

Research Project A and
Research Project B

2016 Chief Assessor’s Report

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## Overview

Chief Assessors’ reports give an overview of how students performed in their school and external assessments in relation to the learning requirements, assessment design criteria, and performance standards set out in the relevant subject outline. They provide information and advice regarding the assessment types, the application of the performance standards in school and external assessments, the quality of student performance, and any relevant statistical information.

Moderators and markers reported that there is now an inherent expertise in the teaching and learning evident within this subject. This is reflected in the engagement of students with the choice of questions and the breadth of methodologies adopted by students in the development of their research. Students are now moving beyond superficial background research and instead moving into conducting their own trials, experiments, observations, and good-quality qualitative research, i.e. attending focus groups and meetings, engaging with online forums, and undertaking in-depth personal interviews. Across all assessment types, the standard of the student evidence continues to improve.

Students are also capitalising on the technology available to them. The documentation and analysis of research is increasingly of a diverse nature and students are now using a variety of software packages, apps, and smart devices. The use of technology is also increasing for the creation of student outcomes, where visual and audio material has the ability to engage with a student’s target audience.

Both markers and moderators noted that the use of templates has decreased, especially in evidence for Assessment Type 1: Folio. There is now an awareness that some students do need supportive scaffolding in order to assist them with meeting the performance standards, but the majority of students, by moving away from such templates, are able to truly engage with the research that they are conducting.

Moderators recommended that a focus for 2017 should be the overt teaching of research terminology and practices, including an awareness of ethics in research, as well as a concrete awareness of the difference between validity, reliability, and credibility of sources. Another focus for teachers should be the overt teaching of how to analyse data effectively in order to answer a student’s chosen research question. Moderators also reported that the capabilities are still not being fully engaged with. Given that capabilities are an integral component of Assessment Type 1: Folio, students should be well versed in being able to engage with the nature of the selected capability or capabilities.

Moderators noted (especially where schools had a number of classes but had submitted materials as one assessment group) that there had obviously been an element of ‘internal moderation’ to ensure consistency of standard between classes. This increased the likelihood of grades being confirmed.

Question Choice

Moderators and markers commented positively on the increased range of questions and ideas explored — from highly technical research questions involving in-depth qualitative research to basic data collection and analysis-type questions. This year it was also positive to see that many research questions had a practical application. Some questions related to specific businesses, community projects, or sporting organisations, and these entities were then able, or had the future capacity, to act on the research.

As in previous years, students who were passionate about a topic or who were investigating a topic that was clearly relevant to them tended to achieve the highest grades. These topics were most successful when they were phrased to elicit argument, help develop a skill, or provide a valid answer to contemporary issues. Questions that continue to facilitate higher levels of achievement are those that are developed, achievable, clear, concise, specific, and accessible, and that can be achieved within the time frame. It is recommended that teachers devote time to each student to ensure that the question optimises the opportunities to provide evidence towards the highest grades.

Some examples of the many questions which were interesting this year included:

* To what extent did the treatment of Julia Gillard by the Australian media identify Australian attitudes towards women in political power?
* Is cyprinid herpesvirus 3 a healthy, sustainable, and effective step towards the restoration and/or preservation of the Murray–Darling Basin?
* Why is laughter so important for humans?
* How do parents’ interactions with their children under the age of 4 years affect the children’s ability to develop language?
* Do modern training climates, such as heat training and altitude training, create physiological advantages in the AFL?
* Is help easily accessible for emergency nurses suffering post-traumatic stress disorder in Australia?
* To what extent is popular film normalising stalking?
* How can visualisation improve the accuracy of a serve for an elite tennis player?
* To what extent does mirror box therapy assist in pain management for amputee victims?

As previously reported, markers and moderators identified that some questions appeared to restrict students’ capacity to achieve at the higher levels. Such questions included those that:

* had answers that were already well known and clear cut
* provided a yes/no answer
* were closed questions that prevented higher-order analysis or evaluation
* commenced with expressions such as ‘What do you need to become a …’

Concern was again expressed by both moderators and markers regarding questions with questionable ethical appropriateness. These included the impact of physical and sexual abuse, experimenting with the impact of sleep deprivation or a low-calorie dietary intake for a prolonged period of time, or using dangerous products for experimentation purposes. Research questions on such sensitive topics make it difficult and ethically questionable for students trying to find individuals to talk to for primary research, especially when it can lead students into ‘unsafe’ territories that they are not equipped to deal with.

## School Assessment

Teachers and students are reminded that Assessment Type 1: Folio and Assessment Type 2: Research Outcome for both Research Project A and Research Project B are assessed according to the same standard with identical assessment design criteria and performance standards. Therefore, the evidence of learning from students in a Research Project A or a Research Project B class should be assessed identically. The only difference between the two subjects is that the evidence for assessment for Assessment Type 2: Research Outcome for Research Project A is shorter at a maximum of 1500 words, if written, compared to 2000 words for Research Project B (10 minutes and 12 minutes, respectively, for an oral presentation, with equivalents for multimodal forms).

Assessment Type 1: Folio

General Comments

Moderators stressed the importance of the appropriate selection of evidence for the 10 pages (as described in the Research Project subject operational information). Better responses continued to be those which provided balanced evidence against all of the specific features. These responses tended to present a tight snapshot of the research undertaken and the research processes used. The most successful student folios included a sequential development of topic and resources, with evidence of areas that required additional focuses, resources, or research.

Moreover, higher grades were generally achieved by those who effectively used the entire space available in their 10 pages of evidence, often incorporating the students’ own highlighting and annotation of the material, providing evidence of how their research was developing in light of the question. Using ‘signposts’/headings also helped students to address all of the criteria and ensured that nothing was omitted.

Students who simply assembled 10 pages with very little consideration of the assessment design criteria did not achieve as solidly as those students who specifically collated materials to meet each specific feature and had considered the performance standards at the highest level.

Moderators expressed concerns about the following issues relating to the selection of the 10 pages which tended to limit students’ capacity to achieve at the higher grades and made it difficult for moderators to confirm grades:

* inclusion of pages which appeared to have been part of formative work, such as how to create a survey, particularly when it had nothing to do with their research question; this appeared to be wasted pages in the body of evidence
* digital selections of evidence, such as 10-page PowerPoints, which did not address all of the performance standards
* use of sticky notes with labels such as ‘capability discussion’ which were placed over the top of the actual discussion, then photocopied, thereby obscuring the actual written evidence of the growth and development of the capability
* inclusion of one or two pages of glossary, which did not provide evidence of any of the specific features on which the folio is assessed
* imbalance of evidence, such as more for planning (specific features P1 and P2) than development; for example, where 5 pages were devoted to brainstorms and timelines, students had little opportunity to effectively demonstrate the development of their research, thus hindering their achievement of higher grades
* evidence of what was going to be researched and what the focus of their research was going to be, rather than the final choice of their research question and the research that was actually conducted
* inclusion of journal material that appeared unrelated to the performance standards, or of downloads of articles with little or no analysis
* multimodal evidence in the folio which was not the ‘equivalent’ of 10 pages (according to the Research Project subject operational information, one A4 page of written evidence is equivalent to *2 minutes* of oral evidence).

It is important to note that the discussion is *not* a compulsory component of the 10 pages, but it *can be*used as evidence of planning or development. If the discussion is included, it is advised that it is no more than one page of written material (or 2 minutes of oral material), provided that it enhances the evidence presented against the specific features. The bibliography is not an additional page to the 10 pages and, unless annotated, is not a powerful contributor as evidence against the performance standards.

Overall, moderators reported that the standard for detailing the evidence of research processes and general planning had improved, but some folios were still lacking in the depth of analysis. Moderators noted that students were often confusing summarising information with the analysis of the material and its usefulness in being able to address their research question. As well as this, students were still not fully engaging with the development of the capabilities; token statements were still being made with little real evidence of growth in awareness of the nature of the capability and its contribution to the development of the research. Where student grades were moderated down, it was generally due to specific features D2 and D4.

Specific Features: Planning (Research Project A and Research Project B)

**P1: Consideration and refinement of a research question**

**The more successful responses**

* Focused on research questions that were succinct and resolvable and therefore were more likely to lead to higher grade levels in other specific features, such as D2 and D3.
* Included a refinement of the research question, which was detailed and systematically followed the process of: idea, refinement of the idea, elaboration of the idea, and then explanation of reasons for the refinement.
* Provided evidence of the refinement of the research question, and the evidence was ongoing throughout the entire folio rather than just in the proposal.
* Demonstrated evidence at a higher level by explicit reference to refining the topic and explicit reference to capability development, rather than when these were simply implied.
* Incorporated questions that posed a challenge and an opportunity to discuss different aspects (both positives and negatives) and gave students the opportunity for stretch and rigour.
* Provided effective evidence, including that in which the refinement of the question was referred to and explained in the analysis of sources, and including how the research was leading to the refinement or modification or validation of the focus of the research question.

**The less successful responses**

* Featured questions that just invited collection and description of information. While the range of topics chosen for investigation is very diverse, the wording of the question could be more challenging to invite or encourage analysis in both the research phase and the outcome development phase.
* Showed evidence of the refinement of the question which was limited to a change of the research question from one topic to another.

**P2: Planning of research processes appropriate to the research question**

**The more successful responses**

* Provided question-appropriate and targeted planning of research methods and development, which showed progression throughout the 10 pages.
* Produced evidence of the planning being ongoing and included evidence of experimentation, field trips, or face-to-face interviews.
* Included working documents that the student added to, colour-coded, or adapted as the process evolved.

**The less successful responses**

* Recounted their planning with no comment or analysis, just description.
* Featured evidence where planning was only evident in a sparse mind map or outline in the proposal.
* Provided generic evidence of the development of their research which could have been for any question, rather than the specific and most appropriate research methodologies for the answering of their research question.

Specific Features: Development (Research Project A and Research Project B)

**D1: Development of the research**

**The more successful responses**

* Included effective evidence of thorough and resourceful development of the research incorporated and there was variety in the range of sources accessed (archival, qualitative, experimental, and so on).
* Provided succinct examples connecting primary and secondary sources in light of the research question.
* Revealed an awareness of the reliability, validity, credibility, and currency of sources in an insightful manner, which therefore demonstrated an effective evaluation of sources.
* Incorporated material outlining ethical considerations that encouraged students to consider why ethics were important to their particular question, including any problems that might have occurred due to ethical considerations. By doing this, it ensured that the student thoughtfully engaged with the relevant ethics for their research and thus consequently developed a better research methodology.
* Included clearly documented decisions regarding research processes, both before commencing research processes, and during and after using research processes.
* Referenced mentors or supportive primary sources, which provided more detailed and insightful perspectives into their findings.
* Displayed a range of strategies to document the research, such as audio files, photographic evidence, video journals, and students capturing texts or products visually on video with their voiceover in the background commenting on what they had discovered.
* Included explicit evidence of the development of the research, with students coming back to the development of their understanding and progress in finding an answer in light of their research question; such responses explicitly defined the student’s progress.
* Referenced carefully crafted surveys for which focus groups had been carefully selected and appropriate socio-economic, gender, or age groups considered.

**The less successful responses**

* Included bibliographies which summarised what had already been evidenced in the 10 pages.
* Presented pages of screen shots and URLs as evidence of ‘resourcefulness’ without commentary or analysis, thereby ‘collecting information’ which is in the D grade band of the performance standards.
* Provided surveys that displayed little evidence of how they assisted in the development of the research. (Moderators recommended that time be spent with students overtly teaching the skill of designing and implementing a survey, especially when considering sample size, range of questions, etc.)

**D2: Analysis of information and exploration of ideas to develop the research**

**The more successful responses**

* Showed evidence of analysis of both the source and the information that it contained in relation to their research question.
* Provided analysis of survey results in relation to the research question which worked well when the questions were well focused.
* Demonstrated analysis at a higher standard when information was engaged with rather than when it was simply downloaded (e.g. graphs from Survey Monkey or material from the Internet), because when students simply downloaded, they were often expecting the results to speak for themselves.
* Explored ideas in responses; the key ideas from a source or progress were discussed with reference to new evidence or thinking relating to the research, rather than material just being highlighted or restated.
* Incorporated consistent and insightful analysis on each of their selected 10 pages, demonstrating an engagement with and development of the research question within this analysis.
* Included no empty statements; every sentence was specific to the research and explored the development of the answer to the research question.
* Displayed analysis which extended beyond discussion of the validity, reliability, currency, and bias of the sources and what was discovered (which became a summary of the source or interview for the less successful responses), but instead included where the research was going and why, what was needed to be done next and why, challenges and opportunities that were being presented, and how these were affecting the research. These responses also drew the threads together of what had already been discovered. Further effective evidence was provided in those responses where links and cross-references to other sources was made, which built the research, rather than isolated source analysis.
* Provided ongoing reference to ethical issues, including the influence of the student’s own bias. When elements of the included discussion provided strong evidence of analysis and exploration of ideas, it was valuable to be included.

**The less successful responses**

* Only displayed a screenshot of the source analysed and consequently, with the limited space available, there was less opportunity for higher-order analysis to be provided.
* Provided simplistic annotations on sticky notes (often being just a recount of the information) that did not show insightful analysis.
* Tended to summarise information, omitting any analytical thinking and therefore the analysis was weaker. Students need to be overtly taught how to analyse the material collated in order to assist in answering their research question.
* Included those in which templates seemed to be more of a hindrance in regards to in-depth analysis; for example, if they only allowed students the space to write one or two sentences. This was particularly noted in prescriptive templates which limited students to superficially addressing their knowledge or awareness of the source’s value or relevance to their question.
* Used the concepts of validity and reliability interchangeably with no real evidence of understanding of the terminology.

**D3: Development of knowledge and skills specific to the research question**

**The more successful responses**

* Focused more on the quality of the key points arising from each source rather than lengthy explanations.
* Demonstrated the development of knowledge and skills in a number of ways, including exploring ideas through extended reflections, development of interview questions that had been annotated and revealed knowledge, and documentation of experimentation, graphs, tables, photographic evidence, or conceptual diagrams. The responses then engaged with this information in light of the development of their research question. These responses also included evidence of continuously building on their knowledge and staying ‘on track’.
* Consistently pulled together the threads and development of key findings and engaged in an insightful manner with the sources, such as grappling with contradictory information or coming to some form of a resolution to the research question.
* Evaluated the success of a product and tried to obtain feedback and in regards to this feedback, reflected on it; this demonstrated the capacity to apply their knowledge, as it provided evidence of growth of knowledge and skill development.
* Even if a student was finding the development of knowledge a difficult concept, used tables or templates where the research could be ‘tracked’ to show growth in understanding, skill base, and/or knowledge.

**The less successful responses**

* Listed generic statements of learning that were not specific to the research question.
* Provided evidence of knowledge that was simplistic and ‘empty’ in regards to the complexity of the research that should have been undertaken.
* Did not highlight any skills or growth in understanding towards an answer to their research question.
* Contained only photographs of highlighted sections from folios rather than any real engagement with the material that could be easily read by a moderator.

**D4: Understanding and development of one of more capabilities**

**The more successful responses**

* Detailed explicit reference to capability development rather than it simply being implied.
* Reflected on the development of the capability, either throughout the folio or in a few more detailed reflections.
* Used sources such as experts, rather than relying on the Internet, which seemed to increase confidence and therefore further development of the chosen capability or capabilities.
* Indicated both an ‘understanding’ and a ‘development’ of their chosen capability or capabilities. A common problem was a focus on development or application with examples, but not directly showing understanding of what the capability meant and what it included. Teachers would do well to emphasise the two parts of this performance standard.
* Featured ‘signposts’/headings that helped students to address the criteria and ensure that they did not omit any.
* Provided detailed evidence that fully engaged with the nature of the capability, regarding both the growth of understanding and awareness of the chosen capability. Often in these responses the chosen capability was referred to consistently throughout their 10 pages (more so than just having a one-page reflection).
* Examined only one capability, which tended to lead to a stronger series of reflections and insights, as the students were able to provide a consistent application concerning the growth of knowledge and understanding in relation to the capability.
* Used the capability as a lens through which the entire research was conducted and viewed; the capability was constantly referred back to and became an intrinsic component of the research.

**The less successful responses**

* Often included evidence of identification of a capability to focus on, but then provided very limited evidence of development of this capability.
* Featured two or more capabilities, and the reflections tended to be briefer and more superficial. Moreover, the capabilities were only evident in the proposal, making it difficult to demonstrate development of either the capabilities or the student’s understanding. Such responses often resorted to generic statements, for example, ‘I will ask permission when I interview someone about …’ in reference to the ethical understanding capability.
* Were geared towards providing evidence of ‘hitting’ all of the capabilities or even inventing their own. More successful responses focused on only one or two capabilities.

Assessment Type 2: Research Outcome

General Comments

As already mentioned, closed questions appeared to limit the quality of the research outcome. In general, students were more successful when they chose a question that facilitated ‘insightful’ synthesis and were very focused and specific. ‘How to become a …’ questions tended to elicit less successful outcomes. Well-refined questions tended to have a better-quality outcome; if the scope of the question was too big, convoluted, or wordy, the research outcome tended to become superficial and just a screed of generic information and/or facts.

A common characteristic of the most successful responses in 2016 was the provision of the explicit answer to the question at the outset, followed by continued reference to it throughout, leading to an informed conclusion. Excellent research outcomes displayed clear and sufficient synthesis and substantiation of the key findings, as well as higher-order thinking, engagement with sources, comparisons between perspectives, and balanced weighing-up of the evidence.

The formats and modes of research outcomes continue to be varied and moderators noted that students are not appearing to feel restricted to a written report. Moderators also noted that students are considering their audience and therefore carefully choosing an appropriate format and mode for the presentation of the key findings and the resolution to the question. Moderators noted that a written report does not suit all research questions; at times, some written reports tended to be somewhat formulaic and detracted from the presentation of the key findings.

There appears to be a greater awareness that the research outcome is not just a collection of facts and statements; students who drew together substantiated information were able to display the ‘insightful’ A grade aspect of specific features S1 and S2. Another feature of the most successful responses was engagement with the information being presented, complete with purposeful commentary and analysis, rather than just grouping like information into discrete sections.

Features of less successful research outcomes included:

* questions that were too broad or had yes/no answers, which restricted the capacity to provide any depth in the findings
* a question that did not actually match the information provided, making it difficult to provide insightful or considered evidence of the resolution of the question
* reflections on processes and planning
* failure to produce a resolution to the question
* inclusion of sections irrelevant to the question
* absence of a question, leading to no question to be answered, which led to unfocused narratives and recounts
* outlining a set of facts with little critique or insight
* material that had no link to the research question
* templates that were a hindrance to providing any real insights as they only led to the production of a recount.

Moderators noted that a lack of adherence to the word-limit or time-limit was an issue, because when research outcomes exceeded the limit, it was usually the conclusion or final summation that was not able to be considered for assessment.

Again, moderators noted that, in the assessment of some research outcomes, the quality of a product appeared to have distracted teacher judgment and led to the overlooking of the evidence of insightful synthesis to produce a resolution to the question or substantiation along the way. In saying this, moderators reported that, in general, teacher assessment of this assessment type had improved, reflecting a solid awareness of the standard of the different grades.

Specific Features: Synthesis (Research Project A and Research Project B)

**S1: Synthesis of knowledge, skills, and ideas to produce a resolution to the research question**

Synthesis involves the bringing together of the main ideas and findings of the research. It necessarily involves the grouping of common ideas and prioritising the findings which are more prominent than others, rather than scanning superficially over all the information that was located, or repeating everything in the folio. To provide evidence at the highest grade, students are required to demonstrate *insightful* synthesis of knowledge, skills, and ideas to produce a resolution to the research question; they are required to meaningfully engage with the information and, with their own voice, reveal their resolution to the research question. It is evident that, in the most successful responses, students had received explicit instruction from their teachers as to what this might look like.

**The more successful responses**

* Provided a clear and explicit resolution to the question, which was then unpacked by maintaining an unwavering focus on answering the question throughout the body of the research outcome and clearly reinforced in the use of appropriate and well-phrased subheadings.
* Demonstrated insightful knowledge in the A band by engaging with the information and applying or relating it to their own context.
* Clearly articulated each key finding and then weighed evidence from a range of sources and perspectives, which supported the assertion of the prominence of the finding to the research.
* Explicitly highlighted which were the most important ideas to emerge and provided evidence of why they were more significant than others.
* Accessed a wide range of sources and then brought together the common threads from the diverse range of perspectives, often in their own words (student voice was strong); this demonstrated stronger evidence of insightful evidence of synthesis of the ideas and knowledge that they had obtained.
* Were targeted at an appropriate audience in relation to the chosen question.
* Had a well delineated conclusion that linked back clearly to the question.

**The less successful responses**

* Provided evidence of synthesis that was limited to a collection of information or a series of facts and recount.
* Supplied a resolution to the question that was mostly confined to the conclusion, or not concluded at all, which meant that there was limited or no evidence of a resolution to the research question.
* Included a very general and even superficial introduction, often in the format of their proposal or evaluation and, as a result, did not make best use of their word-count.
* Featured images and photos that were not referred to and therefore did not support or enhance the line of argument and/or validity of the research

**S2: Substantiation of key findings relevant to the research outcome**

Evidence of substantiation can be effectively provided in a number of ways. Thorough substantiation of the key findings is required to achieve at the highest levels. Moderators reported that some outstanding products had been created that were highly authentic, but teachers appeared not to be ensuring that in the outcome the substantiation of the development of the product was clearly articulated; more often than not it was implied rather than being overt. If the research outcome is in a format that is a product, then substantiation needs to either be integrated into the product or in a separate document.

**The more successful responses**

* Provided multiple references, examples, or perspectives to the key findings and through the explicit mentioning of references within the text of their research outcome.
* Included references that were either embedded within the written report or oral/multimedia presentation (e.g. source reference on a PowerPoint slide).
* Were a product that provided in-depth substantiation explaining processes and decision-making. Often this substantiation took the form of time-logs, or photographic evidence that validated the findings.
* Especially when the mode was a pamphlet/brochure/article, the key findings for the creation of the product were detailed and then clearly substantiated with reference to the processes undertaken throughout the pamphlet/brochure/article.
* Used a range of sources to confirm each key finding, further strengthening the substantiation.
* Revealed students who were engaging with using action research and testing new ‘theories’ and then providing evidence of this in the form of graphs, photos, etc.

**The less successful responses**

* Contained substantiation that was confined to a URL at the end of a paragraph. When this was done, sources were not contextualised and consequently the line of evidence to support the statements being made was lost.
* Provided evidence from only three or four sources; this provided little variety in where the sources had come from.
* Especially when the outcome was a product or a Prezi or PowerPoint presentation, the substantiation often needed more development; choices of form/rationale for success of the product needed to be explained and supported by evidence. It is reference to the process that has led to the product being constructed in a certain way that best demonstrates substantiating of the key findings, rather than what has been created.
* Included multimodal forms of outcomes that lacked any substantiation and synthesis; some outcomes were purely videos from external sources without any student commentary or introduction.
* Featured a great number of footnotes, but with hardly any synthesis of ideas.

***S3: Expression of ideas***

Expression of ideas is more than just correct grammar and punctuation. Moderators noted that the most successful responses also made use of subheadings, graphs, or diagrams to support the clarity with which the resolution to the question was presented. Students who used sub-questions as headings seemed to address specific key findings in detail that assisted in the answering of the question.

It was positive to see that:

* in most responses a formal conclusion was provided at the end of the outcome to provide clear evidence of resolving the question
* students were using technology to their benefit and providing clear, engaging, and insightful material
* students were considering their target audience which added to the clarity of the research outcome.

## External Assessment

Assessment Type 3: Review (Research Project A only)

General Comments

It was pleasing to see an increased number of students presenting their reviews in a wider variety of forms this year. Markers commented on the successful use of tables embedded within the review, which seemed to help students focus on the specific features. More students presented their review as a video or voice recording. In many cases these students were responding to questions from a teacher and the range and style of questions therefore impacted greatly on the students’ success. In other cases the students were reading from a prepared script, which limited the flexibility of the non-written response.

Markers commented that while there were some outstanding reviews presented in 2016, a number of them did not meet the specific features or the specifications for the review that were identified in the 2016 subject outline. Most notably, many students wrote responses that met the assessment criteria and performance standards of those for the Research Project B evaluation. It is not the case that Research Project A is a more simplistic version of Research Project B, as the specific features and performance standards of the Research Project A review are quite different. Those students who presented an evaluation geared towards Research Project B were less successful, as they often omitted many of the specific features required in the Research Project A review.

In addition, other students presented a review that contained material directed towards outdated subject outlines. For example a formal discussion of capabilities, as required in the 2013 subject outline for Research Project A, was still evident among a significant number of reviews. Student responses were weakened by this practice, because it limited the number of words available for the student to provide evidence addressing the specific features being assessed. In a similar way, reviews that devoted much of the word-count to reflecting on the personal value of the subject of Research Project as undertaken over the course of the year, rather than addressing the specific features as set out in the subject outline, were less successful.

As there is a holistic (and equal) approach to the marking process, reviews which gave a more equitable weighting of words to each specific feature were more successful. Many responses were weakened by overemphasis on the specific feature R1 (review of knowledge and skills), while skimming over R2 (challenges and opportunities) and R3 (quality of the research outcome). Many students successfully used appropriate headings throughout the review to focus their responses.

It is important to note that the review is marked anonymously. A number of reviews had the student’s own name, as well as the school name, listed in the footer of each page, while others named their school in the body of the review. Other students seemed to be under the impression that the word-limit was a total of 1500 words *including* the summary. This is not the case. The summary has a limit of 150 words in *addition* to the 1500-word limit of the review. Many students successfully used the summary for its intended purpose, which is to give the marker a clear overview of their project, including reference to their key findings, while others included information that would have been better suited as part of the folio.

Specific Features: Review (Research Project A only)

**R1: Review of the knowledge and skills developed in response to the research question**

**The more successful responses**

* Clearly identified and then reviewed the new knowledge and skills that had been gained in the course of the project, differentiating between the two and using targeted examples. In addition, they showed insight about how these had a significant impact on the resolution of the research question.
* Discussed and demonstrated development of theoretical skills (skills of research or those associated with the discipline in which they were working) and/or practical skills in depth of detail, making an explicit connection to the research question.
* Were able to prioritise key knowledge, rather than presenting a discussion of all knowledge gained in a chronological fashion. Students who recognised the meaning and value of their significant findings were able to better convey this development of new learning.
* Showed how far knowledge and skills had been developed by including words (such as ‘before’, ‘after’, ‘having completed’, ‘prior to this’) and descriptions (‘as a consequence of’, ‘became clearer’, ‘suddenly made sense’, ‘was unclear until’), as well as qualifiers (‘most’, ‘somewhat’, ‘to an extent’).

**The less successful responses**

* Listed the knowledge gained in a chronological fashion, rather than prioritising critical new knowledge that allowed development of their project.
* Listed and evaluated sources used in the project, rather than reflecting on the knowledge and skills gained.
* Relied on teacher-generated templates which often contained sections that were not relevant to their particular research question.
* Described the development of practical skills which were only loosely connected to the research topic.
* Recounted the research undertaken. In contrast, those responses that contained a review of the learning that occurred were able to provide a more thorough and sophisticated reflection.
* Used the majority of the word-count in addressing specific feature R1 (review of knowledge and skills), often giving only cursory treatment to R2 and R3. In some cases, R3 was not addressed at all.
* Directly addressed the development of the capabilities at length (as was required in Research Project A in 2013).

**R2: Discussion of decisions made in response to challenges and/or opportunities**

**The more successful responses**

* Explicitly discussed (in detail) the significance of decisions made when faced with challenges and/or opportunities during the research development. In addition, they often also showed how these decisions were directly linked to the key ideas of their research.
* Discussed both the positive and negative aspects of their decisions and how these affected the research, particularly in terms of validity and reliability. In addition, successful responses often furnished their discussion with examples regarding the appropriateness of the decision by reflecting on the consequences.
* Went beyond challenges that may have been experienced by all students (such as time management, availability of sources, workload, and so on) and focused on those specific to their project. This often meant that the corresponding decisions discussed were more sophisticated and nuanced, and therefore contained greater depth.

**The less successful responses**

* Devoted much of the discussion to an explanation of the challenges and/or opportunities themselves, rather than the decisions made. A significant number of reviews omitted any mention of decisions at all. In some cases a decision was implied, yet in others it was totally overlooked.
* Described actions taken in response to opportunities or challenges without explaining reasons.
* Presented generic responses regarding challenges and opportunities as a result of scaffolding. In many cases, this led to terms and ideas being included in the review without discussion or clarification. At times these scaffolds did not align with the 2016 subject outline.

**R3: Reflection on the quality of the research outcome**

**The more successful responses**

* Were clear on what they were trying to achieve with their research outcome and then specifically reflected on how well their research outcome actually achieved this purpose, giving detailed examples. Successful reviews also provided a brief description of the features of the research outcome and the relevance of the research outcome to the project.
* Assessed the suitability of the research outcome format in relation to the question and their target audience. Strong responses included those that considered (honestly) how well the question had been answered. These responses were also free of generalisations.
* Highlighted the successes and limitations of the research outcome and the pertinence of the findings, and thereby conveyed an understanding of the quality of the research outcome.
* Reviewed the clarity of the final piece.
* Successfully and appropriately used the vocabulary of qualitative judgments.

**The less successful responses**

* Made simplistic or exaggerated comments about the quality of the research outcome, including a sole focus on how it was personally meaningful.
* Focused on features of the research outcome such as its length and layout. These are only useful when qualified appropriately.
* Dealt with this specific feature very briefly — often as a result of devoting the majority of the allocated word-count to specific feature R1.
* Made sweeping generalisations.

Specific Features: Synthesis (for Research Project A)

**S3: Expression of ideas**

**The more successful responses**

* Used expression which was fluid and logical and ensured that their ideas were well organised and that their meaning was clear.
* Often featured headings that related directly to the 2016 subject outline and so served to organise the review, aiding clarity. Markers also commented on the successful use of bolded words within the review that related directly to the specific features.
* Used a range of vocabulary, including varied qualifiers.
* Were carefully drafted and edited to ensure effective communication.

**The less successful responses**

* Expressed ideas with little thought given to organisation or clarity.
* Presented mostly the teachers’ scaffolding questions, rather than their own input.
* Used very informal language that at times obscured meaning.

Assessment Type 3: Evaluation (Research Project B only)

General Comments

Markers noted that, in general, the quality of the evaluation has improved; however, issues that previously hampered achievement still continue.

Of particular concern was that, despite the subject outline having changed three years ago, many markers reported that student evidence was directed towards the 2013 subject outline, including reflection on the capability. This seriously hampered the capacity of students to provide evidence against the specific features on which they are actually assessed in this assessment type.

The provision of templates should be carefully considered, particularly when the template invites students to discuss matters which cannot provide evidence against the specific features of the evaluation. Also not helpful for providing evidence were responses in which a very lengthy introduction recounting the stages of the research project was provided.

Markers noted the use of subheadings relating to the specific features helped provide clear guidelines for the evidence being presented. When these were absent, it sometimes led to a blurring in the discussion, making it very difficult to ascertain what was evaluation of the research processes and what was evaluation of the decisions made.

Markers reported that photocopies of evaluations were at times problematic, particularly if margins or words were cut off. Many markers noted that difficulties were also experienced with overly small fonts. At least size 11 is recommended.

Teachers are reminded to not provide corrections and grades.

Specific Features: Evaluation (Research Project B only)

**E1: Evaluation of the research processes used, specific to the research question**

Markers noted that this was generally the most successful part of the evaluation, with significant improvements noted. However, markers also noted that over-emphasis on the specific feature E1 often meant that the depth required for specific features E2 and E3 was difficult to achieve in the remaining word-count.

**The more successful responses**

* Made clear, specific judgments about the research processes, in relation to the findings elicited from the actions undertaken.
* Linked the success of the research process directly to the student’s research question.
* Referred specifically to the type of information required to adequately address or answer their question, and the usefulness of the process in eliciting this.
* Used the question to frame their evaluation of the strengths and limitations of process(es).
* Provided clear explanation of the research process(es) and its value, against criteria of validity, credibility, and reliability.
* Linked the research process(es) to its effectiveness in increasing the breadth and depth of research and/or subsequent quality of the research outcome.
* Discussed research processes relatively, to make comparisons between effectiveness and usefulness of each process.
* Applied a range of qualifiers to delineate their application, such as ‘most useful’, ‘most reliable’, ‘less effective’, ‘pertinent’, etc.
* Detailed appropriate distinctions between terms such as ‘validity’, ‘reliability’, ‘credibility’.
* Explained the impact of features such as validity, reliability, credibility and linked these closely to the judgment of the process(es).
* Explored how usefulness was enhanced by criteria such as qualifications by elaborating on the pertinence of this to the research question.
* Articulated clearly why certain research processes were fit for purpose.

**The less successful responses**

* Recounted the research process in chronological order with little judgment made about the process.
* Described the process used without applying any evaluative criteria.
* Included planning processes such as:
	+ choosing a question
	+ refining a question
	+ using planning tools, such as mind maps, lotus diagrams
	+ SWOT diagrams.
* Included actions that were not research-oriented such as:
	+ highlighting information
	+ summarising information on sticky notes
	+ using a bibliography generator
	+ talking to the teacher.
* Had little evidence of evaluative criteria specific to the research process.
* Used terms such as ‘validity’, ‘reliability’, ‘bias’, and ‘credibility’ interchangeably, or misused such words.
* Made judgments without supporting evidence, examples, or reasons.
* Included superficial judgments without exploring the specifics of the process.
* Made judgments on the ease of access or efficiency of the process, as opposed to research criteria.
* Featured broad statements about generalised processes such as ‘using the Internet’.
* Recounted evidence from the research outcome without explicitly evaluating its pertinence, use, or effectiveness in resolving the research question.
* Integrated evaluation of the research processes and the decisions made without clearly addressing the specific features of both criteria.

**E2: Evaluation of decisions made in response to challenges and/or opportunities specific to the research processes used**

Generally, markers commented that this part of the evaluation was the least successful. This suggests that explicit teaching of the multiple parts of this specific feature is recommended. Teachers are directed to the support materials on the SACE website for such materials.

**The more successful responses**

* Focused specifically on the decisions made.
* Briefly recounted the challenge or opportunity, without making it the main focus of discussion.
* Related the decisions specifically to the research processes used.
* Evaluated the impact of the decision against the effect that it made on the breadth and/or depth of the research and the subsequent quality of the outcome.
* Provided explicit judgment of the decision and its effectiveness in overcoming a challenge or capitalising upon an opportunity.
* Referred to both positive and negative ramifications, with consequences weighed in a balanced manner.
* Where relevant, linked the decision to further opportunities, such as new avenues for research, new source acquisition, and/or identification of new perspectives.
* Evaluated the impact of the decision against its impact on their research with particular focus on the validity, reliability, and authenticity of their research.

**The less successful responses**

* Identified decisions made without linking them to a problem or opportunity.
* Included reference to challenges or opportunities which did not link explicitly to the research processes used. Examples included reference to:
	+ time management
	+ shyness
	+ research outcome format
	+ waiting for emails.
* Did not explicitly refer to challenges or opportunities at all.
* Did not refer to any decisions, focusing mainly on the challenge or opportunity.
* Discussed the decision broadly without reference to the research.
* Focused overly on what they could have or should have done without any overt links to the challenges or opportunities.

**E3: Evaluation of the quality of the research outcome**

Markers noted that the central focus of this specific feature is evaluation of the research outcome. As the research outcome itself is marked against the criteria of producing a resolution to a research question and providing substantiation of key findings, it was noted that more successful students focused on evaluating how well the research outcome had met these criteria.

**The more successful responses**

* Explicitly evaluated the success of the research outcome by explaining how well the question was resolved, providing evidence to support this judgment.
* Highlighted the key findings of the research outcome and their use in resolving the question.
* Clearly outlined the features which impacted on the quality of the research outcome, including aspects such as:
	+ quality of the sources used
	+ originality of the findings
	+ forms of substantiation used
	+ suitability of the findings for the intended audience
	+ depth and breadth of the research
	+ range of perspectives included
	+ clarity of the findings
	+ conciseness of the argument.
* Clearly articulated the intended purpose of the research outcome, explaining why or how the purpose was met or not met.
* Weighed up strengths and limitations of their research outcome to provide balanced judgments.
* Focused specifically on the research outcome, as opposed to the entire research process.
* Explicitly highlighted how the features of the research, such as credibility, validity, and so on, improved the resolution of the question.
* Had a balanced understanding of the usefulness of their research outcome.
* Acknowledged the limitations of their research on the quality of the research outcome.

**The less successful responses**

* Overly focused on the value of the research outcome to themselves or made generalisations about its usefulness that were overstated.
* Recounted the development of their skills.
* Discussed irrelevant features such as skill and capability development, changes to be made if the outcome were to be redone, the limitations of the word-limit, and time-management challenges.
* Focused on the format of the research outcome, rather than the quality of their resolution to the research question.
* Focused on the research project as a whole.

Specific Features: Synthesis (for Research Project B)

**S3: Expression of ideas**

Markers noted that this section was typically well done. However, scaffolds which limited student voice could reduce the students’ capacity to achieve in the higher grade bands.

In successful responses, clarity of expression was aided by structural features such as topic sentences which introduced the main idea of the ensuing paragraph. Use of subheadings often appeared to lead to more focused discussion of the material, providing direct evidence towards the specific feature. Subheadings were most useful when they related directly to the performance criteria. Appropriate inclusion of subject-specific terminology, such as research terms, was useful in aiding clarity.

In less successful responses, clarity and coherence were hampered by lack of structural organisation and informal register. Repetition also emerged when students referred to the same example to illustrate evidence for multiple specific features. A formal conclusion is not a necessary part of this assessment type. Markers also noted that students who did not use the full word-limit (1500 words) were limited in the depth of their responses.

## Operational Advice

School assessment tasks are set and marked by teachers. Teachers’ assessment decisions are reviewed by moderators. Teacher grades/marks should be evident on all student school assessment work.

It is beneficial for purposes of moderation to include an assessment sheet with the performance standards clearly highlighted, in order to assist moderators as to the rationale for a certain grade being submitted — this applies to both the folio and the research outcome. All materials submitted for moderation need to be clearly labelled and teachers also need to ensure that work submitted in a digital format can be easily accessed; teachers are also encouraged to use SACE Board cover sheets on student work in order to make identification of student work easier.

Research Project A and Research Project B

Chief Assessor