2023 VCE Extended Investigation written external assessment report

General comments

The advice provided in this document is an overview of the assessment process and trends within student work in 2023. Given the individual nature of student reports and the particular demands of specific research methods, there continues to be a range of ways students can demonstrate skills and knowledge within each criterion. The examples in this document should be seen as some, but not all, of the ways that students may demonstrate knowledge and skill at a given level. It is also important to note that the most important overriding factor in assessing a report is the way that a student has gone about presenting a coherent, critically analysed and logical investigation. Students should not base their choices solely on the examples provided in this document, or on choices made in other research reports or investigations. What is successful in one report may not be logical or consistent with the aims of another investigation and will not necessarily lead to the same result. Choices regarding method, report structure, participants, literature and findings are all individual to a student’s investigation. Higher-scoring students explain and justify these decisions as they come to a conclusion about the central research question.

In 2023 there were a number of students whose research question contained multiple components and, in some cases, two distinct questions. The clarity and scope of a student’s research question remains central to their success in VCE Extended Investigation, and in their ability to present a clearly focused, detailed and logical written report. Questions that contain too many components, or that have two distinct foci, are likely to encounter issues regarding clarity and depth of knowledge and analysis. Students should keep their question as contained and well scoped as possible so that the number of variables, and analysis foci, are narrow enough to support investigation over the course of the year.

In 2023 there were some continued trends, including an ongoing use of systematic literature reviews and the merging of the introduction and literature review in the report structure. Students who were most successful in undertaking a literature review engaged with it as a critical process. Students should bear in mind that a literature review as method is not merely a synthesis of existing knowledge. It requires the use of an analysis framework and process much like any other method, where the literature functions as ‘data’ to be sorted, analysed and categorised in order to produce conclusions about the research question. It is also distinct from the literature review section that many students include in the earlier part of their report. Students who successfully employed this method were able to explain and justify an analytical process and framework through which their data was processed, and used the literature to reach distinct conclusions about their area of research. Some students perceive a literature review as a more straightforward, often ‘easier’ methodological choice, but this is not the case. It requires rigorous and extensive reading and, in some cases, the analysis of very large amounts of data. In 2023, some students undertaking literature reviews dealt with a very small number of research reports or pieces of literature despite working in an area with significant existing scholarship. It is essential that students taking this approach to data demonstrate a breadth of understanding, and dealing with only a small number of studies generally does not support this.

The Extended Investigation Journal is a mandatory component of the study that supports the authentication of student work and student achievement of the outcomes throughout Unit 3 and Unit 4, including for the written report (the externally assessed task). It is a formal record maintained over the duration of the study that provides students and supervising teachers with documentation to authenticate student work and to document any external assistance they receive, whether from teachers, mentors, other persons, or sources (e.g. the use of generative AI). How and for what purpose such external assistance has been applied to the investigation must be carefully documented so that it can, where necessary, be called upon in the authentication of a student’s work and writing. Students should bear in mind that reports should be their own work; they should not be using another person or source (e.g. generative AI) to write or fully edit and proofread a report. If another person or source has been used to rewrite or reword an investigation, it is no longer the student’s own work, and the authenticity of their investigation is compromised. Careful checks are already in place regarding authentication, referencing and plagiarism in the assessment of the Extended Investigation written reports.

Specific information

Each written report is assessed individually against the criteria. Comments regarding achievement levels as outlined below are for illustrative purposes only and do not constitute all aspects of a student’s work that may contribute to achievement.

High–Very High

Students with the highest levels of achievement demonstrated a well-developed level of critical thought and comprehension, tying all aspects of their investigation together and demonstrating a highly detailed understanding of their research area. It was clear that these students had made conscious decisions about how each element of their investigation linked to their research question, and that these decisions added value and complexity to their work.

Higher scoring students demonstrated extensive engagement with authoritative academic literature, including critical analysis and synthesis of this material. At this level, students should have been consistently connecting their analysis to literature in every section of the report. They should have engaged with an extensive range of existing research and consistently used it to support their own position throughout the report. This included the discussion of their method and analysis of results.

The method and analysis of data in these reports was critically presented and again tied to the overarching purpose of the study. The choices made by these students in the discussion of their method and findings were deliberate and reflected critically on their work. The suitability of a method and the ways in which different data-collection tools, participants or ethical considerations come to bear on a student’s investigation were clearly and confidently set out. These students explained the connection between different forms of data, where multiple tools had been used, and critically reflected on the methodological choices they had made. They made careful decisions about the most effective way to represent their data and accompanied this with a clear discussion of trends and key findings. Often, it was evident that students had synthesised and grouped their data according to these findings and had considered how individual questions may be linked in order to create a more comprehensive sense of their research. Students at this level were able to make a connection to existing thought in their research field, consider any limitations to their findings, and explore the possible implications and interpretations stemming from this.

The writing style and fluency of students in the high ranges demonstrated evidence of extensive drafting, editing and refining so that the final report was a considered and carefully worded piece that reflected the time and energy put in throughout the year.

Medium

At this level, students presented a logically developed investigation; however, there were a range of areas that required more depth and criticality. This was sometimes a result of a central research question containing too many variables or being too broad to allow in-depth research. Sometimes it was clear that the students had selected methods that did not allow them to fully explore their question and come to a detailed understanding of the research area.

These reports were often characterised by more generalised discussion of ideas rather than critically exploring concepts in detail. For example, some students presented one-paragraph summaries of key ideas, rather than engaging in detail and exploring complexities. Their level of criticality was not consistent throughout the report. In addition, consistent connections between ideas and the research question may have been absent or needed greater detail to demonstrate the student’s understanding of areas of commonality and divergence in existing literature. The range of sources a student engaged with may have been more limited, although still predominantly academic in nature, or may have been more heavily reliant on non-academic sources, such as newspaper articles or websites. As a result of these issues, students at this level lacked the specificity and depth required to reach the higher ranges.

Students tended towards summary rather than critical analysis and engagement, as was evident in a range of sections, such as the description of the methodological choices within these investigations. This resulted in some reports reading like procedural descriptions and meant that the implications of the students’ choices, and their overarching rationale in light of the research question, were not as clearly defined. Students at this level should be encouraged to strike a greater balance between the explanation of choices and the justification and critical analysis of this in light of the research question. In some cases, these investigations needed to show more clearly how different forms of data collection worked together. For example, students who conducted a survey and interviews may not have provided a discussion as to how these two forms of data worked together to respond to the central research question.]

When discussing findings, students in the mid-range made only a start on synthesising data. A good many students presented data but did not explain it. Tables, graphs and other representations of data were either accompanied by minimal explanation or had no written analysis.

Most students’ reports were clearly structured and contained the expected academic writing conventions. Students should pay attention to proofreading and accuracy of language, as some reports contained grammatical issues that impacted on the clarity of meaning. Alongside this, students sometimes missed connections between ideas within sections of their report, and their report contained sections that did not clearly link together.

Some students had merged the introduction and literature review together in their report, impacting on the assessment of Criteria 1 and 2. Students should note that the introduction and literature review of a report function as distinct sections that build on each other. They have individual purposes and are both needed in full to demonstrate a comprehensive understanding of key ideas in the investigation. A more limited literature review can have significant implications for the assessment of a student’s knowledge and synthesis.

Low–Very Low

Student work at this level demonstrated little critical engagement and often contained issues with clarity, cohesion and logic. These reports were descriptive, more likely to be brief or missing sections, or contained significant issues with the conduct of the investigation. While students at this level attempted to explain aspects of their investigation, their reports demonstrated sustained errors in expression, structure and depth. Any engagement with academic literature was extremely brief or focused on a very small number of sources. Websites, media sources, blogs and other less authoritative sources were relied on more heavily by students at this level, and referencing issues were evident across the reports.

Some lower-scoring students had not completed their report, and some reports had whole sections missing. Similarly, the representation of data in lower-scoring students’ reports was brief, included sections of raw, unanalysed data without discussion, or the data was confused and not relevant to the central research question. As a result, the findings and conclusions lacked coherence, depth or links to the central research question. In some cases, it was evident that students had run out of time in the latter half of their report, which compromised their work and overall result. It is important that students spend considerable time analysing and sorting data to understand their results and present a logical conclusion to the investigation. Students need to give sustained consideration to the most appropriate forms of data representation, the key pieces of data to be used to illustrate findings, and the most important findings to the investigation itself. Students should begin considering these issues during the early investigation stages and should continue to consider them throughout the course of their investigation. Students should bear in mind that some aspects require revision, testing and, in some cases, multiple drafts, especially when more than one data set is involved.

A further issue in these reports was the clarity and coherence of writing and academic conventions. Students’ reports at the lower-scoring levels displayed inconsistent voice and tone, issues with spelling and grammar that affected understanding, and sections where the flow of ideas was not clear. There were specific issues with the application of academic conventions, including limited evidence of referencing or an inconsistent referencing style, and in the use of subheadings and sections.

Advice to students and teachers

There continues to be an overall improvement in the clarity, structure and intent of students’ investigations across the written reports. In 2023 an improvement in writing style and sophistication of expression was noted, particularly in high-range reports. This year students’ strengths lay in their knowledge of their research area and in their understanding of report-writing conventions and academic writing. Greater attention was needed in the synthesis applied across reports, and in the discussion of methods and results. The discussion of method and results in particular required greater detail and critical engagement from students. Many students also tended towards description of the method without justification, and presentation of data without discussion of key trends. It is important that in both of these sections students focus on both explaining their approach and articulating a rationale for it, and selecting relevant data through which they can explore key trends. They should also focus on making these trends explicit for the reader and grouping data in a logical manner.

A large number of students used tables as a means of representing data. While tables have a place in the representation of qualitative data, students need to use them with purpose and focus. They should not be used to reduce the word count of a report. Students should note that the most important principle in the representation and discussion of data is what trends have been identified, and how these might be most effectively represented to the reader.

Assessment criteria

The following are general comments regarding achievement in each criterion. They should not be seen as an exhaustive list of features, as each report is unique and decisions regarding both the writing and marking of the report are based on the research question and conduct of the investigation.

Criterion 1 – Knowledge and understanding of the research area

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 0 | 1 | 2 | 9 | 16 | 26 | 23 | 16 | 8 | 7.3 |

Students were required to engage with all key concepts within their question. Students with questions containing multiple parts or a significant number of variables had greater difficulty demonstrating a depth of understanding, often due to the volume of information they were trying to cover. Some students who elected to combine their literature review and introduction, or to remove the literature review altogether, also faced greater difficulty in demonstrating high-level knowledge. Students should note that it is very rare for there to be little or no research available on a topic. When students claimed research in their area was limited, it was usually an indication that the student needed to research more widely and more critically, and substantially engage with their field of knowledge. To demonstrate high-level knowledge, students should engage consistently with the key ideas in their investigation, and explore a range of academic scholarship in detail. Students should note that in this criterion, depth is an essential component of performance; brief discussions rarely contained the level of detail required to demonstrate a fully developed understanding of a topic or idea.

Students should be mindful of the need for accurate and consistent referencing. Some students had limited ability to achieve in this criterion because of inaccurate academic attribution. Students should reference materials they have used, thereby demonstrating a consistent and thorough engagement with the existing body of knowledge.

Criterion 2 – Analysis and evaluation of argument and evidence

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 1 | 1 | 5 | 12 | 22 | 25 | 17 | 13 | 4 | 6.8 |

Critical analysis differentiated higher-scoring students from mid-level students. A student’s ability to consistently critically engage with their work and the existing literature associated with it demonstrates their mastery of the field and the ability to make links between areas of knowledge. Students who succeeded in this criterion were able to discern the most important trends in existing research and present them with clear links to the research question. Students who were still developing this skill were more likely to deal with pieces of literature individually and were more descriptive in their recounting of key knowledge.

The strength of a student’s critical thinking skills, built up across the course of the Extended Investigation year, was evident in this criterion. Students who applied the components of critical thinking knowledge and skills from Unit 3 Area of Study 3 to their own investigation scored best in this criterion. Students who scored highly did not only demonstrate evaluation of argument and evidence in the earlier sections of their report, but also engaged with it in the discussion of their findings. They made connections between their own results and the work of others, using this to explore possible causes for their findings or to reflect on areas of further research.

Criterion 3 – Response to the research question

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 0 | 2 | 6 | 16 | 24 | 25 | 16 | 8 | 4 | 6.6 |

The cornerstone of each investigation is the central research question, and it is expected that students are consistently refining and working to understand the question through their investigation. Some students’ questions would have benefited from tighter scoping so that they contained far fewer variables, or focused on one central idea rather than two. Of particular concern were instances where students identified two key research questions and attempted to address both through their inquiry. This led to issues across these investigations and caused difficulties in the clarity of the method and depth of understanding of the field.

This year students trended towards more descriptive method discussions requiring greater criticality and justification. Students should note the importance of the method section of each investigation, balancing both an explanation of the approach and data collection tools adopted, and a justification of these choices. The intention of this section is both to make clear the data collection approach adopted, and to justify the relevance of this approach in light of both existing research and the area of investigation. Considering the advantages and limitations of a methodological approach helps students to explore the limitations of their data and to reflect on the conduct of their investigation. A lack of justification in a written report limits a student’s ability to achieve in the higher ranges of this criterion.

One of the key considerations in this criterion is whether a student’s method fits the aims and purpose of the research question. Some students submitted reports where the sample size and population were not the best fit for the intentions of the research question. Sample sizes that were too small limited the scope of data analysis and discussion of the research question. It is therefore important that students reflect continuously on the implications of a particular methodological choice for later data analysis, discussion, and ultimately response to the research question.

Criterion 4 – Synthesis of findings and evaluation of the investigation

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 0 | 2 | 5 | 13 | 23 | 27 | 16 | 10 | 4 | 6.8 |

At the core of this criterion is a student’s ability to analyse data. This skill has strong links to the critical thinking area of study within this subject. Understanding links between ideas, identifying patterns and trends, and using these as the basis of a cogent and coherent argument rely on critical thinking. Spending time across the year developing these skills will pay dividends in the analysis of a student’s data. Students need to make conscious decisions about what data is the most relevant and the most effective way to display this to the reader. It is essential that students identify clear trends and do not simply list statistics or quotes. Teachers are encouraged to support students in the data analysis process by exploring different avenues for understanding and representing their data, especially the most appropriate trends to emphasise in light of a research question.

In 2023, some students included large quantities of data in tables in the body of their report. Some students also presented data in tables, graphs and other analysed representations, unaccompanied by any explanation. It is expected that each written report not only effectively represents the data collected but accompanies this with an analysis of meaning: the trend that was emerging or the relevance of the data to answering the central research question. Students should explicitly analyse data as they present it, and also identify key trends for the reader. In addition, tables used to represent data must be both appropriate and judicious. Some students presented large tables that extended over several pages, which was problematic in allowing students to demonstrate their key findings and the data supporting them, especially without an accompanying explanation of key trends. Where students are representing large quantities of qualitative and descriptive data, thought needs to be given to the most appropriate format and the most appropriate elements of the data. Students need to see the representation of their data and accompanying explanation as part of a narrative that helps the reader understand how the central research question has been addressed and what the investigation has achieved. Clarity, precision and explanation are key to this.

Engaging with academic knowledge in the examination of findings and exploring limitations in the conduct of the investigation is also an important component of this criterion. Once the key data developed as part of the investigation is established, placing it in the context of existing knowledge, or using existing scholarship to explore potential causes and implications, is an important component of each investigation. In addition to this, reflecting on the limitations of an approach, either in its design or application, is an important component of evaluating an investigation. It is essential that, as students reflect on their investigation, they consider factors that may have impacted on their data collection and results from an academic perspective. Reasons such as poor time management, or the short nature of the study, are not strong limitations and suggest poor research skills rather than issues with the actual conduct of the investigation.

Higher-range student responses in this criterion presented logically sequenced data that demonstrated key trends directly related to the central research question. They explored their findings in detail and engaged with academic literature to discuss the meaning of their results. Mid- or lower-range responses did not present an analysis or description of data, or used data that was not clearly relevant to the investigation.

Criterion 5 – Clarity and effectiveness of writing

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 0 | 1 | 2 | 9 | 24 | 28 | 21 | 9 | 5 | 7 |

Students are expected to present a well-edited, polished piece of writing that uses precise language and makes deliberate choices about the best way to communicate ideas. At the most basic level, students should demonstrate a strong grasp of spelling, grammar and punctuation, and their ideas should develop logically both within and between paragraphs. The report should be developed, refined and presented as effectively as possible given the length of time students are afforded to work on their investigation and final report.

Students should be wary of using acronyms. Some students used too many acronyms, breaking the flow of writing and causing reader confusion. Similarly, students need to remember that glossaries need to be used together with the embedded use of definitions to reinforce and build reader understanding of these terms in context. Some students repeated information in different sections of reports without alteration. Students should use paraphrasing strategies to re-establish and review key points, or when foreshadowing is initially presented and an idea is taken up again in a later section of the report, rather than repeating sentences and whole paragraphs in more than one place. Finally, students should be cautious in their use of any proofreading and editing tools, including the use of AI, that may alter the voice of their writing. Consistency of language style, sentence structure, vocabulary, and clarity of expression are all important to this criterion. Without careful consideration of the report as a whole and how each piece of writing fits together, issues in voice and clarity often emerge, and impact on student performance.

Criterion 6 – Observance of report writing conventions, including citations and bibliographic reference of sources

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| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 0 | 1 | 3 | 10 | 21 | 26 | 23 | 12 | 4 | 7 |

Criterion 6 focuses on a student’s understanding of the structural conventions of a research report, including the referencing and academic citations used to attribute ideas to others, and the structure of the report as a whole. It is important for students to understand the role of each written report section in building the narrative of their investigation and justifying their work. Where a student has not effectively utilised report writing conventions or structures this can impact on multiple criteria.

Students should only use raw data in the appendix of a report if it is directly referenced and requires review by the assessor as part of the written report. Students should only include small snapshots of raw data where needed – for example quotes from interviews, rather than entire interview transcripts or raw survey data. Any data, raw or analysed, and any discussion of participants must not include identifiable information. Some students included identifying information, such as signed consent forms or plain language statements, or detailed descriptions of participants, including personal information. Students should note that the appendices of a written report should be used to contain information relevant to understanding the investigation but not essential to the main body of text. A good rule of thumb for a student is that if they are including information they think is important for the assessor to read in the context of the investigation, it should be in the body of the report. Appendices should only contain supplementary information.

It is also important that students understand and apply the conventions of referencing in their work. While many students displayed a sound understanding of referencing, others showed a lack of understanding regarding the differences between paraphrasing, quoting and synthesising information. Understanding how to demarcate a student’s own original thoughts and synthesis of material from the existing ideas of others is an essential skill that must be developed across both the coursework component of Extended Investigation and the drafting of the final report. Failure to consistently develop this skill and apply it to the final report can impact a number of criteria where the distinction between students’ own ideas and the ideas of others is of importance.