T-LEVELS

Chief examiner's report

T Level Technical Qualification in Digital Support Services 603/6901/2

Autumn 2023 – Employer Set Project Network Cabling and Digital Infrastructure

NCFE

Chief Examiner's Report

603/6901/2 – Employer Set Project
Digital Infrastructure & Network Cabling

Assessment Dates: **6 – 17 November 2023**
Paper Number – **P002270**

This report contains information in relation to the externally assessed component provided by the chief examiner, with an emphasis on the standard of student work within this assessment.

The report is written for providers, with the aim of highlighting how students have performed generally, as well as any areas where further development or guidance which may be required to support preparation for future opportunities.

Key points:

- grade boundaries
- standard of student work
- evidence creation
- responses to the external assessment tasks
- administering the external assessment

It is important to note that students should not sit this external assessment until they have received the relevant teaching of the qualification in relation to this component.

Grade boundaries

Raw mark grade boundaries for the series are:

	Overall
Max	76
A*	67
A	58
B	49
C	41
D	33
E	25

Grade boundaries are the lowest mark with which a grade is achieved.

For further detail on how raw marks are converted to uniform marks (UMS) and the aggregation of the core component, please refer to the qualification specification.

Standard of student work

Students' performance varied across tasks, resulting in diverse grades. Proficient students excelled in tasks one and three, which demanded higher-order skills and the application of knowledge. However, some students found these tasks challenging, highlighting clear distinctions between those who grasped the concepts and those who did not.

During interviews, many students exhibited effective communication skills, albeit struggling to move away from their prepared scripts and missing opportunities for follow-up questions. The email task required more practice communicating with technical and non-technical audiences and utilising analytical thinking.

There was notable room for improvement in applying a logical problem-solving approach, as evidenced in tasks one and three. Weaker students found it challenging to justify their choices (AO3) and assess how well their solutions met the brief's requirements (AO5). This suggests the need for a more structured approach to maximise their marks.

Notably, there was an improvement in the assessment marks awarded for English and mathematics skills (AO4) across all ability levels, indicating better proofreading skills.

Evidence creation

Most providers effectively presented their evidence, which greatly facilitated the review process. The audio files and documents were consistently formatted as mp3 and pdf, ensuring compatibility. However, using WAV audio files is discouraged due to playback issues.

Unfortunately, students' inclusion of hyperlinks in their documents proved non-functional, as all evidence undergoes scanning, which results in the removal of links.

Responses to the external assessment tasks

Task 1: Troubleshooting document

Many students struggled with this task, earning only one to three marks (bands 1 and 2). The issue lies in the fact that the WiFi is only available on the ‘all staff’ Virtual LAN (VLAN), and the Virtual Private Network (VPN) is not properly routed to the correct VLAN.

Some students proposed reassigning the WiFi from 10.0.1.2 (available only to staff rather than HQ) to the other VLAN (for instance, 10.0.2.10/24), which earned them credit.

More adept students recognised the importance of ensuring that the VPN is properly routed to the correct VLAN and that all devices, including printers, are on the correct VLAN after the update. This earned them additional marks.

This task evaluated students' ability to troubleshoot network faults using a logical process with relevant steps. Some students needed to grasp the importance of resolving all faults and continuing to work after making a single recommendation.

Task 1: Test plan document

Many students grasped the concept of how to create a test plan. However, some struggled with describing the logical sequence of relevant tests needed to resolve the network faults.

Additionally, a few students failed to understand the significance of running tests to verify that the faults had been rectified. For instance, they were unaware of the importance of accessing remote files/folders and utilising the Ping and Tracert or similar commands to connect to the VPN Server.

Task 2: Interview

The students' performance on this task was generally satisfactory, with about 83% earning three to four marks. Most students demonstrated good practical communication skills by asking well-crafted questions to gather the necessary information. However, approximately 11% of students received a band one mark due to their rigid adherence to pre-planned questions, preventing them from engaging in follow-up or active listening.

The providers' approaches to this task varied significantly, with some offering unsolicited answers or reading directly from the provided material. The interviews were more successful when providers paraphrased the information and created a more authentic experience. These providers provided answers based on the supplied material or logically inferred instead of merely stating, ‘I don't know’.

Task 2: Emails

Despite some students adjusting their communication styles to suit their audience better, their efforts remained surface-level. Students must incorporate more technical terminology in their responses to improve their grades and demonstrate excellent analytical thinking and problem-solving skills when tackling scenario-based problems. Regrettably, most evidence showcased a need for such proficiency, highlighting an opportunity for improvement across the entire cohort.

Around 69% of students achieved three to four marks for this task, and 30% scored in band one.

Task 3: Project proposal

This task assesses the student's understanding of the scenario and ability to resolve the issues discussed. The task covers various topics, including current problems, potential solutions, network hardware, software, services, and cybersecurity evaluations.

During the evaluation process, it was observed that many proposals lacked the necessary detail and justification. Only a few students were able to achieve beyond the lower two bands. Although some students presented potentially good solutions, they required more explanation of the choices made or how the specified components would fit together.

Around 51% of the students scored between five and nine marks, while 26% scored higher. Since this task holds a maximum weightage of 24 marks and has an allocated completion time of four hours, it is significant. Some students failed to understand the extent required to achieve higher marks and submitted insufficient evidence of only one to two pages, which was insufficient to cover the task's scope.

Students often duplicate resources, such as purchasing multiple costly servers, while recommending a complete cloud solution. While hybrid networks are valid, it is vital to describe the purpose of each component carefully.

To achieve higher marks, network diagrams should include all relevant elements, such as VPN, servers, cloud resources, and PCs, clearly identified within them.

Strong responses outlined cloud services, addressed cybersecurity issues, and provided detailed descriptions of all required hardware and software while consistently referencing the scenario's requirements throughout their evidence.

Task 3: Mathematics skills

In this activity, students are tasked with demonstrating their numeracy proficiency in their proposal. Only about 50% of students achieved the maximum of two marks, while approximately 20% received one mark due to minor inaccuracies in their calculations. Unfortunately, some students only provided a list of prices, often in dollars, without any accompanying calculations, resulting in a score of zero. Outstanding submissions included a comprehensive table that outlined the costs of cloud services, hardware, and software. They also highlighted quantities, specified whether the expenses were recurring or one-time, included subtotals, and presented a final total. Utilising basic arithmetic operations such as addition, subtraction, multiplication, or division was often enough to attain full marks, making this a crucial area for students to focus on and improve upon.

Task 4: Testing method – audience testing (sample satisfaction survey)

It is important to note that some surveys might miss out on crucial elements outlined in the indicative content. The use of electronic surveys is good practice, and they are expected to be utilised more frequently.

Regarding student performance, about 40% of students scored between three and six marks in this task, while roughly 60% earned one to two marks. However, some students failed to understand the purpose of the survey and focused solely on the company and their network upgrade rather than considering the end-user's perspective.

On the other hand, strong responses demonstrated well-structured and pertinent questions, utilising various question types to gather qualitative and quantitative data. The questions were formulated using clear and concise language.

Task 4: Post-project review

Many students struggled to assess their performance in this task. They often resorted to using descriptive language rather than evaluative language. It is noteworthy that just a few students were able to link their solution to the initial problem and make judgments on how effectively it fulfilled the requirements. Approximately 80% of students scored between two and three marks in this task.

Tasks 2, 3 and 4: English skills

Some students lost marks that could have been avoided if they had paid more attention to spelling, punctuation, and grammar errors in tasks two, three and four. Students are advised to cultivate the habit of proofreading their work thoroughly. Around 80% of the students scored three or four marks, while the remaining 20% secured only two marks for their English language skills.

Administering the external assessment

The external assessment is invigilated and must be conducted in line with our Regulations for the Conduct of External Assessment. Students may require additional pre-release material to complete the tasks. These must be provided to students in line with our regulations.

Students must be given the resources to carry out the tasks, and these are highlighted within the Qualification Specific Instructions Document (QSID).