2019 Research Project A and Research Project B

Subject Assessment Advice

Overview

Subject assessment advice, based on the previous year’s assessment cycle, gives 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, and the quality of student performance.

Teachers should refer to the subject outline for specifications on content and learning requirements, and to the subject operational information for operational matters and key dates.

The engagement of students with the Research Project continues to grow and this is evident not only in the authentic nature of their individualised focus areas and questions, but also in the expertise in the teaching, learning and assessment within this subject. Evident in 2019 was that teachers and students have gained even more confidence in utilising a breadth of research methodologies; In addition to the usual literature review method, students are engaging in meaningful qualitative research that moves beyond sending superficial emails, to instead conducting focus groups and attending community meetings or undertaking considered and purposeful personal interviews and observations. If suitable as a research methodology, students are also engaging in carefully managed experimental research by conducting their own trials or creating surveys where focus groups and sample size are a part of the research process in order to ensure the gathering of valid and reliable data. Across all assessment types, the standard of student evidence continues to improve; predominantly, students are engaging with the essence of real research and as a consequence, Research Outcomes are more in-depth, complex and insightful and students are contributing to these fields in an authentic way.

Significant improvements in regards to the teaching of this subject have been made and in light of these, further suggestions regarding continuing to enhance student engagement with this subject are provided:

* Teacher provided templates continue to have both advantages and disadvantages in this subject. In general, templates should be used carefully, especially in evidence for Assessment Type 1: Folio. There are many students who require some element of scaffolding in order to provide evidence of the assessment design criteria, however, it has been noted that teachers who provide templates which limit opportunities for students to show rich evidence of their learning often also (unintentionally) limit the capacity for authentic student engagement with the research conducted.
* The continued use of technology in order to conduct research and display key findings is very positive. The documentation and analysis of research is increasingly of a diverse nature and students are obviously comfortable not only using apps and smart devices to record their investigative journey, but also to produce refined, sophisticated and engaging outcomes. It was pleasing to note students increasing engagement with social media as a tool for the collection of valid and reliable data when appropriate to the topic.

Question choice

An increased range of questions and ideas were explored, especially those that had a practical application or were specific to the student’s area of personal interest. Students who demonstrate an element of ‘passion’ for their research are then more successful when they help develop a skill, provide a valid answer to contemporary issues or demonstrate true creative and/or critical thinking skills.

The more successful questions commonly:

* were focused, clear, specific and accessible
* were in a field where there was an opportunity to really contribute to the existing research
* were safe and manageable and could be achieved within the time-frame
* were consistently refined. Students should be reminded that their research question, should and will evolve and that is the nature of real research
* allowed for a range of research methodologies to be utilised
* provided scope for an answer that has a degree of complexity and insight.

School Assessment

Both Research Project A and B assess Assessment Type 1: Folio and Assessment Type 2: Research Outcome, 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 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).

It was pleasing to see a bigger engagement with Research Project A this year, especially for those projects where the shorter word count in the outcome is more suitable. Students who had a very focused and contained project are often advantaged by enrolling in Research project A and crafting a response in the shorter word count/mutimodal allocation.

Assessment Type 1: Folio

Moderators once again noted how important the appropriate selection of evidence for the 10 pages (as described in the Research Project subject operational information) is to showcasing the journey of a student through their project and allowing them to achieve against the specific features in this assessment type.. 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.

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

P1: Consideration and refinement of a research question

The more successful responses commonly:

* provided evidence of both consideration and refinement of their proposed question. Such students often addressed consideration of their question by detailing why they felt it needed researching along with an exploration of all of the dimensions involved in the topic and an explanation of why they focused in on specific dimensions only
* focused on research questions that were not only succinct and resolvable but also provided opportunities to explore the question from various perspectives.; These questions enabled students to achieve higher grade levels in other specific features, such as D2 and D3 due to the opportunity for stretch and rigour
* provided evidence of the continual emerging refinement of the research question along with an explanation of the reasons for the refinement which tied in to the unfolding research being conducted. Some students provided such a record in table form with sections for reasons and implications while other students used reflections and journals to highlight such refinement throughout the folio
* provided detailed and explicit ongoing evidence of planning: lotus diagrams or brainstorms were obviously dynamic documents that were constantly added to, in-depth and provided a clear overview of the student’s management of the research conducted
* included a diagram or explanation, identifying key turning points in the evolution of the research question and the reason behind refinements.

The less successful responses commonly:

* presented pages of material on topics which were totally unrelated to the one they actually researched. This was quite common with lotus diagrams which encouraged students to explore all of the directions they might like to take in their project. While these are very useful as an initial teaching tool, moderators commented that they often took up at least one page of the folio, limiting students opportunities to achieve against the specific features
* focused on questions which were one dimensional and so tended to call for a compilation of information only which then limited their achievement in other specific features
* featured questions to which the answers were already well documented. This also limited students’ ability to develop D2
* were closed questions and provided a yes/no answer that prevented higher-order analysis or evaluation
* interpreted refining to mean ‘brainstorming different ways to word the same research question’
* commenced with expressions such as: “What do you need to become a …”
* were ethically inappropriate due to focusing on unsafe situations, abuse, dangerous experimentation, etc.
* revolved around collection and description of information due to the nature of a limiting or unfocused question. A well worded question should encourage depth and breadth of research
* limited the question refinement to an explanation of why topics were changed rather than focusing on the actual evolving research question. This often took the form of a recount of the first months of the project
* only provided limited development of planning other than a superficial and incomplete lotus diagram, brainstorm or planner that was generic and repetitive.

P2: Planning of research processes appropriate to the research question

The more successful responses commonly:

* provided clear, targeted and question specific planning of research methods most appropriate to the research question. They also documented how this planning was adjusted over time along with the reasoning why, which helped them also meet other criteria such as D2
* reflected on the plan at a range of critical points throughout the project and made targeted adjustments to their planned methodology that were well reasoned and often in response to other research as it was uncovered
* provided evidence of their planning throughout the entire 10 pages (e.g. evidence of experimentation, observation, field trips, or face-to-face interviews) often including a sound and considered explanation of why the research process was used, rather than simply listing their possible research processes
* planned particular processes that they could identify as increasing the validity and reliability of the research as a whole.

The less successful responses commonly:

* used a research methodology that was provided for a whole class and was not appropriate for their specific research question. Other students provided generic evidence of the development of the research which could have been for any question, rather than the specific and most appropriate research methodologies for the answering of the research question
* failed to do any research to fully understand the particular research method they were utilising and so invalidated the data they were generating
* recounted processes rather than exploring, designing and justifying all aspects of the research processes used, showing an awareness of what research methodologies were being engaged with and why.

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

D1: Development of the research

The more successful responses commonly:

* provided evidence of being very resourceful in utilising specific research methodologies (both primary and secondary) that would assist in resolving the research question (e.g. field trips, experimentation, accessing online forums, personal interviews, transcripts, surveys, etc.)
* included effective evidence and succinct examples of thorough and resourceful development of the research incorporated and there was variety in the range of sources accessed (archival, qualitative, experimental)
* identified the way in which ethics was shaping their research process and subsequent findings. These responses were insightful, showing a nuanced understanding of the ethical issues specific to their research question and displayed more than a cursory application of simplistic, generic ethical considerations
* were able to present more than 3 or 4 sources of information; successful students often presented a diverse range of research methodologies giving good coverage of all aspects of their question
* provided 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
* reflected on the planning of their research methodology explaining why it was proving to be appropriate or explaining why it needed to be altered
* outlined the growing depth in their understanding of their topic/question as it revealed itself to them. This was often found in many places across their 10 pages
* identified and understood, results that invalidated or supported other data and clearly explained why this was so.

The less successful responses commonly:

* did not have a range of sources and predominantly relied on downloads from the internet (e.g. screen shots and URLs), without commentary or analysis; these students were really only ‘collecting information’ which is in the D grade band of the performance standards
* included limited bibliographies that were fairly brief and only really repeated what had already been provided as evidence on other pages
* provided surveys, graphs, images, etc. that displayed little evidence of how they assisted in the development of the research
* failed to show how one aspect of the research methodology linked to another or explain why a certain process was undertaken
* provided many secondary source analyses (often taking up 8 of the 10 pages) which were commonly completed on a template that didn’t allow the student to show how the research was unfolding and developing

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

The more successful responses commonly:

* clearly showed that they were developing emerging ideas from the research they were undertaking rather than simply compiling vast quantities of information. These ideas were then utilized in further research showing a true ‘exploration’ and ‘development’
* understood the concepts of validity and reliability as related to their research and demonstrated how they were engaging with these concepts to strengthen their own research
* fully explored ideas in responses/sources/experiments/observations and often cross referenced these to other key findings, in order to demonstrate new awareness, evidence or thinking relating to the research
* showed evidence of analysis of both the source and the information that it contained, in relation to their research question
* were successful in translating research into emerging ideas and then showed that they could test the validity and reliability of these ideas through additional research
* engaged with the credibility, and currency of sources in an insightful manner, which went beyond qualifications of the author and date of release and so demonstrated a real engagement with the information being analysed and revealed a development in a student’s knowledge and or/skills pertaining to their research question. This was often evident in journal notes, interview and survey question formulation and in documented changes to their research question
* insightfully engaged with the data produced through their research. This took many forms — some students formulated diagrams to represent their exploration of ideas while others explored the meaning of what they were finding while reflecting on the validity and reliability of their conclusions. This tended to reveal an authentic student voice, one in which the student was engaging personally with the data or information that was being collated in light of their research question
* showed insight in understanding how ethical issues shaped the findings and key ideas emerging from the research. This included possible flaws in the research and the implications of these
* were aware of their own possible biases as a researcher and the impact of these
* systematically examined the information they were finding by breaking it into its component parts and exploring interrelationships and meanings.

The less successful responses commonly:

* engaged mainly in ‘labelling’ information often through large sections of photocopied material (i.e. large excerpts of images or quotes) that had not been engaged with (e.g. highlighting, annotating and no analysis, expecting the information to speak for itself)
* included large sections of material which was all theoretical or speculative — such as sets of interview questions for interviews that were never undertaken. While this can still show some degree of analysis, (especially if the implications of the missed interview are explored) devoting large sections of the folio to this limits the student’s ability to meet this criteria at the higher grade bands
* used the concepts of validity, reliability and bias interchangeably with no real evidence of understanding of the terminology
* used templates which only encouraged an analysis of the author of a source rather than an analysis of the information itself. Such templates often focused simplistically on author qualifications and release date
* summarised information or provided simplistic annotations, omitting any analytical thinking. Transcribing whole interviews regardless of the relevance of the content is such an example
* included templates that were restrictive in the amount that could be written in regards to actually analysing a text (e.g. one or two sentences); these responses tended to be superficial and limited, therefore hindering a student’s ability to meet the assessment design criteria at a high level
* interpreted analysis to mean “how I feel about this source”, rather than the systematic examination and evaluation of the data or information
* presented a gathering of information rather than an analysis.

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

The more successful responses commonly:

* clearly highlighted new knowledge and skills gained along with the implications of these for the research
* engaged in an insightful manner with the sources and focused more on the quality of the key points arising from each source rather than lengthy summaries
* went beyond generic research skills and focused on the skills which were relevant to their particular topic. While in some cases these were practical or technical skills, in other cases they were approaches or thinking styles specific to the discipline in which their topic was situated
* provided reflections that were able to pull together the threads and show the development of key-findings by cross-referencing information and comparing and contrasting. This also assisted with making evident how the research was enabling the student to come to some form of a resolution to their research question
* clearly showed how they identified areas in which their knowledge was lacking and took steps to then gain depth in the area
* demonstrated the development and growth 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 growth of subject knowledge or documentation of experimentation through graphs, tables, photographic evidence, or conceptual diagrams
* evaluated the success of a product by obtaining feedback, which they reflected on, thereby providing evidence that there had been growth in their knowledge and skill development
* clearly identified new and very specific skills which often related to the disciplines in which the research was undertaken.

The less successful responses commonly:

* focused on knowledge which only had a loose relationship to the topic being examined
* ignored skill development altogether
* demonstrated poor skill development — this was often evident in the use of research skills such as survey design which resulted in surveys that were poorly constructed and so of limited use in generating any useable data
* listed generic statements of learning and/or recount of the research that had been conducted; these statements did not reveal the development of any knowledge or skills, nor did they provide evidence of being able to find any resolution to the research question
* only provided evidence of knowledge that was simplistic and ‘empty’ in regards to the complexity of the research that should have been undertaken
* showed that they lacked knowledge in their topic area.

D4: Understanding and development of one of more capabilities

The more successful responses commonly:

* clearly showed both an ‘understanding’ and a ‘development’ of their chosen capability or capabilities; both should be addressed. Such students often included a final reflection on the development of their capability over the project as well as highlighting moments of insight into their capability throughout their folio
* provided explicit evidence of the development of the capabilities; it was more than just a generic, repetitive summary of superficial engagement with the capability, either throughout the 10 pages or in a few more detailed reflections
* examined only one or two capabilities, 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
* made evident that they had used the chosen capability as a lens through which the entire research was conducted and viewed; the capabilities were constantly referred to and became an intrinsic component of shaping the intention and direction of the research

The less successful responses commonly:

* used templates which called for a reflection on the chosen capability with every source/research event examined. These were often extremely brief and superficial — “I developed my literacy capability by reading this academic journal which contained difficult words.”
* only focused on development, but not directly showing understanding of what the capability meant and what it included. Provided simple statements with little real evidence of growth in awareness of the nature of the capability and its contribution to the development of the research
* addressing the chosen capability/capabilities only 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, or, “I will be reading magazine articles …” in reference to the literacy capability
* attempted to respond to all of the capabilities rather than providing awareness that one or two capabilities, when explored in-depth, has a place in the Research Project as it has the potential to refine, define, guide and/or provide parameters for the research
* discussed capabilities which are no longer part of the subject outline (such as Communication)
* showed limited or simplistic understanding of what the chosen capability meant — such as interpreting ethical understanding as simply ‘not plagiarising’.

Assessment Type 2: Research Outcome

Moderators noted that the Research Outcome formats continued to grow in diversity in 2019 and that this is becoming a real strength of the subject. Students are increasingly taking into account their intended audience when deciding on their mode of presentation. Highly successful responses often contained an answer to the research question at the outset, which was continually referred to throughout, leading to an informed conclusion as well as clear and detailed synthesis supported by substantiation showing engagement with appropriate sources, comparisons between perspectives, and balanced weighing-up of the evidence. Key findings were often clearly and easily identifiable within the material and the resolution to the research question flowed from them.

Question design continues to shape success in this subject. Questions which were very focused and specific, generally allowed for more insightful synthesis and a better-quality outcome. In contrast, questions that were very broad tended to lead to outcomes which were a screed of generic information and/or facts. Students who embraced continual question refinement, even when it meant discarding some of the conducted research, generally produced an outcome with more depth and moved up through the grade bands — particularly in S1. Moderators commented that many vocationally focused projects were increasing in diversity and relevance — moving from questions such as “How do I become a ...” to research questions that were an important aspect of the vocation, such as, “How can the hairdressing industry best support those with Alopecia?” Pleasingly they often also utilised action research and expertise that they were able to access in conjunction with their industry experience.

Students who failed to produce a resolution to their question or who outlined information with little critique or insight were less successful.

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

The more successful responses commonly:

* prioritised and drew out meaning from the findings which were more prominent in the research rather than providing a superficial recount of all findings identified in the folio
* meaningfully engaged with their research and with their own voice came to a resolution to the question
* recognised that synthesis should not only show what the research tells, but should also identify what the research does not tell. In other words, what are the ‘holes’, ‘gaps’, or ‘unknowns’ are in the research on the topic
* used appropriate and well-phrased subheadings to assist the reader in following their arguments
* 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
* provided evidence to highlight why the most important ideas were more significant than others
* accessed a wide range of sources and then brought together the common threads from this diverse range of perspectives to provide strong evidence for the ideas and knowledge that they were presenting
* provided a well delineated conclusion that linked back clearly to the question
* devoted some of the conclusion to the implications of the answer to their research question
* clearly identified an appropriate audience to target in relation to the research question and used language/format appropriate for the audience
* crafted the outcome to allow clear identification as to which parts of the argument (or which pieces of research) are most useful or most important
* utilised graphs, diagrams, key quotes, images and so on, to contribute to the synthesis of their key findings.

The less successful responses commonly:

* provided a collection of information or a series of facts and recount (summary of information) rather than a synthesis of the material
* provided personal opinions regarding the research question rather than evidence based from sources
* ignored important findings in order to arrive at a predetermined conclusion (which may not have aligned with the key findings of the research)
* did not conclude at all, which meant that there was limited or no evidence of a resolution to the research question
* included images and data that were not referred to (and in some cases not relevant) and therefore did not support or enhance the line of argument and/or validity of the research
* restricted the capacity to provide insightful key findings by selecting a poor choice for the mode of their presentation
* confused synthesis with a restating of identified information or facts without identifying any relationships, ideas or significance.

S2: Substantiation of key findings relevant to the Research Outcome

Moderators noted that this specific feature showed improvement in 2019, with students becoming more imaginative in the way they were substantiating, particularly in multimodal formats. Evidence of substantiation can be effectively provided in a number of ways and it is more than just the use of footnotes which is more of a focus on citation rather than substantiation. Students are being asked to ‘prove’ how they came to the resolution to their question. Therefore, students who use a vast range of sources in order to consistently and thoroughly substantiate their findings, generally achieve at a higher level. 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 subject outline calls for the use of a consistent referencing system throughout — it does not mandate any particular system, however students are encouraged to use a system that may be common in the discipline in which their project is based.

The more successful responses commonly:

* provided multiple relevant references (correctly referenced), and perspectives to validate their key findings which further strengthened the substantiation
* used references to ‘map the discipline’ they were working in, showing the marker that they were aware of the depth and breadth of the field in which their project was based
* used a consistent, clear, referencing system throughout (and this included multi-modal presentations where students utilised pop-ups or verbally articulated where they had gained the information within the content of their presentation)
* understood that every claim, argument or opinion put forward needs to be substantiated (supported or justified) with credible evidence from research or other authoritative sources
* engaged with action research and valid ways of testing new ‘theories’ and then providing evidence of this in the form of graphs, tables of results, photos, etc. Moderators also commented on the increasing use of fieldwork and experimentation and the success that this often brought to the project in terms of authentic and original substantiation
* often included multi-dimensional approaches that integrated to provide strong substantiation (e.g. literature reviews, observation and experiments)
* showed in-depth substantiation by explaining processes and the reasons for decisions which often relied on action research. Often this substantiation took the form of time-logs, or photographic evidence that validated the findings
* selected evidence with which to substantiate, which was of a form that had high credibility for their chosen research topic. They understood that this is different for different projects and depends on the qualities of the evidence that are valued in that particular discipline

The less successful responses commonly:

* provided little to no substantiation (and this included multi-modal forms of outcomes). Some outcomes were purely videos from external sources without any student commentary or introduction or reports that only had evidence from three or four sources; these were limiting in regards to the depth of insight provided within the Research Outcome
* included whole slabs of material which were substantiated from one source which really just amounted to a paraphrasing of the source and so limited achievement in both S2 and S1
* contained substantiation that was confined to a URL at the end of a paragraph or even a page. When this was done, sources were not contextualised and consequently the line of evidence to support the statements being made was lost
* did have some outstanding products had been created that were highly authentic, but the substantiation of the development of the product was not clearly articulated; more often than not it was implied rather than being overt
* included a bibliography at the end but never referred to any of the material in the bibliography within the actual outcome; the richness of the bibliography was implied in the findings of the outcome.

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.

This specific feature calls for expression of ideas not of information. Therefore in order to achieve at the highest levels, students needed to have strongly defined and clearly articulated ideas that they are articulating in order to resolve their question. Those students who presented Outcomes that were focused significantly on information rather than ideas, were therefore less successful in this area even when this material had great clarity and expression.

The more successful responses commonly:

* used language most appropriate to the discipline in which their project was based
* provided well-articulated evidence that succinctly addressed the research question (clear sub-headings that addressed the question, assisted in this)
* included an introduction (in whatever form was most appropriate for the project) to pre-empt what the marker could expect in the Outcome, thereby facilitating clarity
* provided a conclusion at the end of the outcome; demonstrating clear evidence of resolving the question
* considered their target audience which added to the clarity of the Research Outcome
* successfully integrated most appropriate images/video/diagrams to aid in the expression of their ideas.

The less successful responses commonly:

* used language and expression which made it hard for the marker to follow the arguments being presented
* were poorly formatted or presented (no sub-headings or breakdown of content and just a running narrative)and simplistic in style (e.g. PowerPoint presentations with limited content that were fact driven)
* included graphs, tables or images that were never alluded to and therefore did not assist in being able to read the outcome with any real clarity

Assessment Type 3: Review (Research Project A only)

Students presented their Review in a variety of ways in 2019, however the most common form was as a written report. It was pleasing to see that an increasing number of students seemed to be utilizing other formats which they personally found more suitable such as audio recordings and multi-modal reviews, often incorporating power-points.

While teacher designed templates and headings can be very useful to shape and direct the Review for students, such structures can also disadvantage students, especially when they do not focus on the specific features for this assessment type.

The summary plays an important role in putting the marker in the picture about the student’s project. When used well, the summary did just that, however at times students focused instead on providing a personal record of the experience of undertaking the Research Project. Students are reminded that this section of the Review has a 150 word limit.

As has been identified in previous years, many students are presenting their Review for RPA, in a manner designed to meet the specific features of the Evaluation in RPB. This limits their success, as they find it especially difficult to meet R1. Similarly, a discussion of outdated specific features (such as the capabilities developed) also acts to reduce the active word count for the student as it does not address any of the current specific features being assessed.

The nature of the Review in Research Project A calls on a discussion response style, which is often quite familiar to students who have undertaken the SACE and so they have every opportunity to be successful in this assessment type. It was pleasing to see more students utilizing Research Project A this year.

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 commonly:

* were very specific in detailing their growth in both knowledge and skills and illustrated this by using relevant examples
* clearly identified and then reviewed selected key knowledge and skills that had been gained in the course of the project, showing their ability to differentiate what was most significant to their project. Students were able to identify what they knew before, how this knowledge developed, and why it was significant
* differentiated between knowledge and skills and demonstrated their understanding through discussion of how each had developed over the period of the research by providing examples
* explicitly connected the development of their knowledge and/or skills to the evolving research question
* 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’)
* identified theoretical and/or practical skills, (often associated with the discipline they were working in), as well as research skills, in depth of detail, making explicit connections to the research question
* used targeted examples which linked to the resolution of the research question. In addition, the responses showed insight about how the example had a significant impact on the resolution of 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

The less successful responses commonly:

* directly addressed the development of the capabilities, often at length. This was a requirement in Research Project A in 2013 but is no longer required in the subject outline
* 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
* submitted Evaluations as Reviews which significantly hindered students’ success as the assessment criteria for the Evaluation is different to the Review. As a result, students used their word count discussing research processes rather than new knowledge and skills developed
* provided a recount of their research project as a whole rather than focusing on the new skills and knowledge. This often involved much discussion of topics that they first considered but then later rejected along with the reasons why, which limited their chance of providing evidence against the specific feature of R1
* 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 outcome, 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 or focused entirely on superficial and often generic research skills only
* discussed at length their research methodology, which was more in line with what was required for E1 in the Evaluation — other students did a combination of R1 and E1.

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

The more successful responses commonly:

* discussed the challenges and opportunities arising from incorporating action research, experimentation or observation as well as the use of local ‘experts’ or other relevant primary sources. This methodological approach often lead in turn to more authentic challenges and opportunities that powerfully shaped the students project and this was reflected in the ensuing rich discussion
* explicitly identified their actions when faced with challenges and/or opportunities. The challenge and/or opportunity was overtly but briefly outlined, the decision made in response to that challenge and/or opportunity was clearly stated, and how their decisions influenced their research development was discussed, often incorporating clear, relevant examples
* clearly identified and then explicitly discussed, 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 — both positive and negative. More successful students often identified ways the project could have been enhanced if an alternative decision was taken
* 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 commonly:

* focused much of the discussion on a recount of the challenges and/or opportunities themselves, rather than the decisions made
* a significant number of reviews omitted any mention of decisions at all and described actions taken in response to opportunities or challenges without explaining reasons and the impact their actions had on their research project
* presented generic responses regarding challenges and opportunities as a result of scaffolding. This often focused on time management, difficulty in deciding on a focus for the project and sourcing information and experts not replying to emails. In many cases, this also led to terms and ideas being included in the review without discussion or clarification. At times these scaffolds did not align with the 2019 subject outline
* focused their discussion on superficial issues of time management/being disorganised/internet not working/sites being blocked/missing school which are experienced by many students. Generally, a generic and superficial response to these ‘challenges’ was produced. It would be preferable for students to attempt a more positive way of using these insights i.e. “I tend to be disorganised so I ...”. In this way it may be more than simply outlining a largely irrelevant deficit
* lacked clear subheadings, or had ‘Challenges and Opportunities’ as a subheading and didn’t talk about decisions at all

R3: Reflection on the quality of the Research Outcome

The more successful responses commonly:

* used a range of varied qualifiers in their reflection on the quality of the outcome
* linked any discussion of the form that the outcome took with its purpose and their goals
* reflected on the quality of their Research Outcome by discussing the relevance and significance of their findings in light of what they set out to do. Such students were able to clearly articulate the features that influenced the overall value and worth of their Research Outcome, including the extent to which the question has been answered. In addition they often included evidence from key stakeholders about the worth of their outcome
* 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. This often included assessing 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 along with a focus on the suitability of its form
* successfully and appropriately used the vocabulary of qualitative judgments. Such students used words like quality, value, worth, significance, importance of, reliability, strengths, limitations
* were able to look at different perspectives on strengths and limitations of their outcome and who it would be useful for

The less successful responses commonly:

* 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
* reviewed their Research Project, particularly how they conducted their research rather than focusing on their Research Outcome and how they were able to provide a resolution to their research question
* only had a short concluding paragraph about the Outcome rather than discussing it in depth, or reviewed the overall research process without focusing specifically on the Outcome.

Specific Features: Synthesis (for Research Project A)

S3: Expression of ideas

The more successful responses commonly:

* crafted a succinct and informative summary giving a clear overview of the project including a brief description of the methodology used
* used expression which was fluid and logical and ensured that that their meaning was clear
* used paragraphs to organised their information coherently to communicate ideas accurately and appropriately
* were organised under appropriate headings that related directly to the 2019 subject outline and so served to organise the review, aiding clarity. In addition they used a range of vocabulary, including varied qualifiers
* were carefully drafted and edited to ensure effective communication
* were explicit and not repetitive.

The less successful responses commonly:

* 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
* expressed ideas that were not being assessed
* recounted their experience through the whole research process rather than focusing on the assessment criteria
* did not utilise the word count effectively.

Assessment Type 3: Evaluation (Research Project B only)

While the number of instances of reflections on the capability continues to decline, it must be reiterated that any evaluation of capability development is not an assessable component. Inclusion of this evidence hampers the capacity of students to provide evidence against the specific features on which they are actually assessed.

Specific Features: Evaluation (Research Project B only)

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

The more successful responses commonly:

* evaluated a specific selection (2-3) of processes with in-depth, judgement statements
* understood that research processes were actions which elicited data
* provided explicit examples of resources engaged with as part of the research processes to illustrate usefulness or limitations
* used approximately a third of the word count for this specific feature to avoid impacting on the depth of the E2 and E3 specific features
* linked the success of the research process directly to the student’s research question and its specific nuances, framing evaluation of the strengths and limitations of process(es)
* accurately used research terminology (i.e. validity, credibility, reliability) to evaluate the use of processes, linking ideas of qualifications, experience etc. to justify
* discussed research processes relatively, drawing comparisons between the effectiveness and usefulness of each process through ranking
* applied a range of qualifiers to rank their usefulness and limitations, such as ‘most useful’, ‘most reliable’, ‘less effective’, ‘pertinent’, ‘critical’, etc. with examples that related directly to their own question.

The less successful responses commonly:

* recounted the research processes in chronological order with few judgements or any evaluative discussion
* discussed irrelevant processes such as planning or basic actions i.e. highlighting sources
* did not specifically discern processes, instead offering a general overview of learning
* did not provide specific examples of resources engaged with
* used broad terms without clarification i.e. ‘Internet research’
* used terms such as ‘validity’, ‘reliability’, ‘bias’, and ‘credibility’ interchangeably, or misused such words
* misunderstood research methodologies and provided inaccurate, or incorrect assessments i.e. citing all government resources as being without bias
* made judgments without providing supporting evidence
* featured broad statements about generalised processes such as ‘using the Internet’.

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

While markers have noted continued improvement in the evidence submitted for this criterion, evidence was not always clearly aligned with the specific criteria being assessed. Teachers are directed to the support materials on the SACE website which provide specific and detailed advice for this specific feature.

The more successful responses commonly:

* made the decisions the central focus of discussion and identified this in the topic sentence
* only focused on key decisions with measurable impact
* provided a very brief summary of the challenge or opportunity, without making it the main focus of discussion
* provided a link between the decision made and the research processes
* provided specific evaluation of how the decision had impacted upon the breadth and/or depth of the research
* linked their decision to an effect on the validity or reliability of research undertaken
* discussed how the decision impacted upon the quality of the outcome and/or the resolution of the question
* provided explicit judgment of the decision and its effectiveness in overcoming a challenge or capitalising upon an opportunity
* used language such as ‘pertinent’, ‘timely’, ‘important’, ‘useful’, ‘powerful’, ‘useless’, ‘ineffective/effective’
* referred to both positive and negative ramifications, with consequences weighed in a balanced manner
* provided specific examples of actions that were undertaken as part of the decision
* did not combine E1 and E2 unless clearly stipulating how the process and decision were linked
* used approximately one third of the word count to allow for equitable demonstration of evidence of all performance standards
* where relevant, explained how the decision had helped or hindered further research or led to new thinking or findings.

The less successful responses commonly:

* focused on the challenge or opportunity, instead of the decision
* identified decisions made without linking them as a response to a problem or opportunity
* discussed general hardships (time management, loss of data, shyness) rather than challenges pertaining to the generation of data
* discussed the decision broadly without reference to the specific research processes
* did not evaluate the decision by the impact that it had upon the broader research outcomes
* 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 have noted a significant improvement in student evidence, with a much clearer focus on discussing the resolution of the question. Teachers are reminded to review the performance standards when developing templates or scaffolds to ensure that guidance relates to the appropriate assessment criteria.

The more successful responses commonly:

* explicitly evaluated the success of the Research Outcome by explaining how well the question was resolved, providing evidence to support this judgment
* evaluated the outcome in sections, referring to specific sections, focus areas or paragraphs
* compared sections to allow for nuanced assessment of strengths or limitations
* 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
* effect of the credibility, validity or reliability of source material
* conciseness of the argument.
* clearly articulated the intended purpose of the Research Outcome and used this as a criteria for evaluation
* clearly articulated appropriateness of the resolution for the intended audience
* recognised the limitations of their research with links to validity, reliability and bias
* weighed up strengths and limitations of their Research Outcome to provide balanced judgments
* focused specifically on the Research Outcome, not the wider research process
* had a balanced understanding of the usefulness of their Research Outcome.

The less successful responses commonly:

* overly focused on the value of the Research Outcome to themselves or made generalisations about its usefulness that were overstated
* focused heavily on the new knowledge gained, without linking this to how this knowledge acquisition assisted in the resolution of the question
* recounted evidence from the Research Outcome without evaluating its pertinence, use, or effectiveness in resolving the research question
* discussed irrelevant features such as 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 design or format of the Research Outcome, rather than the quality of their resolution to the research question
* focused on the Research Project as a whole, recapping research processes without explaining how the Outcome was impacted.

S3: Expression of ideas

Markers noted that this section was typically well done. Templates and scaffolds can limit student voice and should be used carefully. Despite increasing frequency of evidence, students are not required to highlight key words throughout their work.

The more successful responses commonly:

* used clear subheadings and topic sentences to aid clarity
* ensured that sections were clearly demarcated by appropriate headings
* organised information clearly into sections or paragraphs
* carefully edited their work to aid clarity
* used subject specific terminology with accuracy.

The less successful responses commonly:

* used conversational or incomplete writing styles
* repeated content across paragraphs
* used research specific terminology incorrectly
* discussed irrelevant aspects that did not meet the performance standards
* used an introduction or conclusion to recap key ideas.