Titel :

Training as an instrument for
innovation.

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Training as an instrument for innovation

A. Introduction.

We were repeatedly surprised to find, that in addition to realizing
the official training objectives, other unintentional things were
happening to those trained, the trainers and their respective environ-
ments within organizations.

We furthermore noted that in certain groups the learning results
disappear relatively quickly after training has ended, whereas in
other groups the results are retained and fostered and even appear
to spark off a longterm independently continued learning process.

As a result of these observations we became interested in the factors
which influence this interplay of forces between training and the
target group and of that between training and the environment of the
target group.

If such forces, which go beyond merely influencing the individual
trained in relation to purposeful transfer of knowledge, skills
training and attitude-building really exist, they invite further
research.

For if a training department is able to influence the individual's
working environment, then it must equally be possible to use this
influence in a planned and conscious manner within the framework
of a larger innovation strategy.

B. The objective of training activities.

In the formal sense of the word the sphere of influence of training
is limited to individuals only, for training is a purposeful change
in the behaviour of an individual by means of learning processes.
In work situations these learning processes are used with the
following objective in mind:

- To enable employees to acquire those qualifications which are
  necessary to realize the organizational objectives (more) success-
  fully (Kessels & Smit 1982). By qualifications we mean that know-
  ledge, those skills and attitudes which enable the employee to
  perform a range of different activities (Van Hoof & Dronkers 1980).

Qualifications for specific skills such as the repair of an electric typewriter, type 196C are defined by us as "technical-instrumental qualifications".

In practice these qualifications prove to be largely task-related and their range of application is generally limited. Qualifications which are directed at functional aspects such as cooperation, participation in decisionmaking processes, administration and delegation are defined by us as "social qualifications".

These are less task-related and can be applied at various points throughout the organization .

The above qualifications will always be expressed in terms of observed behaviour.

These qualifications can be acquired in a specially equipped learning-environment such as a class room, a lab, a simulator, etc. but also directly in the work-environment by means of on-job training and through training-placements.

In the final instance it's the work-environment where this new qualification has to be translated into improved job performance. The work-environment plays a key role in consolidating new acquired behaviour. If the new acquired behaviour is known to and accepted by the work-environment, this behaviour will be confirmed and within a short while it will have become integrated as part of the job. Where this behaviour is deviant and unfamiliar to the work-environment, the individual will come under direct or indirect pressure to change the new acquired behaviour for behaviour which is generally accepted in the work-environment. The training will disappear within a short time unless the individual concerned rebels against this corrective pressure and chooses to become an outcast.
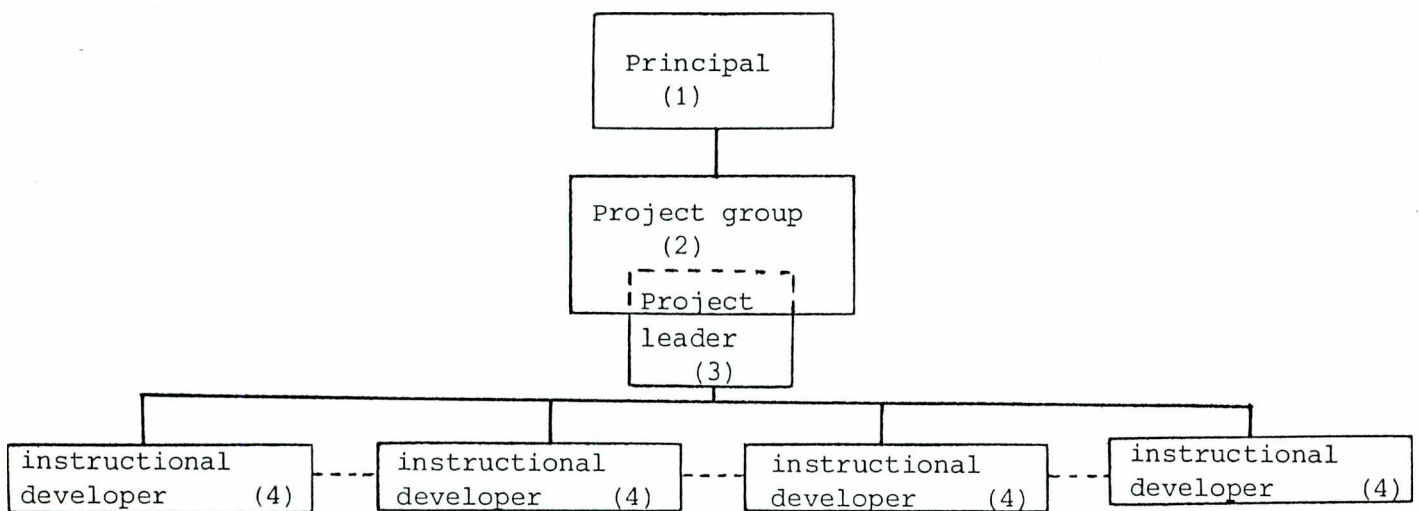
This is something that is frequently observed in the case of safety measures which are considered exaggerated such as e.g. the repeating of safety messages. That is why the work-environment is an essential factor in nurturing and consolidating behaviour and qualifications acquired by means of training.

In view of the positive and negative effect which the work-environment can have on learning results it is clearly necessary to involve the work-environment in the design, implementation and evaluation of training projects.

C. Collaboration between work-environment and the training department.

An example is given below of the organizational structure for training projects which seeks to establish optimal cooperation between the work-environment of those who are to receive training and the designers of the training activity.

Figure 1:

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                        ┌─────────────┐
                        │  Principal  │
                        │     (1)     │
                        └──────┬──────┘
                        ┌──────┴──────────┐
                        │ Project group   │
                        │      (2)        │
                        │  ┌─ ─ ─ ─ ─ ┐   │
                        │  │ Project  │   │
                        │  │ leader   │   │
                        │  │   (3)    │   │
   ┌──────────┬─────────┴──┴──────────┴───┬──────────────┐
┌──┴────────────┐ ┌──────┴────────┐ ┌─────┴─────────┐ ┌──┴────────────┐
│instructional  │-│instructional  │-│instructional  │-│instructional  │
│developer  (4) │ │developer  (4) │ │developer  (4) │ │developer  (4) │
└───────────────┘ └───────────────┘ └───────────────┘ └───────────────┘
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Explanation to fig. 1

1) The principal.

   Composition:

   - usually two persons; a representative of the management team
     from that section of the organization where the training need
     has been identified and the training manager.

   Tasks:

   - to be the first to formulate the training need,

   - to appoint a project leader,

   - to approve the main objectives of the training activity,

   - to approve the budget for the training activity.

2) The project group.

Composition:

The project group is made up of:

- a project leader,
- representatives of the section of the organization in which
  the training need has been identified,
- possibly a representative from the personnel department,
- ad hoc instructural developers,
- depending on the type of training, experts from the research
  department, the data-processing department, external consultants.

Tasks:

- evaluating the product content of the instructional
  developers,
- establishing the difference between alleged and real training
  needs,
- mobilizing support for training activities from within the
  organization,
- drawing up and control of the budget and plan,
- negotiating facilities for training-placements, placement
  supervision and special aids such as computers or simulation.

3) The project leader.

Tasks:

- the day to day running of the project,
- preparing the planning for the project,
- preparing the budget,
- reporting to the principal,
- selecting and supervising the developers,
- initiating the sequential steps in the development
  process,
- chairman of the project group.

4) The instructional developers.

The number of developers depends on the size of the task

components of the function for which training will be given,

the duration of the project and the amount of development work

involved.

The developers perform the following tasks:

- they carry out job analyses and target population analyses,
- they formulate concrete learning objectives,
- they select evaluation criteria,
- they construct an evaluative instrument and tests,
- they construct learning situations,
- they collate teaching materials and select media,
- they create the necessary preconditions for the implementation
  of the training activity,
- they train the trainers and job-instructors,
- they supervise the try-out of the training activity,
- they evaluate the training activity,
- they measure the longer-term effects,
- they usually act as trainer during the first try-outs.

D. <u>Training development model.</u>

Figure 2)

The training development model (fig. 2) is a simplified version

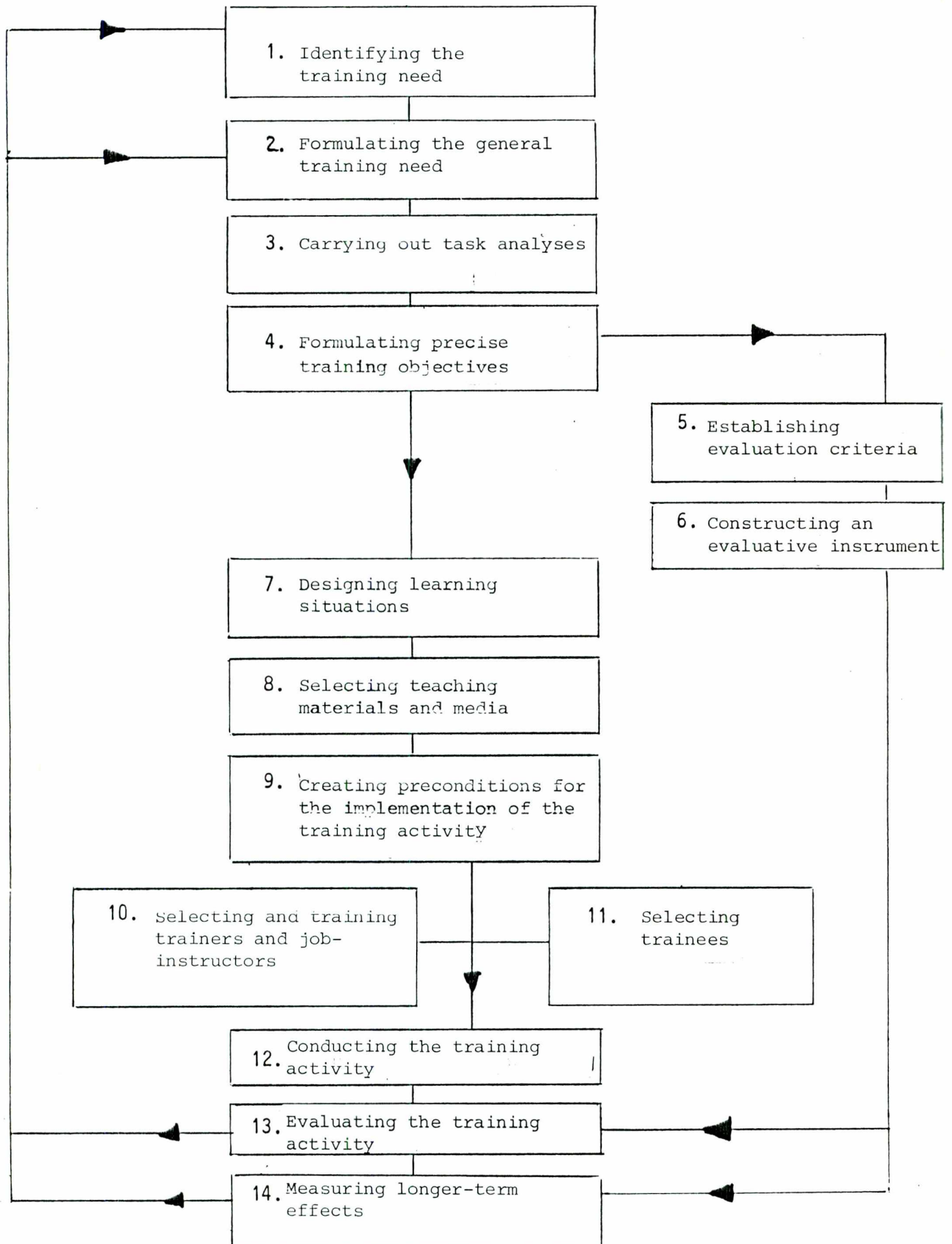of Tracey's Model (Tracey 1971).

In the following description of the steps from figure 2) all

aspects of planning, development, implementation and evaluation

of training activities are discussed.

It is indicated how much each step can contribute to specific

innovation goals.

<u>Step 1: Identifying the training need</u>

Identifying a training need is the particular responsibility

of the organization's management.

FIGURE 2

1. Identifying the training need

2. Formulating the general training need

3. Carrying out task analyses

4. Formulating precise training objectives

5. Establishing evaluation criteria

6. Constructing an evaluative instrument

7. Designing learning situations

8. Selecting teaching materials and media

9. Creating preconditions for the implementation of the training activity

10. Selecting and training trainers and job-instructors

11. Selecting trainees

12. Conducting the training activity

13. Evaluating the training activity

14. Measuring longer-term effects

The training need may arise as a result of:

- new staff entries into the organization,
- a horizontal shift of personnel to other jobs,
- a vertical shift of personnel to other jobs,
- changes in work processes e.g. renovation, reorganization, computerization,
- changes in social policy such as widening of tasks, stimulation of mobility, new consulting structures or delegation of responsibilities,
- loss of quality and irregularities caused by inadequate skills and knowledge on the part of personnel,
- general policy measures which aim to:
  = improve the quality of the finished product,
  = a lower unit cost,
  = improve client-orientation,
  = increase the organization's flexibility,
  = stimulate innovation within the organization.

In identifying the training need it is necessary to keep in mind, that a training need arises the moment employees do not have the necessary qualifications.

Formally speaking, training activities can be geared exclusively to the acquisition of qualifications. Phenomena like demotivation, low productivity and absenteism do not necessarily have to be caused by a lack of qualifications. These phenomena in themselves do not therefore automatically lead to a training need (see also Zenger 1983).

That's why it is very important always to pin-point those organizational problems which are also training problems at the same time. This element of caution does not detract from the fact that training activities can provide important support in solving organizational problems and particularly in realizing innovation goals.

For instance: The innovation goal of "decentralizing responsibilities" corresponds with the following qualification requirements: an understanding of the structure of decisionmaking, an understanding of the structures of cooperation and an aptitude for setting up consultation throughout the organization.

Step 2: Formulating the general training goals

Management formulates a number of general training goals in
consultation with the trainers on the basis of a real training
need.

The training goals contain a description of the required or desired
qualifications which originate from a problem which has been identi-
fied and out of which the training need has arisen.

For example:

- An employee has to be able to service machines of types x, y and
  z; in addition the employee should also be able to repair faults
  in such a way that machine breakdown-time is shortened.
- The employee is able to manage a regional sales unit in such a
  way that his staff is stimulated to be customer-orientated.
- The employee is able to act as project leader to a computerization
  program to the effect that the computerization goals are
  realized within an agreed plan and budget.

The desired innovation goals can also be described in the form of
general training goals on condition that these innovation goals
are expressed in terms of the behaviour manifested by the individual
employee.

In his consultation with management the trainer will have to ascertain,
whether a real need for training exists. The training activity to be
developed has to provide a solution to the problem which has been
identified by management or should at least contribute to such a
solution. If this is not the case, the trainer takes on an impossible
assignment.

In those cases where there is doubt as to whether the problem in hand
is a training problem or not, or where there are indications that the
problem can not be solved by training alone, the trainer does well
to carry out additional research into the need for training.

An example of such a situation follows below:

The following problem came to the fore within the administration of
social insurance legislation: many of the doctors who are responsible
for diagnosing the possible causes for the varying degrees of disability
which prevent an employee from being able to do his job, were
having problems in establishing causes for disability to work of a
psycho-social nature fairly.

The management then decided to have a training program developed,
which was aimed at teaching those involved to recognize the psycho-
social problems of applicants for disability benefits. The results
of an additional requirement study showed, that the problem did not
reside in recognizing the psycho-social problems but in the lack
of clarity of legislation on the subject of psycho-social problems
as a cause for disability. Additional training in recognizing
social problems for these doctors would not have helped to solve
the problem of the lack of clarity of the law on this point.
Similar problems often arise around the concept of "management".
When a department does not function properly, the problem is often
rapidly restated as inefficient management. Sending the head of
the department to a management course is seen as the way to try
and solve the problem. In offering such a course as a solution
to the problem of a department which does not function properly,
things like inefficient cooperation between department, demotivated
staff, absenteism, inefficient work procedures, etc. are over-
looked.

The training department should have a degree of status and authority
in consultations with management, if it is to react in a well-balanced
and critical way to the perceived training need.

Trainers who eagerly honour every request for training with a more
or less impressive course, without a critical appraisal of the problem
for which training is sought, render the organization a disservice.
This critical apparaisal of the problem and as such of the assignment
which management wishes to give the training department, is one of
the first opportunities for the trainer to exercise a directing
influence in initiating change.

Step 3: Carrying out task analyses

Any training program that seeks to establish a close correlation
with the tasks that have to be carried out within a job, has to
be based on a thorough task analysis.

Training which is not based on task analyses can easily get
bogged-down in general theory, from which it is difficult for
the trainee to derive any practical use in his work situation.
It is practically impossible to incorporate technical-instrumental
skills in a training program without the use of task analyses.
Without task analyses social skills do not get beyond such generali-
ties as listening exercises and exercises in communication.
The trainee has great difficulty in applying these skills in his
actual job.
Task analyses are indispensable if the organization is to get any
measure of a marked useful effect from the training activity.
A number of elements of the educational task analysis are mentioned
below without specific reference to their individual characteristics:
- study of source material: job-descriptions, log-books, analyses
                            of failure.
- observations   : with or without video's/photographs;
                            doing the work oneself;
                            consulting a forum of experts;
                            a critical incident method.
- conversational and structured interviews.
The result of such task analyses are invaluable to the further
development of training programs.
The trainer/developer gets to know the kind of work his future
trainees do through and through. The task analysis also uncovers
the real training need. As a result of his intensive contact with
the work situation, the developer is also able to indicate for which
of the problems, that have been identified in a particular work
situation, training can be a solution and for which it can not.
In many cases the results of task analyses show, that in the
actual work place, work is n't done according to the book. The research
results are the basis for fundamental discussions within the project
group. From these discussions proposals can be formulated for the
principal in order to effect changes in the work situation.
In addition plans can be drawn up which deal with the way in which
changes in task performance can be achieved by means of training
activities.

Task analyses for new jobs and tasks are a separate issue.
Examples of this are task analyses for training programs for jobs
which develop out of computerization or as a result of far-reaching
reorganization of work processes.

The methodical problems related to such task analyses go beyond
the scope of this description and will not be taken further into
consideration here.

Task analysis is in fact the most important instrument for diagnosis
at the development stage of new training activities. The research
results from this stage will largely determine the form and content
of the new training activity.

Step 4: Formulating precise training objectives

Training objectives are extrapolated from the research results of
task analyses. In principle we need three categories of training
objectives for the further development of training programs:
1) cognitive objectives (knowledge, insight, problemsolving).
2) skill objectives (psycho-motor).
3) affective objectives (attitudes).
This breakdown into three categories is important in constructing
learning situations: a psycho-motor skill requires a different
instructional activity from a cognitive skill.

For the purpose of measuring the results-effects after training
has ended, it is important to formulate training objectives which
are as precisely behaviourally stated as possible. In formulating
the training objectives, the principal provides the trainer with
his most extensive brief: "Train my employee so that he can do this,
that and the other in his job".

One can however not expect the principal to formulate concrete
training objectives, for this is a specialized educational activity.
The principal does of course have to approve the training objectives.

Step 5 and 6: Establishing evaluation criteria and constructing
an evaluative instrument

The methodology for selecting evaluation criteria and constructing
an evaluative instrument is primarily an educational matter.

It is a matter of primary importance however that the principal
and the trainer consult each other about evaluation criteria,
for these evaluation criteria will be used for determining the
useful effect of the training activity. We set the selection
stage of evaluation criteria and construction of an evaluative
instrument immediately after the formulation of training objectives,
because the evaluation criteria follow on naturally from the
training objectives. The evaluation criteria form the standards
for the degree to which the training objectives have been achieved.
In traditional training practice the selection of evaluation
criteria is often left till the moment training has ended.
It is a well-known fact that some trainers make a survey of the
total number of mistakes before they start marking their trainees
papers. They then assess the degree of difficulty of the assign-
ment and only then do they start marking the papers. In such
cases the evaluation criteria are not determined by the objectives
which need to be achieved, but by the arbitrary performance of
that particular group of trainees. Research has shown, that this
type of assessment always gives a standard distribution i.e.:
around a quarter of all papers are marked "good", two quarters
of the papers "sufficient" and one quarter "insufficient or very
insufficient". This phenomenon is known as "Posthumus's Law"
(Posthumus 1940 and De Groot 1972).
Another fundamental objection against selecting evaluation criteria
at the end of a training activity is, that if evaluation criteria
are selected once the teaching material has been developed and
training has already been given, one runs the risk that the
criteria will be derived from the subject-matter that has been
covered rather than from the training objectives.
The formulation of evaluation criteria needs to be stated in
terms of measurable behaviour.

Step 7 and 8: Designing learning situations and selecting teaching
              materials

Designing instructional methods and sequences is the activity,
whereby each objective is matched with a corresponding type of
training which is suitable for achieving that particular objective.

This choice will largely depend on the type of teaching strategy that one wants to apply. Trainers do however have a tendency to try to achieve the different training objectives, including skill objectives and affective objectives, by means of cognitive learning-processes. In doing this, they also tend to opt for those cognitive learning processes in which the trainee is passive and the teacher active. This is a disaster for job-orientated training: For the trainee must therefore be given the opportunity to really practice the behaviour described in the objective during training. Carried through consistently this means that the training situation begins to resemble the work situation more and more. Training activities structured in this way prove to be an effective means of preparing (new) staff for their (new) jobs.

When one prepares staff for new functions, which do not as yet exist within the organization at the time of training (e.g. operators after computerization), one may be sorely tempted to start training in a passive and theoretical way.

In these situations it may be worth considering creating training-placements in organizations which already have similar functions or to introduce simulation techniques into the training.

The contribution of training to change or innovation in whatever form diminishes as the training activity loses its relevance to the behaviour described in the training objectives.

Other factors involved in the design of new training activities are: the motivation of trainees, their ability to absorb information, alternating work forms, group development, the role of assignments on placements and practical work.

Step 9 and 10: Creating preconditions for the implementation of the training activity, selecting trainers and job-instructors

From a prospect of change, selecting and preparing the trainers and job-instructors plays an important role in creating the preconditions for a successful training activity. A major problem in selecting instructors for job-orientated training activities is, that they very soon start to behave like schoolteachers who transfer information.

Particularly those instructors who have not received adequate
instruction for this type of training activity, will tend to
copy this behaviour of teachers who work within the traditional
education system. In their opinion training is often adequate
with transferring knowledge.

Transferring knowledge and lecturing inevitably lead to passive
forms of learning and the learning result for a job-orientated
training activity is very limited.

We call this tendency to copy the behaviour of the traditional
teacher -"traditionalization"-. This process of traditionalization,
which takes place within a relatively short period of time in
many trainers, severely impairs the achievement of job- and change-
orientated training objectives. The trainee becomes passive,
there is very little skills training and the direct preparation
for the job which is to be carried out, is left to a greater or
lesser extent to the imagination of the individual trainee.

We see the trainer of job-orientated training activities primarily
as someone who guides and supervises the learning process;
as someone who puts the trainee in a training situation which
bears great resemblance to the work situation.

The trainer activates the trainee through assignments which are
directed at realizing cognitive, skill and affective objectives.
The instructor introduces problem situations which are derived
from the work environment, stimulates the trainee to search for
possible solutions, and gives feedback on the learning results.

The role of the job-instructor is essentially the same.
The difference with the trainer is, that the job-instructor super-
vises the learning process at the workplace itself and that he
works with one or at most two trainees.

The learning situation is created by means of training assignments
that have to be carried out in the workplace or by real problem
situations which occur within the job-situation during the period
of placement.

The process of traditionalization does however also occurs frequent-
ly amongst job-instructors.

Where the job-instructors have not received adequate training and in the absence of clear pre-constructed training assignments, they too are seen to take on the role of schoolteacher. We come across situations where the job-instructor, who is supposed to supervise the various tasks performed by the trainee, leaves the workplace altogether to withdraw into a separate room with a number of trainees in order to teach -book in hand-.

The following five precautions have to be taken in order to stave off the danger of traditionalization:

1) At stages 7 and 8 many assignments will have to be made which force the trainee to participate actively in training. This applies both to assignments which are part of the formal teaching by the trainer and to training assignments during placements.

2) During stage 10 the trainers and job-instructors have to be trained to supervise trainees and learning processes in a job-orientated way. The trainers and job-instructors themselves have to be able to perform the job or tasks they are teaching as intended in the training objectives.

3) Where innovation goals are realized by means of training, trainers and job-instructors will first have to do the program themselves in order to comply with the requirements set out in the training objectives.
   Giving job-orientated training to the instructors themselves also helps to create a favourable training climate for the trainees who follow.

4) During stage 9 the training department will need to prepare a presentation on the training activity for management and the heads of those departments from which trainees will be recruited. Such an introduction encourages heads of department to make enough time and space available to enable trainees to benefit fully from training. Such a present action will furthermore create a positive attitude towards the envisaged training objectives and the innovation goals amongst management and departmental heads.

A serious presentation and supply of information on new training activities for management and departmental heads generate positive support for these activities throughout the organization.

5) During stage 9 proper accomodation for training, media tools, aids, and equipment will have to be assembled so that the learning situations designed during stage 7 can be implemented. It is n't enough to have a classroom and a blackboard: it is necessary to start from the principle, that in essence the teaching environment should resemble the work environment as closely as possible. It is almost impossible to conduct job-orientated training in a classroom which is in no way different from the classroom in secondary education; whereas such surroundings do invite theoretical lectures, which resemble lessons in school, to which the trainees can no longer pay any attention after ten minutes

The mere fact that such aids as overhead projectors, video's or computers are used in training is of course in itself no guarantee whatsoever for professional didactic action.

The computer in particular can easily be applied in a very traditional way, for instance as an aid in computer programmed instruction. For intelligent ways of exploiting the computer's possibilities one should look towards such things as simulating complex problem situations, training analytical thought processes for e.g. decisionmaking processes or systematic detection of faults.

It also makes sense to use the computer as a support in imparting and assimilating large quantities of factual knowledge.

Step 11: Selecting trainees

For job-orientated training, trainees are obviously selected who are in actual fact going to perform this particular function.

Even though this statement is clearly self-evident, in practice
there are a large number of other considerations in selecting
an employee for training:
- The employee has n't had any training for a long time,
- The employee has been making rather a lot of mistakes
  lately,
- The employee is up for promotion and needs to have done
  a number of special courses in order to get promoted,
- The employee is the oldest member of his group,
- The employee has worked longest in the department,
- The head of the department wants to create a pool of
  trained staff in order to be prepared to fill future
  vacancies which arise through loss of personnel or in
  order to be prepared for unpredictable developments.
Hence, the selection procedure appears to involve elements of
reasoning, which make training into a reward or punitive measure,
a prerequisite for promotion, an honour or a vested privilege.
These are based on the assumption, that training programs are
intended as an investment in the individual employee, to increase
his value to the company in order to improve the organization's
product in the end.
When course participants are selected on these grounds, the
training result is very limited.
In general it is important to select only those employees for
training, who will actually be performing the job and tasks for
which training is conducted; who are motivated to do this and
who will infect others with their enthousiasm for innovation.
It is furthermore important for the trainee's superior to be
fully in support of the training goals, for if this is not the
case the training result will be lost upon return to the department.
Where training activities are used to realize innovation goals
which concern the organization as a whole and which are aimed for
instance at developing a certain value such as "client-orientation",
everyone from top to bottom within the organization will have
to participate in the training activities.

Step 12: Conducting the training activity

This is the point at which the actual learning process starts
for the trainee.

In the case of a new training activity the program designers will
be looking on anxiously to see how the intended learning process
unfolds.

They will observe the environment's reaction to the new training
activity. They are well advised to be flexible about their planned
program and to alter it when they are getting signals to that effect.
The time effort and care with which training programs are devised
not infrequently stand in the way of a flexible adjustment.

In general it is hard to acknowledge criticism to the training
program. It is very easy to find other factors than the program to
be blamed for failing.

Necessary adjustments that crop up frequently are: replacing
instructional methods that do not take off, allocating more time
to individual skills training or devising a more balanced time-
table for the different training activities.

Step 13 and 14: Evaluating the training activity and measuring
its longer-term effects

If the evaluation of training is a part of the trainers expertise
that is still in it's infancy, measuring the longer-term effects
of training is as yet completely virgin territory.

This also goes to explain why many training departments have
such a weak position within their organizations: They are unable to
show what effect their efforts will have in the short or longer-
term. They are unable to show in what way training contributes
to increased production, the quality of the product, motivation
amongst staff, in reducing absenteism and in reducing the number
of accidents at work.

In those organizations where management believes wholeheartily
in training, the training department can develop great activity.

In those organizations however, where the training department
is regarded as a luxury-item full of know-alls, who stick their
noses into everything and who know nothing about anything, the
training department is doomed to disappear rapidly in the wake
of a cost-saving operation.

Is it really that difficult to make the useful results of training
visible?

The problem could be defined as follows:

In the final instance training will have to contribute to the
achievement of organizational goals. The way in which these organi-
zational goals are to be realized depends largely on the prevailing
image of well-run organizations such as e.g. Scientific Management,
Management by Objectives, Quality Circles and for the present the
Characteristics of Excellence (Peters & Waterman 1982).

If we want to use training as a contributing factor to achieving
organizational goals according to the way in which excellent
organizations do this, one will have to determine the behavioural
characteristics of the "excellent" manager and the "excellent"
employee. One will have to base a training program on these
behavioural characteristics.

During the evaluation of the training one will have to try and
establish, whether the trainees do indeed show the intended
"excellent" behaviour. For the longer term it will be necessary
to establish, whether this excellent behaviour has contributed
to a more successful realization of the organizational goals.

If there has been no improvement, the following possibilities
arise:

- This "excellent" behaviour was not excellent enough to
  procure a more successful realization of the organizational
  goals.

- The training has not been sufficient to enable the trainees to
  master the excellent behaviour.

- There are factors outside the training activity, which have
  undone the learning effect.

In order to measure the effect it is very important to try and express the training result in terms of stated behaviour.
It is furthermore important to relate the training results in a credible fashion to quantifiable products such as the number of accidents at work, the number of customer-complaints, changes in the level of wharehouse stocks, spare parts, machine-breakdown time, disciplinary measures, etc.
Training activities based on vaguely defined objectives such as: "modern management", "working together in groups", "basis of data-processing", "the basic principles of electrical engineering", "advanced management", are doomed to produce unquantifiable products if they fail to operationalize these goals through stated behaviour. The absence of the latter leads many trainers to say, that their effects can not be measured. Especially in those instances where training is to contribute to processes of change, it is essential to make the product of training visual in the form of stated behaviour and quantifiable products, so that the degree of change and the role of training in this change can be measured.
Quantifying training results does however continue to be a major problem.
It is possible to test the degree of enthousiasm and the way in which the intended improvements are perceived in the direct work environment, by interviewing trainees and their superiors.
It is essential to involve the job-instructor too in this type of evaluation; for he is the direct intermediary between training and work environment.
In organizations it is n't enough for training that the training-program is good. It is of prime importance that the training results are implemented in the work environment.

E) CONCLUSION

It is important to study the ways in which training activities can influence the work environment of the individual trained within the context of a discussion of training as an instrument for innovation.

Purposeful changes concerns structures, groups and individuals.
Individuals can fall within the area of influence of training
activities. The more so as training can be defined as a purpose-
ful change (of behaviour) in individuals as a result of learning
processes. It is therefore necessary to indicate precisely
which objectives for change within a process of innovation are
eligible to be pursued by means of training.
In stage 1 to 14 of the training development model the goals
for optimal achievement are elaborated step by step. The direct
work environment of the employees who are to be trained, will
have to be closely involved in elaborating these steps, so that
it can contribute in consolidating the achieved learning results
at a later stage.
The project organization described in figure 1) is a sound
organizational framework for an elaboration of step 1 to 14 of
the development model which ensures optimal involvement of the
work environment of the trainee.

TRAINING AS AN INSTRUMENT FOR INNOVATION

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