2023 NCEA Assessment Report

Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Subject: Digital Technologies and Hangarau Matihiko

Level: Level 3

Achievement standard(s): 91908, 91909

Report on individual achievement standard(s)

Achievement standard 91908: Analyse an area of computer science

Commentary

Candidates demonstrated knowledge that was consistent with Level 8 of the New Zealand Curriculum requirements and did not face penalties for minor errors in their submissions. Notably, the length of a candidate's response did not influence the grading outcome, with some very brief responses receiving a grade of E8. Some candidates who responded at length often repeated material or wandered from the topic. The clarity of grade boundaries and evident differentiation between questions were notable features of the assessment process.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- demonstrated basic understanding of the computer science of their chosen topic
- used some subject-specific language and concepts accurately but some significant errors or omissions were made
- left spaces blank without a response.

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

- demonstrated good understanding of the computer science of their chosen topic
- used subject-specific language and concepts accurately but made some minor errors or omissions.

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

- demonstrated a comprehensive understanding of the computer science of their chosen topic
- used subject-specific language and concepts accurately
- made some very minor errors or omissions
- showed an ability to apply the computer science concept in 'unfamiliar contexts'.

Candidates who were awarded **Not Achieved** commonly:

- failed to demonstrate a basic understanding of the computer science of their chosen topic
- used non-subject-specific general knowledge and concepts, and language that did not meet the grade for Achievement
- demonstrated a lack of Level 8 of the New Zealand Curriculum knowledge and understanding of computer science concepts.

Achievement standard 91909: Present a reflective analysis of developing a digital outcome

Commentary

Some candidates' responses lacked sufficient detail and reflections on how they developed their outcome. Those who explained how the software, testing, trialing, and feedback impacted decisions made at a deeper level presented an insightful, reflective analysis.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- were impacted by the evaluation component in their project submissions
- provided limited reflection or reasons behind their decisions even though they generally explained their actions
- presented an authentic project context with end users and stakeholders, but relied heavily on feedback from end users or stakeholders alone
- failed to sufficiently reflect on the information gathered during their work, and others deviated from accepted project development methodologies
- demonstrated the ability to articulate specific decisions directly contributing to the project outcome, avoiding broad or vague recollections
- provided evidence of individual responsibility for decisions and tasks and showcased their own decision-making skills, if they worked in a team environment
- explained the links between decisions made through end-user and stakeholder interactions clearly and the project outcome was successful.

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

- undertook projects of sufficient complexity that allowed for a detailed analysis of decisions and linking discussions seamlessly to the development process
- demonstrated the ability to provide genuine and multiple accounts of end user and stakeholder interactions, showcasing a profound impact on the development process
- presented evidence of effective project management, consistently referring to iterative development in their explanations of the project process
- effectively linked submitted project management screenshots to corresponding methodologies, enabling detailed discussions of the process
- explained how the choice of tools or techniques significantly influenced their outcomes, discussing their importance in addressing the specific issue, opportunity, or need
- ensured traceability of individual work in a team (group) environment, providing in-depth explanations based on their personal accounts of the project development.

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

- delivered high-quality reports based on non-trivial outcomes, demanding substantial development work and decision-making
- demonstrated a thorough understanding of end users and stakeholders , establishing strong relationships, and clearly articulating how these relationships guided their work
- exhibited deep knowledge of practice, providing insightful reasons for their decisions
- carefully evaluated significant decisions, not only detailing the actions taken but also providing thorough reasoning and suggestions for potential improvements
- delineated clear areas of responsibility in team environments, showcasing effective collaboration in project management and decision-making
- critiqued project outcomes and processes, proposing non-trivial and standards-relevant improvements
- excelled in critical reflective analysis, drawing upon earlier research, project progression, and considered broader aspects like future-proofing, community impacts, accessibility, mātauranga Māori, and diverse cultural perspectives, ultimately arriving at insightful conclusions.

Candidates who were awarded **Not Achieved** commonly:

- made incomplete attempts at the questions
- displayed a lack of understanding resulting in unexpected and incorrect answers, and an inability to explain techniques, end user, and stakeholder decisions
- deviated to unexpected angles, such as emphasising art skills or cinematography
- provided limited interactions with end users and stakeholders, which led to minimal decision-making opportunities and shallow work
- adhered rigidly to predetermined project ideas, relying on online tutorials without much attention to the development process
- lacked the required breadth or depth, with unclear explanations of individual roles or responsibilities, in team projects
- wrote about software unrelated to the outcome’s development, focusing just on planning or design
- provided vague information about end user feedback and stakeholder influence
- addressed the 3D-printed outcomes’ material aspects rather than the software processes involved
- failed to meet expected copyright implications
- did not demonstrate proficiency at Level 8 of the New Zealand Curriculum.