Research Project

2013 Chief Assessor's Report

Government of South Australia

SACE Board of SA

RESEARCH PROJECT

2013 CHIEF ASSESSOR'S REPORT

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.

Choice of Topic for Research Project

Moderators and markers noted a broad range of research topics presented in 2013.

Topics that seemed to enhance student capacity for achievement at the highest level tended to:

- be phrased as a precise question. This appeared to help students frame the research and point to a focus, allowing for a systematic exploration of the key findings in the research outcome
- hold personal significance to students, enabling them to extend the scope of the research and outcome and reflect with more depth and insight in Assessment Type 3: Evaluation
- be researchable and manageable, allowing for the possibility for a range of research processes to be used, such as active experimentation/trials/ construction, interviews, and secondary research from different perspectives, where relevant
- be challenging for the student without being overpowering.

Some topics restricted students' capacity to achieve at the higher levels, in particular topics which were:

- not framed as a question
- too simplistic and superficial with straightforward uncontested answers
- future-focused or predicting future events, as this made it difficult for students to provide valid evidence
- too broad, as they did not allow students to actually engage in meaningful research, and as a result the project tended towards the superficial.

SCHOOL ASSESSMENT

Assessment Type 1: Folio

Planning (P1)
The most effective evidence of 'thorough' consideration and refinement of the topic was provided in work in which the process of refinement was clearly documented. This included the provision of questions combined with mind maps or visual diagrams that were well annotated to show links, or in explicit documentation of the thinking behind the refinement process. Less successful refinement of the topic was evident

in folios in which topics appeared to be double-edged, i.e. when the first part of the topic referred to the accumulation of information and the second part made evident what issue was being investigated.

Planning (P2)
Most effective evidence of 'thorough' planning of appropriate research processes was found in folios in which clear documentation was provided of exploration of possible research processes with explicit analysis of how that process was appropriate or not to the specific area of research. At times this evidence was contained in the proposal, whilst in other folios students had produced a separate planning table.
Weaker evidence of planning was found in folios:

- containing superficial description of broad research processes, such as 'internet research, archival research' in the proposal and/or brief timelines without supporting details
- where it could only be inferred from the evidence presented
- where processes which were not relevant to the topic, and therefore wasted time, were identified and then carried out.

Application (A1)
Moderators noted that 'resourcefulness' was shown in a number of different ways. More effective evidence of this was provided by students who:

- drew upon different perspectives, reflecting upon setbacks, challenges, why things went wrong, opportunities, and missed opportunities
- followed up on leads that presented themselves
- extended themselves, trying to utilise a variety of archival sources as well as attempting to undertake qualitative and/or quantitative research and even some experimental research
- differentiated between what was background research and what was the research proper
- used surveys in a variety of effective ways, i.e. to gather baseline data, or to test the validity of key findings.

Moderators noted that 'resourceful' does not mean 'full of resources' or multiple examples of the same type of source.

Application (A2)
Moderators noted that although the practice of annotating sources can provide some evidence of analysis, it is less effective in terms of its capacity to provide 'insightful analysis', than a detailed separate reflection at the conclusion of the source/process. The inclusion of annotated pages may be injudicious within the ten pages of evidence submitted for moderation, as so much of the page is taken up with the source's words, rather than the student's.

More successful evidence of 'insightful' analysis and exploration of ideas included folios in which students:

- cross-referenced their sources
- constructed charts that compared sources (both secondary and primary) for deeper analysis, rather than simply annotated their sources
- included analysis of the findings, rather than just reported the answers of surveys (if undertaken)
- engaged in multi-layered analysis, including identifying ways in which the source under consideration contributed to the development of the research by:
  - providing a key finding

- supporting ideas from other sources that then became key findings
- having an influence on the shaping or redevelopment of the topic
- providing new leads
- engaging in an evaluation of the reliability, provenance, and currency of the source with evidence to support the conclusions
- commenting on why some quotes might be useful evidence of key findings
- following up on any new directions identified.

Less effective evidence of analysis and exploration of ideas was provided in folios in which students:

- only 'summarised' or paraphrased sources
- highlighted webpages with little linking with, or analysis of, the focus question of the project
- included the write-up of the questions and answers of an interview without comment
- used a template table which mostly focused on yes/no responses,
- substituted colour and layout (the attractiveness of the folio) for substance in their analysis or reflection
- reproduced three or four pages of a survey
- did not clearly indicate or differentiate what was their own writing and what was downloaded information or quotes from a source.

Moderators noted that making comments about credibility, reliability, etc. is one part of the analysis of the information, but it is also important to include analytic comments about content and how it helps with the development of the research.

Application (A3)
Moderators reported that one of the main reasons for marks adjustments was the absence of evidence showing any kind of application of knowledge, skills, etc. Effective ways of showing evidence of this specific feature included comments indicating how new knowledge gained from a process or source built upon, contradicted, or supported previous knowledge, or reflections on how a source or process led to a change in direction in the research or shaped the topic.

Discussion

- Some discussions strongly supported the teacher's assessment, with the student providing clear evidence in the discussion against the specific features.
- Better discussions had obviously been conducted in the middle or towards the end of a student's research. This gave these students greater capacity to provide more in-depth evidence against the specific features.
- Solid discussions included coverage of ethics and safety issues, sophisticated analysis of capabilities, evidence of planning and application, consideration of challenges faced and how these were overcome, exploration of a variety of research methodologies, identification of future directions of the student's research and refinement of topic approaching the commencement of the outcome.
- Some discussions were missing from the evidence presented.

Ethical Research

More sophisticated evidence of consideration of ethical issues was provided by students who considered the bigger issues of research ethics, including

commentaries on legalities, respect for culture and others (especially if a sensitive topic), safety, and offensive material, and reflections on the values of the school. Less effective evidence was contained in restricted comments such as 'I won't plagiarise'. Some students superficially hinted at an aspect of ethics in their research but then completely ignored it and pursued their own area of interest without considering the research that was being conducted.

Ten Pages of Evidence

Overall, moderators were pleased to see that students were generally choosing their folio pages more wisely than in previous years. Where proposals were included in the folio, this gave moderators the best opportunity to understand the scope of the students' research and make informed decisions about the standard.

The grade given for the folio was best supported when the selected ten pages included clear evidence of all specific features for the planning and application criteria.

Difficulties were presented when:

- there was an overrepresentation of evidence pertaining to P1 and P2 and an underrepresentation of evidence relating to A1, A2, and A3
- pages were so heavily reduced that the information was impossible to read
- students included more than 10 pages by reducing them making it inequitable against other students
- information included was in another language
- evidence from the folio was only presented multimodally, with the student flicking through their folio. In these cases, moderators noted that it was very difficult for students to satisfactorily demonstrate evidence of all performance standards at the highest level, as the moderators were unable to read the evidence on the pages.

Assessment Type 2: Research Outcome

Presentation of the Outcome

The most effective evidence against the performance standards was evident where students presented their outcomes in styles suited to their topic, rather than conforming to a common (teacher-devised template) style. It was positive to see that students are choosing a variety of modes for the presentation of the outcome. Students who may have had difficulty writing with the level of clarity and coherence required, fared better when presenting their outcome in multimodal form.

Outcomes written as essays or reports often used one page to discuss methods. This wasted words and made it harder for students to demonstrate in-depth synthesis or insightful substantiation and therefore achieve at a high level.

Moderators commented that teachers need to remember that a product does not stand alone. A 'substantiation statement' detailing the key findings in the creation of the product must accompany the product. If a product has been made, it is advantageous to include a photograph of what was created (e.g. a surfboard or a gown). If submitting the outcome as a PowerPoint, students are advised to use the 'notes' section as well. Insufficient evidence was provided when only slides were

submitted, especially if the slides were mainly photographic with limited text. This restricted the provision of evidence of substantiation and synthesis.

Synthesis (S1)
Moderators noted that insightful synthesis was most clearly shown by those students who had:

- a well-refined focus question for which key findings could be articulated, as was the use of 'key findings' and headings
- linked key findings to synthesise a new level of information, rather than merely summarising or extracting data
- clearly stated key findings and then supported these with evidence
- been able to extract a number of major findings from their research, as opposed to all findings. They also had multiple reasons to support the contention of it being a key finding and/or had multiple sources of support from the research which clearly supported the notion of it being a finding. grappled with the validity and reliability of their information (especially in regards to the experimentation of their research)
- provided an informal conclusion in which they clearly synthesised the information for the last time.

Less successful outcomes tended to have the following characteristics**:**

- opinions or assertions, with little evidence that the information was drawn from any research
- focused on how to do something and provided an explanation
- answered a question that essentially asked for a recount or description, as they were restricted to presenting a collection of facts or discoveries
- provided synthesis for outcomes where there were many small findings which had little evidence to back them up
- drew all supporting evidence from one source.

Substantiation

Moderators noted that substantiation requires students to support the key findings they present. If a statement is made, evidence should be provided of where this has come from. 'Thorough' substantiation can be effectively shown by the thorough validation of each key finding with referenced examples and evidence from more than one source or process (referenced in footnotes or in text). In practical projects, effective substantiation can be provided in annotated photographs of processes used in the emergence of the key findings.

Moderators also reported that less effective responses provided little evidence of substantiation, apart from a bibliography or merely including references for each 'fact' included in the outcome. This was also a particular problem in some research outcomes that included a product (e.g. a film, brief novel, photo-story, or PowerPoint) without any explicit evidence of substantiation or synthesis.

As in previous years, moderators noted that in oral/multimodal outcomes, it is still possible to have effective substantiation. Instead of footnoting or referencing (which could still be undertaken in a PowerPoint) substantiation can be given in the actual phrasing. For example, students may use sentences such as '*From having spoken to _____ it is evident that....'*, '*Feedback from _____ and _____ highlights that...'*, and '*From experimenting with _____ and achieving the results of _____...'*. It is also possible to achieve a solid result from carefully integrating substantiation into the 'script' when creating an oral presentation. It is

important to note that the assessment is based on the actual presentation (oral/multimodal) and not on the written script that may be sent in to support the outcome.

Synthesis (S3)
Moderators reported that the standard of expression was generally pleasing; however, they recommended that students adopt a formal tone and vocabulary (although this may depend on the genre of the outcome that has been chosen). They also emphasised that the clarity of meaning and coherence comprise more than spelling and grammar, and include the coherence of the overall structure of the piece and the internal coherence of the delivery of information within the paragraph or organising structure.

Other general comments made by moderators included:
- Although teachers are to be commended for providing scaffolding to support students, in some instances the questions asked in the scaffolded table did not allow the students to provide evidence at the higher level of the performance standards.
- The word-count needs to be included at the end of the work and on the cover sheet.

EXTERNAL ASSESSMENT

Assessment Type 3: Evaluation

Markers reported a number of issues that hindered the capacity of some students to achieve at the highest levels. These included those who:
- seemed unaware of the subject outline requirements – and wrote on more than one capability, or included 'Learning' in their reflections
- used headings and scaffoldings that had little to do with the performance standards, e.g. 'experienced difficulties', 'skills, knowledge, or ideas'. In these cases, students used part of their word-count on something that provided little evidence towards the specific features of the assessment criteria
- included their written summary within the word-count or left this out altogether.

Written Summary

Most students were able to successfully indicate the processes used but several neglected to identify the outcome. The use of terms such as 'intensive', 'extensive', or 'vast' to describe the amount or depth of research undertaken is unnecessary and tends to highlight the students' lack of insight into the field of research, or the existing level of knowledge in the field.

Evaluation (E1)
More successful evidence was provided by students who:
- clearly differentiated between research processes and specific sources. They showed a clear understanding of what a research process is, i.e. an activity that produces data towards the research question
- understood the difference between 'valid' and 'reliable'
- produced sophisticated analysis of processes such as analysing websites to discern the research author's qualifications and affiliations or the credibility of organisations

- differentiated between the relative usefulness of processes through the use of different qualifiers.

Less successful evidence was provided by those students who:

- confused planning with research processes, and then recounted all the planning processes undertaken during the project such as creating mind maps and lotus diagrams, or organising their folders
- focused only on recounting what they had done, without any judgements about its effectiveness in terms of developing the research or including elaboration or examples to support the statements made
- described the injudicious use of surveys, such as those which were conducted too early in the research to be useful, or which had merely canvassed friends and acquaintances who knew little about the topic and had little to offer
- had little understanding of the concepts of 'reliability' and bias', or made unsupported judgments or blanket statements about these concepts without providing supporting examples to demonstrate they actually understood the problematic nature of evidence
- scant reference to a source by simply naming an author and a date
- provided a very brief description of only one or two different research processes
- made generic comments about the processes that could have been applied to any topic, rather than with specific examples related to their own project.

Evaluation (E2)

The majority of students were able to identify the capability they had chosen and give a reason for its selection in terms of its relevance to themselves, and less frequently to its relevance to the project itself; however, the weaker responses gave superficial reasons for selecting the capability. For example, the capability 'personal development' was said to be relevant, because through merely doing the project the student felt they were being resilient, persistent, and ethical.

In better responses, students were able to express why the nature of the capability was related to their particular research project. They also went beyond the words and phrases used in the subject outline when discussing the nature of the capability.

Those who chose 'work' as their capability often completed this section well, with students exploring the relevance of the capability through mention of development of work skills, the assumption of responsibility, building community links, and developing entrepreneurial activity. 'Personal development' was effectively explored at the conceptual level in reflections that articulated changes in attitudes, values, and levels of self-awareness that had developed over the course of the research project.

Evaluation (E3)

Stronger responses were made by students who:

- thought deeply about the personal value of the research outcome by discussing personal development that emerged from the outcome, such as heightened awareness, deepened understanding, and refined values and attitudes
- were more realistic in their comments on the possible value of the research to other individuals, the family, the community, or society generally.

Markers commented that some evaluations were overly scaffolded, with sentences beginning identically in large proportions of students in the same class. Markers also suggested that teachers advise their students that in order to provide the strongest evidence of 'insightful' reflections on their research outcome, they should discuss what they have learnt or gained regarding the topic, rather than what was gained

when producing an essay or report, when paraphrasing, or in learning how to use software applications such as PowerPoint.

As in the past, weaker responses:

- did not differentiate between the outcome and the project as a whole
- described what had gone wrong, rather than what was achieved, when reflecting on their research outcome
- exaggerated the value of their research to others, by claiming discoveries of a ground breaking nature (when they were not)
- discussed the process or form of the report, rather than reflecting on its value to themselves and/or others
- did not mention the key findings at all
- tended to be uncritical in the assessment of the outcome, focusing only on how successful it had been.

Synthesis (S3)
Markers reported that, in general, students' expression of ideas was clear.
The use of subheadings tended to be a feature of the more successful responses; the absence of headings often appeared to be characteristic of responses in which there was a lot of repetition, poor structure, and long-windedness. In some students' work there was an overuse of words like 'useful' and 'interesting'.

OPERATIONAL ADVICE

Packaging of Materials

Moderators noted that most materials were packaged in a well-labelled and organised manner. There were a number of issues, however, which needed more careful attention from some teachers, such as ensuring that:

- all student materials required for the sample are double-checked and verified as being present in a student's package
- students' SACE numbers are clearly evident on all work
- the grade on the student's work is consistent with that recorded on the school results sheet.

Moderators also reported that the attachment of shaded performance standard sheets to student samples, along with a grade and teacher comments, was helpful to confirm assessment decisions. It also allowed for more pointed feedback if adjustments were required.

Assessment Groups

Moderators reported that there was less of an issue in regards to assessment groups this year. There was evidence of a more consistent application of the performance standards across assessment groups within the same school.

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