
Self-training for employees

Direct familiarisation with and training at the workplace often is in the responsibility of the enterprise itself. For an effective organisation of this task, the instructor not only needs technical knowledge but also methodical and social skills.

For training at the workplace, in small enterprises it is in most cases neither possible nor necessary to make use of trained and qualified instructors. Technically experienced employees of the enterprise already contribute the most important prerequisites to introduce other colleagues into an operational working routine: they are familiar with all the operational conditions. There is a number of proven procedures and methods how the introduction into an operational task can be prepared effectively, how employees can be convinced to participate in operational quality circles or how coaching for employees can be prepared and implemented.

The following documents shall support the managers and the persons responsible for operational training within the enterprise in this task.

Three possibilities for training employees within the enterprise are offered here:

1. Workplace instruction
2. Quality circles
3. Coaching

For the methodical implementation of these selected examples two essential aspects should be taken into account in the enterprise:

- The training should be directly related to operational practice in a real workplace and focus on practical tasks.
- The participants are adults who are in general positively motivated for work, have long-standing professional experience and ability for self-paced individual learning (regardless of different levels).

1. Workplace instructions

Training measures in the enterprise ensure that primarily practical skills are acquired and taught directly at the workplace. Practical exercises in particular are necessary for this.

There are two different features:

1. If one distinguishes with regard to the “**complexity**” of work, then exercises can be divided into:
 - Exercises of single work activities
 - Exercises encompassing whole job operations
 - Exercises of complex work tasks.
2. If one distinguishes with regard to the “**productivity**”, according to economic viability, fulfilment of operational assignments or customer’s wishes, exercises can be divided into:
 - Productive exercises which do not interrupt the work process and produce a direct economic profit;
 - Exercises with a training character where procedures exclusively depend on speed and safety;
 - Exercises under simulated conditions because the dangers from possible mistakes would be too great in the real process;
 - Unproductive exercises with no direct economic profit which is “only” of ideal use.

One cannot always implement the exercises in the real operating process; the particular features of the respective learning workplace must therefore also be taken into account. The exercises are only effective, if the instructor/mentor leads the learners systematically from the simple to the complicated, the easy to the difficult and slow to fast work and at first sets values on quality and not on quantity.

1.1 Prior considerations on training at the workplace

As with every activity, one must also systematically plan and prepare the working instructions. The general preparation is outlined in the following steps, which also represent the order of the related steps. These steps can be determined by the following questions:

1. *To what end is the training?*

The actual purpose of the work instructions should first be established.

2. *What should be learned?*

The learning content should be defined out of the objectives of the instructions.

3. *How and with what media should the learning and teaching proceed?*

The methodical procedure must afterwards be considered, based on the objectives and the content, i.e. how the learner and the instructor should work together to achieve the objectives and the content. In a methodical procedure the use of learning and teaching material or media can be planned and recorded.

4. *Where and when should be learned?*

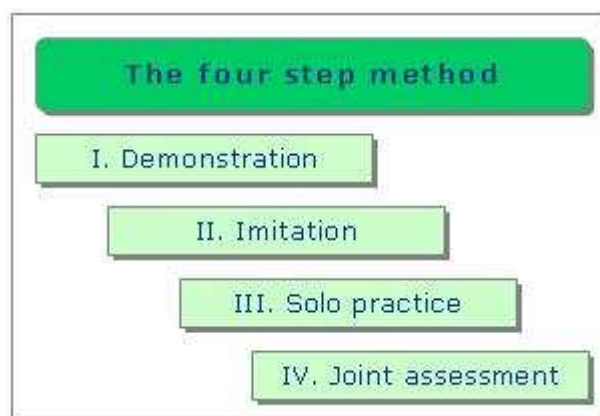
Only after the objectives, content and methodical procedures have been established should the questions of the organisation be addressed. Included in this is the provision of the necessary work and support materials, the work and practice time and ensuring that the working environment complies with all industrial health and safety standards.

5. *How should it be supervised?*

The last planning stage is the consideration of how the results of the exercise should be determined, assessed, and defined. Furthermore, provisions must be made for an eventual examination or certification.

1.2 Implementation of the workplace instruction

The learning location is already determined in the workplace instruction. Thus primarily objectives will be met which can be met at this learning location. The same applies to the contents. During the implementation of the workplace instruction, the four-step method will be used, which is briefly described as follows.



I. Demonstration

The learning objectives and contents are explained to the learners before the exercise. Their prior knowledge must be taken into account to avoid under training or overtraining. The learners must also be informed on the form of supervision or assessment, so that they can adjust to this and will not be surprised at the end of the exercise. The exercise begins with the demonstration: at first, the complete operation to be learned is demonstrated at a suitable speed. After this, the complete operation is demonstrated slowly in partial steps/actions. The learners are asked to watch the operation carefully and to put questions if necessary. The learner and instructor/trainer/coach should ensure that each work step is explained and supported verbally. It is important not only to point out how one does it but also to justify why it is done in that way.

The learner should, after several demonstrations, develop a feeling for the complete operation in order to be able to acquire the demanded skills with interest and high motivation.

II. Imitation

Under supervision and continuous observation the learner implements the operation and at first only takes care of the single work steps. The instructor does not interfere and only corrects the procedure, if it is not conforming to health and safety guidelines. He makes no criticism or negative judgement. Recognition and praise however are definitely beneficial to this phase of acquisition and learning. After repeating single, more complicated work steps, the learner should be asked to explain the single steps, as verbal support during the exercise renders the learning process more effective and improves the retention of information.

Finally, first the learners and then the instructor should repeat the complete operation once again as fluidly and comprehensively as possible. In this way the requisite standards of quality and quantity are stressed on the learners once more, before they go on to the unsupervised exercise.

III. Solo practice

The learners practice mainly independently and acquire the necessary skills directly in the activity at the workplace. They develop a feeling for the pace of the work, become more secure in the handling of the work utensils, recognise their own weak points with the means for work, and begin to look independently for ways to arrange the work with less physical effort and more efficiency. The instructor must ensure through occasional checks and supervision at this stage that fundamental errors and lack of skills do not become fixed in the learners' minds as such mistakes may be difficult to adjust later. This phase of the solo exercise is by far the longest and should take up about 70% of the allotted time, while for each of the other phases 10% of the time should be allocated.

IV. Joint assessment

All resulting learning performance should be evaluated. The development of vocational skills in the workplace instruction is central to the exercise so that the main emphasis of the evaluation also must lie on this. Each evaluation consists of two steps that must be clearly separated from each other.

- First, the objective of the workplace instruction is determined as exactly as possible and what the learner has concentrated on during the exercise is determined as well.
- Only after that should one evaluate what has been previously determined.

The assessment can be verbally conducted, documented or also kept in the form of notes. In general, no snap assessment is carried out during workplace instruction. The joint evaluation is however of high educational value which boosts self-confidence and promotes improved performance. One learns at the same time to recognise the standards applied to vocational skills. Joint evaluation also enables the instructor to assess himself and formulate an even more effective workplace instruction technique in the future.

2. The quality circle

The in-house training of employees within an enterprise frequently takes place through informal contacts with other employees and “cooperative self qualification”, which means that the employees also train and support each other, as they work together. Quality circles have gained acceptance in many enterprises within the last few years and are eminently suitable for in-house training.

Quality circles are working groups of employees in enterprises which, usually on a voluntary basis, focus on concrete operational problems, discuss them and work out and propose solutions and possibilities for necessary changes.

The formation of quality circles should be encouraged and initiated for certain tasks by the enterprise. Reasons for their formation could be:

- specialised training-related deficits of individual employees which have consequences for the entire enterprise, where other employees can helpfully intervene in their own interests;
- a concrete task which can only be solved jointly with other employees and for which the involvement of others is necessary;
- forward looking tasks of the enterprise.

2.1. Functions and aims of the quality circle

Quality circles have two essential functions:

- The improvement of performance in the enterprise
- The improvement of the quality of life at the workplace

2.2. The work content in quality circles

Topics for quality circles:

- Abolishing performance-diminishing factors
- Improving the working environment
- Ensuring quality results from work
- Reducing material and energy consumption
- Observing regulations for ambient conditions, working environment and fire precautions.

2.3. Organisation of quality circles

Operation and organisation of quality circles:

- Once monthly, maximum 1.5 hours
- Outside the workplace, at a separate venue

2.4. Rules for participation

- Voluntary participation
- Size of group: 6 to 8 employees
- Lead by: supervisor, master, foreman, group leader, specialist, associate

2.5. Requirements for members of quality circles

The following requirements are valid for the members of the quality circles:

- they should voluntarily participate in the consultations;
- they must be able to recognise problems at the workplace and the enterprise,
- analyse weak points and develop and introduce solutions;
- they should be experts in their fields and
- they should be tolerant and receptive to criticism.

2.6. The leaders of quality circles

The leaders of quality circles are responsible for all organisational questions and questions as regards content. They

- select the members of the quality circle,
- maintain contact with the enterprise and the supervisors,
- inform about operational conditions and objectives,
- present and plan the methodical progression of consultations and provide the necessary materials and aids,
- implement the evaluation of the consultations and pass on recommendations.

Particular requirements are made on the chairperson with regard to style of presentation. He should have the character of a facilitator who

- moderates the group and allows it to work independently,
- can hold back and only occasionally intervene to correct issues,
- can visualise and structure the results,
- makes an overall positive impression.

2.7. Methodical procedure in quality circles

The consultations have the character of a results seminar, ideas conference or a problem-oriented workshop.

The procedure:

- The presenter explains the problem.
- Working groups are formed where necessary.
- The members pool ideas.
- The suggestions are recorded. Basic principles are:
 - Quantity before quality
 - No limits to imagination
 - No criticisms of others' suggestions
 - No assessment of the suggestions
 - The present ideas are read during any work break
 - Only the group performance is valid
- The suggestions are structured and summarised.
- The participants in the consultation are free to make amendments and additions.
- The suggestions are evaluated and weighted according to their feasibility and practicability.
- + Suggested decisions are formulated and recorded jointly.

2.8 Conclusions of quality circles

The managing directors in the enterprise are informed of the results of the consultation in the quality circle. Different solutions are suggested and argued.

Summarising assessment

Quality circles were particularly further developed in Japan and used in the enterprises as a form of cooperation. The Japanese mentality and enterprise philosophy play an important role here, because group working and thinking are essential there.

The quality circle promotes a stronger identification with the enterprise and increased personal responsibility for the job on the part of the employees. Quality circles also make it possible to connect the existing informal groups with the management to the general advantage of the enterprise. Quality circles contribute to the qualification of employees, lead to in-house dialogue and generally improve the working environment.

3. Coaching

Many of the methods currently being used to train employees in the enterprise are not new and have already been developed in recent years. Coaching is also part of the methods to foster leadership and to support colleagues. In many enterprises there is a lack of younger executives who already have operational experience and can bring innovations into the enterprise. If we consider the age distribution among executives, it is immediately apparent that many enterprises have to take care that executives should be trained within the enterprise itself in order to be able to remain competitive in future markets. A suitable method is the mentioned coaching of employees. Coaching in the enterprise is a complex process of personal leadership and support of an employee or a group of employees by assignment of responsibility, supporting measures and supervision in the solution of operational problems and tasks. To implement coaching effectively as a method of employee training, some basic principles should be taken into account; these derive from coaching experience gained over the last few years.

3.1. The aims of employee coaching

The aim of coaching is to help groups of employees or individual competent and motivated employees so that they learn more effectively to solve operational problems in their own interests and to the benefit of the enterprise and accordingly further develop their own proficiency. Help and support is offered to the employees for the development of self-learning and problem-solving abilities confronted with concrete operational tasks or the development of leadership qualities.

3.2. Content and elements of coaching

The content of coaching is as manifold as the operational problems themselves and can only be indicated by some examples.

Typical coaching tasks are for example:

- Familiarisation with a new workplace
- Preparation for a new executive duty in the enterprise
- Development of a new concept to maintain quality in the enterprise
- Improvement of a product or procedure in the enterprise
- Preparation for examinations for a craftsman's certificate
- Vocational adjustments of other employees
- Taking on the training of employees
- Preparation for moderation of a quality circle

3.3. Requirements for the coach

The coach can be an executive of the enterprise, external expert/facilitator or an interested employee with sufficient professional and life experience. A coach must:

- be able to motivate the group or the employee;
- not appear to be an instructor or a know-all but see him/herself as a partner with a special responsibility and a certain authority;
- have a positive attitude and be able to spread optimism;
- be able to use communicative techniques and moderation rules effectively;
- have learned to analyse and structure the strengths and weaknesses of the employees;
- be able to challenge personal responsibility and appeal to the self-esteem of the group or employee;
- have the ability to lead and support the group or employee with his personality and image;
- not necessarily be "expert" in the same technical field of the group or the employee;
- have sufficient professional and life experience in his own field to be able to gain confidence and recognition.

The coach plays different roles in the process of coaching and may be anything from supporter, unobtrusive helper, and personal guide to the active listener to a “buffer” for frustrations or sharp criticism. The coach is not the psychotherapist for the group or the employee and does not discuss the life-stories of the employees.

Additional requirements on in-house coaches can also arise from the hierarchy in the enterprise and their own involvements in the working routine. Conflicts can always arise between the enterprise philosophy and the personal ethical, technical or economic principles of the coach. If such a conflict situation arises, the coaching should be terminated.

External coaches have the advantage of being able to observe and assess the process of development from outside without being involved in the process. On the other hand, they cannot directly influence the process, so that they have a lower level of responsibility.

External coaches are being increasingly called in by the management.

3.4. Requirements for the employees being coached

Certain requirements are also made for the groups or the employee to be coached.

They should:

- be highly motivated, active and willing to learn;
- be offered an operational perspective and be career conscious;
- have self-organisational abilities in their work;
- have learned to initiate and steer self-learning processes;
- be able to arrange themselves into groups;
- want to recognise and contribute to solutions and processes of change.

The choice of the employees who should be assimilated into the enterprise through coaching is a direct executive duty and bound with responsibility, i.e. the choice should if necessary be made with appropriate, psychologically relevant procedures or with special outside support.

3.5. Methodical procedures in coaching

Coaching differs greatly from workplace instruction or quality circles because here the degree of personal responsibility in particular and the measures are considerably longer term.

The following methodical steps should be observed:

1. Contact between the coach and the group or the employee. First, a working arrangement should be built up. The relationships between partners must be explained and the demarcation of responsibility must be established.
2. Information about the coaching and its concrete objectives; explain the thrust and introduce the contents in the overview.
3. Solicit a first opinion from the employee or group and confirm their readiness or acceptance of coaching.
4. After this, the phase of concrete cooperation begins. The first problem areas are identified and the approximate extent of the coaching is discussed. In this way, methods including moderation techniques and visualisation can be worked out. The work phases can then be planned and brought to fruition.
5. After that the form of control, the transfer of results and the conclusions of the coaching can be discussed and agreed among the partners.

As methods, established procedures of problem definition and precision, problem structuring and solution can be implemented. Here the accumulated experience and methodical repertoire of the employees can be combined, the special thinking and modes of operation of the profession can be integrated and the coach can take on a much more active role as a facilitator.



3.6. Organisation and process of coaching

There are certain rules, given here as a checklist, for the organisation of coaching:

- Advice in general to establish the objectives and work phases.
- An optimistic and friendly work climate must be organised.
- Positive results need forward planning to ensure success and new incentives.
- One must learn to cope with failures and learn to recognise weaknesses in order to be able to turn them into strengths.
- The achievements must continually be monitored and measured against own expectations. Objective assessments based on criteria or indicators are particularly helpful for this.
- The coach gives only as much help as necessary and not as much as possible. He/she stays increasingly in the background and takes the role of a consultant.
- The coach only supports the employee or the group further, if there is a risk that their chosen method cannot safely achieve the objective.

3.7. Conclusion and assessment of coaching

The coaching should be concluded, when the aim has been reached or if it becomes clear that it cannot lead to the desired result.

Every checklist consists of an objective assessment or report on the results and a concluding evaluation. Everyone involved in coaching should be included in this to analyse any changes or amendments that may arise.

The coach should ensure at this point that every employee or every member can interfere in the process and draw personal conclusions from the coaching to his own advantage and that of the enterprise.