Psychology subject report

2022 cohort

February 2023

Queensland Government
QCAA
Queensland Curriculum & Assessment Authority

230038

For all Queensland schools

ISBN

Electronic version: 978-1-74378-240-8

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Introduction

Throughout 2022, schools and the QCAA worked together to further consolidate the new Queensland Certificate of Education (QCE) system. The familiar challenges of flood disruption and pandemic restrictions were managed, and the system continued to mature regardless.

We have now accumulated three years of assessment information, and our growing experience of the new system is helping us to deliver more authentic learning experiences for students. An independent evaluation will commence in 2023 so that we can better understand how well the system is achieving its goals and, as required, make strategic improvements. The subject reports are a good example of what is available for the evaluators to use in their research.

This report analyses the summative assessment cycle for the past year — from endorsing internal assessment instruments to confirming internal assessment marks, and marking external assessment. It also gives readers 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, including those 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 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 General subjects (including alternative sequences (AS) and Senior External Examination (SEE) subjects, where relevant) and General (Extension) subjects.

Report preparation

The report includes analyses of data and other information from endorsement, confirmation and external assessment processes. It also includes advice from the chief confirmer, chief endorser and chief marker, developed in consultation with and support from QCAA subject matter experts.

Subject data summary

Subject completion

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

Note: All data is correct as at 31 January 2023. Where percentages are provided, these are rounded to two decimal places and, therefore, may not add up to 100%.

Number of schools that offered the subject: 165.

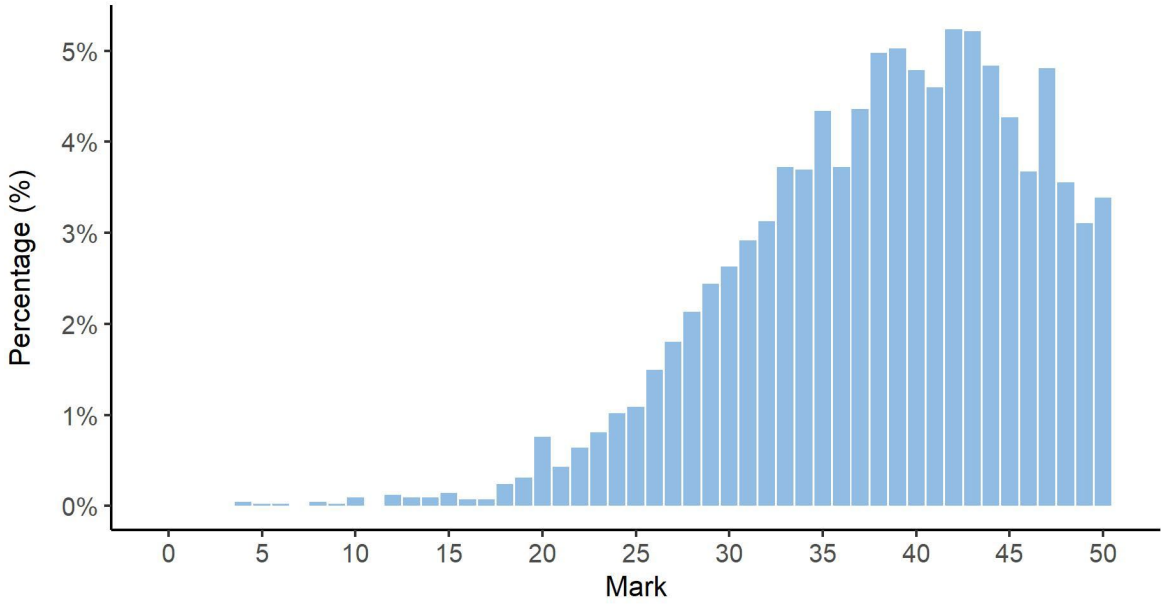
Completion of units	Unit 1	Unit 2	Units 3 and 4
Number of students completed	5259	4854	4176

Units 1 and 2 results

Number of students	Satisfactory	Unsatisfactory
Unit 1	4884	375
Unit 2	4481	373

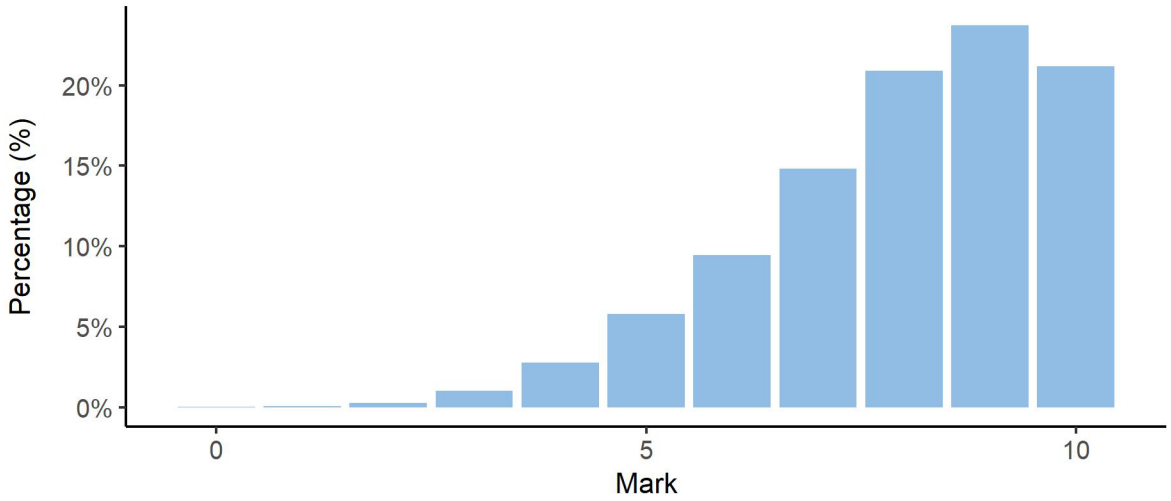
Units 3 and 4 internal assessment (IA) results

Total marks for IA

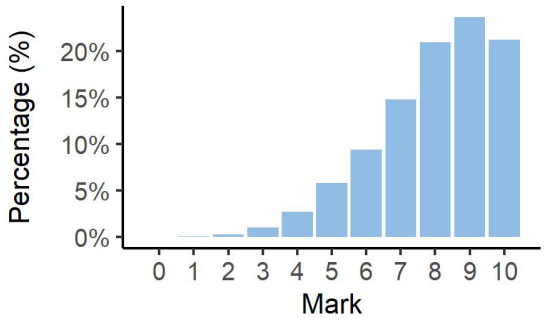


IA1 marks

IA1 total

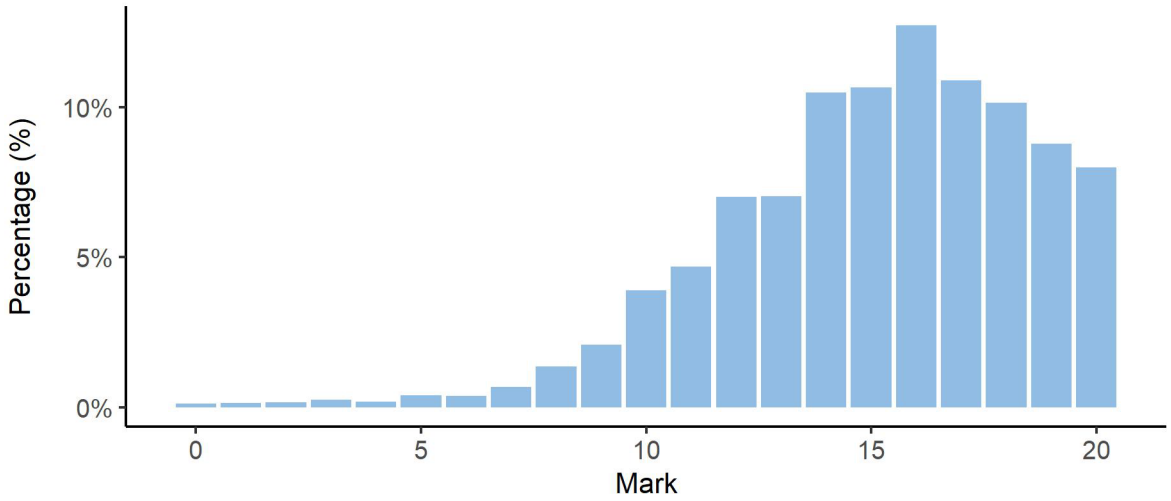


IA1 Criterion: Data test

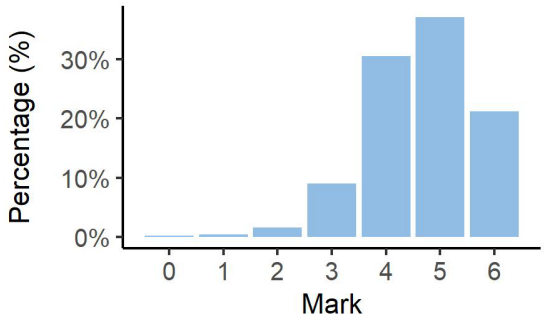


IA2 marks

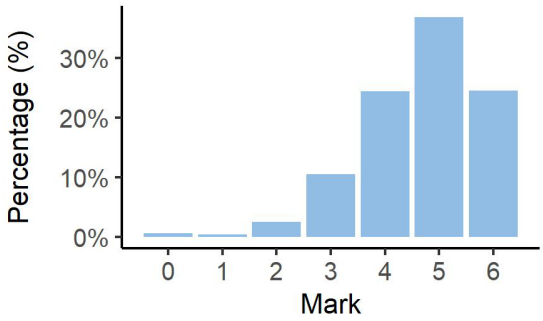
IA2 total



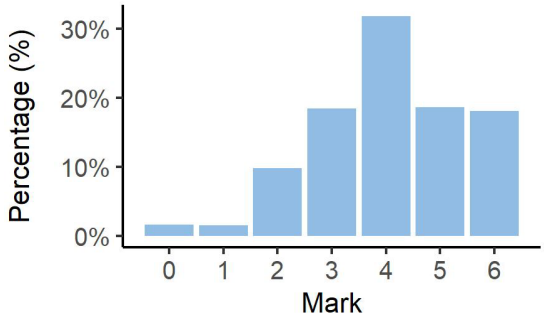
IA2 Criterion: Research and planning



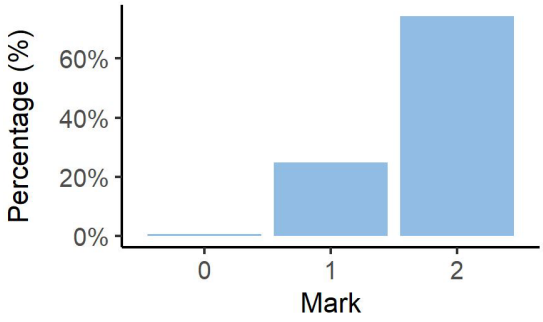
IA2 Criterion: Analysis of evidence



IA2 Criterion: Interpretation and evaluation

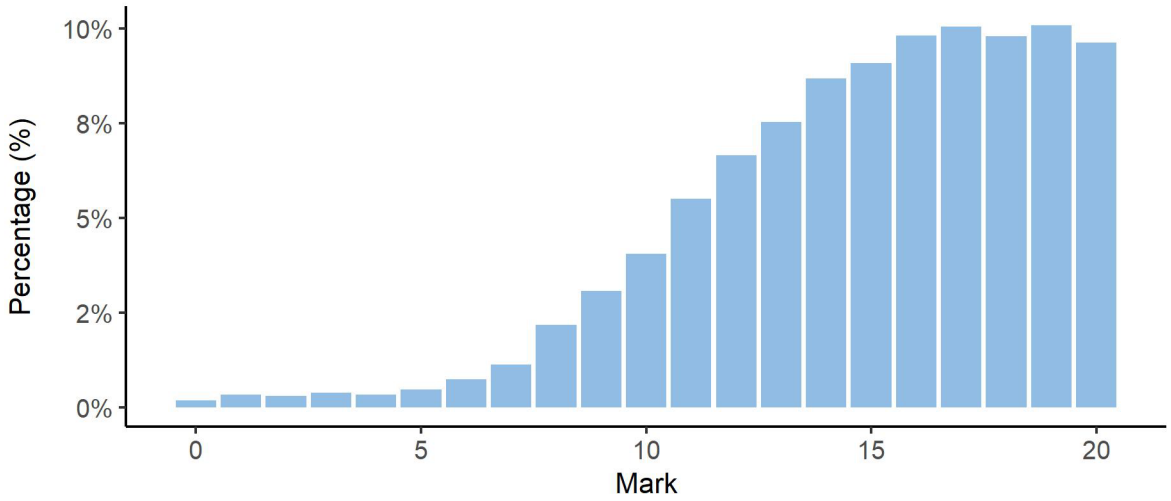


IA2 Criterion: Communication

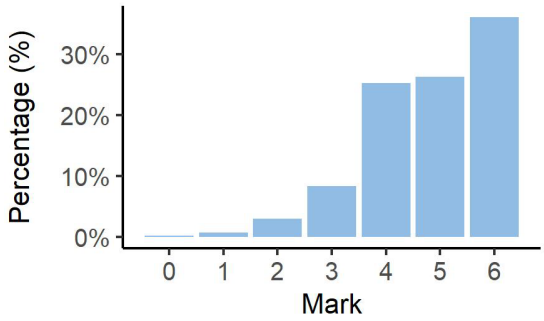


IA3 marks

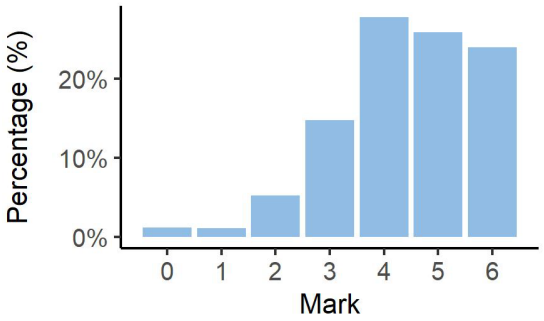
IA3 total



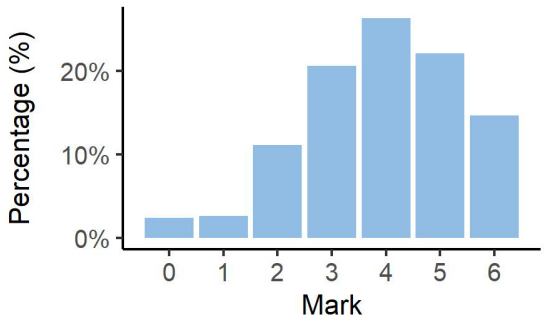
IA3 Criterion: Research and planning



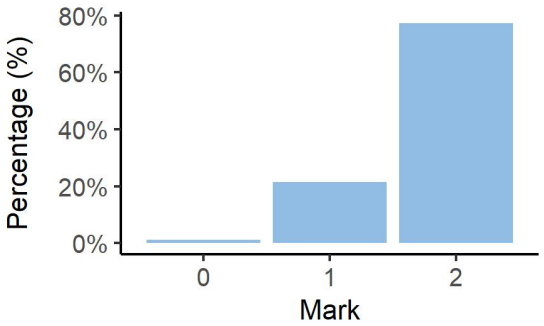
IA3 Criterion: Analysis and interpretation



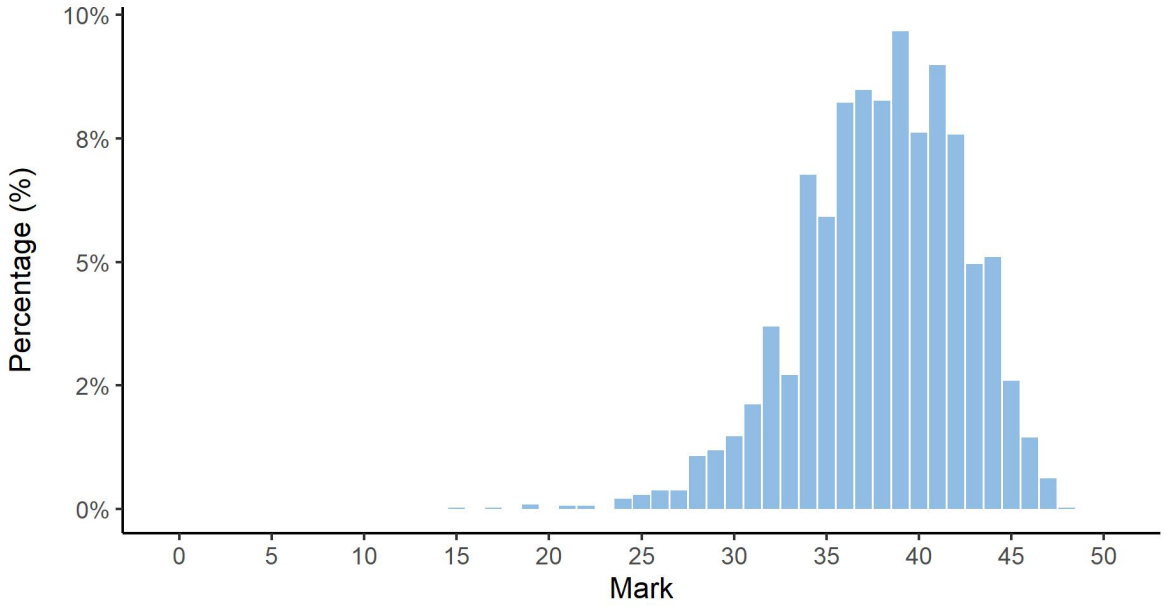
IA3 Criterion: Conclusion and evaluation



IA3 Criterion: Communication

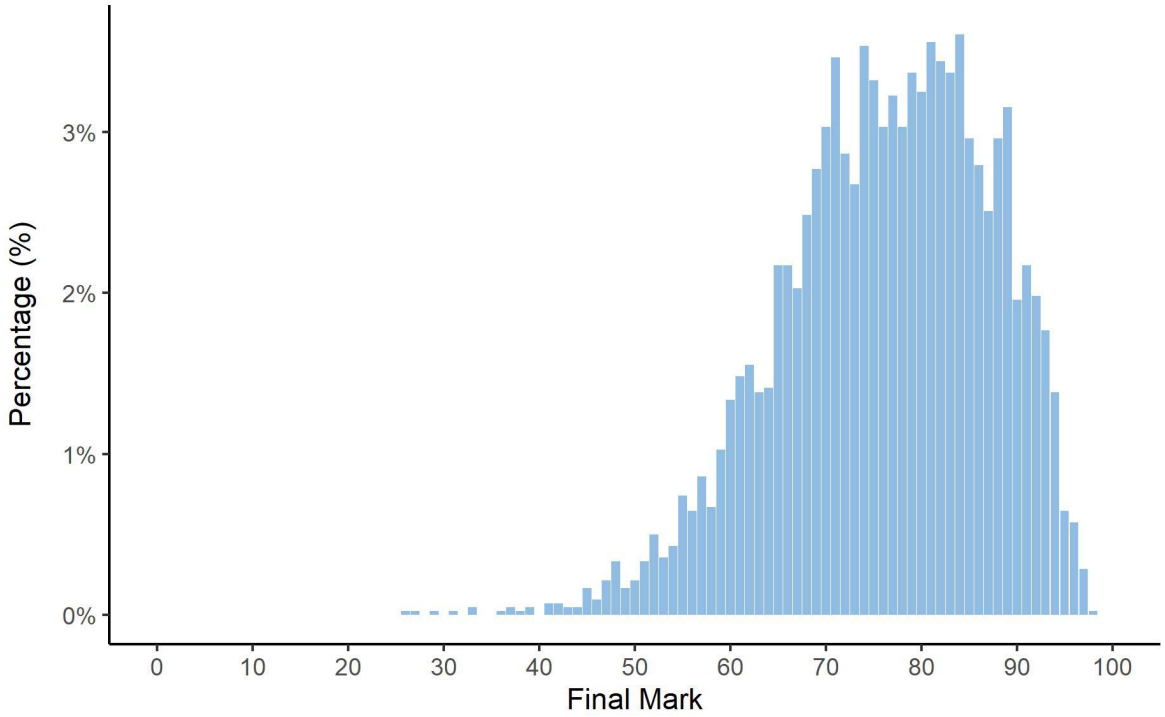


External assessment (EA) marks



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	100–86	85–71	70–48	47–21	20–0

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	929	2031	1174	42	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 assessments. 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 v4.0*, Section 9.5.

Percentage of instruments endorsed in Application 1

Number of instruments submitted	IA1	IA2	IA3
Total number of instruments	163	163	164
Percentage endorsed in Application 1	20%	72%	81%

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 v4.0*, 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	165	1118	0	95.15%
2	165	1122	43	82.42%
3	165	1114	71	83.03%

Internal assessment 1 (IA1)

Data test (10%)

This assessment focuses on the application of a range of cognitions to multiple provided items.

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	88
Authentication	0
Authenticity	5
Item construction	19
Scope and scale	62

*Each priority might contain up to four assessment practices.

Total number of submissions: 163.

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- featured a variety of datasets that were clearly drawn from the teaching and learning of Unit 3 content, e.g.
  - the effect on memory performance of matching contexts in study and test conditions
  - the relationship between viewer age and the perceived age of faces in ambiguous images
  - the effect of context-dependent cues on performance in a recall task
- enabled students to respond to a variety of cognitions to effectively demonstrate a range of responses to the objectives
- gave clear directions to students about responding to questions allocated multiple marks, e.g. ‘Justify your response’.

Practices to strengthen

It is recommended that assessment instruments:

- contain items in which there is clear alignment of the cognition with the corresponding objective. Teachers should refer to the Mark allocation table (Syllabus section 4.7.1) for guidance on the appropriate objectives when selecting cognitions during item construction
- only assess students' ability to perform a certain calculation or cognitive process once across the range of questions
- avoid items that address objective 6 — evaluate research processes (e.g. questions that relate to research limitations or methodology), which are outside the scope of the data test.

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	13
Language	23
Layout	22
Transparency	24

*Each priority might contain up to four assessment practices.

Total number of submissions: 163.

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- used correct spelling, punctuation and grammar
- contained items that assess only one cognition, e.g. 'Infer the statistical significance of the difference between the means'
- presented the dataset in a logical manner, e.g. described the aim and methodology of a study before the dataset.

Practices to strengthen

It is recommended that assessment instruments:

- use cognitive verbs that clearly cue students to the expected response, e.g. 'Draw a conclusion with reference to Figure 1 about the most effective condition for memory recall'
- use cues to provide clear instruction to students as to what to do for each mark allocated
- use a consistent approach to formatting, e.g. highlighting only the cognitive verb across questions.

Additional advice

- Items should be constructed so that evidence is analysed and interpreted using authentic scientific inquiry processes, e.g.
  - calculate the standard deviation when the mean has been used as the measure of central tendency
  - interpret evidence to draw a meaningful conclusion to the research question to which the dataset relates.

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	Data test	95.15%	1.82%	3.03%	0%

Effective practices

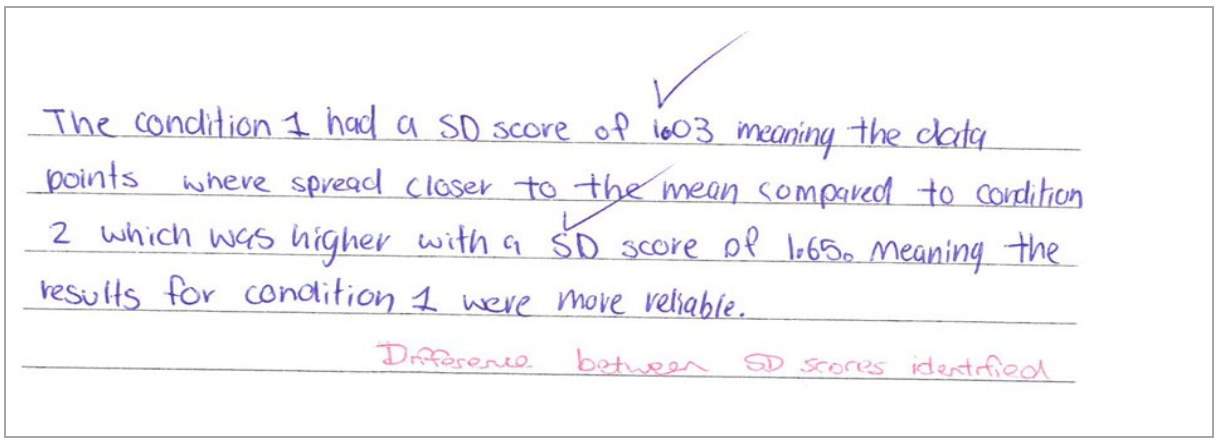
Accuracy and consistency of the application of the ISMG for this IA was most effective when:

- a marking scheme was consistently and accurately applied across all samples for the cohort
- the correct percentage cut-off from the ISMG was applied when determining final marks.

Samples of effective practices

The following excerpt demonstrates suitable annotations matching aspects of the marking guide on a student response to an objective 3 item that required them to contrast the standard deviations of two sets of data.

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



The following excerpt demonstrates suitable annotations matching aspects of the marking guide on a student response to an objective 2 item that required them to identify values from a graph.

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

Practices to strengthen

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

- marking schemes follow a consistent approach to mark value by awarding one mark per cognition or key feature of a response, and clearly indicate each cognition or feature that will be awarded a mark
- marking schemes are updated to correct errors and account for variations in student responses
- schools implement internal quality assurance processes (e.g. cross marking) to ensure intra- and inter-marker reliability.

Internal assessment 2 (IA2)

Student experiment (20%)

This assessment requires students to research a question or hypothesis through collection, analysis and synthesis of primary data. A student experiment uses investigative practices to assess a range of cognitions in a particular context. Investigative practices include locating and using information beyond students' own knowledge and the data they have been given.

Research conventions must be adhered to. This assessment occurs over an extended and 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	28
Authentication	10
Authenticity	3
Item construction	9
Scope and scale	2

*Each priority might contain up to four assessment practices.

Total number of submissions: 163.

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- clearly indicated the practicals or activities based on Unit 3 subject matter that students were required to modify
- featured scaffolding that informed students how to complete the task using the specifications (Syllabus section 4.7.2)
- ensured that examples provided in scaffolding could not be used by students as a basis for their inquiry.

Practices to strengthen

It is recommended that assessment instruments:

- contain consistent information in the conditions and context sections of the task sheet, so that the practicals listed align with the topics identified in the assessment conditions
- include an authentication strategy indicating which sections will be completed in groups and how students will be assessed during group work
- ensure that the context is a practical or simulation conducted in class, e.g. a modification of the methodology used by Grant et al. (1998)
- ensure that the scaffolding provides sufficient detail to support student construction of the required genre, e.g. a scientific report.

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	2
Layout	0
Transparency	0

*Each priority might contain up to four assessment practices.

Total number of submissions: 163.

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- contained clear communication of the genre to be used, e.g. scientific report or multimodal presentation
- provided scaffolding that aligned with syllabus objectives and the ISMG and allowed students to elicit a unique response
- featured spelling, language and grammar that was error-free and accessible for students.

Practices to strengthen

There were no significant issues identified for improvement.

Additional advice

- Assessment instruments should feature checkpoints that contain a specific timeframe and task to be completed, e.g. Week 5: Submission of complete draft.

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	Research and planning	89.7%	8.48%	1.82%	0%
2	Analysis of evidence	90.91%	8.48%	0.61%	0%
3	Interpretation and evaluation	96.36%	2.42%	1.21%	0%
4	Communication	99.39%	0.61%	0%	0%

Effective practices

- in the Research and planning criterion
  - modifications to methodology were *justified* with specific reference to concepts from Unit 3 subject matter
  - the rationale used key terms and concepts relevant to Unit 3 subject matter to clearly indicate the experiment being modified and *justify* the modifications by identifying how they would improve the experiment's validity or reliability
- in the Interpretation and evaluation criterion, discussion of the reliability and validity of the experimental process was *justified* by referring to the uncertainty and limitations identified in the analysis of evidence.

Samples of effective practices

The following excerpts demonstrate correct and relevant processing of data.

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

Excerpt 1

Descriptive statistics

Although the dependent variable (number of words recalled) was interval-ratio data, a visual inspection of the histograms indicated that the data was not normally distributed (see Appendices 2 and 3) and an outlier of 7 in the SR condition was also identified (see Appendix 4). Therefore, the most appropriate measure of central tendency and measure of dispersion were median and interquartile range respectively. Excel was utilised for these calculations (see Appendix 4) which are presented below.

AE 5-6 processing

Excerpt 2

Table 2. Descriptive and inferential statistics for CR and SR conditions

Conditions	Median	Interquartile Range (IQR)	*p* value
CR condition	13	6.5	<.001
SR condition	2	2.5	

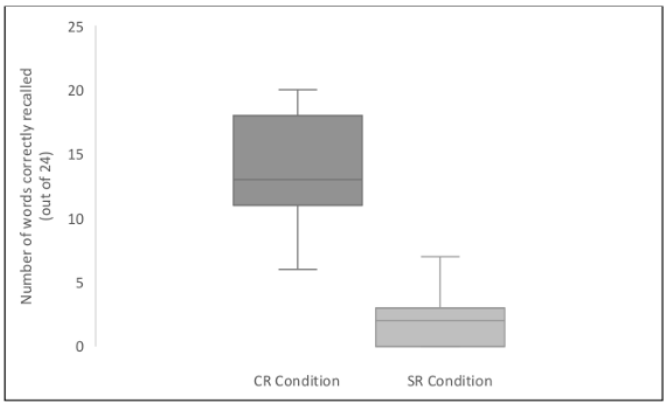


Figure 1. Box and whisker plot showing median and IQR for CR and SR conditions

Practices to strengthen

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

- in the Analysis of evidence criterion
  - *correct and relevant* processing of data should include suitable measures of central tendency that align with subsequent data analysis
  - *thorough* identification of uncertainty and limitations reflects scrutiny of the evidence rather than of the methodology and includes discussion of suitable measures of uncertainty, e.g. range, standard deviation, standard error of the mean, confidence intervals.

Additional advice

- A correlational research design (Syllabus section 1.2.5) can be used as the basis for a student experiment (see Glossary — *experiment*). However, students should be taught to interpret the findings of these investigations appropriately, e.g. interpreting relationships as correlation rather than cause and effect.
- Any material that is used as evidence of the student's achievement should be included in the body of the report. Summary data in the body of the report is suitable evidence of the collection of sufficient raw data.
- Students should be encouraged to use referencing conventions consistently throughout their response.
- School-based authentication strategies should be used to ensure that student responses contain only original material.
- Students should be encouraged to use published QCAA samples in ways that maintain academic integrity and the authenticity of their responses. Sections of QCAA samples should not be copied or paraphrased.

Internal assessment 3 (IA3)

Research investigation (20%)

This assessment requires students to evaluate a claim. They will do this by researching, analysing and interpreting secondary evidence from scientific texts to form the basis for a justified conclusion about the claim. A research investigation 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.

Research conventions must be adhered to. This assessment occurs over an extended and 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	15
Authentication	12
Authenticity	1
Item construction	2
Scope and scale	3

*Each priority might contain up to four assessment practices.

Total number of submissions: 164.

Effective practices

Validity priorities were effectively demonstrated in assessment instruments that:

- included claims that enabled the development of unique student responses, e.g. 'Social media is changing the nature of relationships'
- provided claims clearly drawn from Unit 4 subject matter to support the development of specific and relevant research questions, e.g. 'Conformity can increase prosocial behaviour' or 'Aggression is a learned behaviour'
- included authentication strategies appropriate to the school context.

Practices to strengthen

It is recommended that assessment instruments:

- promote unique student responses by ensuring scaffolding does not lead to a predetermined outcome, e.g. include a statement precluding the use of a research question used in scaffolding
- include the task specifications (Syllabus section 5.7.1) to demonstrate the process students will follow to complete the task
- ensure that the topics in the conditions section align with the claims presented in the context section
- ensure claims are expressed as single assertions.

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	3
Layout	0
Transparency	0

*Each priority might contain up to four assessment practices.

Total number of submissions: 164.

Effective practices

Accessibility priorities were effectively demonstrated in assessment instruments that:

- had checkpoints that clearly indicated when student work would be checked, e.g. Week 3: Conduct research and identify sources
- provided clear instructions to students that aligned with syllabus objectives and the ISMG
- used claims written in accessible language with clearly identifiable variables.

Practices to strengthen

There were no significant issues identified for improvement.

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	Research and planning	95.15%	4.24%	0%	0.61%
2	Analysis and interpretation	92.12%	6.06%	1.82%	0%
3	Conclusion and evaluation	87.27%	12.12%	0%	0.61%
4	Communication	100%	0%	0%	0%

Effective practices

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

- in the Research and planning criterion
  - *relevant* sources are clearly related to the research question and scientifically credible, although not necessarily drawn exclusively from peer-reviewed journals
  - the sufficiency of sources was judged across the whole response in terms of the extent to which those sources addressed the research question
- in the Analysis and interpretation criterion
  - scientific arguments were *justified* by referring to the trends, patterns or relationships identified in the evidence
  - *thorough and appropriate* identification of limitations of evidence focused on aspects of the evidence that would affect its ability to address the claim and the research question.

Samples of effective practices

The following excerpts demonstrate thorough and appropriate identification of limitations of evidence leading to a justified conclusion that extrapolates findings back to the claim and discussion of the quality of research evidence.

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

Excerpt 1

Limitations to this survey however include a cultural bias, as the survey conducted in Chicago, United States was only offered in English, which means results cannot be generalised to non-English speakers who reside within the city. A small age range was used for the study with participants ranging between 20-50, which excludes a number of participants and again affects the generalisation of the study. The use of participants over 50 years old could be argued as invalid as the choice of online dating was most likely not an option, dependent on the age at which they found their significant other. Self-reports were the only form of data collection, meaning honest answers and protection of unintentional errors cannot be guaranteed by the examiner. However, both scales are widely used, and research has found the RSS shows validity (Vaughn & Baier, 1999) and the AAS shows reliability (Chen, Li, & Feng, 2021).

Excerpt 2

Conclusion

All studies investigated supported that offline relationships provide a more satisfying and higher-quality connection than online relationships, however the non-significant results in the second study and the lack of statistical analysis in the third study suggest further research is needed to provide a definite conclusion. The claim 'social media is changing the nature of relationships' is only partially supported by the evidence provided, as the area of research conducted only addresses one specific aspect of the broader claim, therefore conclusions of the claim cannot be accurately drawn. However, it is assumed that any area of research conducted within the claim would correlate with the evidence and find that social media has an effect on relationships.

Excerpt 3

Evaluation

In order to further discuss the research question, the quality of the evidence provided will need to be assessed.

All studies used subjective data collection meaning the validity and reliability is affected, as there is no certainty as to the honesty of a participant and does not allow for the prevention of any unintentional errors. However, since all scales were common and widely used, these self-reporting methods can be deemed as useful and therefore somewhat reliable. To further this, the honesty of a participant in these particular studies may have bias since personal relationships are discussed. It is assumed that those in a relationship would not want to discuss or admit any negative aspects of said relationship even if there are obvious flaws, reporting an inaccurate correspondence between relationship perceptions and reality (Wickham & Bond, 2019). Vice versa, a participant commenting on a past relationship may have bias in the sense they do not want to talk positively on the experience. An improvement to this could be to have behavioural observations on a relationship in the form of cameras or general interaction in order to prevent bias data. The use of cameras surrounding a relationship however would raise ethical questions.

The first study by Atkins (2019) was limited by its cultural bias. Since the survey created was only made in English, this limited the study to only English speakers. Because of this, the findings of the survey in which online relationships provide more satisfying relationships cannot be generalised to any other culture. An improvement to this would be to provide surveys in different languages and results could be generalised to a larger population.

Practices to strengthen

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

- in the Conclusion and evaluation criterion
  - credible findings from the research should be used to *justify* the conclusion to the research question and be *extrapolated* to the claim more generally

- *insightful* discussion of quality of evidence should use specific features and examine limitations of the evidence with respect to addressing the research question or the claim.

Additional advice

- Teachers should use resources and teaching strategies that enable students to understand the specific requirements of a research investigation (IA3 effective processes and practices resource).
- Response length should be clearly managed in line with school policies so that student responses are limited to the length indicated by the syllabus, i.e. 2000 words (*QCE and QCIA policy and procedures handbook v4.0*, Section 8.2.6).
- When a student requests to use a claim that is not on the endorsed assessment instrument, teachers should engage a community of practice to ensure that the negotiated claim is clearly related to Unit 4 subject matter.

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 (50%)

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 papers:

- Paper 1, Section 1 consisted of multiple choice questions (20 marks)
- Paper 1, Section 2 consisted of short response questions (35 marks)
- Paper 2, Section 1 consisted of short response questions (45 marks).

The examination assessed subject matter from Units 3 and 4. Questions were derived from the context of Localisation of function of the brain, Visual perception, Memory, Learning, Social psychology, Interpersonal processes, Attitudes and Cross-cultural psychology.

The assessment required students to respond to multiple choice and short response questions.

The AS assessment instrument was designed using the specifications, conditions and assessment objectives described in the summative external assessment section of the AS. The AS examination consisted of two papers:

- Paper 1, Section 1 consisted of multiple choice questions (20 marks)
- Paper 1, Section 1 consisted of short response questions (35 marks)
- Paper 2, Section 1 consisted of short response questions (45 marks).

The AS examination assessed subject matter from AS units 3 and 4. Questions were derived from the context of Psychological science B, Intelligence, Diagnosis, Psychological disorders and treatments, Emotion and motivation, Social psychology, Interpersonal processes, Attitudes and Cross-cultural psychology.

The AS assessment required students to respond to multiple choice and short response questions.

The Psychology AS will no longer be offered after 2022.

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.

Multiple choice question responses

There were 20 multiple choice questions in Paper 1.

Percentage of student responses to each option

Note:

- The correct answer is **bold** and in a blue shaded table cell.
- Some students may not have responded to every question.

Psychology Alternative Sequence

Question	A	B	C	D
1	1.47	1.47	**94.12**	2.94
2	1.47	4.41	**80.88**	13.24
3	**85.29**	0	8.82	5.88
4	4.41	32.35	**48.53**	14.71
5	11.76	11.76	**73.53**	2.94
6	**67.65**	7.35	7.35	17.65
7	**88.24**	7.35	2.94	1.47
8	13.24	**61.76**	13.24	11.76
9	13.24	4.41	**67.65**	14.71
10	5.88	22.06	16.18	**55.88**
11	22.06	13.24	26.47	**36.76**
12	5.88	11.76	14.71	**67.65**
13	25	**22.06**	44.12	8.82
14	**54.41**	5.88	20.59	19.12
15	17.65	**73.53**	5.88	2.94
16	4.41	10.29	**82.35**	2.94
17	4.41	**83.82**	4.41	7.35
18	10.29	16.18	17.65	**55.88**
19	8.82	7.35	**52.94**	30.88
20	30.88	23.53	**38.24**	7.35

Psychology General

Question	A	B	C	D
1	**73.01**	8.14	9.2	9.43
2	9.47	2.76	**85.02**	2.42
3	11.32	**78.95**	2.94	6.39
4	43.75	29.14	**17.76**	8.98
5	6.24	7.7	**78.68**	7.16
6	**77.77**	4.02	6.69	11.32
7	13.62	**27.29**	49.62	9.15
8	14.88	**61.58**	12.07	11.18
9	8.17	2.32	**76.19**	13.03
10	3.63	16.38	10.98	**68.57**
11	15.99	12.83	32.03	**38.79**
12	7.16	9.7	10.68	**72.22**
13	23.71	46.9	**16.7**	12.31
14	0.35	1.58	3.23	**94.57**
15	20.31	**73.75**	3.4	2.22
16	11.13	22.77	**60.97**	4.76
17	35.09	2.25	14.41	**48.01**
18	**79.2**	10.91	7.06	2.59
19	3.85	12.53	**59.49**	23.91
20	11.82	**44.88**	7.82	35.09

Effective practices

Overall, students responded well to:

- items requiring recall of knowledge in simple contexts
- opportunities to demonstrate their knowledge of key findings from studies
- items requiring the analysis and interpretation of evidence from tabulated data.

Samples of effective practices

Short response

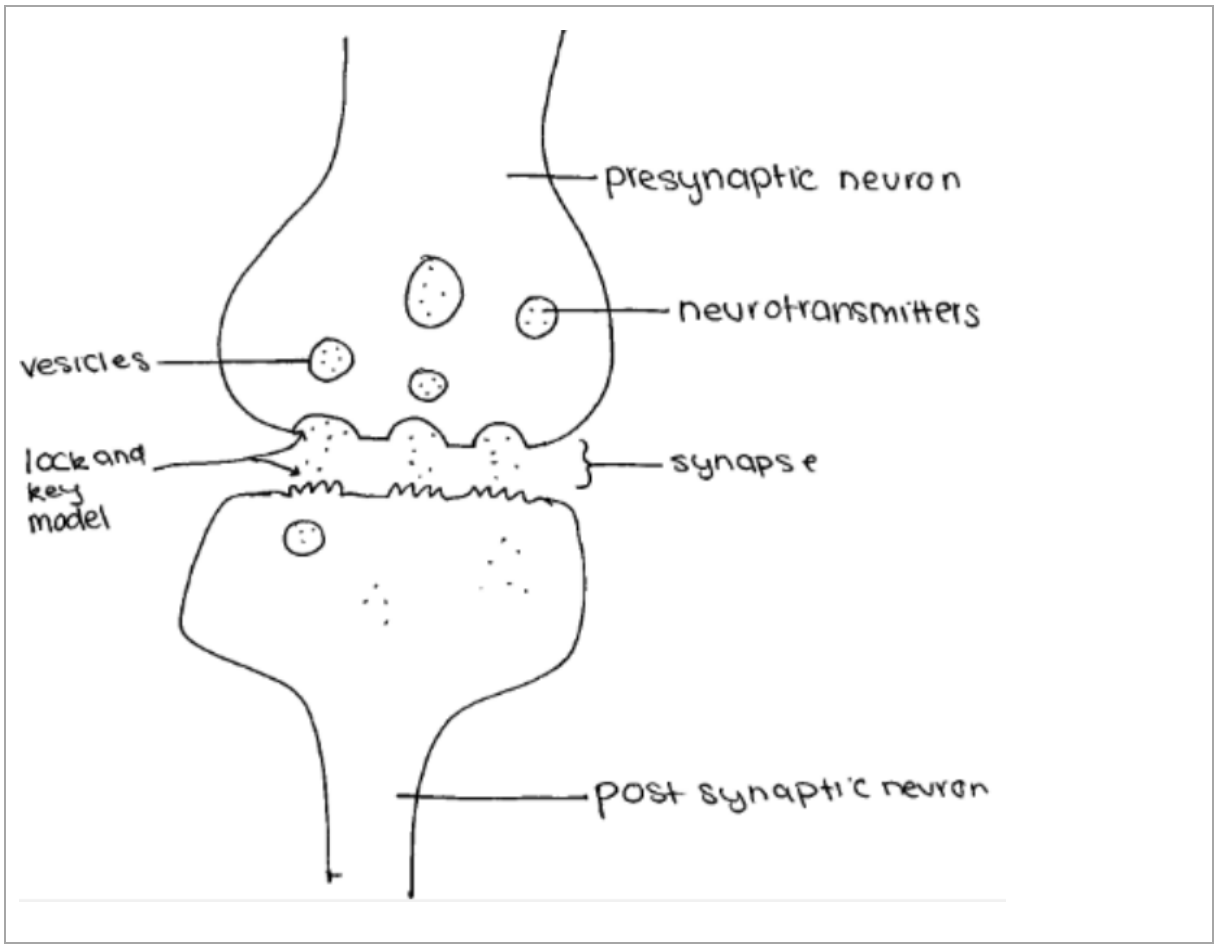
The following excerpt is from Question 33 from Paper 1 (General). It required students to draw and label a diagram to demonstrate neurotransmission.

Effective student responses identified:

- pre- and post-synaptic neurons, and the synaptic cleft
- neurotransmitters crossing the synapse between neurons
- the match between the neurotransmitter and the receptor on the post synaptic neuron.

This excerpt has been included:

- to demonstrate thorough coverage of key aspects of neurotransmission.



The following excerpt is from Question 2b from Paper 2 (General). It required students to distinguish between stimulus generalisation and stimulus discrimination, providing examples from a key study.

Effective student responses:

- distinguished between stimulus generalisation and discrimination
- identified that in the key study, stimulus generalisation occurred
- provided an example from the investigation.

This excerpt has been included:

- to demonstrate complete responses that address all relevant requirements
- to demonstrate correct use of terminology relating to classical conditioning.

Stimulus generalisation is the elicting of the conditioned response when the subject is exposed to similar stimuli to the conditioned stimulus. By contrast, stimulus discrimination is the eliciting of the conditioned response only when the subject is exposed to the conditioned stimulus.

In the investigation, stimulus generalisation occurred. This is because Little Albert elicited a fear response when exposed to objects that looked similar to the white rat (also being fluffy and white), such as a Santa beard.

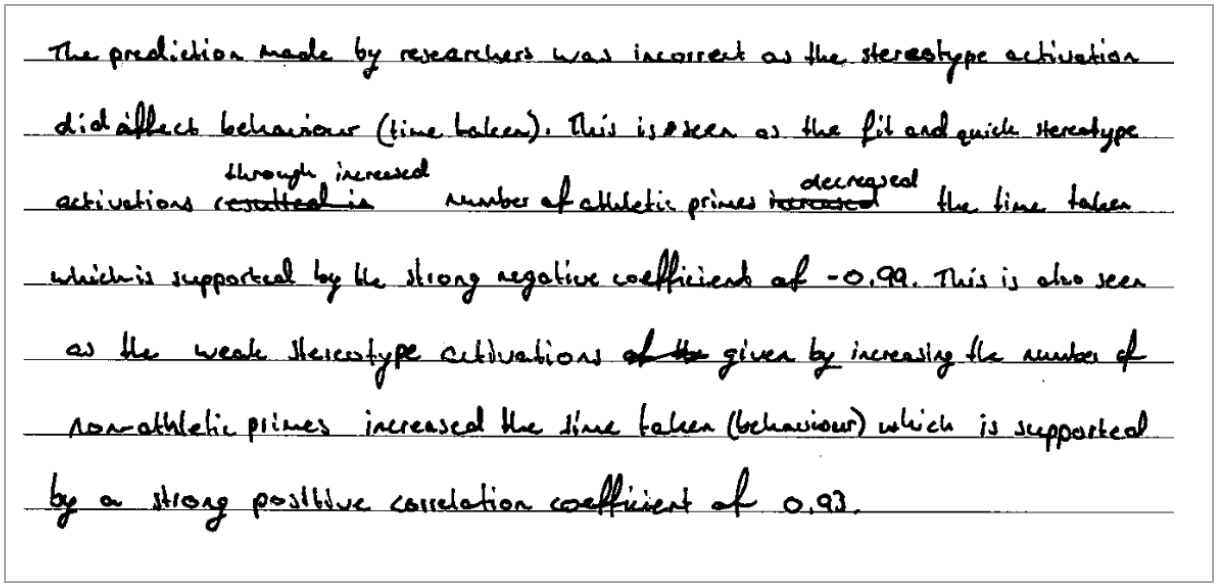
The following excerpt is from Question 5c from Paper 2 (General and Alternative Sequence). It required students to infer the correctness of predictions made by researchers using correlational data from an experiment.

Effective student responses:

- inferred that the researchers' prediction was incorrect
- justified this with reference to strength of relationships
- justified this with reference to type of relationships (positive or negative).

This excerpt has been included:

- to demonstrate a justified response that uses all the relevant features of the data in the stimulus.



The prediction made by researchers was incorrect as the stereotype activation did affect behaviour (time taken). This is seen as the fit and quick stereotype activations created through increased number of athletic primes decreased the time taken which is supported by the strong negative coefficient of -0.99. This is also seen as the weak stereotype activations of the given by increasing the number of non-athletic primes increased the time taken (behaviour) which is supported by a strong positive correlation coefficient of 0.93.

Practices to strengthen

It is recommended that when preparing students for external assessment, teachers consider:

- preparing students for multiple choice questions that require a detailed understanding of concepts and theories
- using the number of marks allocated to a question to indicate the number of statements, cognitions or calculations required to achieve full marks
- exposing students to a variety of study designs and data types and the corresponding data analysis techniques
- encouraging students to use the correct technical terminology of each different theory.

Additional advice

- Some aspects of the Psychology syllabus subject matter present challenges for the development of valid and accessible external assessment items, e.g. topics that are the focus of ongoing research or where representations of complex anatomical structures must be represented to students with visual perception difficulties. New responses to these challenges will be developed through syllabus review and external assessment development processes. Teachers are encouraged to familiarise students with a range of representations and resources.