NZQA

New Zealand Qualifications Authority
Mana Tohu Matauranga O Aotearoa

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Assessment Report

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Level 2 Digital Technologies 2020

Standards [91898](#) [91899](#)

Part A: Commentary

No commentary was provided for these Digital Technologies standards.

Part B: Report on standards

91898: Demonstrate understanding of a computer science concept

Candidates who were awarded **Achievement** commonly:

- gave answers of sufficient depth to parts (a) to (c)

- used a variety of examples from current digital technologies

- chose two distinct mechanisms and demonstrated understanding.

Candidates whose work was assessed as **Not Achieved** commonly:

- gave similar answers to two or more questions, or gave answers that did not answer the question

- chose two similar mechanisms and gave similar answers to both

- did not understand what a mechanism is

- used examples (such as the Caesar cypher, parity trick, or Bob / Alice sharing keys) and showed no relation or understanding of current Computer Science concepts

- did not answer all of parts (a) to (c).

Candidates who were awarded **Achievement with Merit** commonly:

- chose an impact and clearly linked it to their chosen Computer Science concept

- clearly explained the chosen ethical issue or human factor and how it has been affected using a specific example (for example, how public / private encryption has allowed online banking to occur).

Candidates who were awarded **Achievement with Excellence** commonly:

- gave their own opinion that demonstrated a deeper understanding

- brought together previous answers and showed links and connections

- introduced a related idea not covered in the task.

Standard-specific comments

Candidates need to ensure they have an understanding of how a mechanism (such as the Luhn algorithm, private / public encryption, Natural Language Processing) works, and be able to explain it in some detail.

With Artificial Intelligence, many candidates failed to explain what is intelligent. Voice or facial recognition were often used as examples of AI without explaining what part of it makes them "intelligent". Many candidates believed that AI works because it has an "algorithm".

Some candidates believe the check digit on a barcode is only utilised when the printed numbers are entered by the checkout operator.

Some candidates falsely believe that error detection is the sole method of preventing credit card fraud.

In 2020, fewer candidates used examples from Science Fiction or gave non-digital technology examples. The lack of depth in many candidates' submissions made it difficult to award Merit or Excellence.

Teachers are advised to check the assessment specifications for 2021.

91899: Present a summary of developing a digital outcome

Candidates who were awarded **Achievement** commonly:

- summarised how they developed a digital outcome

- described their digital outcome briefly and clearly described what they had created

- explained the decisions that were made during the development of the outcome in regard to the sequencing of key tasks in the project and/or the selection of methods to address requirements.

Candidates whose work was assessed as **Not Achieved** commonly:

- omitted evidence that related to one or more of the assessment criteria for Achievement

- did not have a 'finished' digital outcome – it was clear they were part way through their project or ran out of time

- chose to write about a digital outcome that had limited scope

- did not describe the digital outcome they created but instead wrote about software and tools used

- did not explain the decisions that were made during the development of the outcome in regard to the sequencing of key tasks in the project and / or the selection of methods to address requirements

- described the non-digital part of an outcome but didn't write about the digital part

- wrote about what they had created generally without giving specific details to help explain what they had actually created themselves.

Candidates who were awarded **Achievement with Merit** commonly:

- had requirements specific to the digital outcome rather than the achievement standard

- stated what the (two or more) requirements were, and discussed how their digital outcome met these requirements

- discussed how their digital outcome addressed relevant legal, accessibility, Intellectual property, and health and safety implications

- discussed different examples to show how they met the criteria of the requirements and the implications.

Candidates who were awarded **Achievement with Excellence** commonly:

- when evaluating the (two or more) decisions made during the development process, made it clear whether the decisions were an advantage or disadvantage, and the impact they had on the outcome

- made links between the outcome, materials / tools / software / testing / feedback that was selected / used and the performance and / or quality of the outcome.

- expanded on information supplied in response to the initial parts of the overall task

- went into more detail about the digital outcome and how they had created it with specific examples

- wrote about different examples when discussing what they could have done differently for the digital components to improve their chosen digital outcome, allowing them to build on their prior comments, so it was not just a repetition of the evaluation or a contradiction to what was said in the evaluation.

Standard-specific comments

This standard requires candidates to present a summary of developing a digital outcome. When the candidate has produced a physical outcome, they need to make sure they discuss the digital component of it.

Candidates should be working at Level 7 of the curriculum, and in their projects they need to do more than simply use existing online generation tools and platforms to put together an outcome. They should, for example, be writing their own code, creating their own logos, taking their own photographs, and creating their own media content. They are not expected to create the whole digital outcome from scratch but some component of the project should be authentic.

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Candidates who completed a digital outcome at this level were able to find success in this standard and those who attained a higher grade had a project that had depth that allowed them to show their knowledge, understanding and process to meet the requirements. Repetition was often seen where projects were not at this level.

Candidates who worked as part of a team / group should ensure their report focuses clearly on the digital component they individually contributed to the project.

Compared with those who had only worked through a variety of the "outcome" standards, candidates with a larger project that used a range of the standards to work through a design process tended to achieve higher grades, because their understanding of what developing an outcome involves allowed them to fulfill the Merit and Excellent criteria.

The development process can include research, design and the development, or just the 'sprints' of the development. Candidates who had freedom to complete a project based on their interests, or had freedom as to what the outcome could look like with some say in the requirements / specifications, had a project where they understood the choices and decisions they made. This compared with those who worked through an existing step-by-step resource.

Some candidates wrote about a project that mainly covered the requirements of the standard. The project should have a range of aspects and the achievement standard criteria should fall out of the project if done the right way

Candidates need to write specifically about the digital outcome, especially the requirements, rather than simply generalising in regards to conventions, testing, feedback etc. without giving specific information about what eventuated and the decisions that were made.

Teachers and candidates need to understand what is meant by "explain", "address", "discuss" and "evaluate".

Teachers are advised to check the assessment specifications for 2021.

Digital Technologies subject page

Previous years' reports

[2019 (PDF, 103KB)](#)

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