

VETwin-win

MODULE 3

Self organised learning processes and situations conducive to learning in the working process. The design of action oriented and self organised learning.

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General guidelines for the module

An indispensable element of this further training, which applies to all modules, is the particular methodical orientation. It should cover the target subject comprehensively, namely modern, action oriented learning methods which the tutors do not instruct but see themselves rather as learning guides for the learners. Since none of the modules contain pure dissemination of knowledge but rather new practical ability on which for the design of the interlinking processes of vocational training and operational further training should be built, connect the participants with learning in presence seminars with online learning, independent learning and learning with practical assignments carried out in their own workplace and in regular group meetings with other participants and the learning guide can be evaluated, assimilated and theoretically applied.

I. Preliminary notes to Module 3

The aims and objectives of this module

In Module 3 the participants learn to plan the concept of vocational training approaches which relate to the basic considerations of self organised learning and competence reinforced learning through activities; the focus is on action oriented forms of learning in the working process, characterised by a variety of methods and supplemented by forms of institutional teaching and instruction introduced at key points.

This concept of vocational training, which departs significantly from the traditional notions of teaching, calls for some appropriate changes in the understanding of the role and tasks of the tutors. Independent learning is only possible if the tutor allows for freeboard and recognises and designs the workplace as a learning location.

In concrete terms this means that learning process guidance calls for a new understanding of the tutor as one who creates and guides the optimum situation. Learning from company tasks is particularly important in this case.

Learning objectives and contents of the module

- Characteristics of self organised learning
- Didactic-methodical pointers and methods of self organised learning
- Methods in self organised learning
- Content of self organised learning
- Framework conditions for self paced learning
- Self organised learning with digital media
- Concept of learning arrangements as an example of self paced learning

What the participants/learners should know in conclusion

- The participants can impart the methods and aspects of self paced learning,
- The participants can take an active role in the development of future vocational training programmes,
- The participants can apply the modern learning methods in the working process,
- The participants acquire independence and assurance when using the new approaches to learning,
- The participants assimilate the new role of the instructor as a learning guide and can assume the position of a learning guide.

Requirements for the self learning process

The participants develop a learning arrangement independently with elements of self organised learning from the vocational activity in this module and present the result to the learning group.

General methodical notes for the instructors

- The further education culminates in the exchange of presence seminars, practice and the provision of study material through the online learning platform
- Teamwork should be primarily organised in the presence seminars
- The learning and work assignments of the participants are presented.

II. Contents and practical assignments

Contents

- 3.1 Characteristics of self organised learning
- 3.2 Didactic-methodical pointers on self organised learning
 - 3.2.1 Self acquired situation analysis
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- 3.3 The learning objective of self organised learning
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Practical tasks

3.1 Characteristics of self organised learning

Self organised learning concerns the spatial and temporal order, the means and the grouping of people in the learning process.

The learning process is dictated by the workplace, the working process and the individual qualification status, the freeboard lies in the personal methodical procedure, self organisation and personal control of the learning progress.

It may be contradictory to wish to "organise" self organised learning. However, if one considers the problematics in more depth, it does appear logical from the didactic-methodical aspect to offer some recommendations, pointers and framework conditions for self paced learning for the

- learners and the
- learning advisor (tutor, instructor, coach, guide, teacher, etc.)

Self organised learning also has the same characteristics as any other form of learning.

That means in brief:

- Self organised learning is information processing. Success with information acquisition and the availability of information are therefore linked. The information is often acquired from the activity. The processing of information is always linked to the evaluation. The evaluation relates in turn has the individual experience of the learners and the results of the self organised learning. An adult has therefore less learning needs when carrying out a task.
- Self organised learning is a memory exercise. The retention content is therefore called for in self organised learning, which is often dependent on the activity and situation. Earlier experience in learning is of great importance to self organised learning. Effective self organised learning needs therefore technical, methodical and quality consciousness.
- Self organised learning consequently leads to changes in the learner's action and behaviour at work. The success of self organised learning can be measured through this.¹

Self organised learning also has special characteristics which distinguish it from other forms of learning. These include the fact that:

- Self organised learning has stronger links to the activity than other forms of learning.
- Self organised learning is conscious learning. The necessary learning methods and forms of organisation are consciously selected and personally considered.
- Self organised learning is not free from external influences and requires therefore more defined framework conditions which are either created by the learners themselves, by the company, the training facility or the school.

Motivation, activity, freedom of movement, volume of information and contact are especially relevant factors for self organised learning.

- Self organised learning requires a motivation to learn.
- Self organised learning has stronger links than other forms of learning to personal mental activity.
- Self organised learning requires freedom of movement for the learners. This freedom of movement concerns in particular the times, implementation, scope, the learning means and choice of learning methods.

¹ Quelle: itf Schwerin, Dr. H. J. Buggenhagen.

- Self organised learning is dependent on sufficient information and access thereto.
- Self organised learning is also dependent on social contact with other learners to compare themselves, learn from them and pass on their acquired knowledge to others.

3.2 Didactic-methodical pointers on self organised learning

Self organised learning can be supported principally by two didactic-methodical means:

- By direct support of the learners, in which learning strategies, problem recognition, solutions and evaluation are taught and offered in direct relation to the respective learning task,
- by indirect support of the learners, in which learning friendly conditions, structures and learning tasks pose a mental challenge.

Both means of support for self organised learning lead in their uniformity to an individual learning culture which promotes life long, self organised learning.

3.2.1 The self acquired situation analysis

First of all, the requirements and conditions of an activity field must be analysed. The work location, the workplace and its conditions as well as the task are generally predefined. The task describes important elements of the working situation, of which communication and cooperation conditions and the group relationship are all a part. The individual learning needs can be derived from the comparison between the requirements and the individual prerequisites and the learning intention and objective can be defined. The projected acquisition of information is the source for the learning contents. The aims and contents can be then understood as a learning task and conveyed as a learning arrangement. The analysis of problem situations, for which there are no specifications, is more difficult. In such cases prior knowledge, observation of the situation, trial and error based on hypotheses from which known phases of the problem analysis from which a learning task can be derived. It is common in all kinds of situation analysis that a given situation cannot be clearly and completely seen at the beginning of the activity. The situation analysis of the activity and studying field can only be developed and specified with progressive activity. This is a significant difference compared with formal learning processes in which the learning situation and the learning task are predefined.

3.2.2 The analysis of the individual requirements

The second approach is the recording of the subjective requirements which include both the previous experience, qualifications, motivation, competences and results. It should be taken into account that the individual requirements have an effect on each other and can impede, compensate or strengthen. The whole breadth of the "profile" must therefore always to be included.

The situation analysis is both a condition and comparison scale for the determination of the subjective requirements. Examples for these methods are the examination, the interview, the assessment center or simply the feedback. Their results usually lead to further education measures. However, they can also initiate informal learning processes which are not absolutely tied to certain activities. The creation of a personal learning arrangement aims however at the subjective requirements for studying informally. In this case too, the learners can present the results from the external assessments mentioned above. These are however not usually available. Only the self-assessment which arises from the requirements for the activity in question is then left to the learners, to find their own prerequisites for self organised

learning. Such a self-assessment starts quite simply with questions such as "Can I do it?" in conjunction with questions raised in the informal learning such as "What can I learn from this?"

A self-assessment which covers previous experience, qualifications, competences, motivations and results is necessary for conscious, efficiently coordinated self organised learning. This places high demands on the learners, particularly since the self-assessment does not only confine itself to a single act but also requires an improvement in the activity and learning process. So it is not at all a rigid self image but rather a process of conscious self image development which frequently requires a little accompanying advice.

3.3 The learning objectives of self organised learning

A decisive step for this self organized study is the selection of a learning objective. The objective does not target certain acquired knowledge, development of knowledge or personality. It focuses rather on a successful action or a desired behaviour, includes the assessment of this behaviour and action and therefore the corresponding motivation.

In other words: the aim of self organised learning is primarily purpose oriented. Only after the purpose orientation of the learning objective itself can the learners coordinate the required knowledge, abilities and skills as target components to suit their personality development.

Unlike the objectives in formal and institutionally organised learning processes, the aims of self organised learning are not stipulated. However, aims are also essential for informal learning. They must be developed only by the learners themselves in the course of the activity, i.e. simultaneously developed during learning. These aims are therefore inevitably inaccurate or unclear at the beginning and are specified or corrected only during the activity.

Learning objectives in the orientation phase

Learning in the orientation phase can be a useful aid. This is particularly the case if complex and complicated activities are subdivided into activity periods and a new orientation phase is required for every period. In every orientation phase a new model is developed for the next activity period to include new objectives for the next learning sequences, learning files or learning actions.

Learning objectives in the implementation phase

Self organised learning is frequently empirical learning. This can be seen particularly in the implementation phase, i.e. directly from the behaviour and actions. The experience or the development of competences can only be gained by the learners as a whole and in connection with certain activities. Here the objective represents rather a direction of learning chosen by the learners themselves. Individual steps in the intended direction or direction changes are then determined in the course of the activity.

Learning objectives in the control phase

The control phase consists primarily of the critical reflection of the activity and its result; this enables the recording of the learning result. The acquired experience and approved internal models are judged, collated and stored. This ultimately permits a critique of the objectives which were met before and during the activity. From this critique experience is developed in the listing of learning objectives which have an influence on further informal, activity integrated learning processes.

3.4 The contents of self organised learning

The learning content in self organized study is the information gained from the activity and in learning. The contents cannot therefore be determined or prepared before the beginning of learning as is the case in formal learning in schools, programmes or courses. The contents of learning can only be produced first in the activity and in learning - they are so to speak a product of both the activity and learning themselves.

The sources of the studying contents

The sources of the studying contents consist in three different information sources:

1. The first and most important source is the perception and observation of the fields of activity, the cooperation partner, the activity course, the activity results and their consequences. The extraction of the learning contents depends very much on the perception and quality of the observation and exhibits therefore more or less strong individual differences.
2. Secondly, apart from the activity, sources have a certain significance for learning in this activity. They are primarily communication with other people and the media, including external storage. This information dates partly from earlier learning processes and is committed to memory. On the other hand, this information becomes directly a part of the process of activity or is brought in by the learners, e.g. in the case of external storage.
3. The third source of studying contents is personal recollection, which represents a repetition of a learning process. The reproduced memory however calls primarily for the processing of the information from the two other sources. In this way new information is gathered and serves to regulate actions and behaviour or the expansion and und correction of memory.

Processing the information on learning content

The information collected or reproduced from the various sources becomes the learning content of conscious learning processes in which they are accordingly produced, primarily in the course of the process. This is notable because the contents are also learned with just this process. This occurs in four respects:

1. The most important and probably also most difficult form of processing is the interpretation. The interpretation includes explaining and understanding the prerequisites for the application and ability. This means distinguishing what is meant and how it happens.

The elements to distinguish are sounds and noises, symbols and signals, the composition and the workability of materials, working models, instructions for use and operation, actions and behaviour of people as well as the oral information from the communication.
The comparison between personal experience and the experience of others is transmitted by communication and media and subsequently interpreted.
2. The assessment, together with the interpretation, plays an important role in the processing of the information on the contents of learning processes. The assessment is based on the one hand on personal needs and on the other hand on the rules and norms for actions and behaviour, e.g. within an enterprise. The information on the activity itself is judged specifically on the purpose of the activity and its usefulness. In addition, there is the assessment of cooperation in this activity. The assessment of individual behaviour and the behaviour of others is also subsequently included.

3. The choice of learning content is made on the basis of interpretation and assessment. The main criterion for the choice with regard to self organised learning is deciding whether the information or contents are relevant to the activity in question. If there is little available time for action and learning, it is often necessary to choose between contents which are relevant and very important for the activity, the result and for the persons involved and other contents which are in fact relevant but less important.

A further choice of criterion is the quantity of information because the learners have only a limited intake capacity for information. In real activities, vocational work and voluntary activities this is difficult to control because the amount of information depends on these activities and not the persons involved. It should also be considered that with a flood of information only fragments can be learned so that the activity performed may be ultimately incomplete.

4. A fourth form of processing is the order of the information or contents. This order is primarily determined by the activity because the behaviour and actions also affect the order of the information to be raised.
The order of the information arising from the activity with information from other sources is arranged in the individual learning and thought process and does not require any changes to the activity; it could however also have effects. In any case, here the learners need frequent "pauses for thought" in the activity.

An essential difference must be considered when processing information on contents rather than externally organised learning. The processing of the contents is already provided in schools, courses etc. In self organised learning the learners must handle the entire processing themselves. The greatest difficulty lies perhaps in defining the personal aim and in the extraction of the contents to enable self organised learning.

3.5 Methods in self organised learning

This involves first the complete repertoire of available methods rather than single methods. The implementation of the methods extends over the entire learning process. These methods needed for self organised learning can be divided into three groups. They are seldom adequate when used singly; in general one method is used together with a method from another group.

The first group contains the activities themselves which become methods for the learning process. These include trial learning, exploratory learning, training and simulation. These are relatively general methods which are combined with many activities. In addition, special learning methods result from the infinite number of specific activities.

Methods of the thinking can be summarized in a second group; these arise in any case in conscious activity and are used as methods of activity integrated learning. These are chiefly logical methods such as the analytical and the synthetic methods. The operating methods play a special role in activity integrated learning methods in the internal model and the variant comparison which supplement and enrich the classical methods, particularly in the orientation phase of an activity.

The employed persons have become so used to these methods that they are not always conscious of them. The application as learning methods raises their consciousness again so that a higher awareness of the activity also results.

The third group involves the perception methods and the observance which are used mostly together with methods from the first or second group.

3.6 Self organised learning with digital media (E-Learning)

E-learning in enterprises

Self organised learning In the working process will in the future be applied primarily with digital media, i.e. as so-called E- learning. The majority of the large-scale enterprises are already using E- learning for initial and further training of their employees. 55 percent of the enterprises with more 1.000 employees already use electronic learning with computer and Internet. Medium-sized companies still have a need for this.

The classical forms of E-learning still have the greatest importance. With internet supported learning with web based training (WBT) the online training is provided and also often worked through online. The WBT takes over the teaching function, presents information systematically, allots tasks, analyses answers and is able to send specific responses to the learners.

In computer based training (CBT) the applications are delivered mostly on a CD-ROM or DVD. The CBT exercise and training programmes serve for practice and consolidation of knowledge. The presence of a coach is not necessarily required. Learning environments of this type are particularly suitable when merely factual knowledge is imparted. The majority of CBT (computer based training) offered on the market are purely exercise programmes.

In teleteaching with video conferences and virtual classrooms the learners are connected directly with each other either by Internet or telephone. Teleteaching is most reminiscent of the traditional presence lesson. In this form of the eLearning lectures, presentations or panel discussions are transferred live (synchronous) or recorded for later use (asynchronous). The learners can then refer back "just in time", to these resources at work, under way or at home. One advantage of teleteaching is that communication is not only one-sided but the learners can also provide questions and discussion points individually.

Web 2.0 tools like Wikis or social networks are coming increasingly the fore in operational further training. A good third of enterprises use Wikis and Weblogs. Companies are increasingly also using Podcasts or Videocasts, i.e. sound or video recordings from seminars which can be run per internet and social networks, in which the participants can conduct exchanges about job relevant topics.

Pedagogic aspects

E-learning has a number of advantages, especially for small and medium-sized enterprises (SMEs), since it has a high didactic potential that offers opportunities for clear presentation, new forms of communication or the individualisation of the learning processes.

Further educational advantages are:

Interaction

Through communication possibilities, such as chats, e-mail, video conferences or discussion fora, enabling interchange between participants, the tutor and other learners. This ensures an effective interaction between assisting tutor and other participants.

Control

The learning success of the participants can be measured by learning target controls, using objective criteria, at the end of a learning module.

Error tolerance

The participants in E-Learning enjoy a risk free environment which tolerates errors and experiments. Errors are pointed out to them without them being "shown up" in front of other participants.

The principal reasons for using e-learning in SMEs are derived from the social development. Under the keywords of lifelong learning, the fact is pronounced as a central theme that the initial training is having ever smaller effects on the further vocational career. Whereas the learning processes were predominant in the working activity up to now, the learning stage is nowadays expanded almost until the end of the working activity. The learning and working world are growing together and the necessity has arisen for a basic rearrangement of the management of learning and knowledge processes in the enterprises. Many learning processes today are conducted directly in through teleteaching with video conferences and virtual classrooms; the participants are connected directly with each other by either Internet or telephone.

E-learning has a significant place in the concept of self paced learning. Under the motto "any time, any place, any path, any pace," E-learning is viewed as universally available and especially relevant in informal learning and operational further training for short-term ("just in time"), job simulation ("precisely in place") demand ("on demand").

The opportunities in E-learning for self paced learning with regard to:

- aims and contents of learning (what),
- methods and social forms (how, with what and with whom) and
- coordination (when, where, how long.)

are being recognised by the enterprises and employees as they see in particular the greater spatial and temporal flexibility of E-learning as advantages when learning.

In the practice however the advantages of e-learning have not always been recognised by enterprises for lifelong learning and informal self paced learning.

3.7 Learning arrangement "Insulation materials" - an example of self paced learning

The learning arrangement for complex "insulation" materials serves for the double qualifications of bricklayers and carpenters. It has been developed to cover both skills and learning location generally for the theoretical and practical training. Every technical subject of the vocational school, the training centre and the enterprises makes a contribution to the integral processing of the learning arrangement. Apart from the independent acquisition of technical knowledge for the subject "insulation" it is primarily general multidiscipline competences which are promoted by the development of the learning arrangement?

Interaction in the learning group

- training of groups, work in groups
- changing phases of single and teamwork
- informal learning and reciprocal information

Self pacing in the learning process

- planning of time, sequences, steps, procedures, orders
- decision for variants, actions, concepts

Here quote mark to working scientifically

- recognition of problems, solution of problems, assessment of problem solutions
- transfer of scientific knowledge of technical construction
- presentation of results

Communication with external experts, enterprises and authorities

- With the opening of the learning locations in schools and industry wide training centres the reality is beginning to materialise.

Tutors and instructors have developed together a job oriented action situation for the processing of the learning arrangement based on a definition of problems.

Problem:

Many older buildings in Germany no longer meet today's requirements for thermal insulation. Too much heating oil is being used with consequent detrimental effects on the environment.

Action situation:

Prepare a proposal for an economical, environmentally friendly thermal insulation for the renovation of the external walls of an older building.

Description of building:

The walls of the house consist of lime sandstone with a volume of 1800 kg/m^3 .

The floor is normal concrete with a volume of 2400 kg/m^3 .

The roof construction is soft wood with a volume of 500 kg/m^3 .

3.7.1 Procedure for the learning arrangement

Support is made available to the trainees for independent problem handling in the form of a guide with drawings, leading questions, references to additional sources of information, procedural tips and further media (reference books, tables, video etc.). In addition, they are given access to the school library. The technical tutor gives an introduction to the problems of insulation and is available during the process of the learning arrangement as an advisor on any problems and questions.

The trainees continue the learning arrangement in the practical vocational training at training centres. A detached house is selected for implementation of the thermal insulation.

The important points when installing thermal insulation are the fitting of the insulation panels to corners and window apertures, the correct spacing of anchorage spars, central location of drip plates in the air cavity and correct insertion of both moisture barriers. In the interest of stability, the height of the layers, plumbines and verticals should be closely observed.

Procedure for the practical training:

1. Analysis of the project assignment
2. Drawing the ground plan on the PC
3. Projection and illustration of adhesive application
4. Projection of the calculation using the Excel program
 - Calculation of
 - Volume
 - Mortar requirements
 - Grouting mortar requirements
 - Material costs
 - Payroll costs
 - Time requirement
5. K - value calculation
6. Practical implementation of assignment

1. Introductory phase

This phase of the learning arrangement determines the motivation and objectives of the trainees.

The starting point is the following problem:

Older buildings no longer meet today's requirements for thermal insulation. Too much heating oil is being used with consequent detrimental effects on the environment.

The trainees have the following assignment:

A customer requires renovation to the walls of an old building. He requires a proposal for an economical, environmentally friendly thermal insulation.

2. Preparatory phase

In this phase the working groups are trained and led through the research into thermal material based on key questions. Questions necessary to the implementation of the assignment are formulated in the working groups. The essential construction and physical elements are jointly coordinated.

3. Planning phase

The partial tasks for the processing of the learning arrangement are defined and noted together with the tutor.

The working steps and the schedule are then decided in the groups.

The tutor supports this phase with hints on the working methods and relevant formulated questions and provides additional information.

In this phase the excursion is planned as independently as possible by the trainees (insulation material manufacturers and processors, building).

- Choice of concern
- Making contact
- Preparing an interview guide
- Organisation of the excursion

4. Implementation phase

The implementation phase involves the following steps

- Making the excursion

The trainees on the conduct a survey based on the guide in the selected concern. They then prepare documentation based on the guide.

- Preparation of the learning assignment aided by key questions
- Preparation of the presentation
- Erstellen einer project folder
- Preparation of a sample collection of insulation material
- Practical exercise

5. Evaluation phase

The evaluation is made in the context of a presentation with tutors, trainees and representatives of the enterprise.

- Simulated customer consultation on the renovation of the exterior walls of an old building
- Presentation of a sample collection of insulation material

3.7.2 Framework conditions for self paced learning

The processing of the learning arrangement makes clear that self paced learning calls for some framework conditions. It requires bigger, well equipped rooms (Metaplan wall, flipchart, video system, and computer). The floor plan must make different kinds of work possible. It must be suitable both for the transfer of information and presentations in the plenum, for work in small groups and for individual work.

A library supports the self paced learning with the necessary reference books and technical literature. However, it must also be possible for the trainees to obtain material, information or media for themselves outside the school if the learning process requires it.

The learning organisation, such as a flexible time schedule, flexible learning group formation, flexible priorities for learning contents and individual planning of the procedure is also a part of self paced learning. Qualified advisers must always be on hand with their experience for advice.

3.7.3 Forms of testing for learning success in self paced learning

In order to be able to, observe, judge and evaluate the learning and working process objectively, guidelines, central questions, or observation papers would be advantageous. The following examples have been used in the processing of learning arrangements: they can be modified depending on the objectives and contents of the learning arrangement or the project.

Example: Guideline

Learning arrangement "Insulation material" preparation and conduct of a presentation.

I. Reference to the assignment:

- naming the assignment
- introducing a solution strategy
- justifying the solution strategy
- convincing representation of results
- defining problems arising from the procedure
- addressing still open questions

II. Reference to the presentation:

- logical arrangement of presentation
- speaking freely based on salient points
- loud and clear delivery
- expressing comprehensively
- stressing the essential s points
- referring to the opening speaker
- supporting presentation by use of media

Example: questions

Learning arrangement "Insulation materials" - fundamentals of thermal insulation

- Which part of a house in particular requires insulation against heat loss?
- Which areas in the construction of a house are directly influenced by thermal insulation?
- Which kind of building requires a special thermal insulation?

What kinds of thermal insulation are there?

Which thermal insulation materials are suitable for the various applications?

Application	Thermal insulation material
-	-
-	-

-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

Prepare an overview of the importance of the thermal insulation from an ecological aspect!

Please explain the following physical fundamentals of thermal insulation!

Physical dimensions	Explanation	Unit of measurement
Temperature		
Heat conductivity calculation		
Heat resistance		
Heat permeability resistance		
Heat exchange coefficient		

Self organised learning in the operational working process

high impact

not yet possible



Learning and working objectives, work assignment , contents	Work assignment from company. Trainees formulate problem and objectives independently	Work assignment from company. Trainees and instructor define objectives and contents jointly	Work assignment from company. Resulting objectives and assignment given by company and service instructors. Trainees structure contents and prepare schedule themselves	Work assignment from company. Instructor defines assignment alone, instructs on objectives, contents and schedule
Resource expenditure Materials	Trainees plan the material application, source and order the materials	Trainees and instructor obtain materials	Trainees choose from material provided	Material is prepared and available
Methods	Free learning methods for trainees, work also outside the training centre	Joint consultation on the best learning and working methods, decision is made by the trainees	Joint consultation on the best learning and working methods; Final recommendation or decision by the instructor	Instructor outlines learning and working methods.
Team formation	Free choice of interests and preferences	Groups are formed on recommendation by trainees	Instructor and training staff influence group formation	Instructor and training staff assemble teams
Role of training instructors	Integrated; advisor if required; almost completely detached	From background, advice, suggestions and hints	Firm structure, interlinked instructions	Requirements and clear instructions, control and observation
E-learning	Trainees are completely self paced with this form of learning. www is fully integrated. They decide for themselves to what extent they use this form of learning.	Instructor supports the E-learning process as tutor	Instructions on self learning units in form of CBT	E-learning is not yet integrated

3.8 Training course for self organised learning in the working process

Self organised learning processes are defined by personal, responsible actions of the trainees, the active acquisition of knowledge and the teaching-learning arrangements which will systematically enable the independent awareness of reality.

The participants learn to plan vocational training procedures in the training course, targeting self organised, competence developing learning by doing. The crucial point is the action oriented form of learning in the working process.

The course aims at a concrete, new understanding of the role of the tutor who creates optimum learning situations and offers guidance.

The concept of the course targets the principle of the experience process. The learning contents are delivered face to face and are also included in the practice and self learning. Each module contains a unit of 20-30 minutes of theoretical input, followed by 60 minutes of practice.

Example of course planning

Institution:	FRG Rumänisch-Deutsche Stiftung Timisoara/Rumänien
Duration of course:	22 hours
Recommended by:	Nicolae Cernei
Location of course:	
Number of participants:	
Target group:	Trainees in the building sector

Competences and learning objectives of participants:

- can define the methods and aspects of self paced learning,
- can assume an active role in the development of future vocational training programmes,
- can apply modern learning methods in the workplace and working process,
- is aware of the responsibility relating to quality management in vocational training.
- is able to implement the self paced learning principle in the development of vocational courses,
- can communicate with instructors so that they can design and guide the appropriate learning processes,
- can define the changing role of the instructors.

Requirements for participants:

- aware of personal learning objectives
- willingness to learn
- Initiative and independence
- acceptance of personal responsibility
- creativity and ability to solve problems
- ability, motivation, concentration and working discipline
- strategies for information research and processing

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2. Simmonds, D. (2008). *Proiectarea și livrarea programelor de training*, Verlag Codecs, Bukarest
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Lfd. No.	Module	Objectives:	Learning activities	Necessary aids	Duration	Remarks
1.	Introduction to the course	Introduction to the course topics; Introduction of participants as a learning group	Information on the participation rules of the course; Evaluation of the course; Agreement on the contents and didactic learning strategies	- Work sheets - Questionnaires	90'	
2.	Points on self paced learning	Identification of the salient learning organisation points in self paced learning	Differences and similarities compared to other forms of learning - comparative analysis	- Coloured cartons	90'	
3.	Didactic - methodical points on self paced learning	Choice and development of the contents of the self paced learning	Development possibilities of the individual learning culture	- Text - Whiteboard - Markers	90'	
4.	Purpose of learning and contents of self paced learning	Formulation of the learning aims of self paced learning; Development of the learning phases of self paced learning	Purpose of the self paced learning developed on the basis of an activity prepared in advance	- Flip chart - Formula sheets	90'	
5.	Methods in self paced learning	Acquisition of the principal methods in self paced learning; Analysis of the self paced learning methods	Self paced learning methods- applicable practical exercises	- Work sheets - PowerPoint presentation	90'	
6.	The result of self paced learning	Definition of the scope of application of the results from self paced learning in actual working situations	Steps in the identification and measurement of the results from the self paced learning	- Pens - Paper - Note pads	90'	

7.	Learning targeting the vocational activity and working process	Development of the learning, targeting the vocational activity and working process	Analysis instruments that support the recognition of development possibilities and the change processes in society, learning steps through cooperation	- Paper - Markers	90'	
8.	Learning stations	Conducive to the contents of self paced learning, the situations and the learning processes in the workplace	Models for learning in the workplace	- PowerPoint presentation - Whiteboard	90'	
9.	Problem solving processes	Identification of alternative strategies for solving problems; Explanation of the importance of systematic planning when solving problems	Finding creative solutions; Use of analogies for solving problems	- Formula sheets - Questionnaires	90'	
10.	Learning through cooperation	Application of the learning assignment through cooperation in the framework of the vocational training	The instructor as an observer Observer, advisor, mentor, facilitates learning activity through cooperation	- Room for each group - Questionnaires	90'	
11.	Final evaluation	Assessment/evaluation of the training measures by the participants	Certificate for participants based on evaluation by the work sector; Feedback from participants on content, methods and result	- Pens - Cartons - Paper - Note pads	90'	

Module 1. Introduction

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Information on the participation rules of the course; Evaluation of the course; Agreement on the contents and didactic learning strategies	Getting to know the participants, Identification of the learning needs	Organisational hints for schedule, Ice breaking exercises, carton ideas	Questionnaire

Module 2. Main points of self paced learning

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Differences and similarities compared to other forms of learning - comparative analysis		Group work, use of equipment, Metaplan	Feedback Evaluation

Module 3. Didactic - methodical points on self paced learning

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Development possibilities of the individual learning culture	Sources of learning contents; Preparation of information on learning contents; Situation analysis; Analysis of personal requirements	Group division Discussion Case study	Feedback Evaluation

Module 4. Purpose of learning and contents of self paced learning

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Purpose of learning and contents of self paced learning and contents of self paced learning	Purpose of learning and contents in the orientation phase, Purpose of learning in the implementation phase, Purpose of learning in the control phase	Frontalunterricht, panel discussion, role play, group discussion	Feedback Evaluation

Module 5. Methods in self paced learning

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Self paced learning methods; applicable practice methods	Strategy of context working, Methods of proficiency reading Group work <i>RICAR</i> (leafing through, questions, individual reading, assimilation of report, repetition),	Group work, role play, exchange of experience	Feedback Evaluation

	<p>Technique <i>PQRST</i> (preview, questions, reading, summary, test)</p> <p>Technique <i>APASE</i> (first training, planning, adaptation, active study, evaluation)</p> <p>Methods of text commentary, Reading technique with preparation of written text, Methods of learning through analysis of contents, Methods of brain mapping, Methods of learning by demonstration</p>		
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Module 6. The result of self paced learning

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Steps in the identification and measurement of the results from the self paced learning	Measuring the reaction, Measuring the learning success- new knowledge and abilities, measuring behaviour	Individual work, comments, interview, case study	Feedback Evaluation

Module 7. Learning targeting the working process

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Analysis instruments that support the recognition of development possibilities and the change processes in society, learning steps through cooperation	Development of learning, exercises targeting the vocational activity, working process and lifelong learning	Group work, examination, Spider web	Feedback Evaluation

Module 8. Learning station

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Models for learning in the workplace	Designing the workplace as a learning station, self paced learning abilities - workplace oriented, the relationship between self paced learning and learning in the workplace	Individual work, presentation, simulation games, examination	Feedback Evaluation

Module 9. Problem solving processes

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Finding creative solutions; Use of analogies for solving problems	Critical thinking, reflexive learning, project work, time management	Group work, brainstorming, planning game	Feedback Evaluation

Module 10. Learning through cooperation

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
The instructor as an observer Observer, advisor, mentor, facilitates learning activity through cooperation Steps in learning through cooperation	Orientation phase, defining the norms, conflict management, productivity, breakdown	Group work, using knowledge, team play between groups	Feedback Evaluation

Module 11. Final evaluation

Suggested activities	Key units of contents	Didactic strategy	Evaluation methods
Certificate for participants based on evaluation by the work sector; Feedback from participants on content, methods and result	Assessment/evaluation of the training measures by the participants	Frontal lesson, seminar critique	Feedback Evaluation