Chapter 3: Organizational context and training processes



NOTE: This is an extract of the document "Guidelines for Trainers in Meteorological, Hydrological and Climate Services" (WMO-No. 1114).

To read the full document, please access:

WMO-No 1114

http://www.wmo.int/pages/prog/dra/documents/wmo_1114_en.pdf

3. ORGANIZATIONAL CONTEXT AND TRAINING PROCESSES

Competence I: Analyse the organizational context and manage the training processes

Competency description

The organizational context is analysed and training plans, policies and processes are developed and monitored for effectiveness.

Performance criteria

- Analyse the current and evolving organizational and learning contexts, taking into account (a) the organizational requirements, (b) how resources are made available and applied, (c) how strategic training plans are developed, and (d) how training procedures are implemented to comply with training plans, policies and processes;
- Develop and implement a strategic training plan and an operational training plan;
- Implement training procedures in accordance with training plans, policies and processes;
- Monitor and update training plans, policies and processes to meet evolving needs and technological advances.

Knowledge requirements

To be able to understand, explain and/or critically evaluate:

- Factors causing change within an organization;
- Role of plans, policies and processes in supporting organizational change;
- Technologies required to support training;
- Role of quality assurance, financial management and marketing in managing the training process;
- Organizational, technological and research trends affecting the provision of training.

Personnel who should demonstrate this competency

- Senior staff who have overall responsibility for training;
- Training managers;
- Trainers who would benefit from having some awareness of the context in which they are operating;
- People who make decisions about overall human resource development strategies.

3.1 Introduction

Having competent staff is essential for any organization. Consequently, to be fully effective, an organization's strategy has to be supported by a strategic view of human resource management. As well as having a long-term view of requirements in terms of staff numbers, it is good practice to have a strategy that addresses the training needs of existing and future staff. Such a strategy should take into account the expertise required to meet current obligations and how that expertise will need to adapt to changing circumstances. This strategic view of training should take account of the organizational context.

Another consideration is the learning culture of the organization in terms of the emphasis on training and the way it is organised. For example, many NMHSs vary in their views about the following:

- The extent to which training is considered a cost rather than an investment;
- The flexibility for staff to carry out different functions within the NMHS. It would be useful, for example, to consider whether staff are trained just for a particular job, such as a forecaster, or whether the training is much broader so that people can easily move between jobs with little additional training;

- The sharing of responsibility for training between individuals, line managers, senior managers and the trainers;
- The importance of formal academic or vocational qualifications.

A training strategy should support the strategic aims of the NMHS and take account of its learning culture. It might be that in order to achieve the organization's strategic aims the learning culture has to change. In that case, the training strategy should indicate what needs to change and how that change will be brought about.

3.2 Why do organizations need to change?

The factors causing organizations to change are often described using a PEST (Political, Economic, Social and Technological) analysis. For each category, the following list provides one example of a factor causing change within NMHSs:

- Political: it is decided that all government departments providing services should be accredited as having a quality management system that meets international standards;
- Economic: the budget of the NMHS has been cut whilst the organization faces increased competition from private-sector providers;
- Social: members of the public and other users increasingly seek access to weather information through the web;
- Technological: the accuracy of Numerical Weather Prediction (NWP) forecasts continues to improve making it harder for forecasters to add value to NWP products.

Sometimes the analysis is extended to include legislative and environmental factors (PEST becomes PESTLE) such as the establishment of aeronautical competencies/standards and increased emphasis on the scientific basis and impact of climate change.

The evolution of an organization inevitably means that the people within the organization also need to change. To continuously develop in a managed way, NMHSs should foster a culture of learning that produces a flexible and responsive workforce within which many of the employees will spend their entire career.

In organizations experiencing periods of significant change, change management might become a specific responsibility or programme, helping the organization navigate the change and its disruptions successfully. Often change programmes have a significant training element. At the start, there might be a need to develop the competencies of a team responsible for running a change project, and of managers responsible for managing their teams in a time of change. In addition, the change will often require a specific job competence to be developed or improved for many individuals.

Within an organization with a strong culture of learning, the concept of talent management emerges, whereby individuals are encouraged and supported to gain new experience and to acquire the knowledge and skills needed to enhance their capabilities and progress in their careers. A key component of talent management is the development of management expertise (see Box 3.1). This helps an organization make full use of its key resources and ensures that a pool of high-calibre individuals is available to fill senior posts.

Box 3.1. Management development

To achieve their aims, organizations need their managers to have a core set of management skills. The skills required of a manager include the ability to solve problems and make decisions, plan and organize activities, build teams, communicate effectively and manage change. As well as these skills, good managers have leadership qualities that inspire and motivate others.

Management skills, including those associated with leadership, need to be developed – an organization cannot assume that someone taking up a management post has the required skills, no matter what their professional qualifications. Management programmes, which take full account of the needs and culture of the organization, are often used to develop the required skills.

The identification of learning needs associated with management skills can be undertaken in the same way as any other type of learning needs.

3.3 Planning for organizational change

Organizational change requires planning that identifies what needs to be done to take the organization from where it is now to where it wants to be. Without planning it is unlikely that an organization will fully meet its goals, or it will do so either late or at excessive cost. Outcome mapping, as outlined in Box 3.2, is a useful planning methodology. Any change process involves four basic steps, with planning at the centre as illustrated in Figure 3.1.

Box 3.2. Outcome mapping

Outcome mapping is a planning methodology that puts the emphasis on changes in behaviour, actions and activities. It can be used to develop a strategic plan or specify a development programme. Outcome mapping has three components:

- Intentional design, which answers the questions why, who, what and how;
- Outcome and performance monitoring, which provides a framework for monitoring actions and achievement of outcomes;
- Evaluation planning, which identifies how performance will be measured against objectives and used to determine whether there has been a successful outcome.

It is also worth considering how impacts will be assessed. This would answer the question: were our outcomes worth achieving?

For more information on outcome mapping go to http://www.odi.org.uk/publications/5212-outcome-mapping-learning-knowledge-sharing or http://www.intrac.org/data/files/resources/695/Impact-Assessment-Understanding-and-Assessing-our-Contributions-to-Change.pdf

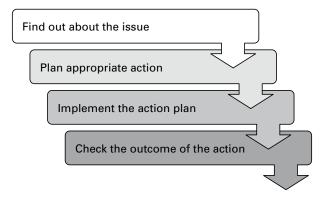


Figure 3.1. Basic steps of a change process. This also applies to training, where the implementation step covers both the development of learning activities and resources, and the delivery of training.

There tend to be two types of plan aimed at producing organizational change:

- A strategic (corporate) plan, which gives a vision of the future and specifies broad goals; this
 might entail changes to the size, shape, nature and culture of the organization;
- An operational (business) plan, which specifies objectives and actions to help reach the strategic goals; such a plan is implemented by individuals or departments.

In practice, the two plans are often merged into a single document.

The strategic and operational plans provide the context for the strategic learning plan and learning policy.

Training departments can contribute to:

- Delivering the operational plan of the organization;
- Changing the organization so that it is better able to carry out the operational plan and do new things as required by the strategic plan.

3.4 Components of a strategic learning plan

A strategic learning plan, which deals with capacity building, is a key document for any organization. It mainly focuses on ensuring that the organization has the ability to respond to internal and external changes. It supports organizational growth and the promotion of innovation with a view to enhancing service delivery. The strategic learning plan should directly link training requirements with the organization's strategic plan.

A strategic learning plan might have components that deal with the following questions:

- What are the organizational goals?
- What do people need to do differently or better for the organizational goals to be achieved?
- How will progress be measured?
- What learning opportunities are required to meet the organizational goals?

Often learning opportunities will contribute to more than one organizational goal. Once it has been decided what learning opportunities will be provided, it is necessary to specify time frames, resources and results for each one.

Having a strategic learning plan helps the staff of an organization understand how their development is linked to the strategic goals of the organization, hence they are more likely to actively participate in learning opportunities. The plan also helps emphasize that providing learning opportunities is an investment rather than just a cost, because of the benefits learning brings to the organization in helping it meet its strategic goals. Box 3.3 describes some benefits of investing in training.

The strategic learning plan will usually address both the operational and the strategic change requirements of the organization.

Box 3.3. Some benefits of investing in training

- Employees are more conscious of the aims of the organization and their own jobs;
- Newcomers are fully effective more quickly;
- More effective working methods and techniques are applied, leading to better ways of working;
- Quality of output is improved by an enhanced application of expertise;
- Attitudes towards customers and other departments are more constructive;
- Job and task flexibility is encouraged;
- Relationships between staff and managers are enhanced;
- Staff turnover is reduced by better induction;
- Information technology systems and other resources are put to better use;
- Accidents and waste are reduced.

3.5 **Learning organizations**

The term "learning organization", which refers to the culture of an organization rather than its outputs, became widely known with the publication of *The Fifth Discipline: The Art and Practice of the Learning Organization* by Peter Senge in 1990. Organizations gain strategic benefits from being able to manage change in harmony with the changing technology and the environment in which they operate. This has led to the concept of a learning organization, which has the following features:

- Learning opportunities are provided to individuals when they are hired and throughout their employment;
- Individuals are encouraged to seek and manage their own learning opportunities;
- Training is learner-centred;
- Empowerment of individuals is the norm and teamwork is fostered;
- Bureaucratic rules and administrative overheads are minimized;
- Performance feedback is given and mistakes are tolerated in the interests of learning.

In order to become a learning organization, a complete change in culture is often required. Indeed, the whole structure and operation of the organization may need to be realigned, but this cannot be done successfully without commitment throughout the organization. In general, a learning organization has a learning culture with processes in place to ensure that learning opportunities are planned (based on an assessment of learning needs), action is taken to satisfy the learning needs and learning programmes and events are evaluated after implementation.

As well as nurturing a culture of learning amongst the staff, learning organizations usually have effective processes for knowledge management (see Box 3.4).

Box 3.4. Knowledge management

According to Bryant Duhon¹, knowledge management is "a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's data, information, and knowledge assets. These assets may include databases, documents, policies, procedures, and previously uncaptured expertise and experience in individual workers".

To understand knowledge management it is important to differentiate between:

- Data: sets of facts, concepts or statistics;
- Information: data that have been analysed and organized so that they have structure and meaning;
- Knowledge: the understanding and application of information to aid decision-making.

The aim is to manage knowledge so that it can be applied to meet the operational and strategic aims of the organization. This allows organizations to:

- Avoid repeating mistakes by using a "lessons learned" database;
- Make full use of expertise within the organization by identifying people who have knowledge and skills in a particular area;
- Develop networks of people with a shared interest by using what are known as "communities of practice".

In addition, it is possible to base decision-making and strategic planning on evidence, to transfer good practice from one part of the organization to another and to identify common issues or concerns.

¹ Duhon B., 1998: It's All in Our Heads. *Inform*, 12(8):9–13.

3.6 Components of a learning policy

As well as having a learning plan, some organizations have a learning policy that provides a broad approach to identifying learning needs and the allocation of responsibilities.

In many organizations, the expertise and creativity of their staff are the major assets that need to be supported and developed. In some organizations, however, providing learning opportunities is seen as a luxury, especially if there is no culture of learning and no recognition of its strategic value. Furthermore, if there is no dedicated training department within an organization, there might not be a champion who ensures that learning is acknowledged and valued.

A learning policy covers topics such as an organization's beliefs about and commitment to learning, the benefits derived from providing learning opportunities and the roles and responsibilities of members of staff at all levels. A learning policy might specifically cover:

- Benefits of training to the individual and the organization;
- Provision of learning to meet current and future needs;
- Culture, style, attitudes and beliefs about learning;
- Who is eligible to participate in learning programmes and events and how to gain access to them;
- Responsibilities of the line manager, training department and individuals.

In many organizations, the learning policy might be part of a wider policy concerned with human resources, that is the workforce of an organization.

3.7 Organizational training structures

National Meteorological and Hydrological Services vary in size and approach to how learning opportunities are managed. Consequently, training functions within an NMHS can take on many different forms. For example:

- A separate department with full-time trainers is responsible for managing training;
- A single person is responsible for managing training that is provided by staff from within other departments of the NMHS on a part-time basis and/or through distance learning;
- All learning opportunities are provided externally with someone from the NMHS responsible for commissioning them.

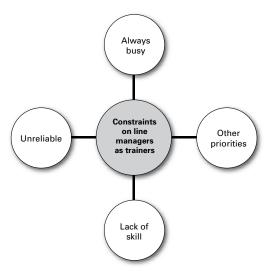
In some organizations, line managers take increasing responsibility for the learning of their staff. These responsibilities might involve tasks such as identifying learning needs and deciding how they could be addressed, providing coaching and assessing the impact of participation in learning opportunities. These tasks are best carried out by individuals and line managers working together in partnership, but trainers could be responsible for providing guidance, encouragement and support (see Box 3.5).

Within an NMHS, the members of staff having overall responsibility for training have to balance the needs of the individual with those of the organization. Just focussing on individual learning needs means that the organization's strategic aims might not be met. On the other hand, if individual learning needs are ignored, the staff might not be motivated to maintain or develop their expertise, nor would they receive the training they need the most, and thus a key resource would not be fully utilized.

Box 3.5. Role of the line manager

Line managers (or supervisors) can play a key role in training their staff, but often this does not happen because they:

- Are too busy to think about training;
- Think that training does not have a high priority;
- Do not have the required instructional or interpersonal skills;
- Can be unreliable by cancelling or interrupting training to meet short-term needs.



To overcome these problems the organizational culture needs to be such that (a) line managers are expected to take responsibility for the training and development of their staff, and (b) all levels of management are committed to encouraging and supporting training and development as a means of reaching the goals of the organization.

Trainers within an organization can help line managers by:

- Providing training that is focussed on developing the training skills of line managers and explaining the benefits of taking an active role in the training process;
- Supporting line managers by giving advice and encouragement when they are dealing with performance issues;
- Informing line managers of the training opportunities that are available.

Though the trainers tend to concentrate on satisfying the learning needs and aspirations of individuals, they must do this in the context of organizational requirements and direction. This is a major task, and success depends on direction, support and recognition from a high level within the organization.

3.8 Facilities and resources required to support training

A training department requires the standard office systems as well as specific facilities, hardware and software for promoting learning.

In the past, in addition to rooms for staff, the facilities occupied by a traditional training department might include:

- One or more classrooms for lectures, private study and exercises;
- Libraries, meeting rooms and other facilities in accordance with local policies and procedures;

- Printing and photocopying facilities, storage for teaching and learning resources, and hard and e-copy filing systems;
- Amenities such as bathrooms/toilets, kitchens and locker rooms.

Nowadays many institutions also take advantage of technological developments that enhance the training process.

The amount of funding that an organization can allocate to its training department to maintain and develop the training facilities and resources will vary with time, the type and amount of training being undertaken, and institutional or national regulations such as Occupational Health and Safety requirements. Training managers will need to be able to justify the investment through ongoing evaluation of their programmes (chapter 8) and careful monitoring of the amount and type of technology used. Collaboration and liaison with the national education sector and training groups in other NMHSs are encouraged to share experiences and resources.

Nearly all aspects of training can benefit from making full use of the wide range of technologies that are available. Some technologies, such as a Learning Management System, can support learning through the whole organization, whereas others, such as forecaster workstations, are primarily used within the training department and operational areas.

3.9 Using technology to support training

Use of technology in training has been affected by:

- Learning delivery methods becoming more varied and flexible;
- Economic pressure on organizations and the need for increased efficiency;
- Introduction of Quality Management and regulations which require that more attention be paid to record keeping and retrieval.

This has resulted in training departments having to embrace technological developments and putting more emphasis on developing the skills required to make full use of the technology.

Many training departments have access to video and data projection systems, computer laboratories, and black/white and smart boards. In addition, because training focuses on developing the knowledge and skills required for a particular job, the training department needs access to the same technology used within the workplace. Trainers, therefore, must be competent and confident in the uses and limitations of the wide range of technology that is being used.

3.10 Learning management systems

A learning management system (LMS) is a software package or system of applications that supports the delivery and management of training resources and events. Such a system can be used for a wide variety of purposes, including managing training records, registering for courses, providing learning resources, delivering on-line courses, facilitating communication between learners and teachers, and assisting in the assessment of outcomes. Most LMSs are web-based, so they allow access to information and resources from anywhere at any time. But such systems require sufficient support to maintain the integrity, usefulness and currency of the information they contain. Consequently, an organization can benefit from adopting an LMS, but care needs to be taken to ensure that the system is used properly.

Ideally an LMS will work well with any performance management or appraisal system that is in place within an organization.

Moodle is an example LMS. It is an open source, web-based application which is used within WMO to manage and administer a variety of meetings and training events. More information on how Moodle can be used is given in chapter 7.

A Virtual Learning Environment is similar to an LMS in many ways, but it tends to be used in educational establishments and offers a broader range of capabilities. A Virtual Learning Environment provides a set of learning tools that typically allow access to curriculum information and resources, on-line support to teachers and learners, and live and asynchronous communication. Usually teachers see everything that the learners can access, but they can also track their performance.

3.11 Organization-specific facilities, hardware and software

To enhance learning related to specific tasks and roles it is strongly recommended that learners have access to the same equipment that they will be using in real-time operations. In some organizations this will mean that learners use equipment and facilities within an operational facility whilst in others this equipment will be part of the training department. Training managers will need to consider the cost/benefits of equipping their centres or providing access to a wide range of facilities such as:

- Surface and upper-air instruments and radars;
- Maintenance facilities and communication and calibration equipment;
- Forecasting workstations and observing equipment;
- Computer laboratories.

In situations where operational equipment or facilities cannot be provided to the training department, learners may have to undergo extensive on-the-job training to develop the required level of skills and expertise.

3.12 **Quality assurance**

Increasingly NMHSs have to ensure that the quality of their products and services meet the needs of their customers. A common approach is to have their Quality Management System (QMS) accredited as satisfying the ISO 9001 Standard. This Standard can help both product- and service-oriented organizations to achieve standards of quality that are recognized and respected throughout the world. Box 3.6 provides a link to a training module, Quality Management Systems: Implementation in Meteorological Services, which has been developed by the COMET Program in collaboration with WMO. Another important resource on quality management is available from WMO at http://www.wmo.int/pages/prog/amp/aemp/documents/QM_Guide_NMHSs_V10.pdf.

Box 3.6. Implementation of a Quality Management System

Quality Management Systems: Implementation in Meteorological Services is a one-hour online learning module which provides an overview of the key concepts, benefits and principles of an effective QMS based on the ISO 9001:2008 quality management Standard. It also introduces guidelines for the successful implementation of a QMS in aviation weather service agencies. Although primarily aimed at management personnel responsible for implementing, monitoring and updating QMS processes, it also provides a basic introduction to QMS suitable for all agency staff.

The first part of this module provides an overview of QMSs, introduces key concepts and terms, and describes the benefits of QMS implementation. The second part outlines 12 key steps for successful QMS implementation, including important tips, examples and critical success factors. After registering on the meted website the module can be accessed by going to https://www.meted.ucar.edu/training_module.php?id=869.

Training departments might seek further accreditation based on ISO 29990:2010, Learning services for non-formal education and training – Basic requirements for service providers. However, the ISO terminology "non-formal education and training" applies to all training offered outside universities and other educational institutions. So even the "formal learning" offered within training organizations would be considered non-formal according to the ISO definition.

ISO 29990 is divided into two areas:

- Learning services, which is concerned with all aspects of the training process;
- Management at the learning service provider, which is concerned with ensuring that there is a certifiable management system such as a business plan or a system for financial risk or human resources management.

Even if formal accreditation for ISO 29990 is not sought, this Standard can be used to benchmark learning services.

3.13 Financial and promotional considerations

Financial management systems allow organizations to monitor income and expenditure, and provide a basis for decision-making. Two common approaches to managing the training budget are:

- Cost centre: this implies a central budget for training with costs divided between direct costs
 (for example, consumables and travel and subsistence), departmental overheads (for
 example, salaries, energy and equipment) and organizational costs (for example, building
 maintenance and quality management systems). There is no standard way of allocating costs
 under these three headings;
- Profit centre: the training department provides services to other parts of the organization and charges for those services. This means that income to offset the costs comes from internal transfers of funds and selling services outside the organization.

Setting up the training department as a cost or profit centre makes the cost of this activity clearer. It also encourages efficiency and recognition of the benefits of training.

Organizations should raise awareness about the contribution that education and training can make to achieving organizational goals, addressing performance issues and minimising organizational risk. Investment in learning is worthwhile and whoever has responsibility for learning should effectively promote what is available. In doing so, it is worth applying two basic principles:

- Sell benefits, not features: emphasize the benefits to the individual and/or organization of participating in a specific learning opportunity (for example, the learning outcomes) rather than just listing the features (for example, topics covered);
- Identify the unique selling point: identify what is special about the learning opportunity (for example, that it is linked to a specific internal or external development) or about those responsible for its delivery (for example, the expertise of the trainers).

It is appropriate to apply these principles to both internal and external promotion of learning opportunities. However, if the aim is to attract participants from outside the organization, applying these principles is essential to maximize uptake. Both training managers and trainers can help promote training within an organization (see Box 3.7).

Box 3.7. What can training staff do to help with promotion?

Training managers

- Identify the benefits of training for upper management and stakeholders;
- Develop examples that show the value of participating in learning opportunities;
- Make sure that the training budget and plans reflect the needs of the organization;
- Have flexible training plans so that unexpected demands can be accommodated;
- Invite internal clients to contribute to the design and delivery of training;
- Seek feedback from people who have taken advantage of learning opportunities and show that action has been taken in response to any concerns;
- Keep up to date with the organization's activities;
- Act as a champion of learning at every opportunity;
- Ensure that trainers have enough subject-matter expertise and instructing ability.

Trainers

- Lead by example in pursuit of their own CPD;
- Liaise with others in the organization;
- Deliver consistent, high-quality training;
- Demonstrate an interest in issues affecting the organization.

3.14 Trends affecting the provision of training

The provision of training can be affected by a number of factors which need to be taken into account by all those involved. The following were some of the key trends when this document was being prepared.

3.14.1 Trends affecting organizations

- Quality management: an increasing number of organizations are moving towards adopting QMSs which provide a systematic way to achieve continual improvement and to demonstrate this to management and external stakeholders. These systems normally require staff to show expertise in particular tasks;
- Professional standards: in many occupations, professional standards have been developed for particular jobs. Within the meteorological community competency standards have been set for Aeronautical Meteorological Forecasters and Observers, and others will follow. In some countries, there are also standards for trainers;
- Knowledge management: there is increasing recognition that the management of knowledge
 is important, because the accumulated organizational knowledge distributed among its
 members can facilitate decision-making, support learning and stimulate innovation when it
 is available to all. Knowledge management includes having systems in place to create, store
 and provide access to knowledge of individuals and organizational processes;
- National and international cooperation: cooperation between learning institutions has increased as NMHSs recognize that sharing training materials and expertise benefits all.

3.14.2 Trends directly affecting training

Learning outcomes: increasingly learning opportunities are being specified in terms of learning outcomes rather than a syllabus describing topics to be covered. This reflects a desire for accountability in the training function – it needs to be demonstrated that training adds value to the organization. It also reflects a deeper desire to help learners achieve personally-valued learning. For trainers, this means moving towards being a facilitator of learning;

- Distance learning: many organizations have developed high-quality, self-paced distance-learning material. This has created access to a wealth of training material that can be used either for stand-alone learning opportunities or to augment other modes of learning. Synchronous or blended distance-learning courses are also becoming more common, increasing the availability of learning opportunities where they did not exist previously;
- Just-in-time training: with increasing scientific knowledge and technological change, there
 has been a move towards learning systems that deliver training to workers when and where
 they need it. These learning materials can be web-based, computer-based, or paper-based,
 and can provide the information required to solve problems, perform specific tasks or
 quickly update expertise;
- Learning through social networks: the increasing use and availability of social networking tools, such as blogs, podcasts, tagging and online communities, encourage people to learn in a social context through discussion, file sharing and collaboration;
- Continuing professional development: organizations are increasingly recognizing the importance of CPD. For example, in meteorology, developments in observing systems, numerical weather prediction and customer requirements mean that the expertise of forecasters has to be continually updated;
- Transferable skills or core competencies: there is increasing emphasis on the development of transferable skills such as those associated with effective communication and being customer focussed. These skills are of value in many different jobs.

3.15 **Next step**

Training plays a key role in helping an organization to meet its strategic aims whilst motivating individuals and improving their performance. For the training to be successful, everyone involved in the learning process needs to be aware of what is happening within the organization and of the internal and external factors that are shaping its future. They need to understand what is expected of training and the contribution it can make to the organization.

Having set training in the context of the organization that it is serving, the next step is the identification of learning needs.

3.16 You and your organization

In order to consolidate the material presented in this chapter, try answering the following questions:

- What are the main factors causing change within your organization and training department?
- What are the main aims of your organization and how does the training department contribute to the attainment of those aims?
- What are the characteristics of your training department in terms of inputs, processes and outputs?
- Who are the main stakeholders for training in your organization and what influence do they have on the training process?
- To what extent does your training department make effective use of technology to support the training process?
- In your organization, how are stakeholders made aware of the training opportunities that are available?