Assessment Report

New Zealand Scholarship Technology 2020

Standard 93601

Part A: Commentary

Many candidates exhibited insufficient understanding of the importance of the context at this level and how this determines the authenticity of the candidates practice and outcome.

There has been an increase in the quality of photographic evidence however candidates need to improve the annotation of the visual particularly when explaining the complexities of the situation/problem.

Short video clips of the functioning prototype (less 30 seconds) increases the student's ability to communicate the effectiveness of their prototype (what it does and how it works).

The use of QR codes instead of links on printed documents assists in communicating the technological practice and the outcome.

To ensure authenticity candidates must investigate and include considerations of the intended physical and social environment prior, during and after development of the outcome.

Technological practice is not a theoretical exercise, nor does it just refer to the designing, trialling and construction of an outcome. It is an ongoing iterative process involving problem solving where the student interacts with their stakeholders and reflects on their intended environment to make decisions and address the issue

While group work is valid for certain technological projects, and reflects what is often done in industry, it can be very difficult for markers to determine what an individual's contribution is when seeking to award grades for scholarship. Candidates must make their individual contribution very clear. This means candidates working in groups must have their own part of the project that they are solving/responsible for which allows them to be individually considered for scholarship.

Candidates who presented evidence that followed guidelines for competitions, shows or other technology awards often had their practice constrained by the requirements of a specification that did not allow them the opportunity to demonstrate either scholarship or outstanding scholarship performance. Where candidate's practice was guided by the assessment criteria for specialist knowledge and skill achievement standards it often constrained their ability to undertake technological practice.

Candidates need to ensure there is sufficient evidence in their report that reflects all three stands of the curriculum.

A number of candidates presented double photocopied pages of their A3 portfolios; many of these only partially readable because of font size or clarity of the copy. This work was sometimes unmarkable and may have resulted in more than the maximum 60 pages being submitted.

Teachers should make sure that candidates reports are fully legible and not below the recommended size 12 font, images are functional and clear, and no more than 60 pages are submitted to ensure their candidates are not unduly disadvantaged.

Part B: Report on performance standard

Candidates who were awarded Scholarship with **Outstanding Performance** commonly:

- made astute justifications of their practice and its resulting outcomes
- was at or exceeded New Zealand curriculum level 8 expectations for synthesis and integration of skills and knowledge
- were allowed to explore and select their own authentic context which resulted in student agency
- articulated independent and informed critical thinking around both their technological practice and the resulting outcome
- found an innovative, creative or highly relevant and authentic issue that had the potential for complexity and scope to support exploration and the production of a quality technological outcome
- reflected and analysed others processes and practices and selected and applied the most salient aspects
- had a clear understanding of target user preference / opportunity or client / stakeholders
- effectively conveyed the functionality and purpose of the outcome. This was essential in communicating the elegance and/or innovation of the situated outcome
- managed their project independently leading to an organic rather than formulaic practice which allows them to meet the criteria
- effectively used relevant prior knowledge from previous learning
- incorporated all three curriculum strands and technological literacy
- thoroughly investigated, understood and critically reflected upon relevant aspects of the social environment (could include any of the socio-cultural aspects) and applied this knowledge
- demonstrated a willingness to pursue new knowledge and learnings and incorporate these into their own practice
- demonstrated critical reflection which allowed decisions that would impact positively on the physical and social environment of their outcome
- extrapolated – were able to determine the relevance of information and experiences and apply this into new contexts, so as to inform the development of their technological outcome
- allowed their project to evolve in a logical manner
- provided evidence of on-going critical reflection on the pertinent knowledge gained. This was normally from a variety of sources that enhanced their practice and outcome development
- were forward thinking which enabled seamless steps in their technological practice
- justified in-depth the technological practice they undertook and how the outcome addressed the challenges of the issue and fitness for purpose in its broadest sense
- critically reflected on focused and relevant functional modelling to ensure the outcome had the potential to be fit for purpose
- understood socio-cultural and historical contexts and make connections from these to their own practice
- demonstrated elegance and originality in both technological practice and the ensuring technological outcome
- explored suitability of materials, processes and components based upon their performance properties to ensure fitness for purpose
- developed a complex outcome that showed their ingenuity and optimisation of materials, components and/or processes.

Candidates who were awarded **Scholarship** commonly:

- selected a context which allowed them to investigate a genuine issue
- introduced their project and the issue/opportunity/context that was explored.
- explored the elements that underpinned the context which identified many of the complexities of the situation
- demonstrated their ability to carry out on-going and in-depth analysis and investigation into the social and physical environment in which the issue and the potential outcome is used and/or placed
- justified their practice which included giving clear and succinct reasons for actions undertaken as they relate to the issue and context considerations.
- were able to analyse the findings of purposeful functional modelling and make judgments to inform decision making.
- the ability to be adaptable and incorporate iterative processes as part of their technological practice
- demonstrated the ability to reflect on relevant information, knowledge, attitudes and/or practices of others and how these may influence, inform or guide the development of the outcome
- obtained timely relevant stakeholder feedback and/or knowledge which is used to inform their practice
- accessed timely and relevant technological knowledge which is used to inform their practice
- demonstrated effective problem solving abilities while undertaking their practice

- reflected upon the knowledge gained from technological modelling to ensure the outcome had the potential to be for purpose
- were able to reflect on and analyse their own manufacturing processes and practices.
- synthesised in-depth knowledge and skills to ensure their technological outcome was fit for purpose
- developed a quality outcome and communicated this through clear photographs, diagrams or working links (for example QR codes) to demonstrate fitness for purpose in its intended environment
- their on-going technological practice was routinely informed by the issue and brief
- were discerning in their use and presentation of information, to ensure the requirements for scholarship criteriums were met
- demonstrated developed organisational skills and ability to work around unforeseen circumstances.

Candidates who were **not** awarded Scholarship commonly:

- did not sufficiently explore a real issue or context thus reducing their ability to carry out authentic technological practice
- digital submissions often did not sufficiently scope out the complexity of the skills required early enough in the process, resulting in unresolved outcomes
- often over emphasized the process of brief development at the expense of developing and producing a prototype (ran out of time)
- presented a running commentary on what they did rather than explaining the purpose for their actions and justifying their Technological Practice
- included evidence that was not relevant to this Performance Standard
- had a predetermined outcome in mind which prevented any authentic and/or in-depth exploration of the issue
- demonstrated limited creativity and/or innovation even though they produced a high quality outcome
- misinterpreted the complexities of the situation to solely those of a technical nature when producing the outcome (did not adequately cover the 3 strands)
- undertook Technological Practice which was below Level 8 of the New Zealand curriculum
- demonstrated Technological knowledge which was below level 8 of the New Zealand curriculum
- did not demonstrate sufficient understanding of the **relevant** socio-cultural considerations of the context and the issue
- did not acquire stakeholder feedback that was essential to the outcome/context
- accessed overly agreeable stakeholders that resulted in limited and constrained development
- did not acquire and/or apply the appropriate technological knowledge
- did not adequately reflect on relevant information, knowledge, attitudes and/or practices of others in order to actively inform the development of their own outcome
- included unnecessary and/or irrelevant research that was not applied or reflected on in their practice (aka waffle). Whilst fitness for purpose should be broad it is more important that it is relevant
- presented insufficient or incoherent evidence which did not allow the examiner to adequately judge the technological practice being undertaken presented work which was of such small font or print size, or line spacing which had been unclearly photocopied, and subsequently was unreadable by the examiner
- evidence was repetitive, often it conveyed lower order thinking and/or generic information that bulked out the submission but diluted the evidence quality and coherence of the technological practice.

Subject page

Previous years' reports
2019 (PDF, 249KB), 2017 (PDF, 110KB), 2016 (PDF, 189KB)
