

Moderation Feedback – Visiting - 2005

Assessment Panel:

Technical Education

Qualification area

**Subject(s) and Level(s)
included in this report**

**Engineering Craft Skills Intermediate 1 CO 34
Engineering Craft Skills Intermediate 2 CO 34
Woodworking Skills Intermediate 1 CO 35
Woodworking Skills Intermediate 2 CO 35**

General comments on moderation activity

On this the fifth year of Practical Craft Skills, both Woodworking Skills and Engineering Craft Skills Courses once again proved to have run smoothly. The Courses were found by members of the moderation team to have been organized and conducted to a very high professional standard by Centres. This was reflected in the very positive reports, which almost universally agreed with the internal assessments. The fact that there were very few calls to SQA regarding moderation issues once again confirmed that the administration and conduct of the Courses is now fully established.

As Practical Craft Skills continues to be firmly established within the curriculum there is increasing evidence, especially at the upper end of the ability range, that craft skills are improving with the increasing popularity and uptake among candidates.

The success of these Courses is undoubtedly due to the simple, straightforward, graduated structure that enables candidates to develop self-confidence and provides for a clear and direct internal assessment of a wide range of basic craft skills.

There is evidence of a substantial enthusiasm among candidates at all levels, and that they are motivated by the practical nature of learning tool skills and working with machines in a workshop environment. Practical projects in the form of Assessment Instruments, which are designed to encourage enjoyment at all levels, are also a major factor.

In Woodworking Skills Candidates performed very well in areas such as turnery, assembly and joint fitting. And they tended to perform less well in areas such as surface preparation and the application of surface finishes. There was also evidence of some gross blemishes such as glue stains, plane and hammer marks, cross grain planing and sanding scratches.

In Engineering Craft Skills Candidates performed well in areas such as general machining, turning, the forming of threads, and finishing to within tolerances. They tended however to perform less well in areas such as welding and final functional assembly.

Despite these generally good results we should not become complacent and assume that everything will continue as it is at present. We must strive to continue to develop the service, which is a two way process of monitoring and evaluating and taking into account the concerns of those in presenting Centres.

Unit Moderation

Unit moderation of incomplete evidence was carried out in a random sample of some 20 Centres over a wide geographical area and including the FE sector. Unit assessments in both Engineering and Woodworking Skills were examined at both Intermediate 1 and Intermediate 2 levels.

The pilot exercise, which took place between January and March this year, proved to be very successful both in terms of information gathering and offering advice to Centres. The increase in the quality of craftwork previously found in Course projects proved to be reflected in the generally well-constructed Unit evidence. The process also provided an opportunity to reaffirm established benchmarks and criteria for evidence at Intermediate 1 and Intermediate 2 levels.

Specific issues identified

Administration

There was evidence that in some Centres there were some slight difficulty in entering assessment details on the revised Moderation Sample Form but this has been largely resolved.

In the Master Record Sheet the extended notes were in the main well presented, but a few Centres are not entering sufficient subjective detail such as the amount of additional help required by each candidate, etc. This kind of information greatly helps in the moderation process.

Woodworking Skills

There is still a variation in the quality and degree of surface finish between Centres and this seems to be caused by some candidates rushing to complete projects at the end of the Course.

The candidate skills evidence was found to be very good in all project work with regard to joint forming and fitting. The work was found to be excellent at the Intermediate 2 level. There was evidence of great care and attention to detail in aspects such as:

- Tolerances well within the limits specified, especially at Intermediate 2 level.
- Crisp arised corner details
- Well prepared external surfaces
- Well applied finishing coatings

While the quality of the vast majority of turnery evidence was found to be very good / excellent, some Centres have again allowed some candidates freedom to design

- The split turnery
- The finial at the top
- The rake of the angled top detail

This may be acceptable if the candidates first draw the profile/shape/detail and then work to the sizes and form created – Only if no size or shape is specified in the project drawing. Small design variations from the project specification should be applied to the whole teaching group and shown on the drawing and to the moderator.

Engineering Craft Skills

While this subject still has a lower Centre uptake than Woodworking Skills, candidates in the presenting Centres have demonstrated craft skills of a very high quality, in terms of bench skills, machining processes, fabrication and welding and surface preparation and finishing.

The following points however were noted:

- Some Centres are still allowing candidates to apply a heavy paint finish to projects. This practice should be left till after the moderation visit, as it tends to obscure the quality of welding evidence.

- Pre-threaded bar to be used only by Int. 1 candidates only in the Bike Clamp project.
- Although the bench work and machining skills may be good, candidates should be encouraged to take more care in the final assembly of the bike repair clamp as functionality is a major part of the final assessment.

Practical Electronics

Although only a few Centres have presented the Practical Electronics Unit, these candidates have demonstrated by their enthusiasm that this is an excellent and thoroughly motivating Course option but as far as the Assessment Moderation is concerned, apart from an overall check on the continuity of the circuit, the only difficulty found was in the difficulty of testing and checking:

Practical Craft Skills in S3

There is again evidence that the number of S3 candidates being presented in Practical Craft Skills is increasing substantially and there is now a need for new Unit and Course project material to be produced in order to sustain progression.

Secondary school Centres that have been presenting Courses to S3 candidates for the first time have found the process quite challenging in the early stages. The difference in maturity and tool-handling experience of these pupils demands a different and more structured approach to class management. Centres are already sharing methods and systems that they have found to be useful.

Since more and more Centres are presenting Practical Craft Skills in S3 at Int. 1 and some with a view to continuing at Int. 2 level in S5/6, they are looking for a range of Unit and Course project artifacts as alternatives to those already produced.

There is a need therefore to expand the bank of alternative Unit and Course projects, in both Engineering Craft Skills and Woodworking Skills. There is also an increasing demand for additional appropriate work for Centres where the course project is completed early.

Feedback to Centres

Administration

Although the Courses were generally well conducted some Centres still need to be reminded to enter full details of candidate internal assessment on the Moderation Sample Form.

Some Centres also need to enter full details of additional help required by candidates on the reverse of the Master Record Sheet. It should be stressed that Centres can assist the moderation process by inserting subjective notes for each candidate to support the 'indication of degree of independence'. A separate sheet may be used if required.

Examples might be:

- Reasons for being marked down on a particular process.
- Details of poor attendance or absence through illness.
- Details of changes in rate of performance over the Course.
- Details of re assessment performance.

Woodworking Skills

While the quality of the vast majority of turnery evidence in the NAB clock project was found to be very good / excellent, some Centres have allowed candidates freedom to design

- The split turnery
- The finial at the top
- The rake of the angled top detail

This may be acceptable if the candidates first draw the profile/shape/detail and then work to the sizes and form created – Only if no size or shape is specified in the project drawing. Small design variations from the NAB specification should be applied to the whole teaching group and shown on the drawing and to the moderator.

Some Centres have allowed the candidates to form mortice and tenon joints without haunches – This should be clarified.

Advise Centres to allow candidates to run a rebate along the bottom of the clock back of the carcass to allow the back ply to be inset.

It should be stressed again that in flat frame construction, including the Course project, Intermediate 1 candidates could now use the mortice and tenon joint. The construction of this joint should be more achievable by candidates at this level and should help in aspects of class management.

However to ensure the maintenance of increasing standards of craft skills the following points could be passed on to Centres.

- Ensuring candidate gauge marks are restricted only to the mortice lengths and to tenon shoulders so that no gauge marks show on finished work -.
- All saw and machine marks are removed.
- All dimensions on the finished work match those on the drawing.
- All joints are 'flushed off' using a sharp, finely set bench plane. – No lips at shoulders etc.
- All pencil and glue marks removed before application of finishing coatings.
- Ply backs to carcasses and flat frames to be sawn in such a way that no ragged edges show on the finished face.

There is again evidence that the number of S3 candidates being presented in Practical Craft Skills is increasing substantially and there is now a need for new Unit and Course project material to be produced in order to sustain progression.

The quality of the surface preparation and the application of an appropriate surface finish is an important part of the final project assessment and sufficient time should be allowed for these processes to be applied adequately.

Centres should not use the project drawing intended for Intermediate 1 candidates for all candidates in the teaching group where there is mixed ability. Candidates should be given the working drawing, and instruction, appropriate to their potential to generate assessment evidence.

Unit Moderation

In this pilot study of 20 Centres the majority were presenting Woodworking Skills. Only three of the Centres were presenting Engineering Craft Skills, and of these two were presenting both subjects.

During visits ample evidence was found of candidates being taught and learning excellent craft skills. Evidence suggested that this was generated progressively over a wide range of processes covering the outcomes of the Units. It was particularly noticeable that in Centres where Courses had been presented over a period of time candidates were performing better because the systems of class management and assessment were becoming embedded within the organisation of the Centre.

Some Centres have reached a stage of expertise in running Woodworking Skills where Intermediate 2 candidates who have successfully completed the Units and Course project at this stage have begun work on extension projects of their own choice. This has to be seen as excellent practice in developing craft skills to a level beyond the standards stated in the arrangements.

Despite the good practice seen there is the outstanding issue of some Centres missing out a Unit assessment (NAB) at this stage. It was noted that in at least one case paperwork had been passed to the SQA co-ordinator indicating that all Units had been 'passed' by all candidates, when in fact one complete Unit had not been assessed. Although this omission occurred in a very small number of Centres in the sample, there is no way of telling at present if this practice is more widespread. It may be because of internal issues such as minimum presentation time, school closures due to inclement weather or Centres receiving wrong information from other Centres. Since this was a pilot exercise presenters were strongly advised to complete the missing Unit before the end of Course time and revert to the practice set out in the arrangements document.

The evidence in at least one Centre indicated that each Unit was not finally completed before the next Unit was started. This practice seemed to be justified by the Course presenter as 'keeping the candidates motivated'. It seems that this practice applies mainly to FE Centres where candidates can lose interest and leave the Course, but cannot be justified in terms of the progressive learning of craft skills.

Although the Course material and amendments have been circulated to all Centres and details are available electronically, it may be that staff require to be reminded once again of the need for all Centres to complete all Unit work in a systematic and progressive manner. It could also be stressed again that since there is no formal interim or final exam the completion and assessment of all Unit project evidence is of paramount importance. The processes involved in the Course project should allow candidates a final opportunity to generate and refine those skills learned at the Unit stage.

In the main access to the 'Unit work in progress' was provided by Centres and indeed in many Centres access was gained to the candidates while they were working on Unit projects. In a couple of instances complete Unit and Course project evidence was 'set up' in a separate room along with projects from previous years.

An increasing number of Centres are presenting the Course to S3 candidates. This means that in any one year those Centres could be presenting to S3, S4 and S5 candidates. Some Centres are presenting S3 / S4 Courses at Intermediate 1 and presenting some of these candidates at Intermediate 2 in S5. A small number of these candidates will progress from Int 1 to Int 2 in the two years but there will be a substantial increase in the demand for new and motivating Unit and Course projects.

Details were completed in the questionnaire efficiently during each visit and time was devoted to listening to any concerns raised and offering advice on a range of aspects of the Course including new developments.

It is considered that this pilot exercise was successful from two main aspects; the monitoring of Unit craft work with the associated internal assessment procedures, and also sending out a strong message to other Centres that Unit moderation may take place on the basis of random sampling of complete evidence. There will now be a basis for closely monitoring Centres, which are experiencing some difficulty in the delivery of the Course.

Engineering Craft Skills

Although this subject still has a lower Centre uptake than Woodworking Skills, candidates in the presenting Centres have demonstrated craft skills of a very high quality, in terms of bench skills, machining processes, fabrication and welding and surface preparation and finishing.

While engineering projects were well produced by the majority of candidates there was some evidence of the need for improvement to attain higher grades. In the Bicycle Repair Clamp project the welding skills were found to be weakest. There was evidence of uneven fillets; a lack of complete fusion and in some cases a lack of finish. Centres are advised not to encourage candidates to apply a heavy paint finish to projects until after the moderation is completed. This tends to obscure the quality of welding evidence but the proposed brazing option should allow candidates more freedom of choice. Pre-threaded bar is to be used only by Int. 1 candidates only. Although the bench work and machining skills may be good, candidates should be encouraged to take more care in the final assembly of the bike repair clamp as functionality is a major part of the final assessment.

Pass Mark Meeting

The outcome of the 2005 Pass Mark Meeting indicated that the pass mark in Practical Craft Skills for both Engineering Craft Skills and Woodworking Skills had remained constant with no appreciable difference from last year. The following comments were presented to members of the executive at this meeting.

1. Setting issues - Course Projects:

Woodworking Skills - The majority of Centres are using the same Course project NAB (clock) with no substantial changes to the specification, and containing sufficient aspects and features for candidates to generate a wide range of skills evidence appropriate to each level.

Engineering Craft Skills - Almost all presenting Centres are using the same Course project (Bicycle Clamp). In response to the demand from Centres and in order to increase the national uptake of this subject a new range of projects is currently being developed.

2. Assessment Moderation issues

Both the internal assessment and the assessment moderation procedures have been assisted greatly by the production of a Course Master Record sheet in which Course presenters record candidate grades for each outcome of Units and Course project, as the work proceeds. The most useful aspect of this document for the Moderator is a detailed description of the degree of independence achieved by each candidate.

3. How the internal assessment performed

Internal assessment of project evidence was found by the moderation team to be almost universally concordant with the National standards set out in the guidelines.

4. Candidates

Candidate ability is improving year on year particularly in Centres where the Course is well established. There is increasing evidence of excellent craft skills with regard to attention to detail, joint structure and fitting, turnery, fabrication and welding, surface preparation and finishing. It is clear that these increases are attributable to the great enthusiasm among candidates.