

УДК 37:331

Tatiana Roháčová, Magister of Psychology and Ethics
Technical University of Košice, Slovakia

THE NEED OF FORMING ENTREPRENEURIAL COMPETENCIES FOR THE STUDENTS OF NON ECONOMIC SPECIALIZATIONS AT TECHNICAL UNIVERSITY

Stimulating entrepreneurship is highly topical issue and it is a central objective new challenges of the European Commission. Before of university education raises the request to implement such educational activities, which goal is preparing students for entrepreneurship, or for effective, responsible and demanding tasks in the work process. The article analyses the options of the introduction of new subject Basics of the entrepreneurial skills for non-economists at Technical University of Kosice.

Keywords: entrepreneurship, entrepreneurial competencies, active methods of teaching.

Ensuring competitiveness of manufacturing area together with the services in Slovakia determines inevitability of the civilized business full development, which is able to start up and dynamize current economy. Important criteria which show the effectiveness of business activities are readiness of entrepreneurs to create such activities under present difficult, dynamically changing social - economic conditions, social responsibility of entrepreneurs and a high level of business culture. In many indices, many Slovak entrepreneurs do not meet the requirements which are necessary for running a company, based on keeping a business ethics, compliance with legal standards, understanding the social base of entrepreneurship as such. Business in Slovakia is regulated mainly by these two laws: the Commercial code and the Trade Licensing Act. (Horenský, 2014) Entrepreneurship is defined in the Commercial Code as a systematic activity accomplished independently by an entrepreneur in his own name and by his own responsibility for the purpose of gaining profit.

J. Timmons defines entrepreneurship as “the ability to create and build something practically from nothing“. It is an initiation, creation, building of enterprise or organization, in contrast with observation, analyze and talking about business or organization. It is a capability to see an opportunity there, where others see chaos, contradiction, confusion. It is an ability to create a team of collaborators, who can effectively complete your qualities, your talent. It is a competency to find, use and control resources (many times owned by others) and be sure that at the time when you need money the most, you have it. It is a willingness to take calculated risk and, subsequently, do everything possible to achieve your goal“. In addition to material – economic dimensions, business has also others, and they are ethics of commercial relations, law regulations, morality, company culture, that is why in order to reach a sufficiently high performance level of business activities, entrepreneurs have to have not only economic knowledge, but also good understanding of principles and standards of ethics in business relations, types and methods of business activity management based on moral principles and management culture. (Tkáčová, 2013)

One of the aims of present education in Slovakia is to increase a level of young people’s preparation for entrepreneurship. It is necessary that young people completing their studies are prepared and able to carry individual responsibility for their successful personal life as well for the development of the whole society. By analyzing the idea of entrepreneurship and competency in present scientific works, and by generalizing acquired results we came to the following conclusion – entrepreneur competency is a summary of personal and working qualities, habits, knowledge, particular behavior manners, while controlling them helps solve various entrepreneur tasks successfully, and attain excellent results.

In general, characteristic qualities of entrepreneurs can be the following:

- be prepared to take risk,
- believe in success,
- endurance, consistency,
- flexibility,

- to be active
- strong sense of self-responsibility,
- self-confidence,
- sufficiency of professional knowledge and ability to learn,
- ability to convince,
- excellent communication skills,
- be capable of leading other people,
- initiative,
- capability to use common sense when dealing with different situations,
- a high need of achievement and reaching a goal.

Based on the above mentioned analysis, we can distinguish the most characteristic words for entrepreneurship, which reveal its essence, and form a general definition of entrepreneur as innovator, who is responsible and capable of performing activities in the risky environment initiatively and independently, with the aim to gain profit based on the combination of personal benefits as well as benefits for others and the society. (Tkáčová, Gluchman, Račková, 2014) Economic uncertainty at the job market and a threat of unemployment, which require a constant increase of education and qualification levels along with the need to make responsible decisions – all this determined inevitability of transition in the educational process towards the approach forming students' competences. (Palašáková, Kol'veková, 2012).

Turek (2008, s. 68) defines the concept of competence as an ability (behavior, activity or a set of activities), which is characterized by excellent performance in some areas of activities. Competencies are characteristic elements of activities which occur more often and more consistently when reaching excellent performance than when reaching average and low performance in a particular area. As the acquiring of competencies is closely related to the teaching methods, it is necessary to develop them through new trends in teaching and learning and to proceed as mentioned by I. Turek:

From:	To:
giving encyclopedic knowledge	complex development of personality, development of learning abilities
teaching	learning
passive approach of a student	activity, independence, creativity, experiencing of student work
uniformity, centralism	heterogeneity, plurality
authority, dogmatism	humanity of teaching
teacher – unfailing authority	teacher – advisor
focus on an average student	differentiated and individual approach to students
frontal work of a student	team work
student competitiveness	cooperation
emphasis on content of the teaching	emphasis on the whole teaching and learning process
chalks and blackboards	teaching techniques
isolated subjects	their integration
informative-receptive and reproductive methods	heuristic methods
individual examination in front of the blackboard and evaluation of knowledge and skills	objective forms of examination, self-evaluation, preference of positive evaluation of the whole student personality
homework	free time inspirations
emphasis on discipline, obedience of students	acceptance of students, respecting their personality
dominant words of the teacher and textbook as the source of knowledge	usage of primary information resources
preferences of verbal and mathematical-logical intelligence, as well as left hemisphere of the brain	equality of all 8 types of intelligence, both brain hemispheres
mainly intellectual focus	balanced proportionality of the development of cognitive, affective and psychomotor aspects
stability of student groups – classes	natural live student groups, grouping of students based on teaching goals
isolation of school from life	connecting with the community life

It will be possible to implement these new education trends into seminars of a prepared subject “The basics of entrepreneurial skills for non-economists“. The methods of active teaching are suitable not only for acquiring knowledge but also for the development of competencies. (Sitná, 2009) Thanks to active teaching methods, students create their own opinions, and this, together with the understanding of new information, is incorporated into the system of his knowledge, skills and views, which supports simultaneous effective development of critical thinking, which is characterized by their own discoveries, comparisons, judgments and individual decision processes about using or refusing the new information. Active work during the class forms learning competencies of students, which are inevitable for whole life learning process. During active learning the most of the work is done by students, they are not the “object” but “subject” of the classes. (Rohařová, 2013) They study ideas, solve problems and apply acquired knowledge in practice. They are involved in evaluation of their work and self-evaluation. Students are actively involved in the process of teaching, and the course of seminars is interesting and inspiring for them. The methods of active teaching (group teaching methods, brainstorming, snowballing, playing roles, E-U-R /Evocation, Understanding a meaning Reflexation/, case studies, role play method, methods of task solving, idea maps, presentation of seminar work etc.) are very similar to spontaneous natural learning and a teacher is more a facilitator than a “provider of information”. A teacher is only leading, helping, but the most active participants of the teaching process are students, who, through their activities, develop themselves, their personality in the field of knowledge, skills and views. (Hansen Čechová, 2009)

By developing the key competencies (informative, teaching, cognitive, interpersonal, communicative, personal) also the entrepreneurial skills are developed. As an example, by familiarizing students with the effective methods of learning, processing of information and various types of work (idea maps), to teach the students thoughtfully organize the time of particular activities during a seminar, day as well as during their life (time management, stress resistance), possibility to express their own opinion, critical view on the proposed materials and stated examples (development of the critical and creative thinking), providing a feedback in group work, discussions, test evaluation.

Active methods of the teaching often require that students work in the groups of different sizes, social relations in groups are used and also known as a peer teaching – students learn one from another. Work in groups is active, shy students who have a problem to perform in front of the whole class, are easily activated in the group. Work in the group also means self-control and mutual help; conflicts are solved in the atmosphere of respect to the values of pluralism, mutual understanding, respect and tolerance. (Rohařová, 2010) Group methods of work can contribute to the development of interpersonal (social) competencies through the situations, which remove physical and psychical barriers, deepen relations in groups, support healthy competitiveness and cooperation, art to divide the work in group, to determine the concrete functions, planning, controlling, evaluating of the group activities, final reflexation is helping to realize the sense of activities, own position and responsible role in them, empathy, brainstorming, non-violent solving of the conflicts, creation of the harmonic interpersonal relations – all these are inevitable tools of a good entrepreneur.

By developing personal competencies, students get to know themselves, their qualities, are creating their hierarchy of values, in which values such as politeness, fairness, love, appreciation, honor, help, cooperation, tolerance should not be missing. When the students have a possibility of interactive work during a class, they are not only getting to know others, but mostly themselves, they are learning to control, express themselves in assertive way, to be active, perseverant. (Zahatňanská, Porářová, 2002) Self-awareness is developing – knowing own positive qualities and negative qualities, performing with a self-confidence, evaluation of their own possibilities and abilities, managing of their own emotions and moods, controlling

their own behavior, keeping calmness, adaptability, flexibility, behavior auto regulation by involvement in the activities that are developing motivation, initiative, perseverance, discipline, assertive approach. Communicative competencies form the essential part of the entrepreneurial skills, they are inseparable from active and group types of the teaching during which the lack of communication is not possible. The ability to clearly and coherently form their own ideas, be active during the discussions, listen, ask questions, defend their own opinion, reasoning their own view, reflect the opinion of others, summarize conclusions, express the most essential facts. Exercising of the different types of communication – understanding its positives, negatives and applicability of their use, clear formulation of their own opinions in discussions, adequate reactions on the feedback from their own performance, ability to receive advise and criticism, not to be influenced by prejudices and stereotypes in the approach to the others, public presentation of group work as the speaker or in the position of the listener are the benefits for the future entrepreneur.

Based on the above mentioned facts, one of the most important practical goals of the Department of social sciences at Technical University in Košice was an elaboration of a grant project Basics of the entrepreneurial skills for non-economists (MŠVVaŠ SR KEGA No. 015TUKE-4-2013) its content is directing towards a creation of the interdisciplinary subject which improves preparation of the students at the particular departments at Technical University in Košice for the practical life. The goal of the interdisciplinary subject is to develop entrepreneurial and personal potential of the non-economic students and by this acquire necessary competencies within the framework of the EU recommendations. In accordance with the priorities of challenge and initiatives of the strategy Europe 2020 (Innovation in Union, Youth in motion and Program for the new skills and new work places), the project content is aimed to strengthen the active approach of the students towards their own future, to increase an attraction of the entrepreneurship as the opportunity for the development of entrepreneurial thinking and support of the entrepreneur attitudes, strengthens the creative and innovative approach, as well as the development of the sectional, transmissional, meta-competencies and individually focus on the key competence “entrepreneurship and innovation” in the frame of the existed modules. The most important criteria determining the effectiveness of the entrepreneurial activities are just entrepreneurship competencies which are inevitable for the preparedness of the individual to implement such activities under present complex and dynamically changing social-economic conditions.

The goal of the project is to develop the concept of the multidisciplinary modular and practically specialized subject based on entrepreneurial skills in the frame of the non-economic study subjects of university education. The preparation of the multidisciplinary subject Basics of the entrepreneurial competencies for non-economists results from the need to effectively cover an absence of a whole-university subject focusing on the theoretical preparation of the students for the entrepreneurship and for the developing and strengthening of the entrepreneurial skills. At the individual faculties at Technical University in Košice some of the study subjects have incorporated economics oriented subjects. The majority of them is in the bachelor level of studies and they are the part of the mandatory subjects such as, for example, Economy of the enterprise, Management, Financial management, Marketing, Theory of the control, Entrepreneurship in the transportation and others, without a sufficient representation of the subject focused on soft skills. In non-economic project studies subjects focusing on entrepreneurial skills are not implemented very often or not at all. Within the framework of practical pragmatic requirements, favorable assumptions for the realization of the grant project intention have arisen. The basic goals of the research task included also the identification of current knowledge of the state-of-art of the solution and teaching process of the subject at various universities in the Slovak Republic. (Hrehová, Jenčová, 2014).

The creation of the subject about entrepreneurship in non-economic education areas is a current society-wide requirement, and simultaneously, it offers students a possibility to gain the basic social, psychological, economical knowledge and skills needed for the entrepreneurial activities. This is also the essential idea of the project.

The result of the project will be a realization of the pilot course, processing of the new modern university book and didactical teaching tools for individual course modules, their creative content of which will enrich the theory and methodology of the education towards the entrepreneurship, development of the key competence „entrepreneurship and initiative“, expertise and personal competencies of the students of non-economic studies, which will increase their applicability at the job market, and in the same time it will strengthen their active approach towards their own future.

As Žiaran and Hrehová (2014) mention, the project team has a multidisciplinary composition, and it is composed of economists, psychologists, sociologists, politologists, philosophers, ethicists who are necessary due to the character of the project. The project team consists of the two working groups of university teachers from the two work places from the department of social sciences and Institution of entrepreneurship and management Faculty of Mining, Ecology, Process Control and Geotechnology, which consequently was reflected in the conception and preparation of the subject Basics of entrepreneurial competencies for non-economists at technical universities for the non-economic directions of studies. This interdisciplinary is perceived:

- In terms of the student participation from the different non-managerial faculties and from the varied divisions, by which we can properly use a potential of varied and mutual complementarity of ideas, skills, knowledge, types of thinking or experiences of individual students during the teaching process;

- In terms of the interconnection and cooperation of teachers from the several departments (economic, managerial and humanity), by which are establishing also opportunities for searching of new “keys” for the development of entrepreneurial skills, knowledge, types of thinking of future graduates, coming from the combination of various fields and ideas;

- In terms of the interdisciplinarity of the subjects, by which are used among subject relations, information are introduced into the relations, there is inter-connection of the ideas from different branches and more complex view at the operations related with entrepreneurship is created;

Within the framework of the above mentioned ideas, the interdisciplinarity of the project content followed by the creation of the subject enables the development of the expert profile, theoretical and practical knowledge and skills for the self-employment of a future graduate.

Focus of the subject content of Basics of entrepreneurial competencies for non-economists is directed for the objective practical preparation of basic key competence “entrepreneurship and initiative”, includes various aspects of the entrepreneurship (economic, ethic, psychological, social, personal and others).

Individual modules of education focus on the personality of the entrepreneur, initiative and creativity, management of the people, building a team, communication and presentation skills, balance between working and personal life, stress, mental and physical health, social responsibility in the business, ethics of the entrepreneurship and entrepreneur, entrepreneurship as a professional career, career base and premises, legislative frame of the business, management of the functional areas of the company – economy, marketing, personalistics, life cycle of the enterprise, financial management of the entrepreneurship, risks in the business, business plan and marketing in the entrepreneurship. (Jenčová, Hrehová, 2014)

The project implementation is planned so that the individual modules and activities are inter-connected, logically following each other, work forms and methods support the develop-

ment of the competencies for the imitativeness and entrepreneurship and in the same time are tied with the human qualities, ethical behavior, moral actions etc. The use of student multidisciplinary approach will increase entrepreneurial thinking, views, strengthen creativity and innovative approach, develop meta-competencies, planning of the entrepreneurial activities and their preparation for a realization, communication and presentation, management of own professional career, personality features, conflict solving, problem solving with a creative approach, teamwork, harmony of the professional and family life and others. Students will also gain basic information about types and forms of entrepreneurship, preparation of the business plan, establishment of the enterprise, management of its functional fields, business risks as well as social responsibility. Students will learn how to orientate in the area of measures and policies which support business in the trade economy before entering the job market, etc. (Džupková, 2014). The student preparation as a potential entrepreneur in this or other spheres will be realized in one process while gaining university professional education. University technical education in connection with the economic, law, psychological, sociological, political, ethical, philosophical knowledge can create the basis for the development of entrepreneurial skills and habits. Students will gain education in the specialization and in the meantime will acquire the knowledge and skills in the entrepreneurial activities.

Although by its basics the entrepreneurial activity belongs to economic conditions of the human life, it is not only an economic category. Entrepreneurship increases not only material but also spiritual potential of the society, and it also creates the space for the practical realization of inherent and acquired competencies and talents of each person. It means that it is connected with pedagogy. Entrepreneurship is a noble social phenomenon which requires a support of its spiritual – ethical content, positive appreciation of the help and services, which entrepreneur offers to the people and society, acknowledgement of the entrepreneurship activities universality, which is directed for the material development, moral changes of the organizational – cultural environment, adding the respect of the personal entrepreneur influence towards the cultural values, virtues, forms of ethical behavior, modeling of the correlation inside and outside of the entrepreneur organization based on the requirements of the company culture. Entrepreneurship is a system of the social links; it has an integrating and complex nature, which is determined by ethics, successes in the fields of economy, psychology, pedagogy, managerial, law, historic, culture and other sciences.

Literature

1. DŽUPKOVÁ, H. 2014. Podnikanie ako spôsob sebarealizácie. In: *Kvalifikácia pre budúcnosť : zborník recenzovaných vedeckých prác s medzinárodnou účasťou*. Košice : TU, 2014 S. 12-17. - ISBN 978-80-553-1838-7
2. HANSEN ČECHOVÁ, B. 2009. *Nápady pro rozvoj a hodnocení klíčových kompetencí žáků*. Praha: Portál, 2009. 117 s. ISBN 978-80-7367-388-8.
3. HORENSKÝ, M. 2014. Podnikateľská výchova ako faktor rozvoja osobnosti. In: *Technologické vzdelávanie v sociokultúrnom a environmentálnom kontexte : zborník recenzovaných vedeckých prác s medzinárodnou účasťou : teoreticko-metodický seminár : Prešov, 10.9.2014*. Prešov : FVT TU, 2014 S. 82-86. - ISBN 978-80-553-1808-0
4. HREHOVÁ, D., JENČOVÁ, A. 2014. Podpora vzdelávania študentov technického zamerania vo vzťahu ku kľúčovej kompetencii "podnikavosť" a iniciatívnosť. In: *Kvalifikácia pre budúcnosť : zborník recenzovaných vedeckých prác s medzinárodnou účasťou*. - Košice : TU, 2014 S. 39-46. - ISBN 978-80-553-1838-7
5. JENČOVÁ, A., HREHOVÁ, D. 2014. Konceptia vzdelávania študentov VŠ - príprava na podnikateľskú činnosť. In: *Psychológia práce a organizácie 2014 : zborník príspevkov z 13. ročníka medzinárodnej konferencie : 15. - 16.5.2014, Stará Lesná*. - Košice : Spoločenskovedný ústav SAV, 2014 S. 134-142. - ISBN 978-80-89524-15-0
6. PALAŠČÁKOVÁ, D., KOŤVEKOVÁ, G. 2012. Nástroje na podporu procesného modelovania práce podnikateľských subjektov. In: *National and Regional Economics 9: zborník z*

medzinárodnej konferencie: 26th-27th September, 2012, Herľany, Slovakia. Košice: TU, 2012 S. 341-348. ISBN 978-80-553-1215-6

7. PETTY, G. 1996. Moderní vyučování. Praha: Portál, 1996. 380 s. ISBN 80-7178-978-X.s. 84-88. ISBN 978-80-553-0225-6.

8. ROHAĽOVÁ, T. 2013. O možnostiach kultivácie osobnosti študenta prostredníctvom cudzojazyčného vyučovania. In: *Možnosti kultivácie osobnosti v technologickom veku : zborník recenzovaných vedeckých prác s medzinárodnou účasťou*. Košice : TU, 2013 S. 225-231. - ISBN 978-80-553-1344-3

9. ROHÁČOVÁ, T. 2010. Metódy aktívneho vyučovania a rozvoj kľúčových kompetencií študentov. In: *Humanitné vedy a ich význam pri vzdelávaní a rozvoji kľúčových kompetencií študentov vysokých škôl technického zamerania: zborník recenzovaných vedeckých prác s medzinárodnou účasťou k 20. výročiu založenia katedry*. Košice: TU, 2010 s. 76-81. ISBN 978-80-553-0523-3.

10. SITNÁ, D. 2009. *Metody aktivního vyučování*. Praha: Portál, 2009.150 s. ISBN 978-80-7367-246-1

11. TKÁČOVÁ, R. 2013. Rovnováha pracovného a osobného života zamestnancov. In: *Ekonomika a manažment podnikov 2013 : zborník vedeckých prác: 19. - 20. september 2013, Zvolen*. Zvolen : TU, 2013 S. 168-174. ISBN 978-80-228-2565-8

12. TKÁČOVÁ, R., GLUCHMAN, M., RAČKOVÁ, M. 2013. Time management v kontexte rovnováhy pracovného a osobného života. In: *K otázke hodnotového rozmeru technologického vzdelávania : zborník recenzovaných vedeckých prác s medzinárodnou účasťou*. Prešov : FVT TU, 2013 S. 151-155. - ISBN 978-80-553-1469-3.

13. TUREK, I. 2008. Didaktika. Bratislava: Iura Edition, 2008. 595 s. ISBN 978-80-8078-198-9

14. ZAHATŇANSKÁ, M., PORÁČOVÁ, J. et al. 2002 Informačné a komunikačné technológie vo vyučovaní biológie. Zborník referátov z medzinárodnej vedeckej konferencie Biologické dni 5. – 6. 9. 2002 v Nitre. Nitra: Fakulta prírodných vied UKF. 2002 s. 45 ISBN 80-8050-520-9

15. www. Zbierka.sk

16. ŽIARAN, P., HREHOVÁ, D. 2014. ICT skill-building equips young „entrepreneurs“ with tools to better manage their businesses. In: *Technologické vzdelávanie v sociokultúrnom a environmentálnom kontexte : zborník recenzovaných vedeckých prác s medzinárodnou účasťou : teoreticko-metodický seminár : Prešov, 10.9.2014*. Prešov : FVT TU, 2014 S. 187-191. ISBN 978-80-553-1808-0

The article was prepared within the solution of project MŠVVaŠ SR KEGA no. 015TUKE-4/2013 Entrepreneurship competences essentials for non-business university students.