2023 VCE Extended Investigation oral external assessment report

General comments

The Extended Investigation oral presentation affords students the experience of presenting and defending the research they have completed over the course of a year. It comprises two sections: the presentation of the investigation, and the response to questions and challenges. Students present for 7–10 minutes, after which they are asked questions for a further 8–10 minutes. The Extended Investigation oral enables students to present what they have learnt throughout the year, and students presented with passion and enthusiasm on a wide range of topics. Many students found it hard to encapsulate the key elements of their project within the allotted timeframe because they had explored their chosen field of research so deeply.

The oral presentation provides students with the opportunity to critically reflect on their research and demonstrate knowledge and understanding of research skills through an evaluation of their research investigation design. Assessment of the oral presentation is based on knowledge and understanding of the research area; defence of research findings and an understanding of their audience; responses to questions and challenges; and reflection and evaluation. Students are strongly encouraged to use these four assessment criteria when developing the content and structure of their presentations.

In 2023 we saw increasingly broader topics chosen from a range of academic disciplines, including particle physics (cosmic radiation), aerodynamics (wing design), heritage preservation, animal conservation, political/historical case studies, film/television analysis, cultural studies and public policy. This indicates that students are able to pursue their passion and interest through a range of academic disciplines. Some students may assume that a ‘high score’ is contingent on the selection of a ‘unique’ or ‘topical’ subject, but this is not the case. Regardless of subject choice or selection, students who score highly are those who have developed an investigation with a well-defined scope that is linked in with the prior academic literature to build the rationale for their research.

It is important that students choose a topic or research question in which they are interested, and it is important that teachers ensure that students are the drivers of their investigations. Students who have not been able to select a topic that can sustain their interest throughout the year may struggle to maintain motivation over the course of the year and can be too general or formulaic in their responses to challenges in the question-and-answer section of the oral.

It is crucial that students have an understanding of the assessment criteria. A number of students reported extensively on prior background research and results without discussing methodology, results or key findings, or reflecting on limitations. The oral assessment is aimed at providing students with the opportunity to critically reflect on the design of their research investigation, and in order to do this, students must utilise a range of critical-thinking skills and knowledge of research methods. Students are encouraged to consider and reflect on the evidence and arguments used for each of the key components of their research (methodology, scope etc.). Presentations that simply report on prior research will struggle to demonstrate critical thinking.

The oral rubric does not assess students on their presentation skills. The Extended Investigation oral is not to be confused with debating, therefore there are no requirements for students to use rhetorical or persuasive techniques. The oral is an academic-style presentation, which means that the student must use reason, argument and evidence to build a case for each of the key stages of the investigation.

Although presentation skills are not assessed, many students may lose momentum (particularly in the first 5 minutes) due to a lack of preparation. It is for this reason that students are encouraged to seek as many opportunities as possible to practise their oral presentations in front of different audiences. In preparation for the oral presentation, students should be provided with the opportunity to encounter a variety of questions about their research to build confidence in their own knowledge and understanding of their investigation.

Advice for teachers and students:

* Extended Investigation questions and methods must comply with responsible and ethical research guidelines, as outlined in the VCE Extended Investigation Study Design.
* In 2023 a number of presentations would have benefitted from greater scoping to avoid ethical concerns. Some investigations were disadvantaged because they utilised content or used language that was in breach of the ethical guidelines.
* It is important for students to know and understand the differences between the written report and the oral presentation. Some students attempted to repeat their 4000-word report in the allotted 10 minutes.
* The time frame for the first part of the presentation is 7–10 minutes, and students should be reminded to stay within this limit. Presentations that were significantly longer than 10 minutes needed further synthesis and clarity. Students who spoke quickly to make sure they kept to time were disadvantaged. Students are to be reminded that they can go into further depth on key areas in the question-and-answer section.
* Students generally used visual aids effectively, though they are reminded to take time to explain the visuals (such as charts and graphs) they have chosen to present. Some students did not adequately label or make clear what data was being visually presented; this can lead to time being misspent on clarifying the meaning of a visual in the question-and-answer section.
* It is important that students are made aware of speech structure, signposting, language choices and presentation techniques. While presentation style is not an assessed criterion, students should be aware of the impact of speaking too quickly or without engagement with the audience.
* Students are reminded to remove all personal information (name, school etc.) from their presentation. In 2023 many students introduced themselves by name, referred directly to their school or had their name on their presentation. VCAA wants to ensure that all students receive a fair assessment.
* It was clear that some students selected research topics that they found difficult to investigate in depth. These students often did not have access to appropriate resources (such as academic literature) or data collection methods. Students are reminded that the selection of a ‘complex’ topic does not automatically lead to a high-scoring oral presentation.
* A number of students presented highly sophisticated research but were hampered by the underdevelopment of the research question driving the investigation. Students are urged to recognise that the research question will evolve over the course of the year in line with the development of their thinking. Teachers may guide students to reflect on the direction of their research and whether this would require a reframing of the aims and intentions of the investigation. The evolution of research questions may enable students to demonstrate critical thinking.
* Critical thinking skills underpin the entire Extended Investigation process. When preparing for their oral presentation students should consider how they are demonstrating these skills.

Specific information

The statistics in this report may be subject to rounding, resulting in a total of more or less than 100 per cent.

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

Criterion 1 – Knowledge and understanding of the research area

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0 | 2 | 4 | 11 | 17 | 16 | 16 | 17 | 12 | 5 | 6.5 |

In order to demonstrate knowledge and understanding of their research area, students are expected to present the key components of the investigation with a line of argument. This includes the focus and significance of their research area and question, critical engagement of academic background research in the chosen field, and the data collection method(s). Throughout the presentation students should make clear how and when they are using reference sources/information. Many students were able to clearly justify the significance of their research topic and approach and displayed a keen interest and sense of passion in their investigations.

Most students presented a clear overview of their investigation. Students who scored highly often selected quite specific areas of investigation with a precise set of parameters that allowed them time to delve more deeply into the research and show a comprehensive understanding of key issues. These students engaged with specific researchers or research fields, identified ideas or theories relevant to their research topic and question, and then deployed appropriate methodologies. They demonstrated a critical understanding of research literature and its link with their investigations. They engaged with literature and methods throughout their presentations and demonstrated a firm understanding of the complexities of the research field. High-scoring students tended to be able to acknowledge weaknesses or limitations in the design of their study and consider ways to improve and/or resolve identified issues. Students who reflected on the strength of the evidence and argument (e.g. unwarranted assumptions) and considered how this might be resolved tended to score in the higher range.

Most students were able to explain the design and conduct of their investigation effectively. Students who scored highly were able to explain the key components of their methodological approach and the various data collection methods they used. They were able to demonstrate how their selected data collection method(s) enabled them to collect data that helped them respond to the specific demands of their research question. They were able to develop a line of argument that showed how one choice could lead to another that was unforeseen at the outset and, where relevant, to reflect critically on the connection between their research methods.

Some students who scored in the lower and middle ranges selected a research question that made it difficult for them to deliver a significant or substantial piece of research. These students often relied on a very small number of sources and found it difficult to venture beyond these sources. Furthermore, they provided brief summaries of key ideas without critical engagement with the literature. It is important for students to be able to show a conceptual understanding of how their investigation fits within the context of existing research. Doing this will assist students to demonstrate Criterion 1 at a high level.

Many students provided reasons to justify the importance of their research topic in general terms but struggled to explain how their investigation built on prior established knowledge. Students who did not score well struggled to explain the relevance of their selected method within the context of the research area. For example, in many cases a ‘convenience survey’ is an appropriate methodological choice; however, some students who utilised these surveys did so without productively linking the survey outcomes to their topic or their aims. Students whose method was identified as a ‘systematic literature review’ but was more similar to a collation of reading material with little critical engagement, had difficulty in explaining their method of analysis. There needs to be a deep understanding of the different types of methodologies and their justification for different types of research.

Criterion 2 – Defence of research findings and understanding of audience

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 1 | 1 | 6 | 11 | 20 | 19 | 13 | 18 | 8 | 5 | 6.0 |

Students are expected to discuss the relevance of their work and to justify their findings in light of their primary research question. In explaining their work to the assessors, presentations are expected to be well structured, coherent and free from jargon. Subject-specific terminology should be clearly explained. Both the presentation and questions and challenges sections are used to assess against this criterion.

Most students displayed a very real sense of enjoyment and passion for their topics. They presented with confidence, and it was apparent that they had prepared well. Students who scored highly spoke confidently, fluently and clearly. These presentations were often characterised by a few well-chosen visual aids and notes, and the student’s ability to restructure their investigation into a form appropriate for an oral presentation.

Students who scored highly were able to introduce central concepts through an engagement with key research. They were able to acknowledge uncertainty and limitations in the evidence and arguments presented in their research. They clearly and purposefully highlighted the most significant findings of their investigation and demonstrated how their findings helped them respond to their research question. They explored the connections as well as areas of disagreement with previous knowledge in the research area.

Lower-scoring presentations often lacked a coherent structure, moving from one section to another without clear links and at such speed that the presentations were difficult to follow. In these cases their findings were lost in the race to finish. Many students merely listed their findings, on a question-by-question basis. Some students were unable to overcome an inherent bias that affected their research from the start and had collected data that simply confirmed what they already thought about a given topic. Some students who used friends to complete their research (as a source of data) found it difficult to defend the reliability and validity of their research findings. Middle- and lower-scoring presentations often made bold assertions about the generalisability of their findings without acknowledging the limitations of their sample size and participant population.

In 2023 there was a tendency for students to spend a lot of time on the description and explanation of their topic and chosen methodologies, which left a limited amount of time to defend their research findings. Students who did not score well often took too long to get to their findings, leaving them with insufficient time to fully explore the data they collected and defend their findings. These presentations did not attend to the pacing needed for the audience to take in and process all the information. This is an area that should be a focus of improvement in 2024.

Criterion 3 – Responses to questions and challenges

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 0.5 | 2 | 6 | 13 | 16 | 18 | 15 | 14 | 12 | 5 | 6.3 |

The response section is designed to illuminate aspects of a student’s work that may not have been fully explored in their presentation. Although there is only one criterion that explicitly addresses this section, the questions and challenges can have significant implications for the success of the student across the whole set of criteria.

Through the questions, students are given the opportunity to clarify and elaborate on their investigation. This includes key issues in the research, background research, methods, findings and limitations. Assessors pose questions and challenges that allow students to fill in any gaps from the first part of the presentation, as well as to provide opportunities for students to extend their thinking, make connections, clarify ideas previously raised and explore their investigation in greater depth.

In responding to questions and challenges, students who scored highly elaborated on and clarified their research design, supported their discussion with reference to previous research, and further reflected on the findings of their investigation. These students were able to discuss issues beyond the strict parameters of their investigation, displayed an enthusiasm for stretching the discussion and could elaborate on responses with ease, indicating that their knowledge of their investigation was extensive. They were able to go beyond their presentations (either to think about implications, other conflicts in the field, or future directions), demonstrated a strong knowledge of their topic and could see the place of their research within the broader research field. When responding to questions they had a detailed knowledge of their investigation and were reflective on their research journey.

Students who did not score well had difficulty elaborating on their responses during the questioning, and their responses often simply repeated information from the first part of the presentation, rather than making links to existing literature or data gathered through their investigation. In some cases, they were not able to provide evidence of the work undertaken, and large gaps in their knowledge were exposed. Some students were clearly reading prescribed information during the first part of their presentation, and when questioned were unable to go beyond their narrow understanding of their research and processes. This highlighted a clear disparity between what they were reading and what they understood, meaning that they were unable to be reflective.

Many students missed the opportunity during the questions and challenges section to critically reflect on the strength of the design of their study, including the methodological approach and the implications the method may have had for their findings. Students should remember that questions in the oral presentation are specifically framed so as to draw out further information and evidence towards satisfying the criteria. Some students who scored in the lower range tended to report on their conclusion but were unable to draw out the steps in the reasoning that led them to the conclusion. For example, students would talk in the past tense about a decision they had to make but were unable to present the rationale that led to a key element in the decision, for example the use of exclusion criteria in a systematic literature review. Students were sometimes asked a question in different ways to provide them with multiple opportunities to engage with an aspect of their investigation. In some cases, often in lower-scoring presentations, students provided no additional information, or gave only brief answers.

Criterion 4 – Reflection and evaluation

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 0 | 1 | 2 | 6 | 14 | 19 | 17 | 15 | 14 | 8 | 4 | 6.0 |

This aspect of the oral presentation requires students to critically reflect on and evaluate their extended investigation. Both the presentation and questions and challenges sections are used to assess this criterion.

In general, students seemed to have thought carefully and reflected on their project and were mostly able to acknowledge areas of improvement.

Higher-scoring students reflected on the decisions they made throughout their investigation and were able to critically examine and evaluate these choices. They were able to comment on potential limitations, while still valuing what they had achieved. These students demonstrated critical thought, reflection, and analysis of their investigation and its outcomes and often embedded this in their discussion of the individual components of the research process (for example, limitations and implications of methodological choices). Students who scored highly had a developed idea of why their area of research is important and where it might lead in the future, providing a range of ideas for the direction future research might take.

Students who scored in the mid-range were generally able to reflect on the data collection techniques they used, such as the questions used in surveys or the experimental design. There was some ability to defend the approaches they had taken and to reflect on any limitations of the methods they used. A number of students reflected on their investigations but did not critically explore how the limitations of their own planning or their research design affected their results. Student in this range tended to be able to give a justification for key decisions but struggled to reflect on the strength of their reasoning. Some students used key quotes from the prior literature as justification instead of the argument and evidence that was present in the prior literature. Students should be mindful that prior literature should be utilised critically.

It would appear that some students did not budget their time well and used somewhat concealed convenience surveys. It is necessary for students to plan the work, undertake it and reflect on it as part of a lengthy process, rather than pull things together at the last minute. Students should avoid stating the obvious, such as ‘I did not have access to …’ or ‘The time/cost of conducting such an experiment is beyond the scope of this study ...’. If it’s so obvious, then students should not propose it only to dismiss it. Several students stipulated that one of their limitations was that they only had two weeks to collect data, and that this limitation was placed upon them, presumably by their Extended Investigation teacher. Where possible, students should make their own informed decisions concerning how long data collection should take to ensure enough time is available. This is an area for improvement in 2024.

It is important that students take ethical issues seriously in their investigations and understand the ethical dimensions of their research. Examples of demonstrating a deeper understanding of ethical considerations included students who explored the environmental sustainability of materials used in scientific experiments, or showed an understanding of the cultural, religious and language differences of interviewees or focus-group participants.