

S 19 Support materials

The learning field concept in Germany

General statements about vocational training in Germany

Vocational training in recognized professions is carried out in conformity with the Berufsbildungsgesetz (BBiG) (Law on professional education) at two learning places: the training enterprise and the vocational school.

Legal bases for the enterprises

- Ausbildungsordnungen (Educational Regulations)
- Law on professional education (BBiG)
- Trade regulations (HwO) on education in handicraft branches (§§ 21-44b), (HwO)
- Jugendarbeitsschutzgesetz, (Law on youth protection) that prescribes among other things a medical examination at the beginning of the formation (by the family doctor or the health office).
- Corresponding legal stipulations can be found in the so called Schwerbehindertengesetz, (Law on handicapped people), in the working time regulations and the law on the protection of motherhood.

Legal bases for the vocational school

- School laws, regulations and curriculum of the Lands

Die authorities charged with vocational training are usually the different chambers (for instance Chamber of Commerce and Trade Chamber of Handicrafts, Chamber of Agriculture, Chamber of Medicine). They approve the training contracts, act as consultants in educational matters (educational consultant), supervise the running of the instruction in the enterprises and organize the examinations (for instance interim examinations, final examinations and qualification examinations)

The vocational training consists of a theoretical and a practical part.

Practical Training

The legal and didactical fundament of the planning, organization and implementation of the practical training in an enterprise are the educational regulations. They contain the commitment to provide basic instruction, expert qualification and professional experiences enabling the trainees to exercise a profession in a qualified way. Vocational training must be provided systematically. It has to be arranged in such a way that the educational target is reached within the expected period of time. To this purpose the enterprises work out their instruction plan on the basis of the educational regulation.

The aim of the instruction regulation is the setting of educational standards for the enterprises and the uniform shaping of the instruction in Germany. The contents are derived from the requirements of the professional and labour world and condensed as professional profiles.

Moreover, the instruction regulations intend to adjust permanently the contents to the transforming technical, economical and social conditions and requirements.

The smallest size of instruction regulation has to fix

- The name of the profession under instruction,
- The duration of the formation; not exceeding three years, but not lasting less than two years,
- The skills and knowledge, being the subject of the vocational training (image of the trained profession),
- Instructions on the timing and spreading of the skills and knowledge (Setting of curriculum),

- Requirements for acceptance to the examinations.

The practical education consists of

- The training at the enterprise and
- The instruction at an outside training centre.¹

The formation interlocks the theoretical education at the vocational school with the practical training at the enterprise and the instruction at the outside vocational centre.

At the beginning all apprentices get a basic instruction, followed by a specialized formation, adapted for the needed qualification.

At the outside vocational centre the trainees are taught skills and capacities that can not be transmitted at the training enterprises because of their special tasks and production, but which are nevertheless important parts of the professional education. Here the apprentices are trained and prepared for the final examinations taken by the chambers / corporations. After having passed them they will be either skilled worker or journeyman.

Theoretical Instruction

Theoretical instruction takes place at the vocational school. It aims at performing basic and specialized education and intends to complete general education. To this purpose the vocational school cooperates on an equal footing with the enterprises and general training centres. This cooperation of all these partners is called learning place cooperation.

The instruction is based on a frame curriculum, established along learning areas. This concept of learning areas provides a didactical structure.

Learning areas

- Are described by targets (competences), contents and time standards
- Are adapted to the working and business process of the respective profession
- Connect these processes with the concerned scientific knowledge
- Embrace items of economy, ecology and quality safeguarding

The concept of learning areas is open and offers free play to the teachers (varied shaping opportunities). The starting point is professional action that leads to professional acting competence.

In conformity with the frame curricula the acting competence contains

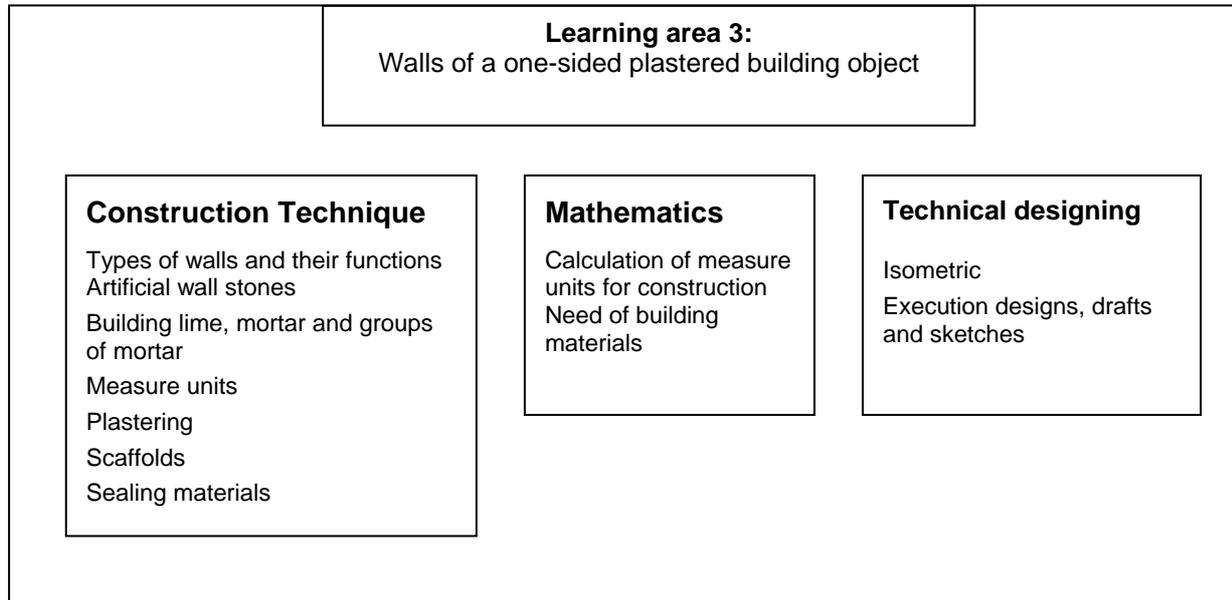
Expert competence - Readiness and capacity to solve problems and tasks in a target oriented, competent, methodically correct and independent way on the basis of the acquired expert knowledge and abilities and to evaluate the results

Social competence – Readiness and capacity to be aware and to be able to influence social relations, to realize and to understand affections and tensions and to settle contentions in a responsible way

Personnel competence - Readiness and capacity as individual to face, to settle, to reflect on and evaluate chances, requirements and shortcomings in the family, professional and public life and finally to discover and develop own talents life concepts.

¹ Exception: If the trainee doesn't get an apprenticeship at an enterprise, the practical instruction takes place in the outside formation centre.

Picture 1: Structure of a Learning area (example, taken from the construction branch)

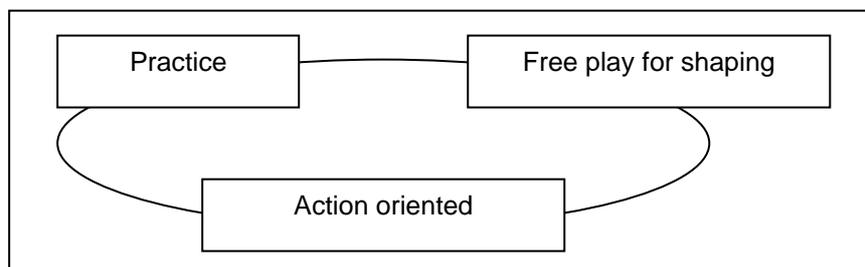


Description „Learning area“

- Learning areas contain targets, contents and recommended time units
- Learning areas conform to professional tasks and acting continuity
- Learning areas comprise action overlapping abilities and knowledge
- Learning areas enable the teaching and appropriation of knowledge in the fields of technology, economy, ecology, organization and business management
- Learning areas enable the development of situation related action competence
- Learning areas provide the development of attitudes, convictions and values
- Learning areas enable more free play for a better shaping of education
- Learning areas require subject overlapping and self determined learning

The guiding lines of the learning areas are presented in the following picture.

Picture 2: Guiding Lines of the learning areas



Relation to practice: the learning areas are inspired by the complex working processes at the enterprise.

Action orientation:

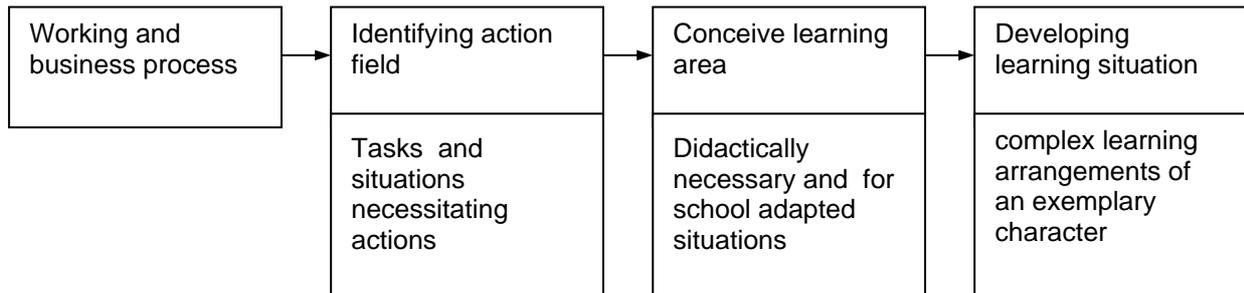
The orientation of the action can clearly be seen in subject overlapping and competence forming situations.

Free play for shaping:

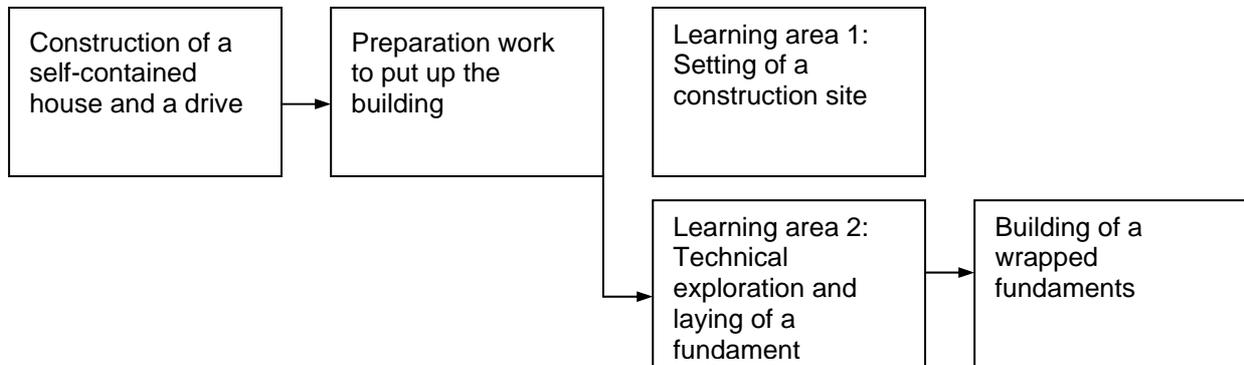
The free play for shaping is reflected through the fixation of rough contents that are concretised on the spot in order to consider the specific regional conditions.

Learning along learning areas

The learning areas give shape to the instruction, but aren't thought as subjects. The teacher has to take the following steps himself:



Example taken from the construction branch:



It is quite clear that learning situations and learning arrangements must respect the subject overlapping character, which corresponds to actions in reality.

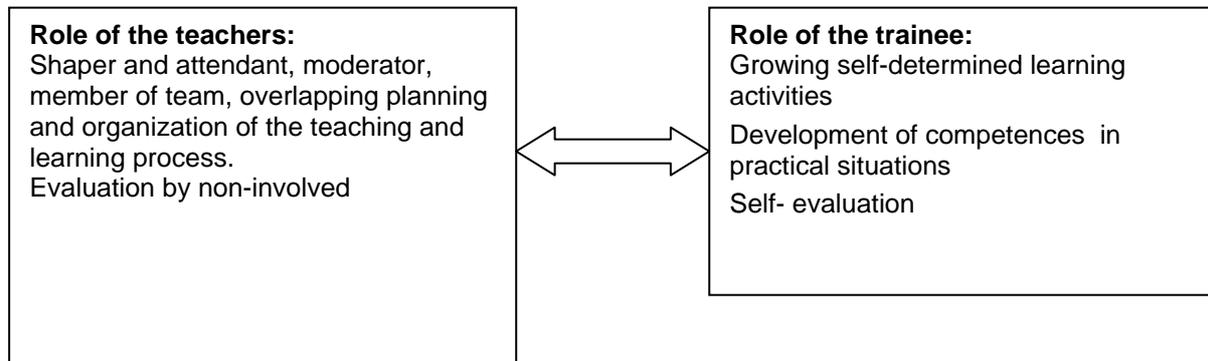
A possible didactical procedure can consist of following steps:

1. Analysing the problem, defining the target, providing information and evaluation
2. Planning of the proceedings and elaborating settlement variants
3. Decision in favour of a solution
4. Resolving the task
5. Control and evaluation of the results
6. Presentation of the results (in writing, orally, as pattern)

These learning arrangements must be carried out independently. Teamwork and cooperation in groups have priority.

Role of the teacher – role of the trainee

The application of learning areas changes both the role of the teachers and the trainees.



Tasks of the instructor within the enterprise

As the practical training takes mainly place at the enterprise, the trainees are directly qualified by training on the job. The management expects that the instructor continues to work at the enterprise and integrates the trainee in the working process, assessing that he knows the tasks very well and is able to fulfil them in a competent manner. On the other hand the instructors have to coordinate the thought subjects with the trainers. The trainee expects the instructor not only to teach abilities but also to help finding his place in the enterprise. This includes information about working atmosphere, about formal and informal power relations, about rules of behaviour as well as social relations within the enterprise.

To be able to meet with the instruction requirements, besides the own working tasks, the instructors consider the following duties to be theirs:

- To explain the work to the trainee
- To teach knowledge
- To observe the execution of work
- To motivate the trainees
- To help planning and executing duties
- To choose working activities
- To evaluate the results of work
- To appraise the trainee
- To help him finding his place at the enterprise
- To give support to the solution of private and school problems

By the direct involvement of the trainees in the working process the expected acting ability attained earlier.

The evaluation of the performance

School report

In the course of the instruction year every trainee gets marks for the way he manages to master the learning areas. The respective learning areas are testified in the report.

Final report of the vocational school

In the final report of the vocational schools the single learning areas are joined to learning domains and appraised by one mark.

Practical training

Action oriented, totality respecting and complex tasks comprising practical training is prepared for by the method of learning areas at the vocational school. It follows a systematic learning concept like for instance „Let's build a house“.

Open learning arrangements, which can be linked with multimedia solutions, are placed in the centre of the didactical-methodological implementation. They consider the instruction goals of the enterprise as well as cross relations to the learning place school and specific regional peculiarities.

In the construction branch for instance single construction projects or partial tasks can be used for the development of individual and group initiatives. There is enough time left to mint craftsmanship individually and differentiated.

Additionally learning arrangements are executed, which are implemented both in the theoretical and practical instruction (reference to guideline „Learning arrangement heath damming“)

The trainees are free to elaborate solutions, to control and to self-appraise. The instructors become consultants, they give lectures, discuss, test the knowledge sources, instruct the trainees, proceed to evaluations and working safety instructions.

Arrangement of the examinations

The examination of the vocational training is carried out on the base of the Law on professional Education 2005.

During the vocational training at least one interim examination must take place to verify the level of education. This is the precondition to be accepted at the final examinations. This examination serves as a test and control (and eventually as improvement) of the acquired abilities.

The final examinations consist of a theoretical and a practical part. They are organized by the examination commission of the competent authority in charge of vocational training (Chamber Commerce and Trade, Chamber of Handicrafts). After final examinations the qualification of skilled worker or journeyman is granted.

If the trainee is not able to pass examination the instruction contract will be prolonged on request for another year until the repetition examination (maximum one year). The final examination may be repeated twice.

Good practice

The learning arrangement „Damming materials“ is an example for self-steered learning in the vocational training masons and carpenters (reference to paper)

The professional training of masons and carpenters was used as an example for a learning arrangement, presented in connection with a project week. It overlaps subjects and learning places on the base of a framework curriculum for theoretical instruction and for practical training. The self-guided appropriation of expert knowledge about „damming materials“ is centred in this integrative learning arrangement as well as **overlapping competences** and elements of lifelong learning. Among them

- Interaction within the learning group
 - Formation of groups, group and team work
 - Alternating phases of individual and team work
 - Informal learning and mutual information
- Self-guidance of the learning process
 - Timing, stages, steps, ways, duties
 - Decision about variants, acts, concepts
- Guidance to processes of problem settlement
 - Recognizing problems, solving problems, evaluation of their settlement
 - Introduction of scientific knowledge into technical building constructions
 - Presentation of results
- Communication with extern experts, enterprises and authorities
 - Appraisal and use of extern consultation
- Competences of self-evaluation
 - Evaluation of own performance
 - Recognition of undisclosed reserves and development potentials
 - Application of measures to ensure individual success
 - Qualification to self-criticism

As a result there is a growth of complex overlapping action competence, difficult or not sufficiently attainable on the traditional way of training.

For a great deal the trainees themselves can determine how to plan the single learning steps, what learning materials and methods they intend to use and when or in which team they want to learn. This is a great challenge for all involved, as there isn't any learning situation which is not limited by curricula, prepared tasks, learning arrangements or projects.

Self-guided learning includes ongoing **success monitoring**. This is related to the recording of the results, the growing performance, the development of personality and the increase of professional and social competences. More than in any other educational arrangement methods of self-evaluation are requested. The qualification to self-appraisal, the discovery of the own abilities and the knowledge about undisclosed reserves lead to more self-confidence, motivation and professional commitment. The used instruments like guidelines, leading questions, observation and evaluation questionnaires have proved their efficiency.

The pedagogical success of coming learning arrangements necessitates in the first place a systematic **work up**. The trainees have an important role to play in it. Their performances and experiences are decisive aspects for consideration in the intention to cope with the requirements their counterparts for more self-guided learning processes in future. To work up the results the following instruments are appraised:

- Questionnaires about the preparation and execution of learning arrangements,
- Observation files to evaluate overlapping competences in team work,
- Guidelines for the preparation of a presentation
- Observation files to survey overlapping competences in a presentation,
- Guidelines for the methodical execution of an evaluation discussion for the instructor and the trainees)
- Leading questions to observe group processes,
- Inquiry about the atmosphere within the trainee's group.

The *didactical-methodical concept* respects the close relations to the new goals and contents of the education and assumes:

- The concept is *action oriented*. Due to respective methods (leading text, project work, presentation techniques, moderation method etc.) the trainees are able to gain professional and profession overlapping competences (key competences) in a growing active and self-guided way.
- The concept is *interdisciplinary*. Global thinking and acting are favoured and the division between single, delimited subjects is overcome gradually by an integrative cooperation in working and learning areas.
- The concept is *knowledge oriented*. The trainees appropriate the knowledge they need for the exercise of their profession in close connection with practically experienced abilities. The concept is *action oriented*. The trainees acquire key qualifications like independence, sensibility for problems, team capacity and social competences by solving complex problems and fulfilling complex tasks and duties.
- The concept is *oriented towards abilities*. Through the transmission of specific modes of thinking and working methodical competences to rule processes of self-recognition and die problem settlement have become an integral part of the education.
- The concept is *practice oriented*. The close relations between general and professional education are tied by the treatment and mastering of integrative learning and working tasks.

Which **experiences and conclusions** have to be drawn for the work and responsibility of the teachers, trainers and instructors as to further learning arrangements comprising large parts of self-guided learning?

- They have to determine their new role. As a consequence of the stress put on the development of personality and key competences their function is changing from an exclusive teaching person to an initiator, consultant, moderator and attendant of learning processes.
- Their responsibility is increasing.
- Problems occurring in practice –growing more and more complex – have to be resolved.
- Leading text has to be worked out.
- Instruments to survey and evaluate are to be created and elaborated.

The expenditure of preparation time is higher than for usual instruction sessions.

This kind of teaching and appropriation process requires new forms of cooperation and communication of all those involved in the teaching and learning process.

„Self-guided learning“ – either individually or in a team – necessitates preparatory measures to be taken by the teachers, instructors and trainees (moderation techniques, team work)

While the role of the instructor is changing he lacks experiences to tackle with the duties of a moderator or consultant. The trainees are not enough familiar with the new learning forms. The new chances, offered by self-guided learning are not well known.

As a summary we can state: the learning arrangement has proved its value during the training of masons and carpenters, showing the possibilities of self-guided learning. Besides solid professional competences key qualifications which are important for the competitiveness an effectiveness of the enterprises, have been acquired. At the same time it contributed to a change of the culture of vocational training. Teachers, instructors and trainees have actively supported the execution of the learning arrangement, qualifying it as necessary, interesting and ambitious. The didactical-methodological know-how for the implementation of this kind of learning arrangements must be transmitted to the instructors in qualification training courses. This will enable them to play their new role as attendant of the learning process.

Development trends of vocational training

For some years trained professions have been modernized or newly developed. Within the German vocational training system a new trend has appeared. It is a sort of open client oriented training in the course of which young experts are preparing, jointly with instructors and teachers for their work in complex working systems in the business world. The open formation makes it possible to take into consideration peculiarities of the enterprise and present-day trends. This way the trainees are able to get quickly acquainted to new changing duties and tasks and to acquire acting competences in a flexible manner. The needed professional competences are completed by additional competence going beyond the scope of the thought subjects. The professional competences comprise expert competence, methodical, social and personnel competences, which are needed for being in line with the trends of global and complex production processes. The transmission of additional qualifications (for instance foreign languages, team and project work, communication and information techniques, client servicing, quality safeguarding) as well as the active appropriation (new learning techniques) and the application of assimilated knowledge in are important components of professional training and qualification. The complex realization of an order and the request for joining all available competences force especially small enterprises to look for an extended cooperation. This trend is reflected in the education of future specialists and requires a closer tuning between enterprises and vocational schools.

With regard to the awareness and necessity to limit expenses learning and training on the job is a major concern. The cooperation between the learning places vocational school, enterprise and training centre appears necessary. Learning place cooperation can also take place between several enterprises, thus enabling the trainees to develop a comprehensive competence. The enterprises have the chance to train a competent young trainee that fully satisfy their own expectations.

In a training centre in Schwerin (SAZ) special attention is drawn to the subjects client servicing and integrated learning on the job. The instructor of the training centre is teaching Servicing at the training enterprise and supports the trainee as well as the experienced worker on the spot in developing professional competences. Here it seems possible to link training and qualification, so that experienced workers have the opportunity to get to know new trends and technical innovations. In this case vocational training and qualification are considered and treated as a unitary development process of individual concern and enterprise interest.

However, the service instructor must be able not only to meet with the individual interest but also with the expectations of the enterprise. The solution of these problems demands a stock of complex methods, including the recognition of problems, the analysis of the problem, the treatment and the evaluation of the results. It necessitates a higher didactical qualification by the instructors.

As educational operator SAZ tries to combine the training and qualification with the development of organisation and personnel and to integrate both in the enterprise concept. So the educational operator is taking over a new function. It offers analysis, consultation, moderation, training and attendance as a complex service for enterprises. In the Land Mecklenburg-Vorpommern more and more educational services are offering similar services and they are strongly recommended to follow this trend.

Potentials of the vocational training for the implementation of the concept of lifelong learning:

- First changes in the appraisal of the diversity of the role of the teacher and the trainees can still be noticed. This development must be enforced.
- Different methods have been tested, depending on the personality and the self-commitment of the instructors and trainees.
- The learning biography and life situation of the trainees must be taken into account.
- The concepts to be completed should consider the age and the professional, social and personal competences of the trainees and support their efforts to learn in a self-determined spirit. At present formal learning processes, guided by the teachers are prevailing.
- Informal learning has to be integrated more strongly in formal learning processes.
- As far as the access conditions and classification are concerned the individual development of informal competences should be considered and respected.
- The cooperation between the different learning places must be improved.

The present problems that have arisen in the field of coordination between the learning places are due to the different forms of the learning organisation.

- Different system of contents
School: systematic reflections, mostly distributed among different subjects;

Enterprise: learning in connection with a concrete working situation ,
theoretical contents are needed in an order that deviates from the system
- Learning contents are thought at a different moment.
In spite of coordination of the educational regulations and frame curricula it remains difficult to agree on schedules
- Separation of theory and practice
Action oriented proceedings can only be guaranteed by a high coordination and tuning expenditure, but so far instructors at school, the enterprise and the training centre seem to use different timetables and concepts
- Outmoded contents
Vocational schools and educational operators are sometimes not in a position to face present problems . Therefore recent problems are ahead of theoretical contents
- Different personnel having different experiences, convictions, competences etc., different professional biographies and orientations make cooperation difficult

The establishments involved in education should tune their concepts, time-tables and organization in order to work out and to work up theoretical knowledge and background information. The coordination of the learning places has to be improved by the use of innovative didactical-methodological concepts. These concepts must be open, oriented towards actions and practice and need a constant communication process among all institutions. The use of report note books and learning diaries reveals to be useful. Since February 2006 the Chamber of Commerce and trade of the Land Mecklenburg-Vorpommern offers together with educational operators a qualification for teacher who have gathered experience in the field of professional training and are willing to further develop personal competences. The formation is structured in a modular way and contains the subjects:

- Organization and planning of professional education processes
- Attendance of the trainees and the learning process
- Marketing, Controlling and quality management in education and qualification
- Assessment and examining trainees; evaluate competences
- Tasks and consultation activities at enterprises
- Tasks and consultation activities at educational and qualification centres
- Rehabilitation and special pedagogical duties

Source: itf Schwerin /Germany