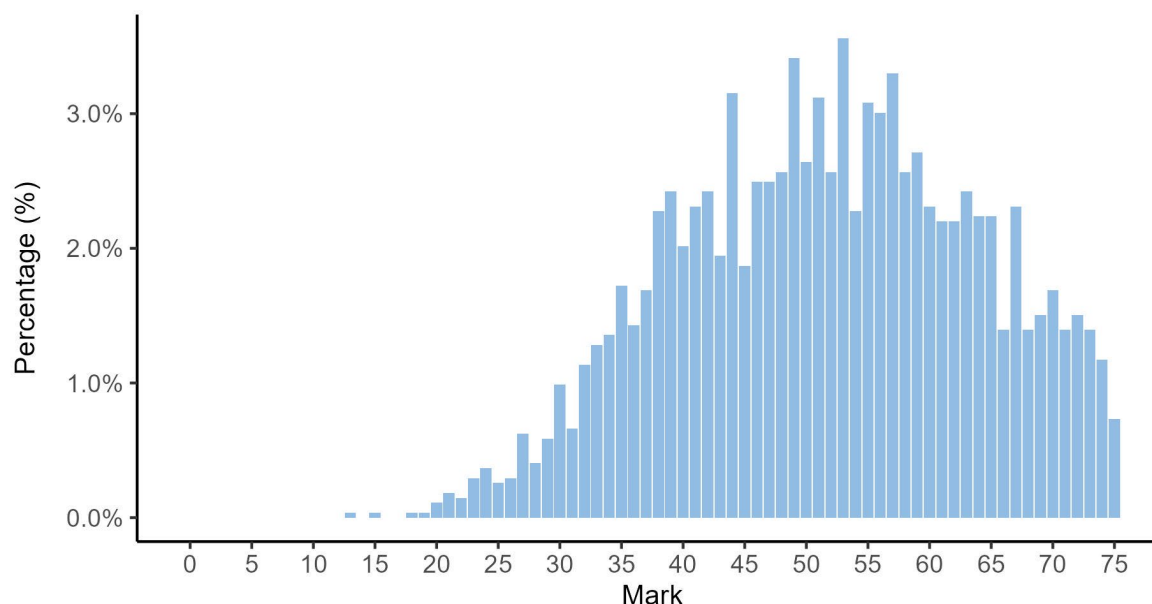
IA1 marks

IA1 total
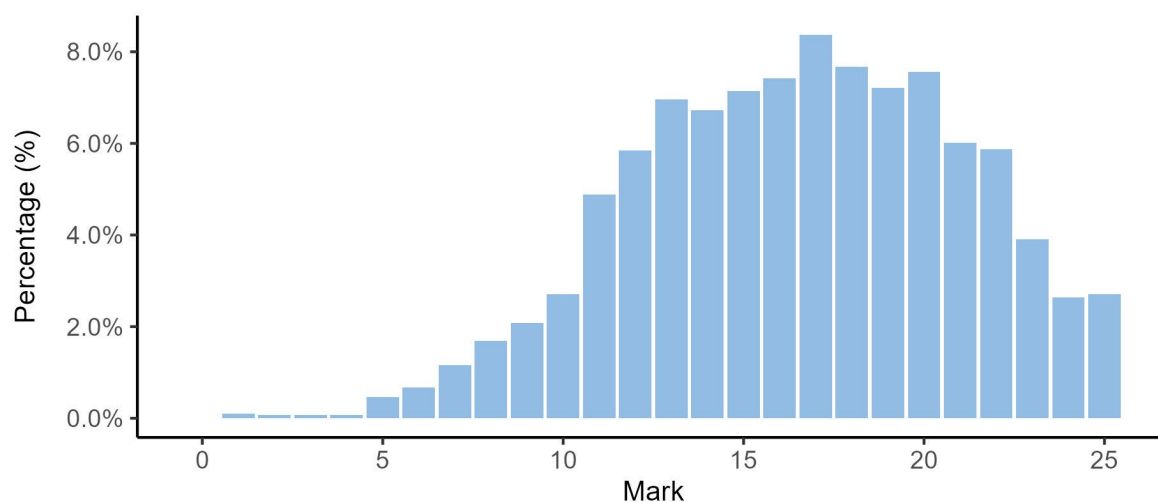
IA1 Criterion: Part A — Explaining
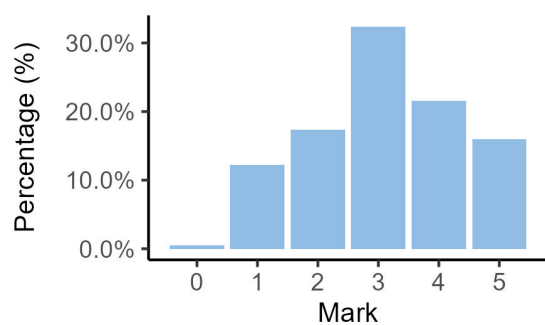
IA1 Criterion: _Part A — Comprehending
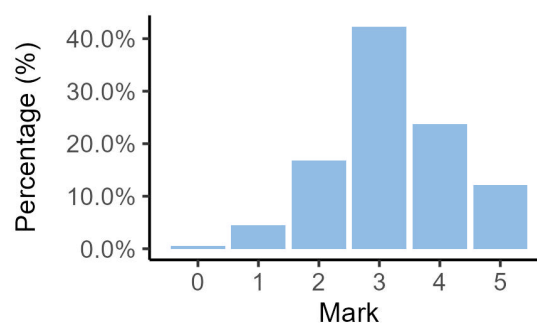
IA1 Criterion: Part B — Analysing and applying
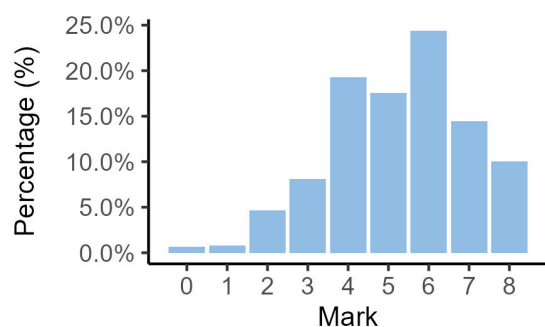
IA1 Criterion: Communicating
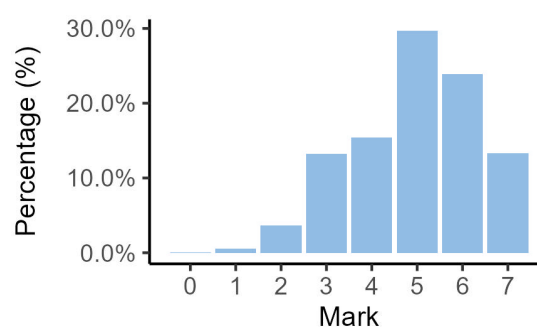
IA2 marks

IA2 total
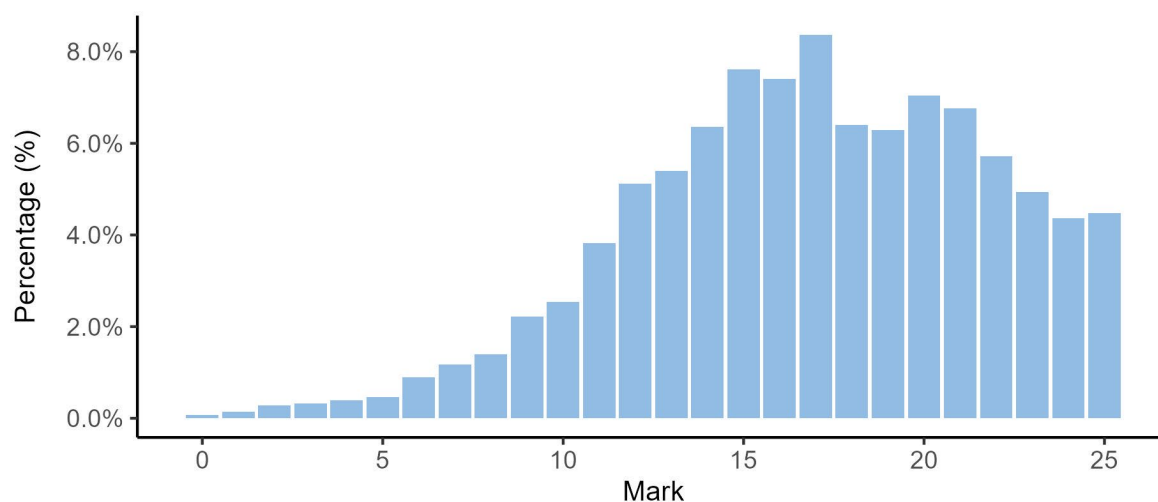
IA2 Criterion: Explaining and comprehending
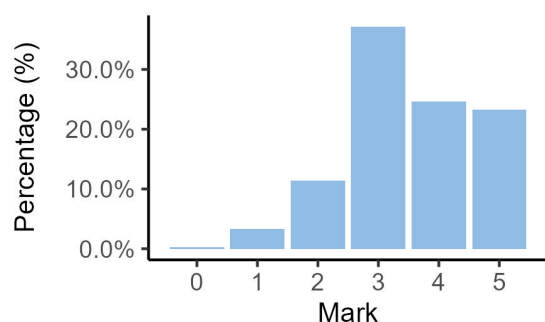
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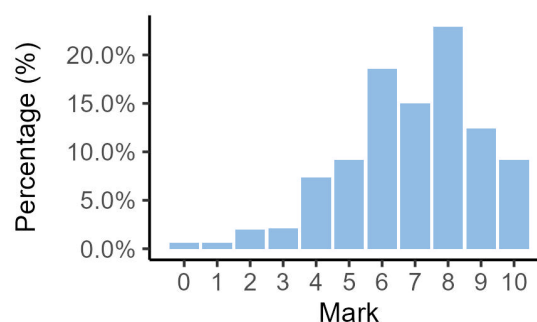
IA2 Criterion: Synthesising
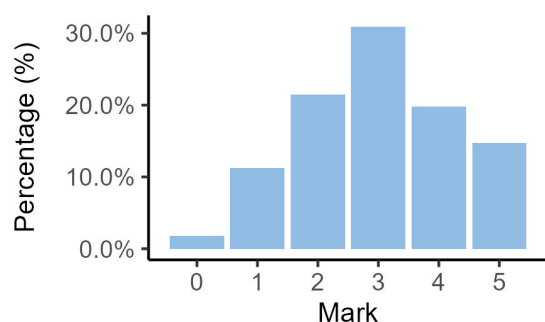
IA2 Criterion: Communicating
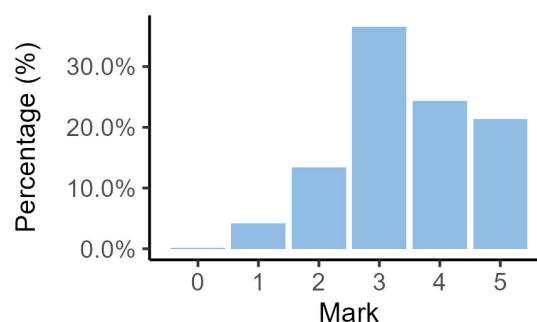
IA3 marks

IA3 total
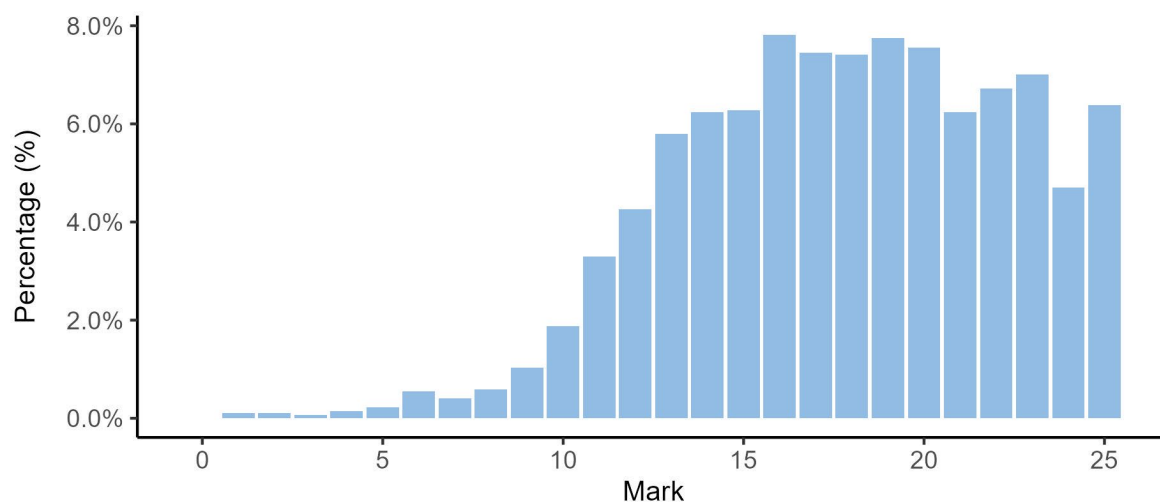
IA3 Criterion: Explaining and comprehending
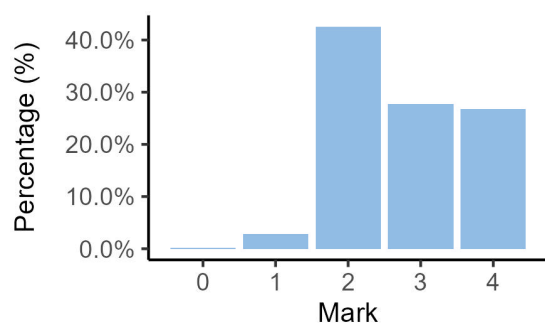
IA3 Criterion: Analysing and applying
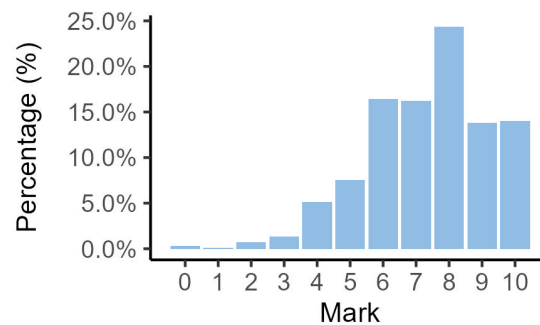
IA3 Criterion: Synthesising
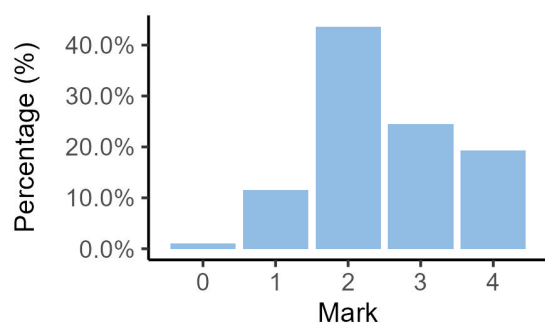
IA3 Criterion: Communicating
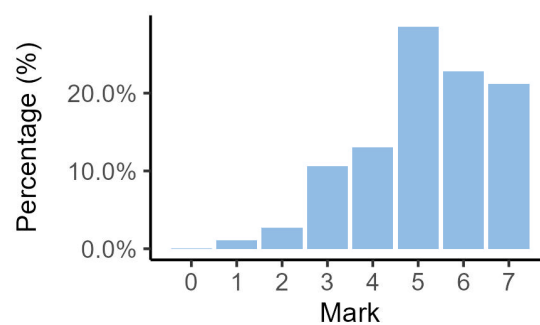
External assessment (EA) marks
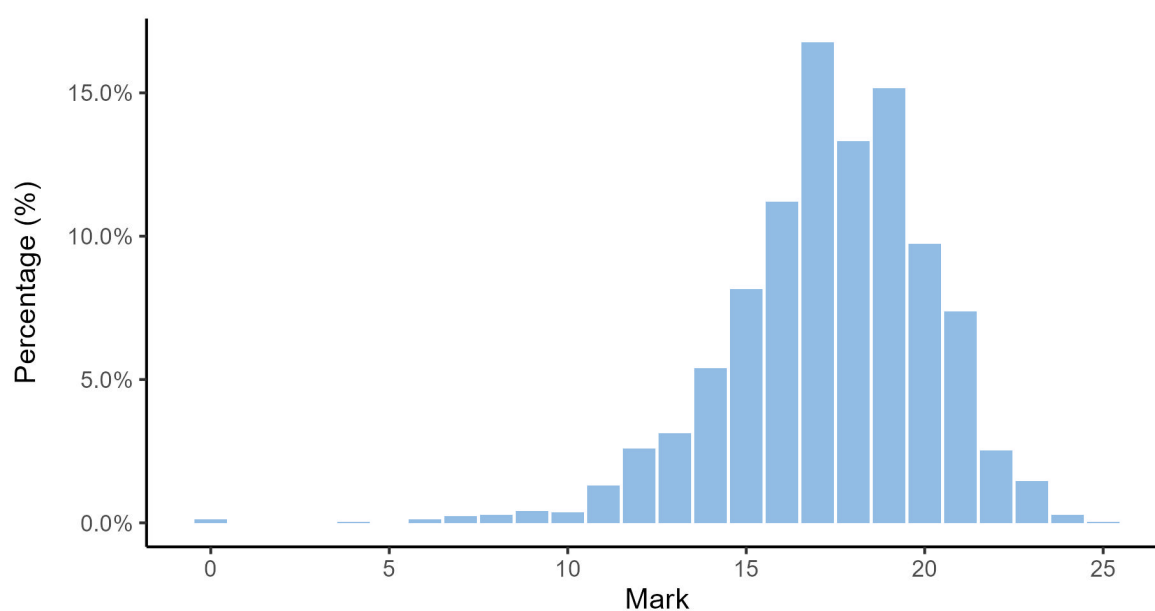
Final subject results

Final marks for IA and EA
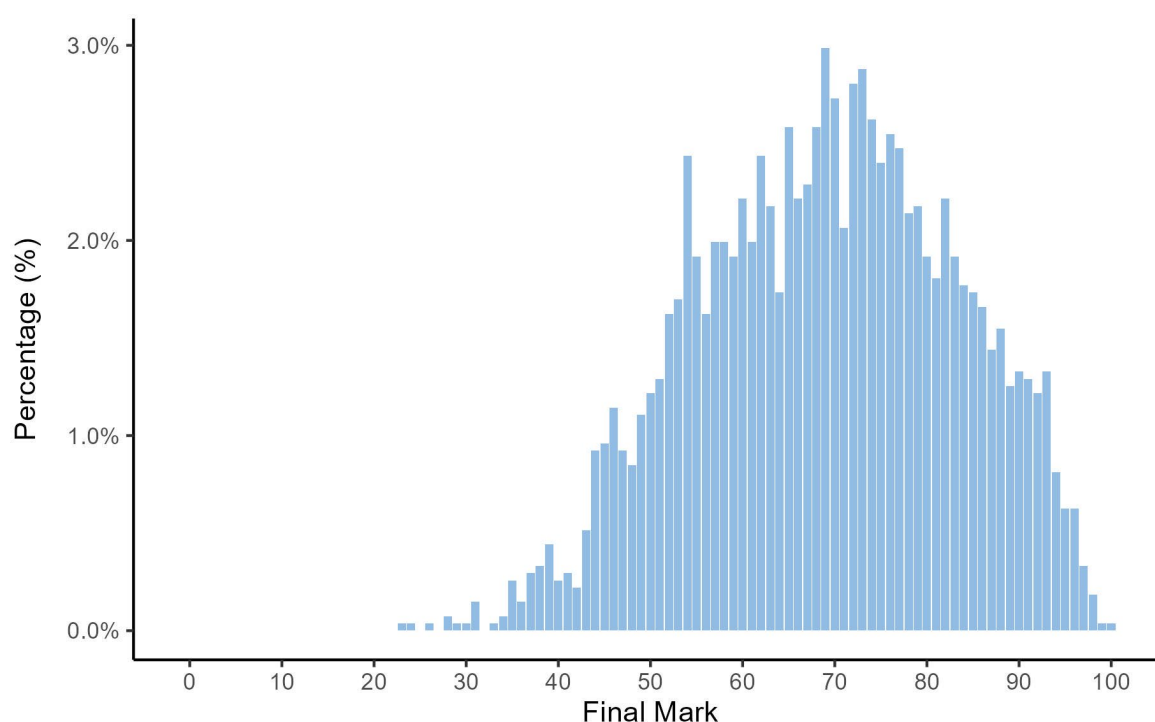
Grade boundaries

The grade boundaries are determined using a process to compare results on a numeric scale to the reporting standards.

Standard	A	B	C	D	E
Marks achieved	100–83	82–66	65–44	43–18	17–0

Distribution of standards

The number of students who achieved each standard across the state is as follows.

Standard	A	B	C	D	E
Number of students	519	1,107	996	89	0

Internal assessment

The following information and advice relate to the assessment design and assessment decisions for each IA in Units 3 and 4. These instruments have undergone quality assurance processes informed by the attributes of quality assessment (validity, accessibility and reliability).

Endorsement

Endorsement is the quality assurance process based on the attributes of validity and accessibility. These attributes are categorised further as priorities for assessment, and each priority can be further broken down into assessment practices.

Data presented in the Assessment design section identifies the reasons why IA instruments were not endorsed at Application 1, by the priority for assessment. An IA may have been identified more than once for a priority for assessment, e.g. it may have demonstrated a misalignment to both the subject matter and the assessment objective/s.

Refer to *QCE and QCIA policy and procedures handbook v6.0*, Section 9.5.

Percentage of instruments endorsed in Application 1

Instruments submitted	IA1	IA2	IA3
Total number of instruments	190	190	187
Percentage endorsed in Application 1	8	45	9

Confirmation

Confirmation is the quality assurance process based on the attribute of reliability. The QCAA uses provisional criterion marks determined by teachers to identify the samples of student responses that schools are required to submit for confirmation.

Confirmation samples are representative of the school's decisions about the quality of student work in relation to the instrument-specific marking guide (ISMG), and are used to make decisions about the cohort's results.

Refer to *QCE and QCIA policy and procedures handbook v6.0*, Section 9.6.

The following table includes the percentage agreement between the provisional marks and confirmed marks by assessment instrument. The Assessment decisions section of this report for each assessment instrument identifies the agreement trends between provisional and confirmed marks by criterion.

Number of samples reviewed and percentage agreement

IA	Number of schools	Number of samples requested	Number of additional samples requested	Percentage agreement with provisional marks
1	184	1,222	29	78.80
2	184	1,214	34	59.78
3	184	1,207	41	58.70

Internal assessment 1 (IA1)

Examination — combination response (25%)

The examination assesses the application of a range of cognitions to multiple provided items. Items are both short response and extended response using evidence from data. Data consists of a collection of information presented as tables and graphs, maps, diagrams and images with minimal text.

Student responses must be completed individually, under supervised conditions, and in a set timeframe.

Assessment design

Validity

Validity in assessment design considers the extent to which an assessment item accurately measures what it is intended to measure and that the evidence of student learning collected from an assessment can be legitimately used for the purpose specified in the syllabus.

Reasons for non-endorsement by priority of assessment

Validity priority	Number of times priority was identified in decisions
Alignment	131
Authentication	0
Authenticity	7
Item construction	69
Scope and scale	108

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- were explicitly aligned to the specifications of the assessment. In Part A, the examination provided a range of items that allowed students to demonstrate the requirements of the Explaining and Comprehending criteria. In Part B, the examination included appropriate stimulus that allowed students to demonstrate the requirements of the Analysing and applying criterion

- provided stimulus in Part B in which patterns, trends and relationships that represented a geographical challenge in relation to climate change for a selected land cover type were evident.

Practices to strengthen

It is recommended that assessment instruments:

- explicitly align question/s in Part A to the performance-level descriptors for the Explaining and Comprehending criteria

- in Part A, include data for transformation that is complex or includes multiple items. This ensures students have the opportunity to demonstrate the top performance level in the Communicating criterion by creating sophisticated maps and graphs

- provide stimulus for Part B that ensures an appropriate scope and scale to allow students to demonstrate their skills of analysis within the syllabus conditions. For instance, include stimulus focused on a specific region or place with a geographical challenge in relation to climate change for a selected land cover type.

Accessibility

Accessibility in assessment design ensures that no student or group of students is disadvantaged in their capacity to access an assessment.

Reasons for non-endorsement by priority of assessment

Accessibility priority	Number of times priority was identified in decisions
Bias avoidance	31
Language	29
Layout	54
Transparency	43

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- included high-quality stimulus (when used) for Part A, and stimulus for Part B that provided a variety of visual texts, e.g. maps, graphs and minimal text, that fitted on one A3 page without overcrowding

- included maps, when used as stimulus for Part B, that were appropriately sized to ensure legibility and accessibility.

Practices to strengthen

It is recommended that assessment instruments:

- ensure the amount of data presented to students for creating the map and graph is suitable for the syllabus conditions (time) and allows for the method of transformation, e.g. more data can be transformed when using relevant ICTs or spatial technologies than when maps or graphs are to be hand-drawn.

Additional advice

- Assessment instruments should be viewed in PDF before submission for endorsement to ensure all formatting of the task is appropriate and aligned with the IA1 quality assurance tool in the Endorsement application (app) and in the Resources section of the Syllabus app.

- Teachers should use the page break tool in the Endorsement app to ensure items are not separated across pages, e.g. questions in Part A should be placed alongside stimulus or data, with the response space on the same or facing page.

Assessment decisions

Reliability

Reliability is a judgment about the measurements of assessment. It refers to the extent to which the results of assessments are consistent, replicable and free from error.

Agreement trends between provisional and confirmed marks

Criterion number	Criterion name	Percentage agreement with provisional	Percentage less than provisional	Percentage greater than provisional	Percentage both less and greater than provisional
1	Explaining	95.11	4.89	0.00	0
2	Comprehending	95.11	4.89	0.00	0
3	Analysing and applying	88.59	10.33	1.09	0
4	Communicating	88.04	10.33	1.63	0

Effective practices

Accuracy and consistency of the application of the ISMG for this IA was most effective when:

- in the Explaining criterion, students provided detailed explanations of the biophysical (environmental) and anthropogenic (human) processes responsible for specific land cover changes, and the interactions that result in a changing climate. For instance, the interactions that

  - cause changes to albedo due to melting ice that leads to warming oceans. This, in turn, impacts the heat content of ocean currents and, therefore, climate

  - result in changes to carbon sequestration as a result of deforestation, resulting in greater levels of atmospheric carbon dioxide that absorbs heat and leads to a warming climate

- in the Comprehending criterion, the recognition of indications of climate change and the relationships and implications for people and places was demonstrated by complex descriptions that included reference to causational implications

- in the Comprehending criterion, for spatial patterns of land cover change, students provided an accurate description of the land cover change represented on a map (either provided as stimulus or created by the student), including relevant data, place names, relative or absolute direction, and used appropriate geographical terminology in the response.

Practices to strengthen

To further ensure accuracy and consistency of the application of the ISMG for this IA, it is recommended that:

- when analysing data in Part B, students explain, using evidence, the relationships between the data in each item of stimulus to identify a geographical challenge for a specific land cover type in relation to climate change. These causal relationships must be identified through the analysis of spatial patterns (typically represented in maps) and trends over time (typically represented in graphic sources)

- in Part B, when making generalisations about the impacts of climate change on the specific land cover type, students must refer to the causes of the challenge identified in the analysis to identify the actual or possible effects on both biophysical and human environments.

Samples

The following excerpt has been included to demonstrate an effective response to a short response question that:

- demonstrates the upper performance-level descriptors of the ISMG for the Comprehending criterion because it recognises current indicators of climate change and makes valid generalisations about the implications of drought on crop yields and food prices.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.

The average temperature throughout Australia, from 1970 – 2022, has significantly increased. In central Queensland, the mean temperature increased by 0.3°C and Northern of the Northern Territory has a less increase than central Queensland, increasing by 0 – 0.15°C. This implies that as Australia heats up, this can result in frequent droughts and minimal rainfall in central Australia. As numerous agricultural plantation are located in central Queensland, the crop health will decline and a shortage of food can arise, which can increase the prices of food for the population. Likewise, with minimal rainfall and increased severity of droughts, the native species become threatened. With a lack in food and water resources, this can threaten extinction to unstablely surviving species, which are further threatened by bushfires. As less moisture is within the soil and trees, habitats are at risk of severe bushfires, which can both display people and species.

The following excerpt has been included to demonstrate an effective response to a short response question that:

- demonstrates the upper performance-level descriptors of the ISMG for the Comprehending criterion because it accurately describes a recognised spatial pattern using relevant place names, locations and data.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.

All of Malaysia has experienced tree cover loss. Majority of ~~cities~~ cities only experience between -22 and -27%. however most countries in the southern region of the country have higher percentage ~~too~~ tree loss ranging between -36 and -53%. Melaka had the highest tree cover loss ~~percata~~ percentage with -52.61%, nearly -5% over Negeri Sembilan.
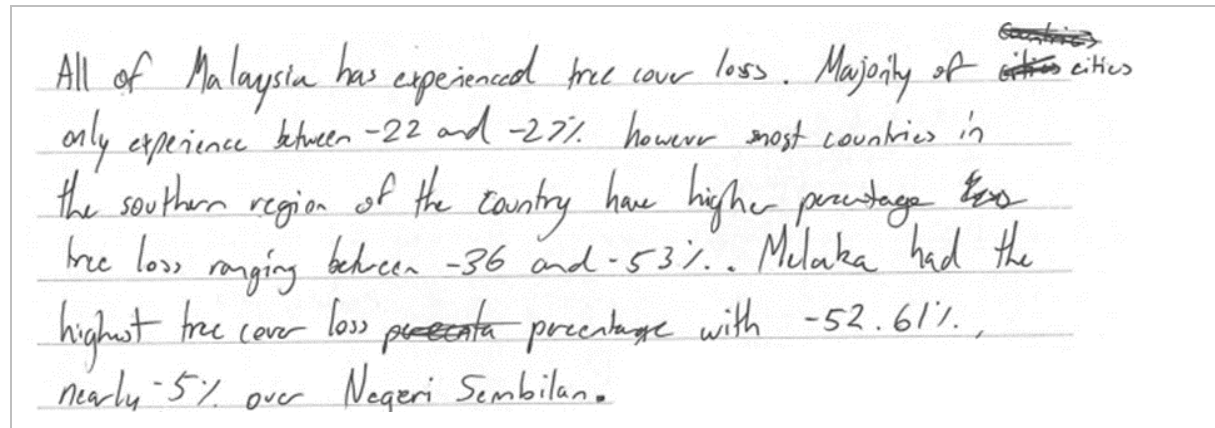
Additional advice

- To demonstrate the upper performance levels of the ISMG in the Comprehending criterion, students must identify relationships between specific land cover changes and climate change, and the implications of these relationships for selected people and places. They need either complex questions or more than one opportunity to demonstrate the upper performance-level descriptors.

- When creating choropleth maps, students should use light to dark sequences of a single colour for lowest to highest values with 4 or 5 appropriate categories of data. Students should also use a ruler to improve the representation of geographical data and information for hand-drawn maps and graphs.

Internal assessment 2 (IA2)

Investigation — field report (25%)

This assessment requires students to research a land-management or water-management challenge at a local scale through a field investigation. A field investigation assesses a range of cognitions in a particular context including observing, questioning, planning, collecting, recording, representing, analysing and responding to primary data and communicating geographical understanding in a field report.

The assessment occurs over a defined period of time. Students may use class time and their own time to develop a response.

Assessment design

Validity

Validity in assessment design considers the extent to which an assessment item accurately measures what it is intended to measure and that the evidence of student learning collected from an assessment can be legitimately used for the purpose specified in the syllabus.

Reasons for non-endorsement by priority of assessment

Validity priority	Number of times priority was identified in decisions
Alignment	88
Authentication	0
Authenticity	7
Item construction	6
Scope and scale	13

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- clearly articulated that the field investigation was to occur at a local scale, focused on a land-management or water-management challenge

- provided a clear and concise context statement that reflected the focus of the investigation and aligned to the instrument specifications, while not identifying the causes of the challenge or potential responses to the challenge.

Practices to strengthen

It is recommended that assessment instruments:

- provide opportunity for primary data collection that allows students to demonstrate the requirements for the Analysing and applying criterion. Secondary data and information should be used sparingly, if at all

- include scaffolding that aligns with the syllabus specifications, providing clear instructions that inform students of the relevant sections for inclusion in the written report. For instance, ensure the conclusion refers to 'proposal/s' — this identifies that students have the option of one or multiple proposals in the conclusion section.

Accessibility

Accessibility in assessment design ensures that no student or group of students is disadvantaged in their capacity to access an assessment.

Reasons for non-endorsement by priority of assessment

Accessibility priority	Number of times priority was identified in decisions
Bias avoidance	0
Language	6
Layout	1
Transparency	4

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- used appropriate geographical terminology and were free of grammatical errors.

Practices to strengthen

It is recommended that assessment instruments:

- ensure any information explaining how to complete the task is only included in the task section and not repeated.

Assessment decisions

Reliability

Reliability is a judgment about the measurements of assessment. It refers to the extent to which the results of assessments are consistent, replicable and free from error.

Agreement trends between provisional and confirmed marks

Criterion number	Criterion name	Percentage agreement with provisional	Percentage less than provisional	Percentage greater than provisional	Percentage both less and greater than provisional
1	Explaining and comprehending	92.39	5.98	1.09	0.54
2	Analysing and applying	75.00	23.37	1.63	0.54
3	Synthesising	82.61	17.39	0.00	0.00
4	Communicating	82.61	16.30	1.09	0.00

Effective practices

Accuracy and consistency of the application of the ISMG for this IA was most effective when:

- for the Explaining and comprehending criterion, student responses showed evidence of all three performance-level descriptors by

- clearly explaining how both biophysical (natural) and anthropogenic (human) factors have contributed to the land cover change at the fieldwork location

- accurately describing the spatial pattern of land cover change at the fieldwork location. Responses that simply described where the study site is located did not meet the top performance-level descriptors

- identifying the relationships and implications (positive and/or negative) of the land cover change at the fieldwork location for people and places. Implications were subsequently identified in the analysis

- proposed action/s

    - used information synthesised explicitly from the analysis

    - clearly addressed the consequential impacts at the fieldwork location as identified in the analysis

    - justified how sustainability would be improved at the fieldwork location using reasons linked to the analysis.

Practices to strengthen

To further ensure accuracy and consistency of the application of the ISMG for this IA, it is recommended that:

- the challenge being investigated is clearly explained and has a strong geographical focus. If there is no observable challenge at the fieldwork site, then it is not possible to demonstrate the upper performance levels in the Analysing and applying criterion or propose effective action/s to address the Synthesising criterion

- sufficient relevant data and information is gathered in the field at the study site to allow students to create sophisticated maps and graphs (Communicating criterion). The use of secondary data does not provide the opportunity for students to demonstrate the upper performance levels of the Analysing and applying criterion

- students create their own maps and graphs that are relevant to the field study. Maps that are downloaded or copied must be adapted for the student's own purpose. This may be effectively achieved by adding overlays and annotations. Annotations that provide only explanation or analysis are insufficient to meet the requirement for sophisticated cartographic forms. Student-generated multiple line, compound bar, scatter and ternary graphs are examples of sophisticated graphic forms

- schools apply an appropriate strategy to manage response length to ensure students can demonstrate the upper performance levels for all criteria. Refer to the *QCE and QCIA policy and procedures handbook v6.0*, Section 8.2.6.

Samples

The following excerpts have been included to demonstrate effective responses that:

- demonstrate the upper performance level for the Analysing criterion by explaining relationships between the data gathered in the field to identify the geographical challenge at the fieldwork location (SL refers to the site location where data was collected). The data analysed is illustrated in Excerpt 2 (Figure 3.03). The graphs also demonstrate the upper performance level for the Communicating criterion with proficient transformation of data and sophisticated graphs. The graphs are sophisticated because they show complexity and illustrate the relationships between data.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.

Excerpt 1

The Kawana dune system forms due to availability of sediment for saltation during low tide. The dominant wind direction is South Easterly (SE), with 22% of winds in Summer, and 14% in Winter blowing in this direction and 100% occurrence during data collection (Figure 3.01). The South-easterly wind entrains dry sand particles during low tide moving them North Westerly. Embryo dunes form, reducing wind speed on the landward side causing deposition, creating a foredune. For dune development to continue, regular input of sediment is required.

Anthropogenic action on dunes significantly impacts development and profile. Figure 3.02 and 3.03 show changes in dune profile between SL1 that has high anthropogenic access (max height = 5.61m), compared to SL2 (max height = 10.93m). SL1's profile is less pronounced with a foredune, but less evident semi-fixed dunes. This contrasts with SL2's profile which has a typical sequence of foredune, semi-fixed and fixed dunes. Anthropogenic access erodes vegetation, destabilising the dune by impacting wind speed and sediment cohesion. SL1 shows no evident embryo dune, due to minimal vegetation cover.

Excerpt 2

Figure 3.03: Graph of vegetation zonation wind speed and dune height SL2

The following excerpt has been included to demonstrate an effective response:

- at the upper performance level for the Communicating criterion. The student-generated maps (Figures 7 and 12) are sophisticated. They include multiple layers of data that allow for analysis of the relationships and identify a geographical challenge.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.

Reference Figure 7: HB Zones, Ramsar and Regional Ecosystems 2024 (Esri, 2024)
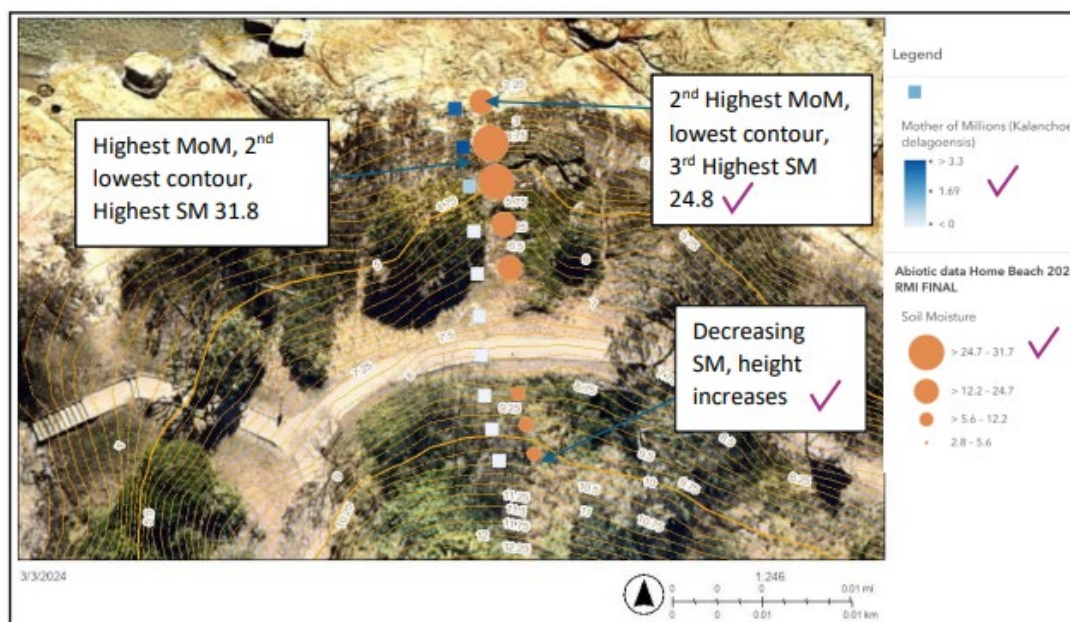
Reference Figure 12: HB Soil Moisture + MoM, 2024 (Esri, 2024)

The following excerpt has been included to demonstrate an effective student response that shows:

- insightful synthesis that accurately brings together the analysis to inform relevant proposals for managing the challenge identified at the fieldwork location.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.

Due to increased invasive species and erosion, stemming from land cover transformations such as land clearance and removal of mangroves, people and place are implicated. As expansion of agriculture and the construction of the Kedron brook floodway forced native grey mangrove forests to be deforested, open mudflats were created allowing for recreational practices such as riding horses or walking dogs. These domesticated animals transport seeds of invasive species, where the area's high soil temperature and lack of canopy cover provides these species with ideal conditions. Furthermore, the uproot of native flora and the introduction of invasive species has caused soil structure in the area to decline, due to unstable, shallow root systems. In doing so, the extent of erodible surfaces has increased, with full scale erosion fuelled by wind strength and the lack of natural barriers like grey mangroves to attenuate direct wind. These pose impacts such as, property damage from the recessing shoreline, decreasing native populations, increase in dredging disrupting biodiversity and potential flood susceptibility.

Additional advice

- When identifying a geographical land-management challenge at a particular study site in response to land cover transformations, students should consider whether any level of government would also consider the issue a problem that requires sustainable management.

Internal assessment 3 (IA3)

Investigation — Data report (25%)

This assessment requires students to research a specific challenge or problem (at a local scale of study, for a place in Australia) through collecting, representing, analysing and responding to a range of data that is both teacher-provided and student researched. A geographic inquiry uses research practices to assess a range of cognitions in a particular context. Research practices include locating and using information beyond students' own knowledge and the data they have been given.

This assessment occurs over a defined period of time. Students may use class time and their own time to develop a response.

Assessment design

Validity

Validity in assessment design considers the extent to which an assessment item accurately measures what it is intended to measure and that the evidence of student learning collected from an assessment can be legitimately used for the purpose specified in the syllabus.

Reasons for non-endorsement by priority of assessment

Validity priority	Number of times priority was identified in decisions
Alignment	131
Authentication	4
Authenticity	17
Item construction	100
Scope and scale	94

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- provided initial datasets with a discernible profile that presented a geographical challenge for the selected location/s. Datasets that were the most suitable included evidence of ageing population, population decline, youth population, rapid population growth or significant population growth over time

- ensured that the place being investigated demonstrated a geographical challenge as a result of the demographic profile. The challenge must have significant impacts for a specific demographic at the place. Typically, challenges are based on service/s or infrastructure meeting the needs of the demographic.

Practices to strengthen

It is recommended that assessment instruments:

- include stimulus items that are suitable in scope and scale. The initial datasets must identify the relevant statistical areas as designated by the Australian Bureau of Statistics (ABS),

e.g. Statistical Area Level 2 (SA2), SA3 and Local Government Area (LGA). Many places have more than one statistical area type at the ABS.

- include the type of statistical area to ensure students investigate the same place as presented in the initial dataset

- provide initial datasets for places with a discernible challenge that leads to the need for management strategies, allowing students to demonstrate the requirements of the ISMG. For instance

  - where there is no bulge or dip in the population for any age group, there is no evidence of a demographic challenge. The challenge must be demographic in nature and not a social challenge

  - for places such as mining towns and inner-city suburbs, there may be an age group that reflects a larger percentage of the population. Where there are adequate services, facilities and infrastructure (e.g. education, transport, health, accommodation) to meet the needs of this age group (typically 20–30-year age groups), there is no challenge

  - the initial dataset may reflect trends and changes over time in data if the focus of the investigation is the geographic challenge arising from, e.g. urban infill and increased density. In this circumstance, population growth over time *not* age/sex data for one year must be included

- provide students with fundamental raw data that has not been analysed, summarised or transformed in any way. This includes the removal of the median age from the initial demographic data obtained from the ABS for the specified location.

Accessibility

Accessibility in assessment design ensures that no student or group of students is disadvantaged in their capacity to access an assessment.

Reasons for non-endorsement by priority of assessment

Accessibility priority	Number of times priority was identified in decisions
Bias avoidance	1
Language	14
Layout	5
Transparency	13

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- used clear and concise language and appropriate geographical terminology to describe the task and context.

Practices to strengthen

It is recommended that assessment instruments:

- ensure scaffolding is aligned to the syllabus specifications with clear instructions informing students of the relevant sections for inclusion in the written report.

Assessment decisions

Reliability

Reliability is a judgment about the measurements of assessment. It refers to the extent to which the results of assessments are consistent, replicable and free from error.

Agreement trends between provisional and confirmed marks

Criterion number	Criterion name	Percentage agreement with provisional	Percentage less than provisional	Percentage greater than provisional	Percentage both less and greater than provisional
1	Explaining and comprehending	85.87	14.13	0.00	0
2	Analysing and applying	79.35	20.11	0.54	0
3	Synthesising	89.13	10.87	0.00	0
4	Communicating	77.72	21.74	0.54	0

Effective practices

Accuracy and consistency of the application of the ISMG for this IA was most effective when:

- for the 'comprehend geographic patterns' objective of the Explaining and comprehending criterion, students clearly described spatial patterns of demographic change over time, based on patterns observed on a map/s. For instance, they described where significant changes occurred for a particular demographic between 2011 and 2021 in a SA2 compared to surrounding SA2s. From this recognition of spatial changes over time, they were able to identify the main implications of the demographic change for selected people and places

- for the Communicating criterion, students created their own maps and graphs to represent relevant data to support the analysis, using appropriate technologies, e.g. QGIS, Google Earth, Google Maps, and Excel or Datawrapper.

Practices to strengthen

To further ensure accuracy and consistency of the application of the ISMG for this IA, it is recommended that:

- for the Analysing and applying criterion, students are provided with clear explanations of the demographic challenges that are relevant for places with ageing or youth populations to enable the appropriate selection of data to carry out the investigation

- for the Synthesising criterion

  - an insightful synthesis recognises that not all communities need to have a balance in age cohorts to be sustainable

  - proposals to manage the identified impacts are valid options for the place being investigated. For instance, diversifying employment opportunities to retain young people in a small rural community may be suitable, whereas proposing a university for the place to attract more young people is not suitable because the youth population is too small for the proposal to be valid

- schools apply an appropriate strategy to manage response length to ensure students can demonstrate the upper performance levels for all criteria. Refer to the *QCE and QCIA policy and procedures handbook v6.0,* Section 8.2.6.

Samples

The following excerpt has been included to demonstrate an effective response:

- at the upper performance level for the Explaining and comprehending criterion because the student-generated map illustrates the spatial pattern of population change for the place. The map forms the basis of the written demonstration of the criterion.

Note: The characteristic/s identified may not be the only time the characteristic/s occurred throughout a response.
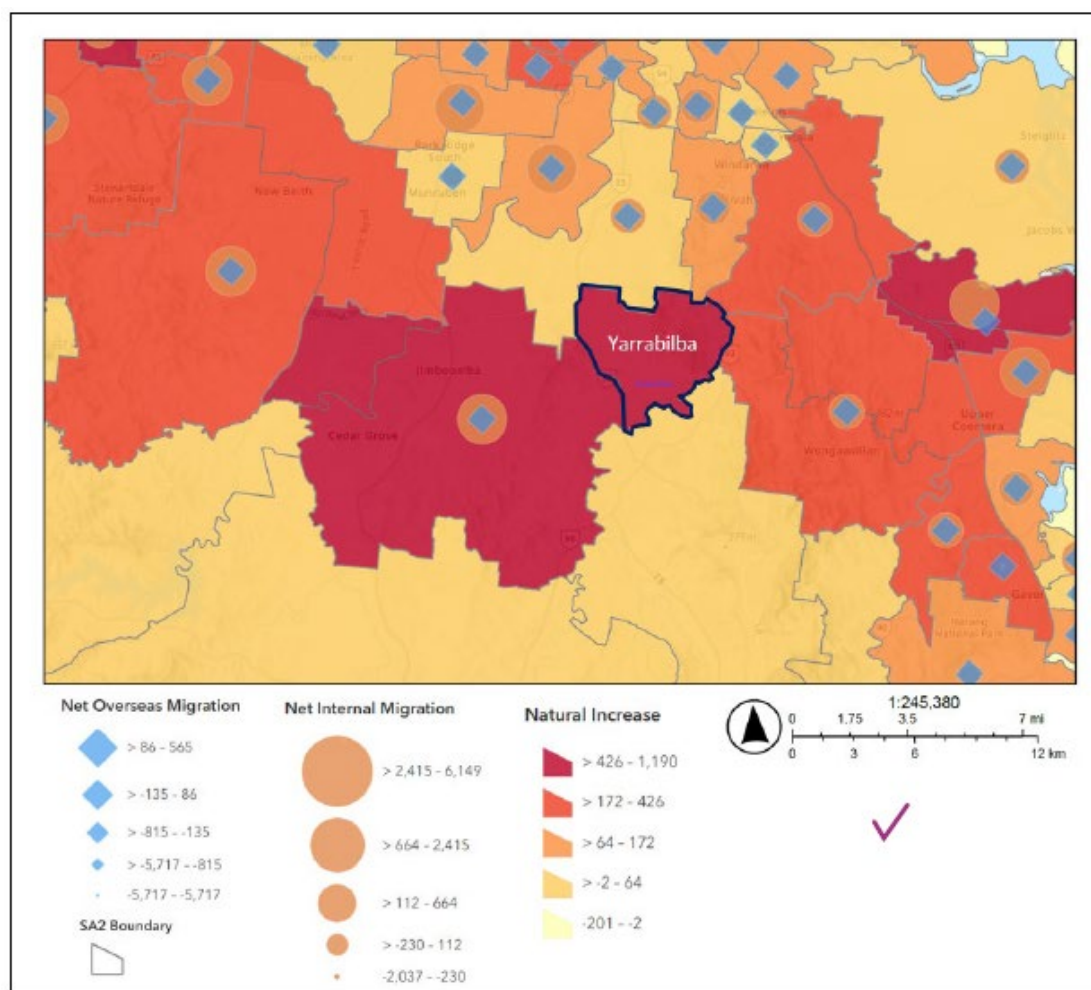

Figure 6: Population Change, Qld, 2011-2021

(Esri, 2023)

The following excerpt has been included to demonstrate an effective response:

- to the upper performance level for the Analysing and applying criterion. It illustrates a discerning selection of data relevant to the demographic challenge for the place that allows for astute interpretations and inferences.

In Victor Harbor, analysing distribution and accessibility patterns of retirement/ healthcare services aids in evaluating if there is sufficient support for increasing demands of an ageing population. The dependency ratio of 123.7% represents that the aging demographic significantly outweighs the younger, working-age population, meaning caregiving services and medical infrastructure must meet heightened requirements. Fig. 3.6 representing the number of medical centres within the area, indicates that most medical centres are concentrated within a 200-meter radius within the town centre. Marked by the white arrows(fig3.6), the lack of public transport services and distance from aged care facilities makes this location is not readily accessible the broader geographic populations, (especially those in outer residential areas and aged care homes located outside of the centre) (fig 3.5). This makes it difficult for the elderly populations who cannot drive, are without access to reliable transport, and have mobility/health challenges, to reach these services if needed. Additionally, the lack of medical centres and hospitals is largely disproportionate to the number of aged care homes located within the region. The health care demands of older adults, who have a higher prevalence of chronic conditions and require regular medical attention is significant, therefore, limited access to medical services can cause delayed treatments, and increased health complications, thus lowering overall quality of life.

Reference
Figure 6: Population Change, Qld, 2011-2021 (Esri, 2023)

The following excerpt has been included to demonstrate an effective response:

- to the upper performance level for the Synthesising criterion. It synthesises relevant evidence from the analysis to propose action in response to the identified impacts of the demographic challenge for the place.

With an annual population growth rate of 2.6% and projected 2046 total population of 117,192, Ripley is experiencing rapid and barely maintained population growth (F4 & F6). 51.3% of this population consists of families with children (F5), while the combined age brackets for 0-9yrs make up 40.75% of the population (F6). However, there are only 7 childcare/kindergarten services, 2 primary schools, and 1 high school to cater to this demand (F7).

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Ripley's current generation has met capacity thresholds for school admissions, with future generations requiring more infrastructure to prevent overcrowding, and facilitate high-quality education with the appropriate staff, amenities and classrooms. Currently, to support 17,265 toddlers and babies, 12,165 young children, and 11,000 adolescents, Ipswich has 71 childcares, 34 primary schools, and 20 high schools (Care for Kids, 2024). Therefore, it is being proposed over the next 12 years that 16 childcares, 10 primary schools, and 6 secondary schools be built across Ripley to support it's 2036 population predictions (Figure 16).

Additional advice

- A data report requires students to gather, represent and interpret appropriate data to clearly explain the main causes of the demographic challenge at the selected place. Therefore, the analysis must be based on the student's interpretation of relevant datasets with minimal reference to or reliance on other sources.

- Recognising and describing spatial patterns is different from describing the location of a place. To demonstrate the requirements of the Comprehending criterion, students must be able to demonstrate their understanding of spatial patterns.

- Maps that are downloaded and adapted to the student's own information, rather than maps created by the student, must demonstrate significant adaptation (overlays and annotations) to achieve the upper mark ranges for the Communicating criterion. Simple annotations are inadequate, and overlays must be complex to be considered proficient transformation. Students should acknowledge original maps and graphs to assist confirmers when matching evidence to the ISMG.

- Dependency ratios are required to confirm the demographic profile of the place as either ageing or youthful. Location quotients may be useful to determine specific demographic anomalies in a place, e.g. to determine the anomalous concentration of a demographic in a place compared to a region or state.

External assessment

External assessment (EA) is developed and marked by the QCAA. The external assessment for a subject is common to all schools and administered under the same conditions, at the same time, on the same day.

Examination — combination response (25%)

Assessment design

The assessment instrument was designed using the specifications, conditions and assessment objectives described in the summative external assessment section of the syllabus.
The examination consisted of two sections. Part A included five short response questions, and Part B included one extended response question (41 marks).

The examination assessed subject matter from Unit 4: Managing population change (Syllabus section 5.4). Questions were derived from the context of Topic 2: Global population change.

The assessment required students to answer questions in response to stimulus for both the short response questions and the extended response question.

Students were required to create a graph for the data transformation question.

The stimulus consisted of a range of maps, graphs and data.

Assessment decisions

Assessment decisions are made by markers by matching student responses to the external assessment marking guide (EAMG). The external assessment papers and the EAMG are published in the year after they are administered.

Effective practices

Overall, students responded well when they:

- explained implications for populations (not people) in Question 1 and Question 5. For instance
  - in Question 1, the response required students to explain an implication of the *trend on future populations* in the least developed and more developed categories, respectively. The implications for populations are about the growth rate and contribution to population change, not implications for education, healthcare and employment
  - in Question 5, the response required students to explain *impacts on China's population structure*, such as positive or negative population momentum at points in time, not impacts on people, e.g. education, healthcare and employment
- relied on evidence from the stimulus in Part B to make inferences about the geographical challenge and used their analysis to make generalisations about the impacts of the identified challenge on people (not place) in Cambodia.

Practices to strengthen

When preparing students for external assessment, it is recommended that teachers:

- ensure students have detailed exposure to the subject matter for Unit 4 Topic 2 Global population change (Syllabus section 5.4). This will enable students to identify a relevant

geographical challenge evident in the stimulus for the extended response question rather than rely on ideas gleaned from practice exams

- work with students to discover which types of graphs they should choose to effectively represent different types of data. For instance, typically

  – line graphs are used to show change over time

  – bar and column graphs are used to represent and compare values that are independent of each other

  – scatter graphs or scatter plots are used to show the relationship between two different variables

- provide opportunities for students to apply geographical understanding to explain the impacts of population change on people and populations.

Samples

Short response

The following excerpt has been included to demonstrate effective student responses to:

- Question 1, which required students to use stimulus to identify a category of development and explain an implication of the trend on future populations. The student correctly matched each graph to the relevant level of development and explained an implication of the trend on future populations for both categories.

Category of development for Graph 1: least developed, with high population
(increasing trend) 1950 (4.9 million) – 2100 (12 million) and low immigrants / emigrants (below 0 million)
An impact for future populations due to the low migration and currently decreasing population is the decline in population, hence negative change

Category of development for Graph 2: more developed with high Immigrants
migration (22 million 2025 - 2100) and low population (Births - deaths) due
to the decrease in Birth - death (2085 - 1 million – -4 million in 2100), hence negative
natural change rate. A implication of trend on future population may be the decline
in population due to the low Births rate (replacement rate) (more population in old age groups) (demographics) as
immigrants (migration) may be there only source of population growth

The following excerpt has been included to demonstrate effective student responses to:

- Question 3, which required analysis of the historical and projected changing global pattern of the 10 most populous countries. The student answered both aspects of the question, providing an accurate analysis to explain the changing global pattern of the 10 most populous countries using evidence to support their analysis. They made a plausible inference (a conclusion made using evidence from the data) about a specific trend beyond 2050.

From the data it can be seen that China India and USA remain consistently in the top 3 populous countries with all 3 increasing population despite China which is projected to decrease from 1426 million in 2022 to 1317 million in 2050 falling from 1,1 to second place, which may be due to a decline in birth rates. It can also be seen that highly developed countries such as russian federation and Japan see a decline in population and get overtaken by other countries. This is evident as in 1990 Japan has a population of 123 million at 7th place and then cannot be seen on the leaderboard Russian Federation in 1990 had a population of 148 million, which in 6th place decreases to 145 million in 2022 at 9th place and projected to not be on leaderboard in 2050. Where as low & developed countries such as Nigeria, and Pakistan rapidly increase in population from 94 million in 1990 to 216 and 375 million in 2022 and 2050 for Nigeria. Continsou on page 16.

It can be implied that beyond 2050 poorly developed countries specifically located in continent of Africa such as Nigeria, Ethiopia and Congo will overtake the leaderboard as they will rapidly increase in population. This is because low develord countries tend to have high fertility rates due to low access to contraception, family planning and the need of child labour to support financialy struggling families.

The following excerpt has been included to demonstrate effective student responses to

- Question 4a), which required students to construct a divergent column or bar graph, or a stacked column or bar graph showing the components of population change for Australian States in 2023. The student represented the data in a divergent column graph with accurately plotted data, using an appropriate scale and relevant title, key and axis labels.
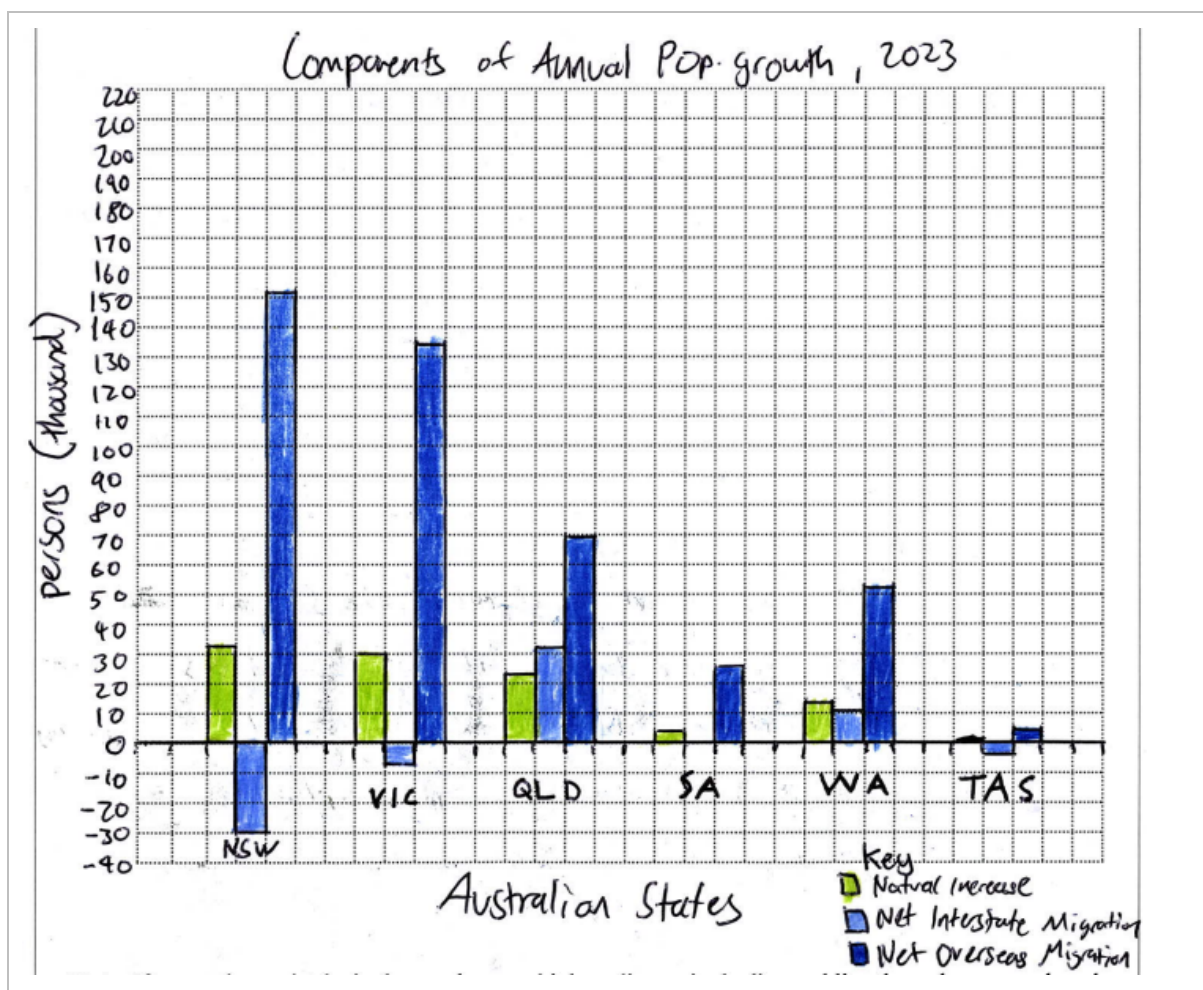
Extended response

Students were required to analyse sources to make inferences about a geographical challenge relating to population change evident in Cambodia and make generalisations about the impacts of the identified challenge on people in Cambodia.

Effective student responses:

- relied on the evidence in the stimulus to identify complex relationships between the data and information in the stimulus to make inferences to explain the geographical challenge. For instance, rural-to-urban migration in Cambodia has occurred due to the rise in manufacturing (as evidence by increased GDP), providing employment for unskilled workers (identified through the education levels of the working age population), and women migrating to Phnom Penh (using the types of employment). This results in permanent migration (as seen in the destination and duration of migration) because multi-dimensional poverty is lower in urbanised areas and incomes higher than expenditure (using per capita expenditure and income), resulting in a labour shortage in rural areas leaving those places dependent on seasonal migration of agricultural workers

- explained the impact of the identified challenge for people in Cambodia using complex generalisations and using their analysis to support the generalisations. For instance, the continued migration to Phnom Penh will create competition for low skilled jobs eventually resulting in less employment opportunities and the exploitation of workers and income will not be more than expenditure and increase multi-dimensional poverty.

The following excerpts demonstrate analysis of the stimulus to explain a geographical challenge in relation to population change in Cambodia. Rural to urban migration is identified as the population change arising due to better economic opportunities in Phnom Penh (Excerpt 1). Complex relationships are used to explain the challenges for people arising from internal migration in both places of destination and places of origin (Excerpt 2).

Excerpt 1

From the stimulus it can be seen that a high amount of internal rural to urban migration is occuring in Cambodia. This is evident as over 12% of migration to occus to the capital Phnom Penh. With 51% permanent 44% long-term and 33% seasonal (stimuls 5). This results in a high percentage of urban population as Cambodia's population makes up of over 78% of total population. This more urban population (Stimuls 1) type of migration occurs as people seek better work opportunities and better living conditions. This is evident as the total annual per capita expenditure and total annual per capita income in urban areas is much larger in just Phnom Pehn compared to Rural areas with expenditure and income beeing 5200 AUD and 6800 AUD in Phnom Penh and only 1300 AUD and 1000 AUD in Rural areas. (Stimulus 2). This indicates a better standard of living and facilities in urban areas compared to rural areas hence forcing people to migrate to urban areas such as Phnom Penh.

Excerpt 2

These challenges include food supply, demand for more employment. Jobs and supply

such as Kenahe or mondvi kivi are the decrease in economic acilivly, hence there ~~are lower start~~ low economy for growth in the area, which furthermore leads to lower standard of living hence poverty.

Additional advice

- Teachers should remind students to:

  - use a ruler when constructing graphs to ensure data is accurately represented

  - read questions carefully to ensure they are answering as directed

  - explore time management and exam strategies to ensure they have time to attempt all the exam questions.