

JSP 822 Part 4

DSAT QS 001:2008

THE DEFENCE SYSTEMS APPROACH TO TRAINING

QUALITY STANDARD



BSi
British Standards

Director General Training and Education

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FOREWORD

Publishing Information

Defence Systems Approach to Training (DSAT) Quality Standard (QS) has been developed by the Ministry of Defence Directorate General of Training and Education in conjunction with the British Standards Institution.

This DSAT QS has been endorsed by the Ministry of Defence (MOD) Training and Education Policy Group as the QS for the management of Individual Training across Defence.

It is sponsored by the Director Training & Education within the Directorate General Training and Education, MOD.

Supersession

DSAT QS 001:2008 supersedes DSAT QS 001:2007, DSAT QS 001:2003 and DSAT QS 002:2003, which are withdrawn.

Relationship with Other Publications

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Compliance with this private standard does not of itself confer immunity from legal obligations. This private standard is not to be regarded as a British Standard.

1 INTRODUCTION

The Defence Systems Approach to Training (DSAT) Quality Standard (QS) sets out the strategic principles to be applied to all individual training provided by, or on behalf of, the Ministry of Defence.

The DSAT QS provides:

- a) A framework against which organisations can develop and implement compliant quality systems which best meet their operational/business needs;
- b) A Defence-wide benchmark against which the management and provision of individual training can be evaluated and good practice identified and implemented across the MOD;
- c) A means of ensuring that individual training is delivered to meet the operational/business requirements of the MOD, in accordance with the principle of Investors in People (IiP).

The DSAT QS is intended to be applied intelligently in order to avoid the creation of a bureaucratic and unresponsive individual training system.

2 SCOPE

This Quality Standard specifies requirements for a training quality system.

It is applicable to any activity, provided by or on behalf of the MOD, that has the objective of developing the knowledge, skills and/or attitudes of an individual, towards preparing that individual for their current or future role.

3 TERMS, DEFINITIONS AND ABBREVIATIONS

All abbreviations, terms and definitions referred to in the DSAT QS can be found in JSP 822 Part 2 – Glossary of Abbreviations, Terms and Definitions

4 OVERVIEW OF THE DSAT

4.1 General

NOTE The DSAT is a method for organising and controlling individual training through a systematic process, illustrated by the models shown in Figures 4.1 and 4.2.

Figure 4.1 – The DSAT Model

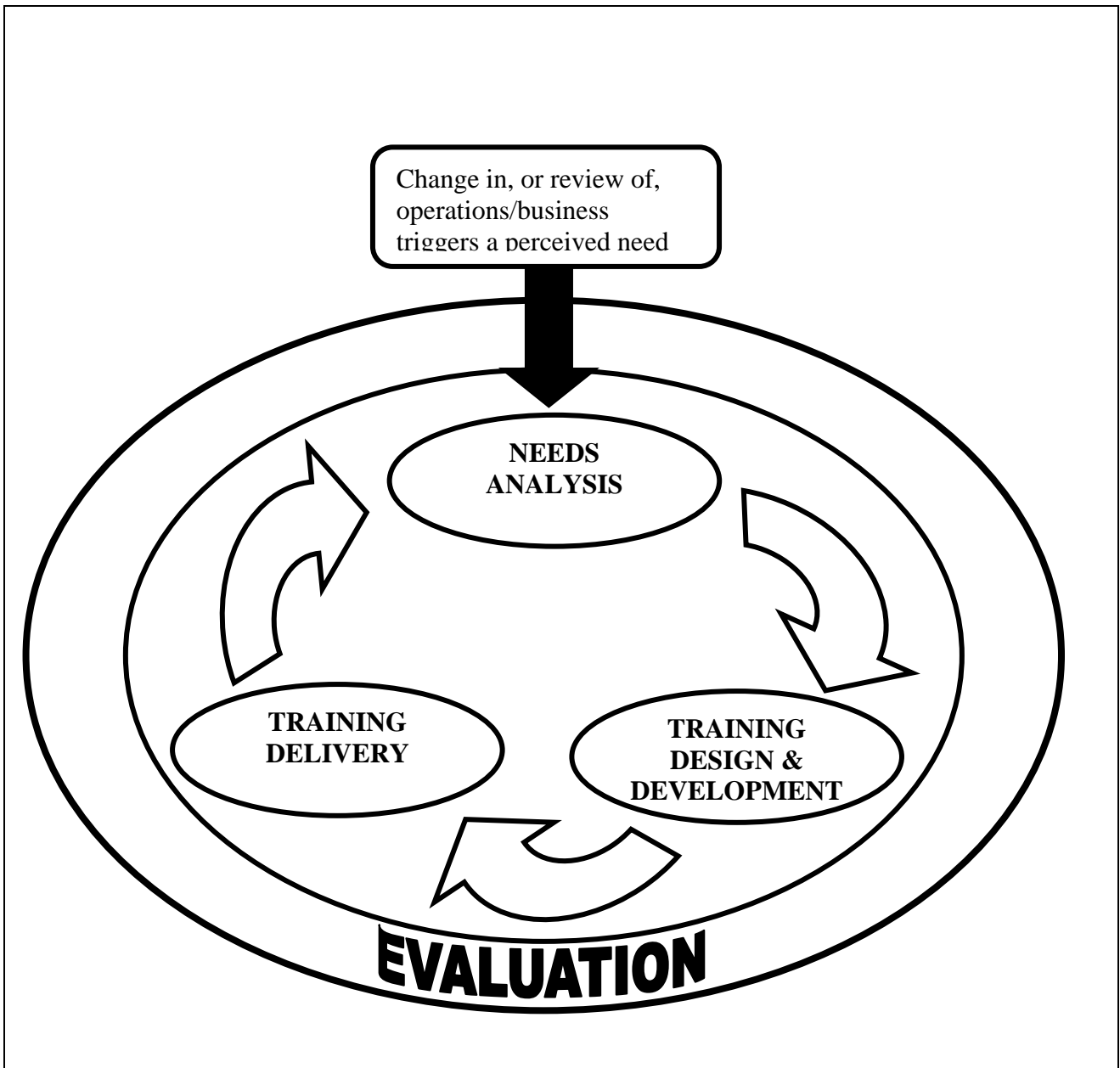
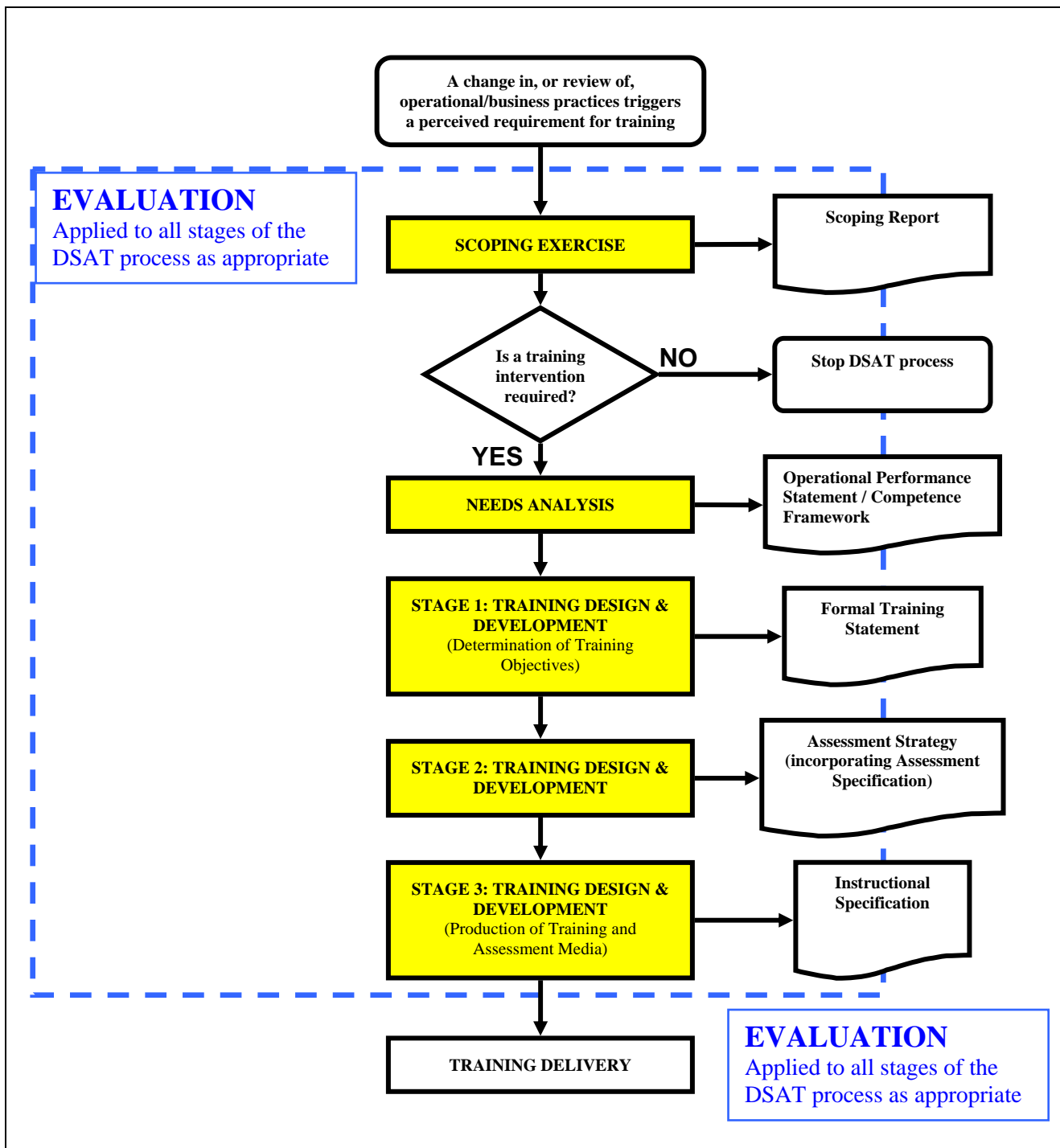


Figure 4.2 – The DSAT Process



The extent to which each phase of the systems approach is applied to a given individual training activity shall be commensurate with the importance, complexity and risks associated with the requirement that generated the training need.

The scope of an organisation's DSAT-compliant training quality system shall only encompass those "systems approach to training" functions conducted by the organisation.

NOTE For example, if an organisation only delivers training then the training quality system should only cover the training delivery function and the inputs and outputs that relate to it. ¹⁾

Where extant, DSAT-compliant quality systems already exist there shall be no duplication of quality processes and/or procedures, or the supporting quality system documentation.

4.2 DSAT Principal Activities

4.2.1 General

Where a change in operational or business practice (which may arise from a change in doctrine, business process, new legislation or the procurement of new capability) triggers a perceived need for training, the following principal activities shall be undertaken:

- a) Scoping exercise;
- b) Training needs analysis;
- c) Training design and development;
- d) Training delivery;
- e) Evaluation.

4.2.2 Scoping Exercise

The initial phase of the DSAT process shall be a scoping exercise.

The scoping exercise shall involve an initial analysis of the training requirement and, where applicable, suggest the possible options for meeting the training requirement and make a broad order estimate of the resource implications associated with each option.

NOTE 1 A scoping exercise might, for example, identify that the most cost-effective means of achieving the required business or operational performance is something other than a training intervention.

NOTE 2 At any point in the DSAT process a decision may be taken not to proceed with a training solution based on the developing cost-benefit analysis.

4.2.3 Training Needs Analysis

Once the requirement for a training intervention has been established to meet a change in operations/business, a training needs analysis shall be undertaken to ascertain the type and scope of the training required to meet the operational/business need.

The complexity of the training needs analysis shall reflect the complexity of the training requirement.

The outcome of the training needs analysis shall be documented.

NOTE 1 The outcome of the training needs analysis is defined as the training needs to be addressed and the most cost-effective means of achieving them.

NOTE 2 In its simplest form the training needs analysis may amount to no more than a discussion between the key stakeholders.

NOTE 3 Documentation may be in any retrievable format including electronic (e.g. e-mail).

¹⁾ DSAT training management functional responsibilities are detailed in JSP 822, Part 3, Ch 2.

NOTE 4 Where a more comprehensive needs analysis is required, it may take the form of a job analysis or competence analysis.

Where the training requirement is directly attributable to a job, or part of a job, a job analysis shall be performed to ascertain the job performance requirements prior to the identification of the training objectives (TOs) that will enable the job performance through the process of training design.

NOTE 5 For further details on job analysis, see Clause 8.

Where a national or departmental (MOD) Competence Framework (CF) exists, a competence analysis shall be performed to ensure that the competences are still valid and, where appropriate, to review which competences need to be added, deleted or amended to maintain the validity of the framework.

Once the CF is endorsed, the process of training design shall be used to determine the TOs that will achieve the competences. Where no CF exists, one shall be generated using competence analysis.

NOTE 6 For further details on competence analysis, see JSP 822, Pt 5, Ch 1.

4.2.4 Training Design and Development

NOTE For details on training design and development, see Clause 9.

4.2.5 Training Delivery

NOTE 1 Training delivery is the process via which learning transfer should occur. Training delivery may be centred either on the learner or the instructor, and may be undertaken in a dedicated training environment or the operational/workplace environment.

NOTE 2 Typical training delivery methods and media include classroom-based theory lessons, practical lessons, e-learning, computer based training (CBT), distributed training (DT), distance learning (DL) and workplace training. For further details on training delivery, see Clause 10.

4.2.6 Evaluation of Training Delivered

NOTE Evaluation allows an organisation to monitor the impact of training and assess what has been achieved, whether it was effective and efficient, and how this has contributed to the achievement of the organisation's goals and targets. For further details on the evaluation of training delivered, see Clause 11.

4.3 DSAT QS Fundamental Principles

DSAT QS training shall:

- a) Aim to prepare personnel for their current or future operational or workplace role;
- b) Where provided by, or on behalf of, the MOD, have a clearly identified MOD Training Requirements Authority (TRA);
- c) Be formally authorised and resourced;
- d) Where provided by, or on behalf of, the MOD, be derived from an analysis of the operational/workplace requirements;
- e) Be designed to achieve TOs based on the results of a training needs analysis;
- f) Incorporate TOs that are endorsed by the TRA;
- g) Achieve TOs by the most efficient and effective use of resources;
- h) Incorporate an evaluation strategy;

- i) Be evaluated for the efficiency and effectiveness of the analysis, design and delivery of training in meeting the operational/business requirements in accordance with the evaluation strategy;
- j) Be kept current by applying the results of evaluation;
- k) Comply with all relevant extant legislation.

5 DSAT MANAGEMENT OF TRAINING SYSTEM STRUCTURE

5.1 General Requirements

5.1.1 The organisation shall establish, document, implement and maintain a Management of Training System (MTS) and strive to continually improve its effectiveness in accordance with the requirements of this QS.

5.1.2 The organisation shall:

- a) Identify the processes needed for the MTS and their application throughout the organisation;
- b) Determine the sequence and interaction of these processes;
- c) Determine criteria and methods needed to ensure that both the operation and control of these processes are effective;
- d) Ensure the availability of resources and information necessary to support the operation and monitoring of these processes;
- e) Monitor, measure and evaluate these processes;
- f) Implement actions necessary to achieve planned results and continual improvement of these processes.

5.1.3 These processes shall be managed by the organisation in accordance with the requirements of this QS.

5.1.4 Where an organisation chooses to outsource any process that affects the determination and/or achievement of the TOs, the organisation shall ensure control over such processes. The control mechanisms to be applied to such outsourced processes shall be identified within the MTS.

5.2 MTS Documentation

5.2.1 General

The MTS documentation shall include:

- a) A training quality manual that includes:
 - 1) The scope of the MTS, including the details of, and justification for, any exclusions;
 - 2) The training quality policy and training performance indicators (TPIs) and key targets (KTs);
 - 3) The documented procedures established for the MTS, or reference to them (including scoping, needs analysis, training design and development, training delivery, training audit and the evaluation of training);
 - 4) A description of the interaction between the processes of the MTS;
 - 5) The evaluation strategy;
- b) Documented procedures required by this QS;
- c) Documents needed by the organisation to ensure the effective planning, operation and control of its processes;
- d) Quality records required by this QS.

NOTE 1 The extent of the MTS documentation can differ from one organisation to another due to:

- a) the size of the organisation and type of activities;*
- b) the complexity of processes and their interactions;*
- c) the competence of personnel.*

NOTE 2 The documents may be in any form or type of medium.

5.2.2 Control of Quality Records and Documents

5.2.2.1 Records shall be established and maintained to provide evidence of conformity to requirements and of the effective operation of the MTS. Records shall remain legible, readily identifiable and retrievable. A documented procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposal of records.

5.2.2.2 Documents required by the MTS shall be controlled. Records are a special type of document and shall be controlled according to the requirements given in **5.2.2.1**.

5.2.2.3 A documented procedure shall be established to define the controls needed:

- a) To approve documents for adequacy prior to issue;
- b) To review and update, as necessary, and re-approve documents;
- c) To ensure that changes and the current revision status of documents are identified;
- d) To ensure that relevant versions of applicable documents are available at points of use;
- e) To ensure that documents remain legible and readily identifiable;
- f) To ensure that documents of external origin are identified and their distribution controlled;
- g) To prevent the unintended use of obsolete documents, and to ensure they are identifiable as obsolete, should they be retained for any purpose.

6 THE MANAGEMENT OF TRAINING

6.1 Management Commitment

6.1.1 Management shall provide evidence of its commitment to the development and implementation of the MTS and commitment to continually seeking to improve its efficiency and effectiveness by:

- a) Communicating to the organisation the importance of meeting TRA as well as statutory and regulatory requirements;
- b) Establishing the training quality policy which:
 - 1) Is appropriate to the purpose of the organisation;
 - 2) Includes a commitment to comply with requirements and continually improve the effectiveness of the MTS;
 - 3) Provides a framework for establishing and reviewing TPIs and KTs;
 - 4) Is communicated and understood within the organisation;
 - 5) Is reviewed for continuing suitability.
- c) Ensuring that training related performance indicators and KTs are established (see **6.2**);
- d) Conducting management reviews/evaluations of the MTS;
- e) Ensuring the availability of resources to support the MTS.

6.2 Training Performance Indicators and Key Targets

6.2.1 Management shall ensure that TPIs and KTs, including those needed to meet requirements for the trained output, are established for relevant functions and levels within the organisation.

6.2.2 The TPIs and KTs shall be measurable and consistent with the training quality policy.

6.3 Management of Training System Planning

Management shall ensure that:

- a) The planning of the MTS is carried out in order to meet the requirements given in **6.1**, as well as the TPIs and KTs;
- b) The integrity of the MTS is maintained when changes to the MTS are planned and implemented.

6.4 Responsibility, Authority and Communication

6.4.1 Management shall ensure that responsibilities and authorities are defined and communicated within the organisation.

6.4.2 The organisation shall appoint a member of management who, irrespective of other responsibilities, shall have responsibility for the effective implementation of the MTS.

6.4.3 Management shall ensure that appropriate communication channels are established within the organisation and that communication takes place regarding the effectiveness of the MTS.

6.5 Management Review

6.5.1 Management shall review the organisation's MTS at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall assess opportunities for improvement and the need for any changes to the MTS, including the quality policy and quality objectives.

6.5.2 Records from the management reviews shall be retained as quality records (see **5.2.2.1**).

6.5.3 The input to management reviews shall include information on:

- a) Results of training audits and evaluations;
- b) TRA feedback;
- c) Achievement of training KTs;
- d) Status of preventive and corrective actions;
- e) Follow-up actions from previous management reviews;
- f) Changes that could affect the MTS;
- g) Recommendations for improvement.

6.5.4 The output from the management review shall include any decisions and actions related to:

- a) Improvement of the effectiveness of the MTS and its processes;
- b) Improvement of the trained output related to TRA requirements;
- c) Future resource requirements.

6.6 Resource Management

The organisation shall determine and provide the resources needed:

- a) To implement and maintain the MTS and continually strive to improve its effectiveness;
- b) To enhance customer satisfaction by meeting the TRA's training requirements.

6.7 Human Resource Management

6.7.1 Personnel involved in the management, evaluation, analysis, design and development or delivery of training shall be competent on the basis of appropriate education, training, skills and experience.

6.7.2 The organisation shall:

- a) Determine the necessary competence for all personnel performing work affecting the management, evaluation, analysis, design and development or delivery of training;
- b) Provide training or take other actions to satisfy these needs;
- c) Evaluate the effectiveness of the actions taken;
- d) Ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the trained output;
- e) Maintain appropriate personnel records of education, training, skills and experience.

6.8 Infrastructure and Work Environment Management

6.8.1 The organisation shall determine, provide and maintain the infrastructure needed to achieve the trained output.

6.8.2 Infrastructure includes, as applicable:

- a) Buildings, workspaces and associated utilities;
- b) Training equipment and training management or training support equipment (both hardware and software);
- c) Supporting services.

6.8.3 The organisation shall determine and manage the working environment needed to achieve the trained output.

6.9 Training Activity Management

6.9.1 The organisation shall, where applicable, produce and maintain an annual programme of all training activities provided by the organisation.

6.9.2 Changes to the training activities provided by the organisation, which arise within the current financial year, shall be reflected in the annual programme of training activities.

6.9.3 The current programme of training activities shall be readily available at the point(s) of use.

6.10 Managing the Customer Supplier Interface

6.10.1 The organisation shall ensure that TRA requirements are determined and are met with the aim of achieving TRA satisfaction with the trained output.

6.10.2 The organisation shall determine and implement effective arrangements for communicating with TRAs in relation to:

- a) Training requirements;
- b) Training effectiveness;
- c) Training capacity;
- d) Training facilities;
- e) TRA feedback.

NOTE For further details on the management of training in Defence see JSP 822, Pt 3, Ch 2.

7 TRAINING DOCUMENTATION

7.1 All individual training activities shall be managed and controlled through the use of training documentation.

7.2 Training documentation shall be maintained as a quality record to provide an audit trail from the identification of the training need through to the evaluation of the trained output.

7.3 All training documentation shall be approved, at the appropriate management level, prior to use.

7.4 All training documentation shall be reviewed and updated as necessary to ensure it continues to meet the stated training need. Where amendment is necessary the documentation shall be re-approved and the revision status of the documentation shall be clearly indicated.

7.5 All training documentation shall be current, accurate, fit for purpose and readily accessible at the point(s) of use.

NOTE For further details on training documentation, see JSP 822, Pt 5, Ch 1.

8 JOB ANALYSIS

8.1 Planning to Achieve the Trained Output

8.1.1 The organisation shall plan and develop the processes needed to achieve the trained output. Planning of these processes shall be consistent with the requirements of the other processes of the MTS.

8.1.2 In planning to achieve the trained output, the organisation shall determine the following, as appropriate:

- a) TPIs and KTs, operational/workplace performance requirements and training requirements;
- b) The need to establish processes, produce documents and provide resources specific to the achievement of the trained output;
- c) Required evaluation, analysis, training design and development, training delivery, validation, monitoring, training audit and assessment activities specific to the trained output and the standards to be achieved;
- d) Records needed to provide evidence that the processes and resulting trained output meet all of the requirements.

8.1.3 The output of this planning shall be in a form suitable for the organisation's method of operations.

8.2 TRA Communication

The organisation shall determine and implement effective arrangements for communicating with TRAs in relation to:

- a) Operational/workplace performance requirements;
- b) Statutory and regulatory requirements related to all aspects of achieving the trained output;
- c) Requirements not stated by the TRA but necessary for specified or intended employment, where known;
- d) Training requirements;
- e) Any additional requirements determined by the organisation;
- f) Training capacity and throughput requirements;
- g) Training facilities;
- h) Enquiries, contracts or order handling, including amendments;
- i) TRA feedback, including complaints.

8.3 Review of Requirements Related to the Trained Output

8.3.1 The organisation shall review the operational/workplace performance requirements at intervals deemed appropriate by the organisation to ensure that the training remains focused on the operational/business need. This review shall ensure that:

- a) Operational/workplace performance requirements are defined;

- b) Changes to the operational/workplace performance requirements have been incorporated in the agreed training requirements;
- c) The organisation has the ability to meet the agreed training requirements, which have been derived from the operational/workplace requirements.

8.3.2 Records of the result of the review and actions arising from the review shall be maintained.

8.3.3 Where the TRA provides no documented statement of requirement, the customer requirements shall be determined and confirmed by the organisation before commencement of the training design and development process.

8.3.4 Where operational/workplace requirements and training requirements are changed, the organisation shall ensure that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

NOTE For further details on job analysis, see JSP 822, Pt 5, Ch 1.

9 TRAINING DESIGN AND DEVELOPMENT

9.1 Training Design and Development Planning

9.1.1 The organisation shall plan and control the design and development of training.

9.1.2 During training design and development planning the organisation shall determine:

- a) The appropriate training design and development stages;
- b) The review and validation procedures that are appropriate to each training design and development stage;
- c) The responsibilities and authorities for training design and development.

9.1.3 The organisation shall manage the interfaces between different groups involved in the design and development of training to ensure effective communication and clear assignment of responsibility.

9.1.4 Training design and development planning output shall be updated, as appropriate, as the training design and development progresses.

9.2 Training Design and Development Inputs

9.2.1 Inputs relating to operational/workplace performance requirements shall be determined and records maintained. These inputs shall include:

- a) Core and functional performance requirements;
- b) Applicable statutory and regulatory requirements;
- c) Where applicable, information derived from previous similar training design and development activities;
- d) Organisational requirements essential for training design and development.

9.2.2 These inputs shall be reviewed periodically for continuing validity. Operational/ workplace performance requirements shall be complete, unambiguous and not in conflict with each other.

9.3 Training Design and Development Outputs

9.3.1 The outputs of training design and development shall be provided in a form that enables validation against the training design and development inputs and shall be approved prior to release. Training design and development outputs shall:

- a) Provide appropriate information for the acquisition of training solutions, the delivery of training, the assessment of the trainee, the accreditation of the training and the evaluation of the training design and development process itself;
- b) Contain the agreed TOs (agreed between the TRA and the training provider);
- c) Specify, where applicable, the prerequisites required by the trainee prior to the commencement of the training activity (trainee entry standards);
- d) Specify the competences of the trainee on completion of the training activity.

9.4 Methods and Media Selection

The selection of methods and media shall take account of:

- a) The TOs and key learning points (KLPs) to be achieved;
- b) The characteristics, locations and numbers of trainees;
- c) The availability of suitably qualified instructors,
- d) The availability of training resources;
- e) The applicability of emerging technologies;
- f) The training effectiveness of the methods and media;
- g) The cost.

9.5 Control of Assessment Methods and Media

9.5.1 Where applicable, the organisation shall determine the assessment to be undertaken and the assessment methods and media needed to provide evidence that the trained output has achieved the standards specified in the TOs.

9.5.2 The organisation shall establish processes to ensure that assessment can be carried out in a consistent manner.

9.5.3 When used for assessment purposes, the ability of computer based/synthetic training systems to satisfy the intended application shall be verified prior to initial use and confirmed as necessary.

9.5.4 As necessary, to ensure valid results, assessment methods and media shall:

- a) Be validated at specified intervals, and/or prior to use, against those standards stated in the TOs;
- b) Be updated in accordance with changes to the TOs;
- c) Be adjusted or re-adjusted as necessary;

NOTE 1 Item c) refers to equipment based assessment media.

- d) Be subject to document control processes;

NOTE 2 Item d) refers to document (paper or electronic format) based assessment media.

- e) Be identified to enable calibration status to be determined;

NOTE 3 Item e) refers to equipment based assessment media.

- f) Be safeguarded from unauthorised access that would invalidate the assessment results;
- g) Be protected from damage and deterioration during handling, maintenance and storage.

NOTE 4 Item g) refers to equipment based assessment media.

9.6 Training Design and Development Review

9.6.1 At intervals defined by the organisation, systematic reviews of training design and development shall be performed in accordance with planned arrangements to:

- a) Evaluate the ability of the results of the training design and development to meet requirements specified in the TOs;
- b) Identify any problems/issues and propose necessary remedial actions.

9.6.2 Participants in training design and development reviews (see **9.6.1**) shall be representatives of the functions concerned with the training design and development stage(s) being reviewed. Records of the results of the reviews and any necessary actions shall be maintained.

9.7 Training Design and Development Verification

Training design and development verification shall be performed in accordance with planned arrangements (see **9.1**) to ensure that the design and development outputs have met the design and development input requirements. Records of the results of the verification and any necessary actions shall be maintained (see **5.2.2**).

9.8 Training Design and Development Validation

Training design and development validation shall be performed in accordance with planned arrangements (see **9.1**) to ensure that the resulting training activity is capable of meeting the requirements for the specified application or intended use. Wherever practicable, training design and development validation shall be completed prior to the delivery or implementation of the training activity. Records of the results of validation and any necessary actions shall be maintained (see **5.2.2**).

9.9 Control of Training Design and Development Changes

9.9.1 Training design and development changes shall be identified and records maintained. The changes shall be reviewed, verified and validated, as appropriate, and approved by the appropriate authority before implementation. The review of training design and development changes shall include evaluation of the effect of the changes on related training design and development activities and/or related training outputs already being delivered. Alterations or additions to a course to enable trainees to obtain an external qualification shall not compromise the achievement of Defence TOs or training outcomes.

9.9.2 Records of the results of the review of changes and any necessary actions shall be maintained (see **5.2.2**).

NOTE For further details on training design and development, see JSP 822, Pt 5, Ch 1.

10 TRAINING DELIVERY

10.1 Control of Training Delivery

The organisation shall plan and carry out the delivery of training under controlled conditions. Each organisation responsible for the delivery of training activities shall ensure that:

- a) Training activities are conducted in accordance with approved training documentation;
- b) Delivery of training activities is undertaken by suitably trained, qualified and experienced personnel;
- c) Appropriate equipment, personnel, resources and environment are provided in accordance with approved training documentation;
- d) Training activities are programmed/timetabled to take account of the need to maximise the effectiveness of the media used, to cater for trainees of differing abilities and to remain within local resource constraints;
- e) Where assessment has been identified as a requirement, trainees are assessed for achievement of the TOs in accordance with the assessment strategy and assessment specification (A-spec). Where assessment has been identified as not required, then a statement to that effect, including the reason(s) for not assessing, shall be made. The organisation shall ensure that:
 - 1) Documented procedures for assessment of trainees are established and maintained;
 - 2) Trainees are assessed in accordance with the assessment strategy and A-spec and the training programme/timetable;
 - 3) Records of trainee assessment results are established and maintained to show clearly whether the trainee has passed or failed the assessment according to the criteria specified by the assessment strategy and A-spec;
 - 4) Appropriate remedial action, including reassessment of students deemed to have failed, has been instigated in accordance with documented procedures;
 - 5) The management of assessment marking is in accordance with the assessment strategy and A-spec, and any other pertinent MOD regulations;
 - 6) The assessment and recording of results for externally accredited training is conducted in accordance with the regulations of the awarding body;
 - 7) Whenever required, certification of results is sent to the relevant authorities and to trainees, indicating where restrictions on employability have arisen from trainee failure or where TOs have not been assessed;
- f) An after action review of the training delivery (e.g. through post-course discussion and/or questionnaire) is carried out and documented. Any resulting recommendations relating to the conduct of training and training content shall be considered to ensure the continuing efficiency and effectiveness of the training activity.

10.2 Risk Assessment

10.2.1 Organisations involved in training shall carry out a health and safety risk assessment of the training environment and all training activities. This assessment shall be documented, maintained as a quality record, recorded in the training documentation and made available at the point of training delivery.

10.2.2 Trainees shall be made aware of the risks associated with a particular training activity or training environment prior to entering the training environment or prior to the training activity taking place.

10.3 Trainee Management

10.3.1 Procedures for the management of trainees shall be established and maintained. These procedures shall comply with all extant statutory legislation and other applicable Government directives. Records to confirm whether or not a trainee attended a particular training activity and the results of any pertinent assessments, where applicable, shall be maintained.

10.3.2 Where appropriate, the organisation shall identify the trainee by suitable means (e.g. student number) throughout the training activity. The organisation shall identify the status of the trainee with respect to the trainee's achievement of the requirements of the training activity.

10.3.3 Training activity entry requirements, where applicable, shall be documented. These requirements shall be provided to all relevant authorities preparing or controlling trainees being sent to the organisations for which the requirements apply. Procedures shall be established, documented and maintained to verify that trainees have the required prerequisites.

10.3.4 The organisation shall ensure that appropriate trainee induction is established, documented and implemented, and that welfare, pastoral and learning support is provided. Where applicable, this shall include the provision of catering and accommodation facilities, provided to prescribed MOD standards.

NOTE For details on the delivery of training, see JSP 822, Pt 5, Ch 1.

11 EVALUATION OF TRAINING DELIVERED

11.1 Background

Training activities shall be focused towards the achievement of the business/operational goals of the MOD. All training shall be provided by the most cost-effective means. Training activities shall be:

- a) Focused on business/operational goals;
- b) Necessary;
- c) Appropriate;
- d) Effective;
- e) Efficient.

11.2 Aim of Evaluation

NOTE Evaluation of training is the process of making a judgement as to the worth or value of training and education to an organisation. It allows an organisation to examine the impact of training and education, assessing what has been achieved, its effectiveness and whether this has contributed towards the achievement of an organisation's goals and targets.

11.3 Scope of Evaluation

11.3.1 All individual training shall be subject to the process of evaluation. The evaluation stages applied to a specific training activity shall be determined by the organisation's documented evaluation strategy.

NOTE The stages of evaluation are defined in Table 11.1.

11.3.2 Evaluation of training shall be undertaken in accordance with an evaluation strategy. Subordinate evaluation systems shall generate the management information required by the overarching evaluation strategy. The evaluation strategy shall include, where appropriate, the rationale behind a decision not to apply a specific evaluation stage.

11.3.3 The evaluation strategy shall specify that training needs are to be identified and reviewed against the business/operational goals.

11.3.4 The evaluation of training shall involve all relevant stakeholders, at the appropriate management level.

11.3.5 The evaluation strategy shall identify the roles and responsibilities of all personnel involved in the evaluation process.

11.3.6 The evaluation strategy shall include the performance indicators and KTs pertinent to training activities.

11.3.7 The evaluation strategy shall specify that only training activities that are necessary (i.e. those for which the desired operational/workplace performance could not be achieved more cost effectively by other means) shall be carried out.

11.3.8 The evaluation strategy shall be responsive to and targeted at the needs of the business.

NOTE 1 It is more efficient to conduct targeted evaluation at the strategic level rather than attempt to evaluate everything).

NOTE 2 Organisations involved in individual training may incorporate appropriate existing evaluation processes within their evaluation strategy.

11.3.9 The currency and validity of all individual training shall be maintained by the application of the results of evaluation.

11.4 Monitoring and Measurement of Process Outputs

11.4.1 The organisation shall monitor and measure the characteristics of the outputs of the DSAT QS processes to verify that output requirements have been met. This shall be carried out at appropriate stages of the analysis of the training requirement, training design and development, and training delivery processes in accordance with the planned arrangements.

11.4.2 Evidence of conformity with the process output requirements shall be maintained. Records shall indicate the person(s) endorsing/authorising release of the products of these DSAT QS processes.

11.4.3 Release of training system process outputs (e.g. training delivery and trained output) shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority (such as the Customer Executive Board) and, where applicable, by the TRA.

11.5 TRA Satisfaction

As a measurement of the performance of the training system and its output, the organisation shall seek feedback from TRAs as to whether the organisation has met their training requirements.

NOTE For further details on evaluation, see JSP 822, Pt 5, Ch 4.

Table 11.1 – The Stages of Training Evaluation

Stage	Function	Purchase	Benefit
Conduct training activity			
1	Measure the immediate reaction of the individual through an after action review.	To measure the perceived effectiveness of the training activity.	Improved efficiency and effectiveness of the training activity.
2	Measure the learning transfer achieved by the training activity.	To determine, by applying quantitative or qualitative assessment methods, to what extent individuals increased their knowledge and skills and changed their attitudes.	Improved efficiency and effectiveness of the training activity and measurement of the standard achieved by the individual.
3	Measure changes in behaviour of individuals as a result of the training activity and how well the enhancement of knowledge / skills / attitudes has prepared individuals for their role.	To determine the subsequent impact on performance after training activity and therefore the validity of the training in preparing individuals for their role.	Improved efficiency and effectiveness of the organisation through the employment of competent personnel.
4	Measure the contribution of training to the achievement of the business/operational goals.	Overall organisational benefits attributed to training (including return on investment).	Assurance that the effective business/operational focus of training activities is being maintained.

12 ACQUISITION OF TRAINING SOLUTIONS

12.1 Acquisition Process

12.1.1 The organisation shall ensure that the acquisition of all training solutions is conducted in accordance with the following.

- a) A statement of requirement, which includes the TOs, shall be clearly defined.
- b) Acceptance criteria shall be clearly defined.
- c) Requirements for the qualification of personnel shall be clearly defined.
- d) Requirements for the management and support of the training solution shall be clearly defined.

12.1.2 The organisation shall ensure stakeholder endorsement of the requirements in **12.1.1** prior to their communication to the supplier.

NOTE The TOs are an essential element of the requirements.

12.2 Training Solution Acceptance

12.2.1 The organisation shall establish and implement the inspection or other activities necessary for ensuring that the training solution meets the specified requirements.

12.2.2 The organisation shall evaluate and select suppliers based on their ability to supply products in accordance with the organisation's requirements. Criteria for selection, evaluation and re-evaluation of suppliers shall be established and documented. Records of the results of evaluations and any necessary actions arising from evaluation shall be maintained (see **5.2.2**).

12.2.3 Where the organisation or its customer intends to perform verification at the supplier's premises, the organisation shall state the intended verification arrangements and method of product release in the acquisition information.

12.2.4 Acceptance of the training solution is dependent on the successful demonstration that all requirements have been met.

12.3 Post Project Evaluation

Following implementation of the training solution, a post project evaluation shall be undertaken to assess the efficiency of the process and the effectiveness of the chosen solution.

12.4 Customer Property

The organisation shall exercise care with customer property while it is under the organisation's control or being used by the organisation. The organisation shall identify, verify, protect and safeguard customer property provided for use or incorporation into the training activity. If any customer property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to the customer and records maintained (see **5.2.2**).

NOTE 1 Customer property can include intellectual property.

NOTE 2 Further information on the acquisition of training solutions can be found in JSP 822, Pt 5, Ch 3. Further information on the principles of smart acquisition can be found in the Acquisition Operating Framework, which can be accessed through the MODWEB.

13 TRAINING SYSTEMS AUDITS

13.1 General

13.1.1 The organisation shall plan, document and implement the training audit processes and procedures needed:

- a) To ensure conformity of the MTS with this QS;
- b) To enable continual improvement of the effectiveness of the MTS.

13.1.2 Training audit reports shall be retained as quality records.

13.2 Monitoring and Measuring of Process

The organisation shall apply suitable methods for monitoring and, where applicable, measurement of the MTS processes. These methods shall demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, corrective action shall be taken, as appropriate, to ensure conformity of the MTS and its effective contribution to the achievement of the trained output.

13.3 Continual Improvement

The organisation shall strive to continually improve the effectiveness of the MTS through the quality policy, TPIs and KTs, audit results, analysis of data, corrective and preventive actions and management review.

13.4 First Party (Internal) Audit

13.4.1 The organisation shall conduct first party (internal) audits at planned intervals to determine whether the management of training system:

- a) Conforms to the planned arrangements, to the requirements of this QS and to the MTS requirements established by the organisation;
- b) Is effectively implemented and maintained.

13.4.2 A first party (internal) audit programme shall be planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be defined. Selection of auditors and the audits shall be conducted such that they ensure objectivity and impartiality of the audit process. Auditors shall not audit their own work.

13.4.3 The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records shall be defined in a documented procedure.

13.4.4 The management responsible for the area being audited shall ensure that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities shall include the verification of the actions taken and the reporting of verification results.

13.5 Preventive and Corrective Action

13.5.1 The organisation shall take action to determine and eliminate the cause of potential and actual nonconformities in order to prevent occurrence/recurrence. Preventive and corrective actions shall be appropriate to the effects of potential problems and the nonconformities encountered.

13.5.2 A documented procedure shall be established to define the requirements for:

- a) Reviewing nonconformities (including TRA complaints);
- b) Determining potential nonconformities and their causes;
- c) Determining the cause of actual nonconformities;
- d) Evaluating the need for action to prevent occurrence of nonconformities;
- e) Evaluating the need for action to ensure that nonconformities do not recur;
- f) Determining and implementing action needed;
- g) Records of the results of action taken;
- h) Reviewing corrective action taken.

13.6 Analysis of Data

13.6.1 The organisation shall determine, collect and analyse appropriate data to demonstrate the suitability and effectiveness of the MTS and to determine where continual improvement of the effectiveness of the MTS can be made. This shall include data generated as a result of auditing and evaluation and from other relevant sources.

13.6.2 The analysis of data shall provide information relating to:

- a) TRA satisfaction;
- b) Achievement against KTs;
- c) Achievement of TOs;
- d) Efficiency of the MTS;
- e) Characteristics and trends of processes and products including opportunities for preventive action;
- f) Supplier performance.

NOTE For details on audit, see JSP 822, Pt 5, Ch 6.

Annex A

DSAT QS 001 MAPPED AGAINST THE ISO 9001:2000 REQUIREMENTS

Table A.1 – DSAT QS 001 Mapped Against The ISO 9001:2000 Requirements

ISO 9001:2000 requirement	DSAT QS reference
4 Quality management system	
4.1 General requirements	5.1
4.2 Documentation requirements	
4.2.1 General	5.2.1
4.2.2 Quality manual	5.2.1a
4.2.3 Control of documents	5.2.2.2–5.2.2.3
4.2.4 Control of records	5.2.2.1
5 Management responsibility	
5.1 Management commitment	6.1
5.2 Customer focus	6.10.1
5.3 Quality policy	6.1.1b
5.4 Planning	
5.4.1 Quality objectives	6.1.1c, 6.2
5.4.2 Quality management system planning	6.3
5.5 Responsibility, authority and communication	
5.5.1 Responsibility and authority	6.4.1
5.5.2 Management representative	6.4.2
5.5.3 Internal communication	6.4.3
5.6 Management review	
5.6.1 General	6.5.1–6.5.2
5.6.2 Review input	6.5.3
5.6.3 Review output	6.5.4

Table A.1 – DSAT QS 001 Mapped Against The ISO 9001:2000 Requirements

ISO 9001:2000 requirement	DSAT QS reference
6 Resource management	
6.1 Provision of resources	6.6
6.2 Human resources	
6.2.1 General	6.7.1
6.2.2 Competence, awareness and training	6.7.2
6.3 Infrastructure	6.8.1–6.8.2
6.4 Work environment	6.8.3
7 Product realization	
7.1 Planning product realization	8.1
7.2 Customer related processes	
7.2.1 Determination of requirements related to the product	8.1
7.2.2 Review of requirements related to the product	8.3
7.2.3 Customer communication	8.2
7.3 Design and development	
7.3.1 Design and development planning	9.1
7.3.2 Design and development inputs	9.2
7.3.3 Design and development outputs	9.3
7.3.4 Design and development review	9.5.4, 9.6.1
7.3.5 Design and development verification	9.7
7.3.6 Design and development validation	9.8
7.3.7 Control of design and development changes	9.9
7.4 Purchasing	
7.4.1 Purchasing process	12.1.1a, 12.1.1b, 12.2.2, 12.3
7.4.2 Purchasing information	12.1
7.4.3 Verification of purchased product	12.2.1, 12.2.3, 12.2.4

Table A.1 – DSAT QS 001 Mapped Against The ISO 9001:2000 Requirements

ISO 9001:2000 requirement	DSAT QS reference
7.5 Production and service provision	
7.5.1 Control of production and service provision	10.1
7.5.2 Validation of processes for production and service provision	Clauses 8, 9 & 11
7.5.3 Identification and traceability	10.3.1, 10.3.2
7.5.4 Customer property	12.4
7.5.5 Preservation of product	10.2.1, 10.2.2, 10.3.1, 10.3.2, 10.3.4
7.6 Control of monitoring and measuring devices	9.5.1–9.5.4
8 Measurement, analysis and improvement	
8.1 General	13.1.1
8.2 Monitoring and measurement	
8.2.1 Customer satisfaction	11.5
8.2.2 Internal audit	13.4
8.2.3 Monitoring and measuring of process	13.2
8.2.4 Monitoring and measurement of product	11.4
8.3 Control of nonconforming product	10.1e
8.4 Analysis of data	13.6
8.5 Improvement	
8.5.1 Continual improvement	13.3
8.5.2 Corrective action	13.5
8.5.3 Preventive action	13.5