



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

# **National Qualifications Framework Levels 1–3, 2006**

## **Graphics**

### **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 judgments 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 judgments 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.

It has been good to see the assessment materials of schools who have reviewed and modified their programme and assessment material to better suit their particular learners. Schools are to be congratulated for their efforts in this regard and it is clear to see this has a positive effect on the learners' engagement and therefore standard of work. Moderators however, reported instances where the poor preparation of assessment material (typically assessment conditions) denied access to vital information necessary to meet the requirements of the standards. This situation applied to both achievement and unit standards.

The major issues are;

1. Use of generic assessment activities
  2. Use of generic assessment schedules
  3. Use of multi standard assessment
  4. Generous assessor judgements and depth of engagement at level 2 & 3
  5. Achievement standard version numbers
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1. Many schools are using the Ministry of Education (MoE) samples and as previously stated (2005 report) this is not necessarily a problem. However, in many cases, providers are changing these documents slightly in the attempt to provide a more contextual design situation. Even though this can be a suitable method of developing new assessment activities, care must be taken if modifications alter the nature of the work learners have to complete. In some instances, providers are changing the activity title and situation but not reviewing the content of the rest of the document, including the assessment schedule. This has severely impacted on learner achievement as vital information is misleading or missing. This issue must be addressed, as student success should be the first consideration when preparing classroom material. Refer statement in 2005 report - *Considering this information is the crucial interface between learners and the assessment system, this must take precedence in any school preparation for 2006. Poorly written design documentation will severely impact learner's abilities to succeed and it is a professional responsibility to ensure learners are provided with adequate information.*

2. Generic assessment schedules continue to cause a problem for providers who have difficulty establishing a clear level of achievement. If providers continue to use the old versions of schedules, or try to evaluate students' evidence against the achievement standard criteria only, then problems can and have arisen when assessors try to qualify assessment judgements. There is no alternative to creating an individual assessment schedule for each assessment activity. This will support a more accurate and definable quality of learner evidence.
3. This year there has been a noticeable increase in the use of unit standards. This is a valid and appropriate form of assessment, but providers who are not as familiar with the processes associated with preparing material for this assessment method are advised to contract assistance. There have been a number of situations where providers have submitted evidence that fails to meet the necessary context requirements of unit standard evidence. In some cases the pragmatic demands of skills have been met but the design elements inherent in some performance criteria have not been included. The original intention of the design and communications unit standards was to undertake the development of evidence for these standards within a contextual design brief and not in isolation as a skill assessment task. Providers are advised to reconsider the number of standards applied to any one assessment task. In some instances providers are applying too many assessment conditions and this has the effect of stifling creative activity and applying unjust demands on learners. A relevant moderator comment states 'multi standard activities made it difficult for learners to understand and meet all of the individual assessment requirements'.
4. In many instances the standard of learner evidence submitted for moderation at level two and three was below the national standard for that particular level. Assessor judgements were often too generous. The step up in degree of difficulty and depth of engagement appeared to be lacking and in some portfolios the quality of sketching and instrumental drawing was equivalent to level one standard. A careful consideration of the type of assessment activity offered could resolve the depth of engagement and level of difficulty issue. At these levels learners must be given design tasks that encourage deeper thinking and include opportunities to submit more detailed evidence. When learners are expected to meet such requirements as; 'analyse the nature of the problem and generate new solutions or produce alternatives to existing designs or ongoing analysis and reflection and examination of the implications of the alternative', clear support and advice on the nature of these processes, is essential.
5. It is important to review the version number of the achievement standard being offered. A number of providers are using outdated versions of the achievement standards and this has severely impacted on student success. It is imperative that the version of achievement standard is accurately checked during programme development so that learners are not disadvantaged.

## **Level 1**

### ***90041: Produce a mock-up and model***

#### ***Mock-ups***

This part of the achievement standard appears to be completed with a high rate of success. However more than just two photographs of each mock-up must be submitted as evidence for this part of the standard so that it is clear how the mock-up informed the design process. This is normally shown within the drawings or annotations as pointed out in the 2005 report.

*'Learners should be made aware that there needs to be a clear connection between the mock-up and how it informs design decisions. A method of improving this interaction may be to encourage learners to begin the design process with exploration of ideas through the use of cardboard or clay types of mock-ups instead of sketching. This tends to promote exploration of ideas through modification, and adaptations made to these ideas can be catalogued as part of design development. Much of this evidence can take the form of annotation or a set of descriptive drawings showing the modifications or enhancements due to the use of this testing process'*

**Model**

Well constructed and presented.

**90042: Apply a design process and design principles to identified needs and opportunities**

Evidence submitted appeared to reveal an improvement in understanding of appropriate design stages, although the design development stage is still poorly represented. Development is a process in which questions about the concept such as size, materials, joining details, colour etc necessary to define the solution are answered. Some of the problems relate to the way in which information is relayed to learners regarding the purpose of evaluation (reasoning and justification) at the key stage that supports and justifies the development of ideas. Learners could still benefit from an improved explanation of design principles and elements and demonstrations of how to relate these to their own design ideas. Merit and excellence requires greater emphasis on annotation as part of the decision-making process and these notes must reflect the reasons that design principles and elements make a difference, and relate directly, to the learners design. Design language is rarely integrated in an appropriate context. *'Use of design language'* refers to the dialogue (annotated or graphical) that is inherent in the design process and clearly identifies the interaction of principles and purpose.

**90044 : Present design ideas that show design features and functions**

Precision and accuracy could be further emphasised and learners must be encouraged to explore a wider variety of *modes* and *media* as part of their presentation skills. It is important to remember that the use of modes and media refers to their appropriate application when presenting design ideas, not simply their use or appearance on a sheet. It is important that original work is sent as evidence for this achievement standard where possible. Assessment activities must offer an opportunity to display a high level of presentation skills using a wide range of modes and media.

**Level 2**

**90322 : Produce a mock-up and model to explore design ideas**

**Mock-ups**

As with 2005, more information needs to be provided by the learner to show how the mock-up informs design development. Mock-ups are used to quickly explore ideas and help check things such as size, look and operation and these then inform design decisions by confirming design thinking or changing the way ideas develop. Mock-ups are quickly fabricated versions of a design idea. These can be constructed from cardboard, foamboard, clay, paper, or any other combination of materials that can be quickly assembled for the purpose of testing the aesthetic or function of a design. The evidence of mock-ups will be a fabricated object. The evidence about how these experiments have helped make design decisions must be communicated in the design concept development stages in the form of annotations or sketched visuals. Mock-ups are not represented

in freehand sketches. Justification refers to a clear in-depth explanation of why a particular approach has been used for the purpose of design development. If the mock-up is too large for transportation to moderation then it is important that at least two quality photos are supplied with students' work that clearly indicate scale and showing as much detail as possible. Photographs only, do not provide all of the information necessary for moderating evidence for this achievement standard and the production of reasonable size photos would be more appropriate for helping moderators to recognise important design features.

### **Models**

As with level one, model submissions are mostly successful pieces of work that represent a well planned and constructed scale version of a design. Again, it is always important that at least two quality photos are supplied with students work for clarification of the model scale and to show details from different viewpoints.

**90323: Design and present a solution for an architectural or environmental brief**

**90324: Design and present a solution for an engineering or technological brief**

**90325: Design and present a solution for a media or technical illustration brief**

### **Overall Statement**

Many providers are not extending their learners from a level one standard of work. The quality and complexity of design outcomes must improve to meet level two expectations. By working closely with learners to choose appropriate design problems, learners could be encouraged to apply a greater depth of creative thinking and demonstrate their ability to produce quality outcomes that resemble level two general objective descriptors, e.g. *demonstrate an appreciation of the need for high standards of work and a willingness and commitment to achieving high-quality personal results; and demonstrate an ability to critically evaluate the quality of their results, to identify the major problems, and to make progressive and positive improvements.* (Statement from the Graphics guidelines yrs 9-13)

Many providers are still asking learners to produce 'personal statements' which are no longer a requirement of the achievement standards and indicates out of date resource material.

### **Assessment tasks**

If there is to be an improvement in the quality and depth of evidence at level two, major changes are necessary to the way assessment tasks are prepared e.g. the way the brief and specifications are written or facilitated with the learner. It is extremely difficult for learners to successfully develop creative ideas and outcomes to design tasks without adequate information and support. In many instances providers' design briefs do not clearly outline the issue that needs to be solved and the specifications are sometimes written in such a way that they are almost impossible to successfully meet during the design development of a solution. This issue severely impacts on the learner's ability to succeed at a level necessary for demonstrating adequate thinking at a level two standard. The type and presentation of a design task offered can make a huge difference to the learner response in regard to quality of work and obvious motivational factor. Local, contextualised and authentic tasks often demonstrate learner commitment and overall standard of evidence.

### ***Design stages and design***

Design stages are useful for indicating a possible design process, but need to be flexible devices suitable for improving the design outcome. However there appears to be an imbalance between what learners are producing in design stages. Many learners produced an abundance of research and concepts but design development and final solutions were vague, *students will be assessed on their ability to develop and communicate design ideas*. Research is appropriate where it is used to support on-going design decisions that clearly improve the value of the outcome. The amount is dependant on the direction of the design not on the abundance of information available. Many learners appear to making large jumps from concepts to final design without any development stage that helps them to engage in important decision making processes. Learners do not seem to understand how to appropriately use an evaluation process to analyse their design ideas. Again much of the dialogue that is presented is more descriptive (a commentary of what is happening) than evaluative (an analysis of decisions being made). Effective design development can only be achieved through critical evaluation at each stage so that *reasons for choices and decisions are discussed and justified*. Learners would benefit from an improved explanation of design principles and elements and demonstrations of how to relate these to their own design ideas and why they make a difference. The combination of these principles and elements can have a profound affect on the suitability of a design for a specific purpose and learners must be able to articulate their design reasons for including them within their own work.

### ***Presentation***

Learners must be encouraged to improve their presentation skills and use a wider variety of graphics modes and media, There have been some particularly disappointing examples of evidence submitted that demonstrate poor level two drawing standards and execution associated with certain modes of presentation. This was especially evident in sketching and instrumental drawing. Many providers must look further a field than graphite and coloured pencils, as the use of other types media can be a source of inspiration to young designers. Presentation skills are an inherent part of all of the work submitted for a design solution and learners must remember to always look for opportunities to extend their skills and knowledge of modes and media application. Learners wishing to achieve excellence in any one of these standards must be given the opportunity to choose appropriate media and modes for the drawing purpose.

## **Level 3**

***90736: Develop and communicate a solution to an architectural or environmental design brief***

***90737: Develop and communicate a solution to an engineering or technological design brief***

***90738: Develop and communicate a solution to a media or technical illustration design brief***

*In general and associated with all level three achievement standards*

Overall the quality of evidence submitted for level three assessment varied between providers with some that used the integration of the external negotiated brief as a motivating tool for learners to produce stunning results. A large number of others that lacked the depth and accuracy

necessary for this level of work. However negotiating with a client can present several issues. Firstly, if the client cannot articulate their needs accurately, learners can find it difficult to develop adequate solutions and will require considerable teacher support to guide and advise on direction. Secondly, learner/designer can find the task of writing appropriate design briefs a difficult task, especially when they fail to accurately identify clear specifications. Thirdly, the client may be unable to contribute clear direction during evaluation sessions. All of these situations can impact on the learner's ability to produce the quality of evidence necessary for level three submissions. Decisions will need to be made about how many client related briefs are used in a graphics programme. Many providers appear to have successfully adapted the reviewed standards.

The writing of individual briefs is becoming a real issue for learners especially when they cannot clearly identify appropriate specifications. Learners will require considerable support when creating their own briefs as their whole project may be compromised by the lack of direction. There have been instances where learner's briefs have not presented a suitable challenge and impeded their ability to work at a depth appropriate for level three.

As with level one and two there are issues to do with the imbalance between research and actual design development. Research is a tool for improving the quality of the outcome, not to become the main objective. Learners must use research to inform the creation of design ideas and must be encouraged to only use the information that will definitely contribute to the refinement of a solution.

As with last year most schools moderated this year had difficulty in identifying what was required for a *refined solution* and *on-going analysis*. Learners must be encouraged to engage in interactive dialogue (which refers to the in-depth investigation and interrogation of their ideas that takes place in the content of their design drawings or annotations). This supports crucial decision-making processes that help ideas to evolve into the most appropriate solutions. Learners must be supported with positive guidance throughout their activities making sure they sufficiently investigate the nature of the problem for which they are trying to develop a solution. Many learners are not negotiating the design process successfully by incorporating all elements associated with the key stages of design. As mentioned earlier the key stages can be dynamic and not linear in form. It is still a challenge for schools to ensure their learners are provided with adequate support and guidance to achieve this. Explanatory note 3 states '*A refined solution* will involve ongoing analysis and reflection at each stage of the design process and will significantly improve the quality of the solution in relation to the specifications in the brief'.

To achieve excellence at level three learners are expected to generate evidence that demonstrates critical analysis. The achievement standards state, "*A critically analysed solution* involves the examination of the implications of the alternatives. This can be demonstrated through extensive drawing, annotation and/or other means of communication". Teachers must support students in their endeavour to succeed in developing this type of evidence, as it is clear that many learners show the potential skills and thinking capacity to achieve success but fail to fully explore and communicate alternative possibilities/ideas.

Many schools are still opting to use sample material supplied by the MoE. It is recommended that this material is continually reviewed to make sure that it meets the expectations of the local context.

Again some excellent material has been submitted for the achievement standards as part of the internal moderation that has also been generated for external competitions. It is encouraging to

see that schools have been careful to ensure that the competition material is modified as necessary to include the achievement standard considerations.

### **Unit Standards**

There are an increasing number of providers offering unit standards as a form of assessment. For learners to succeed with a unit standard a comprehensive challenging design activity to reflect the level needs to be written. This activity is to give the learners the problem, specifications, design requirements, unit standard requirements, special notes, elements and performance criteria.

A full assessment schedule that unpicks the elements and performance criteria needs to be written. Performance criteria, evidence and judgement need to be clearly presented.

Many learners failed to meet a standard because they did not produce solutions appropriate to the level of each standard. Assessors must be careful not to give credits to learners for inadequate standard of work and the level of difficulty must be equitable with achievement standard quality of evidence of the same level. Range statements are often indicated in the performance criteria of a unit standard and have often been misinterpreted or ignored.