NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

National Qualifications Framework Levels 1–3, 2005

Computing

National Moderator's Report

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General Guidance for Assessors of Achievement and Unit Standards

The purpose of external moderation is to provide reassurance that assessor judgements are at the national standard and are made on the basis of assessment materials that are fair and valid.

All assessment materials are expected to:
- give the learner the opportunity to meet the requirements of the standard
- have an assessment schedule that gives evidence of appropriate learner responses and clear judgements at all levels.

The Ministry of Education contracted subject experts to write assessment resources for achievement standards. These are not pre-moderated. The intention is that they are modified to suit teaching programmes and learner needs. They do not provide 'rules' but suggest different ways of assessing to the nationally registered standard.

General Overall Comment

Assessments tend to be very traditional. Assessors need to take the opportunity to use the range of assessment techniques which the special notes in many cases clearly indicate are possible. It is appropriate to assess by element, rather than by individual Performance Criteria, and to use evidence embedded in student practice.

Verbal assessments

In the special notes of many computing unit standards it states that: *"Demonstration of knowledge can be **verbal**, written, **practical**, and/or a **combination,** as appropriate to the assessment situation."* This means there is a wide range of techniques allowed, and to have an assessment which is entirely verbal is quite permissible. What is important in this case is the evidence and judgement statements in the assessment schedule.

Embedded evidence in learner practice

A visual diary/work book can contain much of the evidence required for planning, writing a brief, concept design and evaluation embedded in a learner's work processes. If something is missing, assessors can ask questions and annotate the diary indicating the questions asked and that satisfactory answers have been received. The visual diary is also an excellent way of establishing authenticity.

Evidence does not have to be structured in the same manner as the Performance Criteria. In Element 1 of many unit standards, there is the requirement to plan, write a brief and produce concept designs. If learners are using a visual diary for their designs and planning it may be that the evidence for these requirements is presented in an annotated set of diagrams, or maybe a mixture of annotated diagrams and some written notes. These are perfectly acceptable, but may require the assessor to look for evidence which may be embedded in the learner practice. The evidence for planning may contain the evidence for writing the brief as well as evidence for the concept design.

The following may be looked for in the planning and writing of a brief:
- a clearly stated purpose
- a description of the target market
- how the product will be used

- identify or describe the specifications and/or features to be included
- identify issues
- identify any constraints
- identify key milestones of the project with a timeline
- identify how resources such as time, expertise and materials (and finance, if appropriate) will be used to achieve the outcomes of each milestone stage
- indicate how consultation with stakeholders will be carried out to ensure all constraints and requirements are met
- include the testing/evaluation procedures.

The visual diary can also be used for evaluation. If a printed document is used, the first draft with all the proofing marks/comments is written evidence of some evaluation having taken place.

Concept designs

Concept designs can be sketches, storyboards, annotated diagrams, etc. They must clearly represent the final product.

Planning and concept design

A concept design must clearly indicate the final product. If the final product is very different, this is acceptable as long as the changes have been documented.

US 2790 Version 5

This standard has three elements and the first special note reads: *"Candidates for this unit standard will be required to describe and operate a minimum of seven peripherals, selecting at least one input device, a printer, one other output device, and one storage device. This covers only the first two elements. For the third element 'peripherals' a minimum of two is required."*

The reference to *"maintenance"* refers to everything the student needs to know if they own and want to use and look after it so it functions correctly and continuously.

The reference to *"user maintenance is completed"* means maintenance has to be done and not written about. The same applies for 3.2 if the peripheral, eg printer, has consumables.

US 2781 Version 5

With regards to PC 2.2, *"backup procedures"* refers to three of:
- backup techniques, eg copy to a disk, make a CD, use a tape drive, email file somewhere else, etc, and then retrieve file
- procedures for the frequency of saving backups
- details of what is done about virus protection
- what is done to protect against power surges, etc
- or any other measures put in place.

This means a schedule is not necessary if three other measures are described.

US 2797 Version 5

Ethernet uses a 'contention based' access protocol, either CSMA/CD (guided media) or CSMA/CA (wireless media) where all devices can connect for the media. Token ring uses a 'controlled' media

access, where devices have to have control of the token before they can communicate. The two are very different, making it easy to compare them.

TCP/IP is a communication architecture which is made up of a suite of protocols. Ethernet and Token ring are two of the commonly used Data Link layer protocols used within TCP/IP.

It is sufficient to assess the understanding of the principles of the four items in the range rather than trying to compare them all.

US 5947 Version 5

Element 1 refers to *"Analyse a specified problem using computer technology"*. This means the analysis and the solution use computer technology. In Special Note 1 the problem *"may be open ended or a closed type"* – the problem must have at least two possible ways of being solved and the learner can in fact implement the solution.