

Pedagogical Practice and its Significance for Future Teachers

K. Krpálková Krelová, P. Krpálek and D. Dvorak

Abstract—In this article, we are addressing the issue of professional preparation of the teachers who teach the technical and economic subjects at secondary vocational schools. Our analysis is based on domestic and foreign researches about the preparation of teachers – engineers. We believe the connection between theory and practice is a significant element and that is why we consider it to be important to pay attention to this particular part of pedagogical practice. This is the platform where all the innovations can be made and most importantly its range is not adequate. Our goal is to find an optimal model that would prepare the future teacher – engineer for his career in the most comprehensive way, as well as to enhance competences of a teacher who functions as a training teacher.

Keywords—quality of education, teacher, pedagogical practice, competences, teaching process, vocational economic subjects.

I. INTRODUCTION

ONE of the most frequently used words nowadays in the fields of industry, business and services in economically developed countries of the world is ‘*quality*’. The only effective way, how to preserve competitiveness of these countries in today’s global world – thus maintaining the prosperity of their citizens – is innovation and quality. High quality education is the condition for ensuring permanent innovation of even better products and services.

Most of the politicians, economists, sociologists, prognosticators and experts of further fields of science agree on the view that the future of nations, countries and humankind depends on the quality of education. It is emphasized in the declarations of the Council of the European Union that quality of education should become the only determining goal of all kinds of schools and this quality must be ensured on all levels and areas of education [18].

At present there exist several systems of quality management, for example quality management according to the collection of norms of ISO 9000, EFQM, TQMEX, SIX SIGMA, etc. However, almost all of them are based on the system of TQM. Letter T stands for ‘total’, whole, complex, i.e. quality refers to every employee of a firm, to every department, every process of the company. Letter Q means

‘quality’, to meet requirements whoever they belong to. Letter M is the abbreviation of ‘management’ and refers to people and processes that have an interest in quality.

The following *basic principles* are meant within *TQM* [19]:

- 1) Orientation towards the customers.
- 2) Orientation towards the processes.
- 3) Decisive role of the management in Quality Management.
- 4) Permanent education all employees.
- 5) Teamwork and co-operation.
- 6) Prevention of errors.
- 7) Decision making based on facts.
- 8) Permanent improvement, innovation.
- 9) Partnership with the contractors.
- 10) TQM is a long-term process.

TQM and other management theories have been developed because of the needs of industry and trade. High quality (the quality of the educational process, schools, quality of learning) is becoming an urgent and determining condition of the existence of schools, mainly because of the following *reasons*:

- ⇒ The Legislature of Schools makes it possible for students to choose their schools freely.
- ⇒ In most industrially developed countries the birth rate is decreasing that is why there are less students enrolling schools every year, and this fact creates a competition for getting more students.
- ⇒ Others than state schools (church and private schools) draw off students from state schools.
- ⇒ In many countries financing of schools is undervalued and there is no intent to make it better.
- ⇒ The demands and expectations of the students’ parents, of the future employers of the graduates and of the whole society towards schools is expanding and increasing.

In many EU and OECD countries normative financing is being introduced or it already exists according to the number of students at schools. If schools gain students, they will get money to exist, if they do not gain enough students (if schools are not adequately attractive for students), they can close their doors.

In education the expression ‘quality’ refers to various items, most of all to:

- ⇒ *System of education*: it is about the quality of the system of education in the country (region), its aims, philosophy, the content of education, the structure of the school system, the principles of managing and

K. Krpálková Krelová is from the University of Economics, Prague, W. Churchill 4, 130 67, Prague 3, Czech (corresponding author to provide phone: +420 737930200; e-mail: katarina.krelova@ vse.cz).

P. Krpálek is from the University of Economics, Prague, W. Churchill 4, 130 67, Prague 3, Czech (e-mail: krpp01@ vse.cz).

D. Dvorak is from the Institute of Hospitality Management in Prague., Czech (e-mail: dvorak@vsh.cz).

financing schools, admission of pupils, students, youngsters and adults into the educational system, the possibility to get qualification, flexibility and openness of the educational system etc. For the quality of educational system in a specific country is really important to use international comparisons of its performance via international research, such as PISA, TIMSS, etc.

- ⇒ **School (educational institutions):** above we have explained that nowadays (decrease of population, fight for students, financing, etc.) the high quality of schools is the condition for a school to survive (exist). All schools should work out their own Quality Management system, that should concern all the processes at schools and it would include all the employees of the school.
- ⇒ **Educational process:** the educational (teaching-learning) process is the most important of all processes at school; therefore its quality is a determining element for the quality of school, too. The quality of the educational process in school subjects can be increased by the particular teacher (group of teachers), as long as Quality Management is not realized at school.
- ⇒ **Learning of students:** the quality of students' learning is the climax of the effort for quality in education. There should be the following aims: students should acquire the rational ways of learning – the educational competences to recognize their preferred learning styles and to use them while learning, as well as metacognition and metalearning to use a thorough approach towards learning. A strategically minded student should be the result, who has learnt to manage his learning, who is able to optimize his learning at school, outside school and after leaving school. Such students have the best chance to get on well in our ever-changing life, because they will be more successful in lifelong learning.

The teachers quality significantly impacts the quality of students. Due to the reasons discussed above, we tried to optimize the teaching practice of the future teachers [24].

The changing social environment, more opportunities in international collaboration, faster information exchange, the possibilities to compare with other countries, as well as growing demands on improving and modernizing the university preparation of students are all noticeable factors affecting the currently carried out activities aimed at improving the pregradual preparation of teachers [23].

The positive side about pregradual preparation of teachers in Slovakia and the Czech Republic is that the future teachers for all types of schools are being prepared at universities. Their studies are focused on factual profession therefore the aims, content and means should be based on a professionogram of the work of a teacher from particular type of school. The outcomes of university education (knowledge, skills, opinions, beliefs and attitudes) are expected to reach the minimal standard of teachers' profession.

In the western European countries the character of

pregradual preparation is being shifted towards the professional pedagogical preparation. The core of which is pedagogical, psychological and didactical training with an adequate portion of practical preparation. Teachers' training is more and more oriented on new skills needed by a teacher and his pupils in the 21st century, lifelong attitude towards teaching, individualization of the teaching process, etc. A significant part in the prospective teachers' training is real life, practical experience, the pedagogical practice. [3].

II. PEDAGOGICAL TRAINING IN SLOVAKIA AND CZECH

Proper teaching experience has its specific problems. A teacher is not only the subject of educational activity but to some extent he is also an object of his own activity and observation. This can be difficult for many teachers, because they are expected to evaluate their own activities and thus their possible setbacks. The ability to approach one's own pedagogical activity unbiased plays an important role in this process. A teacher has to get used to the importance of self-control and self-observation. This habit then enables teachers a future improvement. A teacher sinks into the secrets of teaching via different ways. Some teachers have a long pedagogical practice but the only thing they get is a routine. Teachers who have taught for a long time and had good results did not explore the reasons of their good results or what methods they used to get them can be classified as teachers – routines. A higher level of entering the pedagogical reality is the experience. The experience is more than practice. It involves conscious relationship to one's practice. A teacher – practitioner gains valuable skills by discovering casual connections between teaching means, used in a given situation, and the results.

It is assumed that practical execution of human actions leads to gaining experience and thus to improving given action. The meaning of the pedagogical practice can be explained in the very same way. The question is whether this statement is actually true. Practical action creates subjective experience which can enhance its quality. It also leads to a routine and to a fixation of subjective solutions of real practical problems and in the end to an aversion towards changes and innovating trends. This is also true about a pedagogical practice. Practice by itself is not a guarantee of the quality of work, its function, meaning and importance depend on many determining factors.

What are the factors?

Is the length of practice important?

Who and how should make the corrections of practical exercises?

These questions lead us to speculations whether a pedagogical practice is even important in the teachers' pregradual studies and if yes, in what circumstances. Pedagogical practice has an immense role in the quality of teaching. The importance of this practice in teachers' studies can be taken simply as a question of the practice itself, its contents, organization, methods and administration but as a question of the relation between a theory and practice in the

education of a teacher. Such attitude is important not only in implementing the pedagogical practice in the system of work with the prospective teacher but also for the whole system of work of the prospective teachers. That is why the students are required to master not only the basic principles of their chosen studies but the pedagogical and psychological principles as well, to create a framework of activities, based on the mastered theory and the content of their studies, but also to be able of theoretical synthesis of already verified theories and experiences in practice.

Implementing the academic knowledge, competences and skills must be realized in a specific environment, the environment of a real secondary school. Withcomb (2004) and Loughran (2006) consider functioning in real conditions to be an extremely important and irretrievable by any other form of preparation. The model of competences consists of such competences that cannot be gain or developed in any other way than in a real authentic environment. Such competences are for example application of didactic methodology, communication skills, creating own professional image, managing education activities, self-regulation etc.

In the 1980s pedagogical practice was an inseparable part of the preparation of prospective teachers at secondary schools and universities. It was considered to be a vocational training, because its main aim was to improve special pedagogical knowledge, skills and competences of future educators. A lot more time was dedicated to pedagogical training than to theoretical learning. In the third year of studies 220 lessons was spend for training and in the final year it was almost 290. During the whole training the students had to be present at the given school for no less than 6 hours a day. In the second term of studies they had "*student teaching*". A student's work in a training school was precisely assigned for exact lessons and days, minimum of 3 to 5 lessons a week. A training teacher was the main instructor in the lower years of studies and a class teacher was in charge in the next years. A school practice started in the penultimate year of studies, after he had finished his finals in that year.

This training had *three parts*:

- 1) A careful study of the class and school the student was assigned to
- 2) Teaching 12 to 15 lessons with a thorough analysis and obtaining a grade for each
- 3) Extracurricular activity with students

Next type of training was an *internship*. It took place in the final stages of the studies. It differs from the other types, because the student had to work independently on every task a teacher could face in a real environment of a school. Every student had to teach 5-6 lessons per week. By this it was secured that the students in the final year got a chance to systematically teach their subject and cooperate on the work of the whole teachers' body.

Once the training was over the students handed in an oral and written report. Every student had a required documentation (pedagogical diary) ready and he was asked to

write a report of the accomplishment of the training with an emphasis on the positive and negative sites of the student's work. (Bodnar, 1976)

The change of the state economy and political situation in 1989 caused some unwanted changes in the department of education. Economic measures, so called rationalization, even before 1989 caused that the Ministry of Education waived from providing pedagogical training at schools, "faculty school" that particularly co-operated with the universities. The organization of pedagogical training was left to universities that kept working with the same schools but without any bylaw of cooperation. (Kopernický, 1996)

The function of special training of teachers is a part of the training for the future profession. In this respect its status in university study programmes and in the society should be adequate and should create an essential part of curriculum. However, the reality is different. The execution of pedagogical training differs from faculty to faculty, although there is an effort at some faculties to be more professional in the organization of pedagogical training. The very fact that the minimal number of lessons for pedagogical training, meaning length of training determined by the specific criteria for each year of studies, is not set means that the teachers are not prepared for their profession on the same level. It is necessary to admit, though that it is questionable what form, content and type of training should be considered as optimal. It is difficult to say what administrative, systematic or contextual qualities pedagogical training should have exactly to fulfill all its aims. It means there are no standards by which the successful passing of the training should be qualified.

At present the conditions for pedagogical training is determined by the universities providing teaching study programs [10].

All this has a negative impact on the graduates who, according to some studies, are not prepared enough for dealing with difficult situations and pedagogical issues that must be face in daily work of a teacher.

A. Slovak Republic

In the Slovak Republic the input of government administration to pedagogical training is unsystematic and there are only few stages of it that are covered in the legislative. No further defined rights and duties of training schools, training teachers or the students in the process of pedagogical training result from the current legislation. No pedagogical documentation covers this part of the pedagogical process. All the participants on the pedagogical training are left to their own experience, responsibility and professionalism. At present there are no unified criteria for evaluation of the pedagogical training or student's assessment [14].

The legislative concerning this type of training can be found in two legislative regulations, the university act 363/2007 from 3rd July 2007 that amends and supplement act no. 131/2002 and 553/2003. The act no. 363/2007 follows up 131/2002 and 553/2003 and tells about remuneration of some employees for

work in the public interest and about amendments of certain laws in §15 Bonus for practical training.

Negative consequences of the “regulation” absence:

- ⇒ There are no legally established training school and there is no statute of training school
- ⇒ The position of a training teacher is nonexistent, is the teachers do this work, they are not ready for its specifics
- ⇒ The training teachers do not have clear rules when it comes to the communication with the faculty. They are not aware of their rights and duties. They are behind in the didactics, pedagogical and psychological theory etc.
- ⇒ The faculties leave it on the student to find a training school and teacher
- ⇒ The secondary schools have right not to accept a university student for pedagogical training
- ⇒ There is no system for educating the training teachers

According to the Ministry of Education of the Slovak Republic regulation about training schools and training school facilities of public universities from 2001 by a pedagogical training we understand practical education in teaching study programs or in combination of study programs (§ 47 section 4).

The content, extent and form of pedagogical training are defined by study program.

B. Czech Republic

In the Czech Republic the pedagogical training is completely the competence of the given faculty and it must be secured during the whole time the faculty has the accreditation for full time study program:

- ⇒ the faculty has legally secured running of the pedagogical training at “faculty schools”
- ⇒ the minimal span of the pedagogical training during the whole length of the studies must be altogether 4 weeks
- ⇒ the pedagogical training is secured quantitatively (for all the students in teaching programs of given faculty and in full extent requisited by the study program)
- ⇒ the pedagogical training is secured qualitatively (for all the types of pedagogical training of the students)
- ⇒ the faculty has supervisors on the students among the faculty teachers as well as the teachers the from training schools
- ⇒ the faculty makes sure that the students have an opportunity to have pedagogical training at a variety of schools (e.g. secondary grammar school and vocational schools)
- ⇒ it is necessary that the students of teachers’ programs meet with different types secondary school students (different social, health and ethnical background, capability to learn etc.) and learn how the school works as an institution.

It is important to realize that the key factor influencing the success of practical preparation of students should be the balance of these four parts: general didactics, methodology of

training, training teacher and student, the quality of communication between aforementioned participants in the process of pedagogical practice and cooperated guidance of a student in the process of developing teaching competences.

Based on the aforementioned facts it is clear that the practical preparation of students in the process of professional training demands a close connection on ***several levels:***

- 1) on the level of general didactics and subject didactics – the cooperation of both at a given faculty, mainly the contextual connection,
- 2) on the level of subject didactics and training teachers – a coordinated guiding of a student during professional training,
- 3) on the level of student and training teacher – the connection of theoretical and practical preparation of a student in the process of professional training.

III. THE SIGNIFICANT PROBLEMS WITH PEDAGOGICAL OUTPUTS

During the modal outputs the student doing his or her pedagogical training is teaching and the training teacher is judging the outcome, e. i. whether the teaching was good or bad. It is necessary to realize that during the analysis of given lesson, partial or whole, many times it is not about analyzing the output and experience of the student who has taught but the analysis consist only of a description of his work which can hardly contribute to any further development of his performance. It is therefore essential for the analysis that the student in training identifies which didactical issue he or she wants to demonstrate, why there is a casual connection between the used tools and the results, what is the best way of execution of given issue in his working environment and what is the asset of this endeavor. In this case the training teacher does not pay attention to the details of the lesson taught but he evaluates the basic methodological thought of the given lesson and the essence of the experience that were used in teaching it.

This is more important for improving the work than evaluation of the training without theoretical reasoning because the training teacher can critically review if and how were the gained experiences used in real environment [4].

There are opinions that the university students should obtain only theoretical knowledge during their studies and the practical skills should be acquired in real work after graduating. Some experts share an opinion that the pedagogical training should be done at university in so called “training centers”. For example in France the pedagogical training of teachers of special agricultural subjects is realized in company ENFA [12]. This company is a training center that prepares the prospective teachers from the practical point. Pedagogical lasted one year. Since 2010 the Ministry of Education has decided that the practical training will be realized in the range of 6 weeks at ENFA and 12 hours a week at training schools in real life environment under professional supervision of a tutor.

Many America schools preparing prospective teachers

underwent a transformation which was aimed at the standards and innovation of study programs and creating bigger pedagogical training opportunities. The biggest progress was in the interconnection between theoretical and practical knowledge. The whole system is aimed at verbal abilities, content of learning and it decreases the accents of teaching abilities. A minimal contact with the school at which the teachers can possibly teach in the future is seen as a negative side. The students demand to be trained in teaching and professional abilities to be well prepared for their future job needs. L. Darling – Hammond accentuates that the connection of theory and practice is not possible without an active collaboration of a university and a school for which are the prospective teachers trained. This way the students can solve different education problems, communicate with parents, get used to with various stereotypes of students' personalities during their training. The Scandinavian countries (Finland, Sweden and Norway) and the Netherlands carry out a one year long pedagogical training at partner training schools. On the other hand the author accentuates Singapore where the education of prospective teachers is provided by The National Institute of Education. The study targets and develops mostly the key needs for the 21st century. It develops critical thinking, curriculum, new technology and economic skills. The government supports and emphasizes the meaning and professional help of mentor teachers [2].

G. Sykes, T. Bird and M. Kennedy see a disproportion in general university education and real practice. This phenomenon causes inadequate preparation of beginning teachers. According to these authors a beginning teacher should have knowledge from his field, should be competent and willing to educate himself further. They also find it important that the universities and schools cooperate when it comes to the initial practice of beginning teachers [17].

Ball D. L. and Forzani F.M. acknowledge the difficulties of implementing real pedagogical practice into study programs for teachers in the USA but they see an opportunity in creating so called practice focused curriculum [16].

We agree with the opinion that it is desirable to include various forms of practice into the preparation of prospective teachers, by which we reach the connection of theory and practice but it is important to realize that none of them can possibly replace a real experience in a training school. This opinion is supported by a long-time experience here as well as abroad [1].

IV. COMPARATIVE ANALYSIS OF PEDAGOGICAL TRAINING

As we have already emphasized, an important part of preparation of prospective teachers at faculties of education is pedagogical training. Nowadays universities which provides teacher education programs define the circumstances of pedagogical training themselves. The training has different duration, according the specifications of particular universities, from one week (University of economics) up to eight weeks at faculties of education. Most often the training lasts from two to

three weeks. The aim of this chapter is to analyze the way of pedagogical training in the countries of east-central Europe (Slovakia and the Czech Republic) and abroad and to propose an optimal extent of pedagogical training for the master study program "Teaching of vocational economic subjects" for the forthcoming accreditation.

We performed an analysis at pedagogical universities with here and abroad and at "non-pedagogical" universities that offer teaching of vocational subject programs. In the academic year 2010/2011 we realized a comparative analysis while solving a grant project KEGA 3/6026/08 Innovation of the study program Teaching of vocational subjects at MTF STU. We analyzed traditional Slovak faculties of education.

We found out that the faculties accomplish every kind of pedagogical training (field observation, student teaching – divided into 2 terms, internship – usually in the final term) during the studies. At the University of J.P. Šafarik in Košice (SK) they have pedagogical training in each year of the studies (first winter term – continual pedagogical and psychological training and in every summer term an internship). The students teach 43 lessons altogether. At the Catholic University in Ružomberok (SK) the students have two "student teaching" experiences in the first year (10 lessons) and an internship (19 lessons) in the second year of master studies. The faculty of education at the Constantine the Philosopher University in Nitra (SK) carries out 20 lessons of pedagogical training in the fourth year (10 at primary school and 10 at secondary school) and in the final year 30 lesson taught during an internship. The Comenius University in Bratislava (SK) organizes the pedagogical training in the first year of the master study program and the students must teach either 10 days altogether or 4 lessons a week.

The situation is very similar at the faculties of education in the Czech Republic. At the University of South Bohemia in Ceske Budejovice the students take part in 24 lessons of pedagogical training (internship) in the first year of master program. During their bachelor program they perform their "student teaching" training, its aim is to assist the training teacher and teach during a chosen part of the lesson. Such a type of pedagogical training can be found at Masaryk University in Brno as well [21].

The Charles University in Prague organizes 3 pedagogical trainings during the master program studies, each one consists of 12 field observations and 48 lesson taught by the students. The department of economic subjects' didactics requires its students to teach 5 economic lessons and 5 accounting management lessons during the pedagogical training. Students of the Faculty of Education at Charles University in Prague evaluate their vocational preparation within the subject as excellent; on the other hand they were critical when it came to the question of their preparation in managing and organizing skills of a teacher in the real life [8].

We also analyzed some universities in Germany, Austria and Denmark which had a bilateral treaty within the Erasmus program with the Department of Engineering Education and

Psychology during the monitoring time. We gain the data from the study programs in the academic year 2007/2008 and by interviewing the supervisors of the study programs. As the first one we mention the Steienmark University of Education, Institute of vocational education and school education. The students have “practical school studies” since their 2nd term. They have own supervisor who chooses a schools which they visit together. One study group consists of 4 to 6 students. The students get the basic information about the pedagogical practice and schedule of given school. After the introduction, which usually takes place straight at the school, then students have field observation and are accompanied by their supervisor and after the lesson they would evaluate the lesson they observed. The practical teaching training takes place in different time. A student must have a written preparation for the lesson which will be evaluated as well. In the first year of studies they must teach 3 lessons. The pedagogical training subjects create an individual module in the faculty curriculum. Next the students must have “Blockpraktikum” with the range of 45 lesson taught. This is realized in the 3rd and 5th term of the studies. The students have no other subjects during this time. They are at a school chosen by themselves for one week during the 3rd term and for 2 weeks during the 5th term. Half the lessons are dedicated to field practice and the other half to teaching itself.

Graz/ Eggenberg academy (RPA Graz) administers pedagogical training during the whole study program, from 1st to 6th term in full time program and to 10th term in external program. It is supervised by teachers at the academy as well as teachers at the chosen training school. During the studies the students have 6 field observations, 6 cooperated lessons with training teacher and 13 individual lessons. Pedagogical training for external students consist of 9 weeks of training done from the 1st to 8th term and one week in the 10th term.

As the next one we analyzed Esslingen University (SRN). At this university the pedagogical training in the Engineering Education subjects consists of field training in the 5th term. The training is divided on Practice 1, Seminar 1, Practice 2 and Seminar 2. Seminar 1 and 2 are the reflection on the training, e. i. the creation of the diary from pedagogical training. Each training lasts 90 lessons and each seminar lasts 30 lessons.

At the University of Adger, Norway, the Department of Education offers a 4 year teacher training program and 1 year follow-up pedagogical studies. In the 4 year program the training lasts from the 1st till 3rd year of studies, 18 weeks altogether. To be accepted at the follow up studies you have to have at least 2 year university program and 2 years of practice at the field. In this case the pedagogical training lasts 6 weeks in both winter and summer term. The students spend the same time at school as the teaching staff (40 lessons a week). The must teach at least 10 lessons a week. Each student must have at least 3-4 lessons of individual consultation a week. The pedagogical training can be done at any school of the county [11].

V. OPTIMIZATION OF PEDAGOGICAL TRAINING

The proposal of optimization of realization of pedagogical training in the masters study program “Teaching of Vocational economic subjects” at Faculty of Finance and Accounting, University of Economics in Prague is a part of the scientific project FRVŠ 1310/2012 “The innovation of the subject Guided pedagogical training”. Guided pedagogical training is in the master study program part of the 2nd year winter term curriculum. Pedagogical training is a part of the didactics of economy and the didactics of accounting with 2 lectures and 2 practice lessons per week. Its main aim is to make students familiar with the curriculum the two subjects, economy and accounting, at business academies and with their ability to transform the knowledge about economy, business management and accounting into the teaching.

In the course of the guided pedagogical training student undergo an introductory instruction, which is a part of the introductory lessons of Didactics of economy and Didactics of accounting. It is provided by a teacher of Department of Economic Teaching Methodology (KDEP). The student has to teach 10 lessons (out of which 5 from Economics and 5 of Accounting), 10 lessons of analysis of the lesson taught and in the end he takes part in the final evaluation of pedagogical training which is led by a teacher from KDEP. Once the guided pedagogical training is over the student hands in a pedagogical diary.

A. Criteria of Evaluation

The University of Economics’ criteria of evaluating students at a pedagogical training at business academies:

- ⇒ content and structure of the lesson,
- ⇒ didactic principles,
- ⇒ rhetoric abilities,
- ⇒ administrative abilities,
- ⇒ work with didactic aids,
- ⇒ reaching the aims of the lesson.

The students can get 30 point altogether. The outcome this evaluation is written on a form which is carried by a student to each lesson. The training teacher fills in a verbal evaluation of ach lesson, number of points (max. 6 per lesson) and finally overall evaluation - “accepted/ not accepted”.

There is a simple scale for this point evaluation at the University of Economics.

B. Material for Pedagogical Training

Based on the analysis, we propose to use the following materials:

- ⇒ an individual plan of pedagogical training,
- ⇒ a model of preparation for the lesson,
- ⇒ a self-evaluation questionnaire,
- ⇒ an overall evaluation of the training by the student.

C. Pedagogical diary

A pedagogical diary from the pedagogical training should consist of the following parts:

Individual plan of work (dates of the lesson, grade, room

number), 5 preparations for lessons in the required form from Economics, 5 preparations for lessons in the required form from Accounting, 10 training teacher's forms for evaluation of the lesson, 10 filled in self-evaluation questionnaires (one after each lesson), an overall evaluation of the training by the student (signed by the student), an overview of all lessons together with the evaluation by the training teacher.

The outcome of the project is a methodical material which describes the internal directive. We define the general regulations of pedagogical training, the training schools of Faculty of Finance and Accounting of the University of Economics in Prague, the organization of guided pedagogical training and the responsibilities of the Department of Economic Subjects, a training teacher and a student. This internal material will be available to all the students and training teachers and should come into effect from the academic year 2012/2013. The experts from the Department of Economics will be continuously assessing the efficiency of guided pedagogical training via questionnaires for students and annual workshops for training teachers.

VI. IMPORTANCE AND ROLE OF THE TEACHER TRAINER

Each faculty preparing prospective teachers should have its training school (schools) at which students can undergo the pedagogical training and the university teachers could experimentally verify new effective teaching methods and carry out pedagogical research. The training schools should be a part of the faculties of education and their status and activities should be regulated in legislation [13].

The training teacher plays a significant role in the preparation of a prospective teacher. His role is based on the profile of teacher education [15].

The cooperation between a training teacher and a student is carried out especially during:

- ⇒ the organization of the pedagogical training,
- ⇒ the introduction of the training school to a student,
- ⇒ the introduction of a student to the directory and the staff of the school,
- ⇒ the creation of the individual plan of the pedagogical training,
- ⇒ the consultation of the lesson preparation material,
- ⇒ the realization of the lesson itself,
- ⇒ the analysis and evaluation of the lessons.

During the work on the scientific project KEGA 3/602/08 we also performed a survey with **159 participating training teachers**.

Our aim was to find out what could improve the work of a training teacher. We used a non-standardized questionnaire.

Table I: Factors that can improve the work of a training teacher

Factors that can improve the work of a training teacher while supervising a pedagogical training:	Answers (%)
---	-------------

better material and technical equipment at the training school	51.6
accessibility of literature sources	25.2
more effective communication with the department and its experts	11.4
internet connection	6.3
a possibility of further education in the following fields:	
• teaching competences	35.7
• IT technologies	48.5
• recent trends in education	59.8
• educometry and educational assessment	56.2
• styles of teaching	69.7
• workshop for training teacher	41.3
• further education	62.2
• communication skills	23.0
• workshop for training teacher	74.2
• further education	1.2
better preparation of the students from:	
• vocational subject	63.5
• didactics of vocational subject	57.4
• pedagogy	47.3
• psychology	37.8
• communication	35.1

Source: own research

As you can see from the chart the training teachers expressed a need of further education, and not only in the area of the styles of teaching, recent trends in education but also in the area of competences connected with the role of a training teacher.

VII. THE PROPOSAL OF TRAINING COURSE FOR TRAINING TEACHERS

The main aim of the course "Preparation of the training teachers" is to offer teachers theoretical and practical pedagogical-psychological preparation for the work of a training teacher and to develop their competences in a broader context.

The course is based on modules. This structure was chosen to formally, time-wise and contextually identify and divide the three parts of the course. The first module is aimed at the character development of the training teacher. The second one pays attention on the progress of teaching competences and the third one is centered on practical diagnostic and evaluation work of a training teacher.

The primary target groups are the current and future training teachers whose role is to participate at the pedagogical training of the university students at training schools. To become a participant in the course one must have the necessary education (university education in economic or technical field

and complementary pedagogical education or in education of economic subject). Another condition is to have at least five year of teaching practice at a secondary vocational school.

The lesson plan is divided in to 3 modules with 16 lessons of the theoretical education and 24 lessons of practical part, 40 in total. The teaching within the modules is not strictly divided into theoretical and practical part, because most of the activities are a combination of theoretical lectures, discussions, reflections on real practice, solving practical issues and training of the skills of the participants.

The number of lessons for the theoretical and practical parts (theoretical/practical parts) is informative only and reflects the ratio of the individual activities.

In the following table you can see the lesson plan of the course.

Table II: Lesson plan

Module	T/P	Methods and forms	Conditions of
Module 1 The character of a training teacher	4/4	lecture, exercises, discussion, heuristic method	Diagnostic interview, paper for the portfolio – autodiagnosical test
Module 2 Pedagogical skills of a training teacher	6/10	lecture, discussion, socio-psychological practice, role plays, team work	Paper for the portfolio – a preparation for micro lessons on given subject
Module 3 A complex work of a training teacher	6/10	lecture, exercises, heuristic method, guided individual work	An analysis of written preparation and video recording of a student's lesson

Source: own research

The interactive course consists of theoretical part (lectures) and practical analysis of the mentioned activities and demands active participation of the involved teachers.

A part of the work of a course participant is a guided individual and team work, role playing, structured discussion, heuristic method, socio-psychological training and work with IT technologies.

The final exams consist of the portfolio defense, the portfolio consists of all the final products of the modules, and

an analysis of the written preparations and a video recording of a lesson the university student taught. The participant shows his pedagogical and psychological capability for the role of a training teacher. Once successfully graduating the course the graduates will obtain a certificate with a printout of all the completed modules and will be included in the training teachers' registry of the University of Economics in Prague (Slovak University of Technology).

We believe graduating this course is a condition for obtaining an authorization to become a training teacher. We suppose that after a successful graduation from this course, its graduates will be able to effectively plan, perform and evaluate the complex work of a training teacher by using all the knowledge and skills achieved in the modules of the course. The course is prepared for accreditation.

VIII. LEARNING STYLES

Nowadays, an interest for human individuality rises and thus the teachers and researchers are interested in individual techniques students use at learning. These techniques are referred to as learning styles.

It is necessary to emphasize that:

- ⇒ These techniques are self-developed.
- ⇒ Metacognitive learning is utilized ("I know how to learn").
- ⇒ These techniques are used in certain period of school attendance (and they may vary).
- ⇒ They are dependent on the nature of subject and subject matter (concrete, abstract, theoretic...).
- ⇒ Lead to certain result (retention, understanding, application).
- ⇒ Originate on inherent base.
- ⇒ Develop under influence of internal and external conditions and may be adjusted to certain extent.

Why is it important for teachers to diagnose learning styles?

According to J. Mareš [20], we can assume that the learning style may be influenced. However, it is necessary to gain a thorough knowledge of pupil's life style. Moreover, the approach to learning style modification has to be very sensitive. J. Mareš analyses diagnosing of learning styles as follows:

- ⇒ Is it vital to diagnose the learning style?
- ⇒ If so, is it necessary to influence students learning style?
- ⇒ If so, is the teacher supposed to modify student's learning style?
- ⇒ If so, is the teacher, who wants to modify students learning styles supposed to take a special training?

It is obvious that modifying student's learning style should be performed in a very sensitive manner. The initiative should come from the student rather than teacher. Why is student supposed to modify his learning style? According to Mareš the objective of modification is self-control of student's learning, his self-regulation. Critical condition of self-regulation is self-reflection of learning. The student, however, is not capable of modifying his learning style by himself (at least not in the

beginning). The teacher, who can influence student's learning style using three steps, plays inseparable role:

1st step – the teacher teaches student to comment every step of his learning process, to think about it

2nd step – the teacher demonstrates various learning styles, mentions both advantages and disadvantages. The student can try various learning styles.

3rd step – under teacher's supervision student trains and tries various learning styles and prefers the one that suits him best.

Opinions concerning diagnosing and use of student's learning styles vary among pedagogic community. Advocates of learning styles theory claim that teachers should select used teaching methods according to student's learning styles [22].

This is the reason why the issue of learning styles to implement teacher training. The teachers can try out various types of teaching, which will reflect the learning styles.

IX. CONCLUSION

The initial contact of a university student of education with the teaching reality where he can transform his knowledge and verify his pedagogical, psychological and didactical skills is a pedagogical training.

The training is an inseparable part of a preparation of students in teaching study programs. The content of pedagogical training integrates all the parts of a university preparation of prospective teacher – engineer.

It provides students with an opportunity to verify their theoretical pedagogical and psychological knowledge gained during the studies as well as their knowledge from vocational subjects in practice and get the basic practical skills necessary for the teaching profession.

This article is provided as one of the outputs of the research project of the Faculty of Finance and Accounting, which is realized in the framework of institutional support University of Economics IP100040.

REFERENCES

- [1] J. Chromy, D. Dvorak, J. Sedivy, "Business Intelligence approach as communication tool of tutors and teachers in technical education", WSEAS Advances in data networks, communications, computers and materials, Vol.11, 2012, pp. 183 – 187.
- [2] Darling – Hammond L., "Teachers Education and the American Future", Journal of Teacher Education, Vol.61, No.1-2, 2010, pp. 35-47.
- [3] J. Chromy, Materiální didaktické prostředky v informační společnosti. Verbum Praha, 2011.
- [4] J. Chromy, D. Dvorak, "Inovace marketingových cílů v oblasti cestovního ruchu", Media4u Magazine, Vol.6, No.1, 2010, pp. 21 – 24.
- [5] V. M. Grassa, J. Lloret, C. Rodriguez, L. Romero, E. Sanabria, V. Sanchis, "Cooperative Work for Teacher Training", WSEAS Transactions on advances in engineering education, Issue 2, Vol. 5, 2008, pp. 69-76.
- [6] Kovac M. S., Kovac M., "Authentic Learning Environments for Teaching and Learning Sustainable Development in the Built Environment", International Journal of Education and Information Technologies, Issue 1, Vol. 5, 2011, pp. 42-50, ISSN: 2074-1316.
- [7] V. P. Bresfelean, N. Ghisoiu, "Higher Education Decision Making and Decision Support Systems", WSEAS Transactions on advantages in engineering education, Issue 2, Vol.7, 2010, pp. , 43-52.

- [8] J. Chromy, J. Sedivy, "Research on electronic marketing on Czech universities", WSEAS Latest Trends in Circuits, Automatic Control and Signal Processing, Vol. 12, 2012, pp. 155-159.
- [9] A. I. Starci, "E-Portfolio for Professional Learning Community", WSEAS Transactions on advantages in engineering education, Issue 7, Vol. 5, 2008, pp. 488-498.
- [10] J. Chromy, "Komunikace a media pro využití v hotelnictví a cestovním ruchu", Verbum Praha, 2010.
- [11] R. Drtina, "Perspektivy a omezení 3D technologií v oblasti vzdělávání", Media4u Magazine. Vol. 8, No. X3, 2012, pp. 3 – 9.
- [12] I. Simonova. "Styly učení v aplikacích eLearningu". Hradec Králové: M. Vognar, 2010.
- [13] E. Šilerová, Z. Havlicek, "Možnosti využití e-learningu v systému celoživotního vzdělávání", Media4u Magazine. Vol.7, No.1, 2011, pp. 43 – 46.
- [14] J. Sedivy, "Multimedia support of parametric modeling", WSEAS Recent Researches In Engineering Education and Software Engineering. Vol. 11, 2012, pp. 120 – 124.
- [15] G. Slaninová, L. Stašová, " Mediální vzory současných žáků a student", Media4u Magazine, Vol. 6, No. 3, 2010, pp. 72 – 82.
- [16] D. L. Ball, F.M. Forzani, "The Work of Teaching and the Challenge for Teacher Education", Journal of Teacher Education, Vol.60, No.5, 2010, pp. 497 – 511.
- [17] G. Sykes, T. Bird, M. Kennedy, "Teacher Education: Its Problems and Some Prospects", Journal of Teacher Education, Vol.61, No.5, 2010, pp. 464 – 476.
- [18] COUNCIL OF THE EUROPEAN UNION. 2000. Common Positions : C5 – 0565/2000 [on-line]. [cit. 2012-29-11]. <http://www.europarl.eu.int/common_positions/2000/pdf/c5-0565-00_en.pdf
- [19] S. K. HO, "TQM : An Integrated Approach". London : Kogan Page. 1998.
- [20] J. MAREŠ, "Styly učení žáků a student", Praha : Portál. 1998. ISBN 80-7178-246-7.
- [21] K. Dvorak, "Research of deployment of designer tools from industrial practice in project oriented education", International Journal of Education and Information Technologies, Issue 4, Volume 6, 2012, pp. 354-362.
- [22] S.-kay Pun, "Communication as a cognitive tool in visual learning", International Journal of Education and Information Technologies, Issue 1, Volume 5, 2011, pp. 96-104.
- [23] Ch.-jun Li, R.-J. Fang, H.-neng Chen, H.-L. Tsai, "The Research of teacher's KM-classroom climate and learning attitude", International Journal of Education and Information Technologies, Issue 3, Volume 3, 2009, pp. 145-152.
- [24] M. Tsubaki, M. Kudo, "A Study on Proposal and Analysis of Models Measuring Educational Effects for Assurance of Education Quality and Improvement of Student Satisfaction", International Journal of Education and Information Technologies, Issue 1, Volume 5, 2011, pp.113-122.



Katarína Krpálková Krelová received her Master (M.S.) and Ph.D. degree at the Faculty of Materials Science and Technology of Slovak University of Technology in Bratislava. She is Deputy Head of Department of Economics Teaching Methodology at the Faculty of Finance and Accounting at the University of Economics, Prague. She is a member of International Society for Engineering Education (IGIP) in Graz, International Association for Continuing Engineering Education, Atlanta, USA, TTnet Slovakia and Society for Information Science and Research (Slovakia). She gained the degree the International Engineering Educator ING.PAED.IGIP in 2006. Her research interests include teaching and learning entrepreneurship, entrepreneurial intention, the quality of engineering education and all aspects of educational research. She has been presenting many papers in international and national conferences.



Pavel Krpálek works as an associate professor at the College of Business in Prague and part time at the University of Economics in Prague too. He received his habilitation procedure at the University of Economics, Prague in the field of Theory of instruction of economic subjects. He is a teacher and guarantor of the Methodology

of economic subjects and Economy of Enterprise.

He is a co-author of two-volume textbook of Economy and Business, which serves not only as a textbook for secondary schools, but also as a recommended study resources and materials in accredited bachelor study programmes. He is also a member of the board for the defense of dissertations and a trainer in doctoral study programmes, namely not only at the University of Economics, Prague, but also at the Constantine the Philosopher University in Nitra (Slovakia).



Donna Dvorak, M.A. is from Chicago, U.S.A. She finished her bachelor's degree in cultural anthropology at the University of Illinois, in Urbana, Illinois in 1994 and earned her master's degree in TESOL and applied linguistics in 2004 from Indiana University in Bloomington, Indiana, U.S.

She worked as an English language instructor at the College of Travel and Tourism in Karlovy Vary, Czech Republic from 1995-2000 and again from 2004-2007. In between she returned to the United States and worked at the Center for English Language Training in the Intensive English Program for Indiana University. She is currently working as a senior lecturer at the Institute of Hospitality Management in Prague teaching English language and leading the IHM team in the international WelDest project. She has published various articles on language teaching and communication and tourism-related topics including: Business Intelligence approach as communication tool of tutors and teachers in technical education. , Malta: WSEAS Press, 2012; Development of Skills and Competencies for Students of the English Language Bachelor's Program at IHM. Praha: Vysoka škola hotelová, 201; Friendly versus Familiar: the importance of register in English language teaching when preparing students for careers in the hospitality industry. In: Fórum cudzích jazykov. Sládkovičove: Vysoká škola Visegrádu, 2011. She is a member of the international TESOL association and is currently studying for a master's degree in destination management at the Institute of Hospitality Management in Prague.