



An tSeirbhís Oideachais Leanúnaigh agus Scileanna
Further Education and Training Authority

Craft Apprenticeship Policy on Assessment Development Marking and Grading



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Appendix 1: Glossary of Definitions

About this Document

Agreed by the SOLAS Apprenticeship Quality Assurance Group (AQAG), this document applies to **all** training and assessment activities within SOLAS Craft Apprenticeship. For practical reasons the content herein may be interpreted and communicated via other SOLAS documents and procedures.

Where there is any lack of clarity or a conflict of interpretation, the content of this document takes precedence. Requests for changes to this document should be made to the chair of the Apprenticeship Quality Assurance Group.

This document is one of a number of SOLAS documents that has been prepared to meet the requirements of the Qualifications (Education and Training) Act 1999 and the Education & Training Act 2012.

The documents listed below are related to SOLAS assessment:

- SOLAS Craft Apprenticeship Procedures for Managing Assessment System Malpractice
- SOLAS Craft Apprenticeship Assessment Rules
- SOLAS Apprentice Guide to Assessment
- SOLAS Overarching Quality Assurance Manual v1.3

1. Introduction

SOLAS Apprenticeship endeavours to enhance the skills and flexibility of the Irish workforce by developing and running Standards Based Apprenticeship programmes (SBA) that are customer-focused, cost-effective, efficient, and quality assured to meet appropriate national and international quality standards as applicable to the individual programme.

SOLAS Apprenticeship recognises that relevant qualifications, placed on the National Framework of Qualifications, assist apprentices to gain employment and/or gain access or progression to further education and training, while giving assurance to employers that apprentices have attained the prescribed standards of competence that will be needed in the workplace.

To facilitate apprentices to develop relevant skills and competencies through its training programmes, and to receive national recognition through an award, SOLAS ensures that its approach to assessment development, marking and grading is compatible with best practice for workplace competence focused assessment and the requirements of the Qualifications (Education and Training) Act 1999¹ and the Education & Training Act 2012.

The policy outlined in this document sets out the SOLAS Craft Apprenticeship approach to fair and consistent assessment and explains how SOLAS addresses the requirements of Awards Councils to whose awards its programmes lead. It describes the principles that underpin SOLAS Craft Apprenticeship assessment, the particular emphasis on criterion-referencing and assessment of competence, the range of assessment techniques that SOLAS supports, and the approach used for marking and grading that ensures that SOLAS Craft apprentices attain awards that are graded/classified in accordance with the Award Councils policies.

¹ Hereafter also referred to as “the Act”

2. The Functions of Assessment

Assessment is the process that determines the extent to which an individual has reached a level of knowledge, skill and competence. It reflects achievement of the standards of the award to which a programme is intended to lead.

Assessment involves making a judgement, which is based on appropriate evidence of a apprentice's knowledge, skill or competence by comparison with a standard.

Apprenticeship assessment may take place in a range of settings including: classrooms, training workshops and the workplace and is expected to fulfill the following functions:

1. Learning:

- a) Provides feedback to apprentices
- b) Motivates apprentices
- c) Builds on previous achievements
- d) Establishes apprentice achievement levels on completion of a training programme
- e) Provides feedback to SOLAS Apprenticeship on the learning outcomes of training

2. Quality Assurance:

- a) Helps monitor programme effectiveness over time
- b) Provides data indicating that the programme is achieving the required national standards
- c) Demonstrates compliance with awarding body requirements

3. Certification:

- a) Outlines achievements on completion of a training programme
- b) Grades an apprentice's level of performance in terms of achievement of learning outcomes linked to awards placed on the National Framework of Qualifications
- c) Facilitates apprentice progression within the workplace or further education and training

3. Main Principles that Underpin Craft Apprenticeship Assessment

3.1 Fairness

SOLAS ensures that its procedures for the assessment of apprentices are fair. In this context, the organisation strives to ensure that both assessment personnel and apprentices consider the assessment arrangements to be appropriate to the standards set out in the programme's training objectives/learning outcomes. Throughout the programme, the apprentice should be given adequate opportunities and resources to prepare. This implies an open system whereby prior to the assessment event, apprentices are, in general terms, made aware of the expected performance criteria and assessment conditions and receive timely, constructive and appropriate feedback on their performance following assessment.

Fairness in assessment provides equity of opportunity for SOLAS apprentices in line with Equality Legislation² and is unbiased, impartial and inclusive.

To help ensure fairness, it is SOLAS policy that apprentices should be made aware of:

- The SOLAS publication "Apprentice Guide to Assessment"
- The training providers appeal of assessment results process

3.2 Consistency

A fair assessment requires consistency in terms of assessment procedures, including marking and grading. Consistency does not mean that learning outcomes must always be assessed in the same way.

3.3 Accuracy

Although a variety of assessment techniques can be used to measure attainment, SOLAS endeavours to ensure that any measurement carried out is accurate. To be accurate, measurements must be *valid and reliable*.

² Equality Act 2004, Equal Status Act 2000

3.3.1 Validity

Any assessment system is valid to the extent that it can accurately measure what it claims to measure:

1. Does the assessment measure the training programme's intended objectives/ learning outcomes i.e. skills, knowledge and competence?
2. Is the assessment technique used fit for/appropriate to the purpose? (e.g. a practical assessment should be used to assess practical skills)

In order to ensure the validity of the assessment it is therefore SOLAS policy to:

1. Clearly define what is being assessed
2. Select appropriate techniques and methods to measure apprentice attainment

3.3.2 Reliability

Reliability refers to the consistency of measurement of the assessment system. Reliable assessment will produce similar results in similar conditions. The question that arises is whether the assessment will produce the same results in similar, but not identical conditions. If there is a reasonable comparison in the cases selected, then the test is deemed to be reliable. A reliable assessment produces consistent assessment decisions. To be reliable an assessment must:

1. Be based on valid assessment techniques
2. Ensure evidence is generated under consistently-applied conditions of assessment
3. Produce reasonably consistent decisions across the range of assessors applying the assessment in different situations and contexts and with different groups of apprentices

In order to strengthen the reliability of assessment it is SOLAS policy that:

1. Assessment is undertaken against appropriate criteria
2. Assessors know and apply procedures consistently
3. Assessment practices are subjected to both internal and external verification as per SOLAS Quality Assurance procedures

3.4 Practicality

Practical considerations for SOLAS include the ratio of assessment time to training time, ease of use, and administrative efficiency. SOLAS also examines the cost/benefit ratio of assessment and by extension the amount of resources that can be reasonably applied for the purposes of assessment.

3.5 Transparency

Transparent assessment policies and guidelines exist within SOLAS to ensure clarity and understanding. These include clear and unambiguous definitions and requirements with regard to fairness, accuracy and reliability.

4. The SOLAS Craft Apprenticeship Approach to Assessment

4.1 Criterion-referencing

In common with the learning outcomes approach adopted as part of the National Framework of Qualifications, SOLAS assessment is standards-based and criterion-referenced; that is to say it is undertaken against pre-determined standards of occupational performance that relate to the learning outcomes included in a stakeholder-agreed award standard and a validated programme.

4.2 Competence Based Assessment

In addition to being criterion-referenced, some SOLAS assessments are also competence based³, because they involve certain assessment items that are designated as “essential” in order to achieve a pass grade. Assessment items are designated as “essential” only if identified as such in the related award standard and in the programme and assessment specifications prior to assessment development. The “essential” items can relate to areas such as health and safety or other critical legislative or industry standards.

5. Assessment Techniques

It is SOLAS policy to use appropriate assessment techniques. Sometimes these are already specified in the award standard by the Awards Council. It is SOLAS policy to ensure that all learning outcomes are assessed as required by the awarding body's policy. Assessments should include assessment techniques in sufficient number and mix to test the achievement of programme learning outcomes. The following assessment techniques may be used in SOLAS programmes:

5.1 Coursework

Coursework assessments can have both summative and formative functions. They are useful to assess problem-solving skills and creativity, both of which are difficult to address adequately in a formal examination. Coursework can include essays, assignments, projects, portfolios etc.

5.1.1 Assignment

An assignment is an exercise carried out in response to a brief with specific guidelines as to what should be included. An assignment is usually of short duration but may be carried out over a specified period of time. Assignments may take the form of a practical activity e.g. a practical assignment or a research activity/ evaluation following investigation of a particular topic e.g. a written assignment.

5.1.2 Project

A project is a response to a brief and is usually carried out over a period of time specified as part of the brief. Projects may involve research, may require investigation of a topic, issue or problem, or may involve a process such as a design task, a performance or practical activity or production of an artifact or event.

5.1.3 Portfolio/Collection of Work

A portfolio or collection of work is a collection and/or selection of pieces of work produced by the apprentice over a period of time that demonstrates achievement of a range of learning outcomes. Guidelines and instructions are devised for the apprentice. Using these, the apprentice compiles a collection of their own work. The collection may be self-generated or may be generated in response to a particular brief or tasks/activities devised by the assessor.

5.1.4 Learner Record

A apprentice record is the apprentice's self-reported and self-reflective record in which he/she describes specific learning experiences, activities, responses and skills acquired. The record may take a number of forms: it can be a structured logbook, a (reflective) diary, a selective record of events or experiences over a period of time, a learning journal, a lab notebook or a sketchbook. For example, a lab notebook could record specific tasks or activities carried out and the analytical results obtained by the apprentice.

5.2 Skills Demonstration/Practical Tests

A skills demonstration is used to assess a wide range of practical based learning outcomes including practical skills and knowledge, such as laboratory skills, interpersonal skills or oral language skills. The demonstration of skill including process skills related to practical achievement is assessed by means of practical test. It is essential to use practical tests where key objectives state that the apprentice must demonstrate practical achievement in defined tasks.

Practical assessments are generally used where a set period of time is allocated to the apprentice to demonstrate practical knowledge, skills or competence.

Sufficient apprentice evidence must be made available from the skills demonstration for internal and external verification. In the case of a practical task-based demonstration this may include a range of the following:

- product/outcome of the tasks where applicable e.g. computer print out
- photographic or video evidence of apprentice completing the task
- apprentice account of task
- completed assessment sheets/checklists

A skills demonstration may take place in the workplace i.e. in a live environment, or in a simulated environment. In some specific cases the demonstration must take place in a real/live environment.

5.3 Theory Test

A theory test provides a means of assessing an apprentice's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions. Theory test format normally requires a fixed timeframe and a sight unseen question paper and range of questions. The assessment instrument for theory tests is the test paper i.e. questions or tasks devised for the apprentice. A theory test may involve assessing listening and interpretation skills (aural testing), or may involve assessment through verbal questioning (one-to-one or in a group), or written responses. Assessment instruments used for the testing of theory can include:

- **Short answer questions:** these require a response of limited length and may take a number of forms. Some short answer questions may seek specific words or phrases in the response. Short answer questions are generally easy to construct and with the assistance of model answers are relatively easy to mark.
- **Multiple choice tests/questions:** these may be used to test factual knowledge, comprehension, application, analysis, problem solving and evaluation. As multiple choice questions are not open-ended, they are not useful in assessing communication skills such as the ability to organise and express information and to write fluently and quickly. Although multiple choice questions provide objectivity and reliability as regards marking, assurance of their reliability is an important factor in their design.
- **Structured questions:** these are divided into a number of related parts and generally require the apprentice to demonstrate more in-depth knowledge and understanding of a topic. Structured questions are useful for seeking evidence of cognitive skills such as ability to discuss, compare, analyse, evaluate, translate or solve an issue, problem or topic. However, structured questions can be difficult to mark reliably.
- **Essay type questions³:** like structured questions, these require the apprentice to demonstrate an in-depth knowledge and understanding of a topic. Essay type questions usually focus on one particular area of knowledge and are useful for seeking evidence of cognitive skills such as the ability to discuss, compare, analyse, evaluate, translate or solve an issue, problem or topic. Essay questions can be difficult to mark reliably.

³ These can often also form part of a coursework assessment

6. Marking and Grading

6.1 SOLAS Apprenticeship Policy on Marking Assessment

It is SOLAS policy that a fair, transparent and reliable marking system is devised for each assessment, which identifies assessment criteria and allocates marks to each criterion.

The acceptable evidence expected in a apprentice's response is indicated in a model answer or checklist that shows expected performance against each assessment criterion.

For reasons of arithmetical convenience, but mainly to assist discrimination between pass, merit and distinction performance, the total assessment marks allocated to a test are set at 100 or multiples of 100. Individual test weightings are determined in accordance with the weightings assigned in the assessment specification of the award standard, or as set out by the appropriate Awards Council's assessment policy.

Assessment criteria are marked in a way that is appropriate to the assessment technique i.e. one mark or multiple marks may be applied to an assessment criterion as required.

Assessment criteria are allocated marks that reflect their relative difficulty and the curriculum version. The overall phase results are calculated by the SOLAS Apprenticeship Client Services System.

6.2 The SOLAS Approach to Grading Assessment Results

6.2.1 For SOLAS Apprenticeship programmes leading to QQI awards at levels 5 to 6, the following grading approach applies:

- When an apprentice has not achieved the minimum standards in an assessment, the grade is recorded as 'Referred'
- All apprentices have an opportunity to attempt each off-the-job assessment on three occasions as set down by the Labour Service Act 1987- Apprenticeship Rules 1997.
- The Apprenticeship Client Services System automatically calculates the overall Phase Grades.

v2 & v3 Programme

- The Pass Mark for the Practical, Drawing Modules and Course Work is 70% based on all essential points achieved.
- The Pass Mark for theory examinations is 70%.
- A minimum of 5 days must elapse before an apprentice can attempt a re-sit of a Referred assessment.
- A Credit Grade is only awarded to Apprentices who fulfil the necessary conditions on a first attempt. Apprentices who successfully pass a referred assessment at a second or third attempt will only be awarded a Pass grade.
- In the case of Aircraft Mechanic examinations the Pass Mark for all modular assessments is 75%, and a failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case where an approved maintenance training organisation (Part-147), conducts a course of re-training tailored to the failed subjects in the particular module, and in this case a failed module may be retaken after 30 days.

v4 Programme

- A 'Pass' is awarded to an apprentice who has attained the minimum standard. To be awarded a pass grade, an apprentice must have achieved a mark of between 50-64%
- A 'Merit' is awarded to an apprentice who has exceeded the minimum requirements. To be awarded a merit grade, an apprentice must have achieved a mark of between 65-79%
- A 'Distinction' is awarded to an apprentice who has substantially exceeded the minimum requirements. For an apprentice to be awarded a distinction he/she must have achieved a mark of 80% or over.

6.2.2 New Apprenticeships

SOLAS programmes leading to higher education and training awards at levels 6 to 10 must adhere to the grading approach outlined by QQI.

The system of grading Apprenticeship programmes is in accordance with Awards Councils policies.

7. Assessment Evidence, Marking Sheets and Records

Clear marking schemes and records are a necessary part of an assessment system in SOLAS, as they help to ensure that the assessment is fair, reliable, and transparent. Assessment records include the assessor's marking sheets, summary assessment sheets, assessment attendance records etc.

It is SOLAS policy that assessment evidence will be authentic i.e. created by the apprentice during the assessment event, relevant to the assessment criteria and sufficient to satisfy the requirements of assessment criteria.

Marking sheets are devised for the purpose of capturing, grading and approving results.

Retention of records and evidence complies with the administrative requirements of SOLAS and with the Award Councils requirements. These requirements are reflected in SOLAS Apprenticeship Assessment Rules.

8. Endorsement of Assessment Techniques (Verification)

It is SOLAS policy that an essential part of the assessment design process is verifying that assessments work as intended. This is in order to ensure that any design flaws are eliminated prior to the assessment being used in a live assessment environment.

9. Assessment Review

SOLAS is committed to on-going assessment review as part of its Quality Assurance policy. Processes must be put in place to ensure that assessments are fit for purpose, and that they continue to adhere to the Principles of Assessment (see Section 3) and remain capable of determining the relevant standards of knowledge, skill and competence. This is particularly relevant where programme design or delivery may alter over a period of time.

Appendix 1: Glossary of Definitions

Apprentices are employed persons registered to the SOLAS Standards Based Apprenticeship programme.

Assessment: the process whereby apprentice performance in a range of areas is established to ensure that the knowledge/skill/competence is demonstrated to meet the requirements of the National Awards Standards for the award.

- **Assessment Technique:** a method of assessing apprentice evidence for a particular range of learning outcomes, which can take the format of an assignment, theory test, skills demonstration, project, portfolio, apprentice record, coursework etc.
- **Assessment Instrument:** the specific test that is devised based on the specified assessment technique, such as the test paper being used in a short answer test, or the brief for a portfolio.

Award: that which is conferred, granted or given by an Awards Council and which records that a apprentice has acquired a programme's standard of knowledge, skill or competence.

Awards Council: a national body that has the power to give a apprentice a qualification (award). Currently QQI formerly FETAC and HETAC.

Competence: the practical application of knowledge or skill in a specific situation or context.

Competence Based Awards5:

Some awards, because of the critical nature of their learning outcomes, may be considered 'competence based' and, in such cases, it is not appropriate to apply a percentage marking scheme to determine levels of apprentice performance. For QQI's competence based awards involving specific legislative requirements, health and safety requirements or other critical industry standards regarding levels of competences, the assessment grading criteria specified by the Standards Development Group in the Award Specification will specify the minimum standard of achievement required by the apprentice. SOLAS assessments will reflect these grading criteria. In a competence based assessment devised for such an award, specific performance criteria will clearly outline the competence to be demonstrated by the apprentice to achieve the minimum performance required for a Pass. An apprentice who fails an "essential" item will be deemed to have failed the assessment.

In addition to establishing the minimum performance required for Pass, additional assessment criteria will outline the level of performance required to achieve the grades of Merit or Distinction.

Knowledge: the cognitive representation of ideas, events or happenings.

Learning Outcomes: Learning outcomes describe what a apprentice is expected to know, to understand and/or be able to do following successful completion of a period of learning.

National Framework of Qualifications: the single structure mechanism for recognising all education and training in Ireland. The National Framework of Qualifications (NFQ) is a system of ten levels. A 'fan diagram' helps to illustrate the levels on the NFQ and each level is based on nationally agreed standards of knowledge, skill and competence i.e. what an individual is expected to know, understand and be able to do following successful completion of a process of learning.

Programme: the process by which apprentices may acquire knowledge, skill or competence. It includes courses of study or instruction, apprenticeships, training and employment.

QQI: Quality and Qualification Ireland is the national awarding body in Ireland. QQI functions include: making and promoting awards at Levels 1 to 10 on the National Framework of Qualification, validating programmes, monitoring and ensuring the quality of programmes and determining standards.

Skill: the goal-directed performance of a task, underpinned by know-how of the procedural knowledge required.

Standards: Standards identify the knowledge, skill and competence that must be attained to achieve an award.

Validation: the process by which an awarding body shall satisfy itself that an apprentice may attain knowledge, skill or competence for the purpose of an award made by the awarding body.