

Preparation of Secondary School Teachers for a New Role in the Field of Entrepreneurial Education

Abstract

This article begins with an argument for changes in the concept of the teacher's role during the period of realization of the objectives of the Lisbon process. European countries have a number of objective reasons for increasing the quality of general and professional education and training. The intentional formation of the entrepreneurial spirit as a personal quality and potential entrepreneurial competence as the condition for effective entrepreneurship have a significant position within the scope of these. The new role of the teacher – the role of facilitator and instigator of personal development of individuals in the sense of their more effective participation in economic growth and social processes requires creation of a new scientific discipline – the didactics of entrepreneurial education and at the same time also a new model for preparation of teachers for its realization in practice within the scope of pre-graduate or postgraduate preparation. Similarly to other didactics this science must endeavour to transform knowledge about entrepreneurship into a didactic system, which determines the target and procedural parameters of the educational process, taking into account the profile of the graduate, the age of the educated people and other external and internal conditions of this process. Creation of the foundations of the didactics of entrepreneurial education enables preparation of its executors – teachers of all levels, lecturers or tutors active in education of adults. This article informs of the solutions of the Comenius 2.1. [Teach@ESPRIT](#) Developing Entrepreneurial Spirit In European Teacher Training for Vocational Education project during the years 2004–2007, which the Centre for further education of the Department of Education of the University of Ostrava participates in. This paper informs on progress in a pilot course for verifying the pedagogical efficiency of a national module “Introduction to Entrepreneurship”.

Key words: *didactics of entrepreneurial education, entrepreneurship, entrepreneurial spirit, the new role of the teacher, Lisbon objectives, key competence, the European principles of teacher and trainer education, a module verification in a pilot course*

Introduction

The significant European document –the Commission’s Memorandum of Lifelong Learning (2000) states that individuals must be easily employable, which means accepting work with a certain employer, or employing oneself, i.e. becoming an entrepreneur. A person capable of finding his/her place on the labour market is described by means of certain general characteristics, which he/she should acquire through various forms of education during his/her school education and further expand, develop, innovate or increase in further phases of lifelong education (in this sense the concept of formal, non-formal and informal education is used).

The general characteristics of a modern person were named as the basic skills or key competences. Skills (competence) in information technology, foreign language skills, technical culture skills, entrepreneurial skills, social skills, learning skills or abilities, to quickly acquire new skills and to adapt to new tasks and situations, are all discussed.

The author of the article is the responsible resolver of the international Comenius 2.1. Teach@ESPRIT Developing Entrepreneurial Spirit In European Teacher Training for Vocational Education project at the University of Ostrava, who is to prepare a common European model for preparation of teachers for the realization of entrepreneurial education in vocational education.

With regard to the comparative newness of the requirement for intentional development of competence in entrepreneurship in schools, there is still no comprehensive and acceptable theory of this development available and it is desirable to be concerned with the theory of entrepreneurial education so that scientifically founded and verified in practice procedures are effectively usable over wide areas in educational and training practice.

The entrepreneurial spirit as a key competence

Entrepreneurship is a key competence enabling people to develop attitudes and competences as a basis for creativity, responsibility and independence (Tessaring, Wannan, 2004).

According to the definition by the Norwegian document, See opportunities and make them work! “*Entrepreneurship is a dynamic and social process where individuals, alone or in collaboration, identify opportunities for innovation and act upon these by transforming ideas into practical and target activities, whether in the social, cultural or financial context*“(2003)¹

Within the Czech national scope the entrepreneurial spirit is usually perceived in three imports (Jünger 2004):

- As a professional competence used by the entrepreneur during his/her professional activities,
- As an ability, competence that characterizes the entrepreneurial person and his/her approach to tasks,
- As a scale of values (i.e. axiological orientation), which expresses the overall entrepreneurial method of life of an individual.

The theory of entrepreneurial education

The introduction of the concept of entrepreneurial education is an experiment about naming significant components of the complex development of an individual in a simple, generally understandable manner and, at the same time, practised when naming other sub-components of education (e.g., ethical, multi-cultural or ecological). It is not possible to overlook the fact that this concept does not always h, if we issue from the fact that if, for example, Jünger (2004) refers to an entrepreneurial society, then it is possible to use the proposed identification of *entrepreneurial education* for the members of this society.

Formation of an individual in the sense of the third import of an entrepreneurial spirit may be realized in many methods, which will be simply a selection of one or more concepts of the entrepreneurial spirit or their combination in a certain sequence.

In general, it will depend on the age, level and type of acquired education and the entrepreneurial experience acquired until now by the individual, in whom we will develop the entrepreneurial spirit.

If we intentionally narrow the problem of entrepreneurial education to the period of school education (for example, until secondary, higher or university education is achieved), then it is possible to develop the entrepreneurial spirit in the sequence of development of competence, the scale of values and potentially also (not compulsory) development of qualifications.

The first two levels of the development of the entrepreneurial spirit should be developed in all individuals, pupils and students, as general preparation. The third

level – qualification for entrepreneurship should be a professional component of education, which the educated individual will choose together with the type of school or the profile of a graduate of a specific school education programme or as an optional subject.

The reasons for forming the theory of entrepreneurial education can be divided into social, pedagogical and personnel ones.

Within the scope of *social reasons* it is possible to emphasize the following (Jünger, 2004):

- entrepreneurship is starting to be perceived as a new economic resource;
- entrepreneurship may be the tool for a loosely conceived social integration;
- entrepreneurship contributes an effect similar to higher employment levels;
- entrepreneurship is a suitable tool for the self-realization of social levels;
- entrepreneurship is the means for social economic development.

The decisive *pedagogical reasons* for cultivating the scientific discipline of the didactics of entrepreneurial education include the following:

- there exists a fairly clearly defined area of human actions, which requires educational cultivation;
- in a number of cases this area has already issued in the introduction of educational subjects in secondary, higher vocational schools and universities;
- it is necessary that the greater professional community determines the target concept of entrepreneurial education as conceived by the three above-mentioned imports of the entrepreneurial spirit;
- it is necessary to examine and evaluate the curricular documents of all relevant parts of the school system from this aspect at home and abroad (this concerns the so-called curriculum evaluation),
- it is necessary to generalise processes performed in practice, falling contentually into the scope of entrepreneurial education (a so-called evaluation process can be spoken of);
- it is also necessary to determine the existing state of the development of the entrepreneurial spirit and entrepreneurial competence of individuals in society (i.e. to perform an evaluation of the results of education, or more precisely, the unintentional effects on this individual in this area);
- on the basis of the above-mentioned evaluation procedures it is desirable to develop additional categories of entrepreneurial education in the form of their principles, educational methods, organizational forms and material didactic means.
- it is desirable to determine the output standards/criteria for the evaluation of the effects and effectiveness of entrepreneurial education.

The key *personnel reasons* may be the following:

- entrepreneurial education does not yet have a tradition in our conditions;
- its execution is fragmented and uncoordinated;
- the formation of a scientific community concerned with entrepreneurial education would be a promising and desirable action;
- teachers are still not purposefully prepared for the realization of this component.

Realization of entrepreneurial education in practice frequently ranges between two extreme positions: successful entrepreneurs frequently do not have the time, pedagogical or communication pre-requisites for successful entrepreneurial education. On the other hand, pedagogically competent teachers usually do not have any or have very little entrepreneurial experience. The professional and pedagogical components are consequently not balanced.

The new role of the teacher

The concept of the teacher's role issues from the new perception of their position within the educational process. Teachers and trainers play a crucial role in supporting the learning experience of young people and adult learners. They are key players in how education systems evolve and in the implementation of the reforms, which can make the European Union the highest performing knowledge-driven economy in the world by 2010. They recognize that high quality education provides learners with personal fulfilment, better social skills and more diverse employment opportunities. Their profession, which is inspired by values of inclusiveness and the need to nurture the potential of all learners, has a strong influence on society and plays a vital role in advancing human potential and shaping future generations. Therefore, to achieve its ambitious objective, the European Union needs to view the role of teachers and trainers and their lifelong learning and career development as key priorities.

In order that the given expectations could be fulfilled in practice, the European Commission formulated the Common European Principles for Teacher and Trainer Competences and Qualifications. (Common principles, 2005).

The common European principles are:

- **a graduate profession:** high quality education systems require that all teachers are graduates from higher education institutions or their equivalents. Teacher and trainer education is multidisciplinary. This ensures that teachers and trainers have: 1) a knowledge of their subject matter; 2) a knowledge of pedagogy; 3) the skills and competences required to guide and support learners; and 4) an understanding of the social and cultural dimension of education

- **a profession placed within the context of lifelong learning:** teachers' and trainers' professional development covers the full span of individuals' careers. Teachers and trainers recognize the importance of acquiring new knowledge, and have the ability to innovate and use evidence to inform their work. They are fully engaged in the process of lifelong learning and are able to evolve and adapt throughout their whole career. They participate actively in professional development and this is recognized within their own systems. They also contribute to young people and adult learners becoming more autonomous lifelong learners.
- **a mobile profession:** mobility is a central component of initial and continuing teacher and trainer education programmes. Teachers and trainers are also encouraged to work for longer periods in other European countries for professional development purposes. There is also the opportunity for mobility between different levels of education and towards different professions within the education and training sector.
- **a profession based on partnerships:** institutions providing teacher and trainer education work collaboratively in partnership with schools, industry, and work-based training providers. Teachers and trainers are encouraged to review evidence of effective practice and engage with current innovation and research in order to keep pace with the evolving knowledge society. They work in learning organisations that reflect on their own and others' best practice and which collaborate with a wide range of community groups and local stakeholders. Higher education institutions ensure that their teaching benefits from their knowledge of current practice (Common principles, 2005).

From the aspect of the intention of the development of entrepreneurial education it is important to emphasize that the execution of the teaching profession must be much more closely linked to the current social economic conditions, which also requires significant changes in pre-graduate and postgraduate preparation of teachers.

The objectives and results of the Developing Entrepreneurial Spirit In European Teacher Training for Vocational Education project

The objective of the project is the development of a European concept for teacher training in order to promote the so-called "entrepreneurship education", i.e. to teach entrepreneurial initiative.

- Different European institutions develop, test and evaluate modules for teacher training for entrepreneurship education.

- Special emphasis is placed on the changes in the role of the teacher with results in an enlargement of the teachers' competence.
- The modules worked out are supposed to encourage responsible authorities to create an internationally accepted form of certification such as e.g. the ECTS –European Credit Transfer System and to implement entrepreneurship education into the system of teacher training in Europe.

The target group of the project is

- Experienced teachers in vocational and technical schools (in-service training of teachers)
- Future teachers who are undergoing their teacher training (initial teacher training)

The European concept of initial and in-service teacher training is based on a transfer of knowledge and it will refer to three fields of action.

- “Entrepreneurship and teachers' role“
- “A tool box of entrepreneurial matters“, i.e. teaching-learning arrangements and pedagogical and didactic methodologies and strategies to promote “entrepreneurship education“. We intend to use the concept of the creation of the theory of entrepreneurial education for this area of activities in the Czech national environment.
- “networking between schools and social life“.

For the creation of relations between project solvers and schools and social partners a whole range of opportunities is used – information leaflets, sending e-mails with links to additional information on the project internet pages (www.teach-esprit.net), participation of solvers in professional conferences and forums regarding entrepreneurship and development of entrepreneurship, publication of articles in professional magazines and volumes from conferences.

At three joint meetings the international project solver team gradually focused on determining the concept and the contents (curriculum) of the joint course of Entrepreneurship Education identical for both target groups. The length of the presentation tuition (face to face learning) of this course was set at 90 hours. At the same time, it was decided that the course would be composed of partial modules, which will be developed by teams in individual countries. The central module (no. 1) of the course will be composed by all the solvers. The modules represent a comprehensive contentual part of the course and may have their own specifics during their didactic interpretation (development).

In spite of the intensive endeavours by the whole team, the precise boundaries of the modules and their final number are still an open matter. It is in this key point of solution of the whole project that it is clear that the individual national teams had and still have different input conditions.

For instance, in Norway the education system has a very ambitious target before it, which should become, according to the “Strategy for entrepreneurial spirit in education” called “See opportunities and make them work!”, declared by three Norwegian ministries, including the Ministry of Education and Science, the best in the world in entrepreneurial preparation for the years of 2004–2008.

In Germany there is already marked experience with creation of tools for the realization of entrepreneurial education in practice by Vocational colleges.

Solvers from Cyprus stress the ethnic dimensions of entrepreneurship, which every vocational school should be concerned with.

From an environment in which the traditions and experience in entrepreneurship were interrupted for 40 years, the Czech national team sees the main problem in motivation of individuals to entrepreneurship and commencement of independent entrepreneurial activities by school graduates, connected with a number of bureaucratic obstacles.

At the present time the following modules of the Entrepreneurship education course are being considered:

1. module: Future of work and the teachers’ new role (responsible GE team in cooperation with all the national teams)
2. module: Introduction to Entrepreneurship (CZ team)
3. module: Self-management (GE team)
4. module: Coaching and team management (NO team)
5. module: Entrepreneurial ethics and reasoning (CY team).

The national teams are mutually opposed in the contents and didactic solutions to the modules and they gradually verify their functionality in pilot courses.

Pilot verification of the Czech national module “Introduction to Entrepreneurship”

The pilot verification of the above-mentioned module was realized in April and May 2006 at the University of Ostrava. The target group consisted of students of the fourth year of their master’s combined studies in the field of “Teaching of special subjects” specialized in business and services, who already do their teaching profession at various vocational schools of the above-mentioned specialization.

The pilot project was realized in the period of 14 days, which included 2 days of attendance teaching at university at the beginning and the end of this period. There was an opportunity for team solution of assigned projects between these two days.

Module structure, its partial objectives, contents, used methods and aids are shown in Chart 1

Chart 1 Project on Pilot Verification of the Educational Module “Introduction to Entrepreneurship”

Pilot Course Project

Module : Introduction to Entrepreneurship

Term:

Place:

Lesson	Time	Topic	Goals (the participants...)	Contents	Methods and forms	Aids	Lecturer
1st day	8.20-8.40	Project Comenius 2.1. Teaching Entrepreneurial Spirit In European Teacher Training for Vocational Education in years 2004-2007	Will be acquainted with a need, project outputs and objectives, will understand the need for European model of teachers' preparation for development of pupils' spirit of enterprise at secondary vocational schools (capital transfer, labour mobility, etc.), they will accept active part in verifying	Project objectives, partners, time of solution, outputs (final, continuous) benefits (final, continuous)	Presentation	OHP, See opportunities and make them work! (Norway), Photocopies of a thematic whole unit “A person and a world of work!”	Malach

Lesson	Time	Topic	Goals (the participants...)	Contents	Methods and forms	Aids	Lecturer
2.	8.40-9.00	Teacher's new role	They will understand there is a need for a new definition of a teacher's role, both in heterodidactics and autodidactics, they will accept a change -from information transfer to facilitation of pupils' unaided work	Teacher's competences, principles, EU key competences, Framework educational programmes for basic education include a competence of a spirit of enterprise	Presentation, dialogue	Memorandum on lifelong learning, Strategy of human resources development 2003, Special education 2010, Common principles 2005, Long-term intentions of education development in the Czech Republic and regions.	Malach
3.	9.00-9.20	Questionnaire	To find out and interpret teachers' opinions of a target group on a need for development of a spirit of enterprise, on their contribution to this sense	realization of entrepreneurship education, an entrepreneur, entrepreneurship, a spirit of enterprise, business environment, how to start running your own business, strengths and weaknesses	Questionnaire research	Prepared questionnaire	Malach (+ Durda, Slovák)
4.	9.20-11.30 (10-minute break at 10.00 o'clock)	Spirit of enterprise and entrepreneurship	They will acquire key terms, become aware of the importance of entrepreneurship and a spirit of enterprise, identify their own potential development.	Three meanings of a term "a spirit of enterprise", how a man of great enterprise is to be recognized (or diagnostics and autodiagnosics of a spirit of enterprise)	Explanation, instructing/ briefing, training	Diagnostics questionnaires	Durda

Lesson	Time	Topic	Goals (the participants...)	Contents	Methods and forms	Aids	Lecturer
5.	12.30-13.50	Business environment EU, CZ, Ministry of Education	They will acquire key terms describing business environment, they will learn to evaluate information provided by documents from a given area and the media	legal, economic, personnel and other factors	Explanation, discussion, work in groups	Up-to-date statistical data on economic development, pre-printed conceptual map and a list of historical events	Slovák
6.	14.00-14.50	Opportunities	Increased ability to evaluate and use opportunities, they will learn to use selected methods of creative thinking and problem solution	opportunities and their resources, selected methods of creative thinking, evaluation of opportunities,	Explanation, discussion, individual work	Presentation in PowerPoint	Durda
7.	15.00-15.30	Assignment of projects	They will learn to synthesize pedagogical competences and knowledge of the field of entrepreneurship into a form of a targeted process of development of a spirit of enterprise in secondary school students	To use thematic orientation of the worked out layout of the questionnaire	Instructing/briefing with questions	The outline of the project assignment	Malach, Durda, Slovák
8.	8.20-11.30	Presentation of Projects	To acquire incentives, inspiration for completing particular projects, learn active listening and at the same time to evaluate the work of other groups critically	Contents of projects of the course participants in compliance with a kind of study/vocational programmes and a subject type	Presentation, workshop, brainstorming	Evaluating scheme for project assessment, the participants will assess, the lecturers only carry out final overview (summary)	Malach, Durda, Slovák

2nd day

Lesson	Time	Topic	Goals (the participants...)	Contents	Methods and forms	Aids	Lecturer
9.	12.30-14.00	Optimization of projects, preparing the "realisation" version for a practical application at school	To accept critical and additional incentives for improvement of project proposals	Proposal of development of a spirit of enterprise in a selected subject or a chosen educational activity of pupils	Work in groups	According to a choice of members of a research team	Malach, Durdia, Slovak
10.	14.10-15.30	Theory of a change as a way out for "Entrepreneurship Education" project application at secondary schools	To learn how to proceed purposefully and systematically at introducing curriculum changes when following up Framework Educational and School Educational programmes for vocational schools.	Theory of a change (stages, forces, methods of overcoming the resistance, evaluation of the change benefits - proposal of (self-)evaluating criteria, entrepreneurship education as a cross-sectional topic of Framework Educational Programmes for vocational education.	Explanation, discussion	"Theory of a change" Presentation Programme	Malach
11.	15.30-15.50	Evaluation of a pilot course	To get feedback from individual participants of the course	The contents of the evaluating questionnaire comes from a discussion of a research team in Lefkosii, 2005	Questionnaire research	Quasi-standardized questionnaire	Malach, Durdia, Slovak

- In Lessons 1 and 2 the participants of the pilot verification of the module were acquainted with the Comenius 2.1. Teach@ESPRIT project and its importance for the national environment.
- In Lesson 3 the participants were given an entrance questionnaire in order to find out their opinions and existing experience in the field of entrepreneurial education. The analysis is to be a subject of a separate study.
- Lessons 4,5 and 6 were conducted as presentations with discussions, group and individual work.
- In Lesson 7 the draft projects (cf. Chart 2) and methodological theses for team work (cf. Chart 3) were submitted to the participants.
- Lesson 8 was a key lesson of the 2nd day of the pilot course in which the participants presented and justified their team solutions of the assigned tasks. The assessment given to each team by the other teams was objectivized using a prepared evaluation scheme (analytic scoring rubric). The participants were very active and the presentations were qualified.
- Project Optimization – Lesson 9 – was placed outside the attendance teaching due to limited time.
- Lesson 10 – is to be updated step by step with regard to gradual creation of National Framework Educational Programmes for vocational education.

Chart 2 Project assignments dealing with the topic of “Development of Pupil’s Spirit of Enterprise at Secondary School”

Project assignments dealing with the topic of:

Development of Pupil’s Spirit of Enterprise at Secondary School

- The project should be a guideline for the realization of a particular change in teaching concept of a subject or educational work at school.
- It should proceed from specific conditions and should offer feasible solutions (a principle of school connection with practice)
- It should presuppose students’ active involvement in teaching (principles of activity, purposefulness and permanence)
- It should use rich information resources for a solution
- It should be managed in compliance with the theory of project management (see below)

The research team shall work out a project dealing with a topic mentioned below, which is highlighted.

- Potentials analysis of teaching subjects at selected secondary vocational school to realization of education to the spirit of enterprise or entrepreneurship.
- Preparation of a teaching lesson/sequence focused on education for the spirit of enterprise or entrepreneurship (including goal setting, formulation of contents, choice of methods, forms, material and didactic means as well as tools of continuous and final assessment).
- Layout of a notice board (web page) with information in the field of the spirit of enterprise and entrepreneurship for students at a secondary vocational school (patterns of enterprising individuals, enterprising organizations including public administration, personalities from the field of entrepreneurship, interesting initiatives of enterprising entities and their effects).

- Layout of criteria for a competition for a title of “Enterprising class” (or possibly enterprising school, pupil). *The best proposal will be appreciated and nominated for realization in co-operation with the Economic Chamber in the region.*

Each of the prepared projects should include:

- Brief characteristics of a study branch(es) at the school and profile(s) of its/their graduates
- Description of the current state of education of pupils to the spirit of enterprise at the school

The research team shall present their own solution results to participants on the second day of the pilot course.

The presentation is to be realized in a simulated situation of a meeting of school staff, where a problem of development of education to the spirit of enterprise at secondary vocational school is being discussed (as a possible cross-sectional topic within the Framework Educational Programme for a respective group of study branches).

Each team will be given a feedback from other participants of the course.

Chart 3: Minimum of Project Management

Minimum of Project Management

Project management represents the use of specific tools, techniques, knowledge and skills in project activities with the aim of fulfilling the expectations connected with the project.

A project is to be understood as an organized effort for reaching a certain goal. (Rosenau, 2003).

There are **four typical marks of projects**; if these marks occur together, they distinguish a project management from other managerial activities.

1. projects have a three-dimensional goal
2. they are unique
3. they include resources
4. they are realized within an organization

- **The goal three-dimensionality** consists in the fact that a time-schedule and budgeted cost are set simultaneously with requirement for material execution.
- **Each project is unique**, as it is carried out only once, it is temporary and a different group of people work on it (in almost any event). Within a project some friendly relationships can be formed and the end of the project is then regretted.
- Projects are realized using **both human and material resources**. Many of the required resources are under the manager's minimal control, as these are within the competence of permanent departments.
- Organization realizing a project usually observes routine goals as well and the project manager is often faced with interests and processes of standard working departments.

Project management requires **five different managerial activities** (or processes) and it can be arranged in a structure as a process consisting of five steps:

1. **defining a project** – project goals are determined
2. **planning** on how the goal will be fulfilled
3. **management** – use of a managerial style which results in the fact that each team member will carry out his/her work efficiently and in time.
4. **observation (monitoring)** – checking the state and progress of project work, so that the accounting variance would be found out in time and procedure corrections made as soon as possible

5. **finishing** – verifying whether the accomplished task is in compliance with the current definition of the thing that should have been done and closing all the unfinished work including documentation (in our case a presentation of the task solution).

M.D. Rosenau formulated a golden rule for project planning. Involve people who will work on the project in planning the work activities.

- These people should know more about them than anybody else.
- It is their task, not yours.

A logical consequence results from the golden rule: *Each job is easy for a person who does not have to do it. For those who plan their tasks themselves it is therefore more likely that they will be able to carry them out.*

Recommended reading: ROSENAU, M.D. *Project Management*. Computer Press, Brno, 2003. ISBN 80-7226-218-1.

Conclusion

Teachers in the European Union countries are to be more involved in the processes of economic and social development in the future. They must identify themselves with their new roles as facilitators and instigators of pupils and students for active and responsible entrance into the world of work and entrepreneurship. For the acceptance and effective fulfilment of these new roles they must also be prepared otherwise in initial and in-service training. For this it is necessary to develop scientific activities in the new pedagogical subject – the didactics (theory) of entrepreneurial education, which should prepare theoretical justification of targets and the contents of entrepreneurial education and effective procedures for individual levels and types of school. Within the scope of the Comenius 2.1. Teach@ESPRIT Developing Entrepreneurial Spirit In European Teacher Training for Vocational Education project good foundations will be laid for a common European approach to the development of the entrepreneurial spirit in individual member countries. Pilot verification of the national module “Introduction to Entrepreneurship”, which took place at the University of Ostrava in the course of the spring 2006, proved that it is real to create a pedagogically efficient project on secondary school teachers’ preparation for realization of entrepreneurial education, which would motivate them to the mentioned activity and, at the same time, provide examples and creative incentives to management of entrepreneurial education at vocational schools. Particular results of the module verification will be published after processing in the next edition of this journal.

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