

**KEY COMPETENCES FOR LIFELONG  
LEARNING COMPETENCES: 'LEARNING  
TO LEARN' AND 'ENTREPRENEURSHIP'  
FINAL REPORT OF THE FORMER  
YUGOSLAV REPUBLIC OF MACEDONIA**



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# KEY COMPETENCES FOR LIFELONG LEARNING: 'LEARNING TO LEARN' AND 'ENTREPRENEURSHIP' FINAL REPORT OF THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA



EUROCONSULTANTS



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# 1. INTRODUCTION

“One of the key challenges for the education policy makers and education system decision makers in the forthcoming period is expected to be the task to upgrade the education level of youth and adults, with a special focus on increasing the quality of their working and social competencies. As the lifelong learning and training concept becomes general objective, it should help in establishing a dynamic link of the education with the labor market and the social changes. Creating conditions for permanent increasing, changing and refreshing the competencies of the youth and the adults will imply better starting positions for the period of shifting from learning to working, keeping or changing the job and active participation in the processes of democratic decision making. Essential precondition for this goal is upgrading the quality and the power of the providers of educational, cultural and sport services together with building mechanisms for their effective action over the strengthening the capacities and upgrading the quality of the individual lives including the physical and mental health as well as the satisfaction of the young people as well as adults.”

*(National programme for education development in Republic of Macedonia (2005-2015), page 11).*

The European Council, in March 2000, underlines that “each citizen has to have skills that will be necessary to live and work in the present information society”, and that the “basic skills that each citizen should possess are: ICT skills, foreign languages, technological and cultural, social skills and skills of innovation and creativity” etc.

Worldwide, and in our country as well, the paradigm already changes: from society that learns to society based on knowledge. This means a society of proactive and socially sensitive citizens. In such a context, the education obtains a key role. Namely, we need the schools to educate individuals capable to deal with the changes and challenges of the present time that they live and work in. The interactive learning process that will turn the children into a “thinking head instead of memorizing head” should be the essence of the overall reform in the education.

The fast progress of the science and technology, the possibility for wide and fast application of the latest scientific and technology achievements, the significant social and political changes that took place worldwide but also on our socio-political scene, the structure, the numerous social and cultural together with the economic factors, the existing tradition and the generally accepted idea for lifelong education and learning are with increasing intensity opening the issue of research in the education area, ramifying of the system of lifelong education and the strive to professionalize this area. Looking at the situation worldwide, in the period of the last few decades of the XX century, the above mentioned plays a very important role and influences the development as well as the changes in the area of preparing the young people but also the adult pupils and human resources.

Such changes are a significant moving force that requires the need to prepare individuals capable to face the problems of the daily social life, capable for peace and living together,

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non-violent communication, family life, respectively an active and critical participation in the process of education democratization, individuals that will have to be open minded to meet the changes taking place in the field of science and technology.

Discussions and debates on the issue of lifelong learning and the key competences are not anything new; however, there is an increasing interest for them lately. That is mainly due to the slow progress of the education systems in producing innovative, adaptable and qualified young people necessary for the new kind of knowledge-based society.

In most of the countries worldwide, the education systems are characterized with a slow adjustment to the fast society development in all its spheres. Therefore, the contents taught in schools as well as how the teaching process should take place are brought in question. The analysis of the teaching in Republic of Macedonia tells us about "...a line of inconsistencies that prevent the modernization efforts or slow down the initiatives for their innovation... the teacher is turned to the curriculum and its content instead of turning to the pupil/student... the least of the attention is dedicated to how the pupils/student implement the acquired knowledge, skills and attitudes in the real life situations". (*National programme for education development in Republic of Macedonia (2005-2015)*, page 38).

In the knowledge-based societies of the present days, the education systems have set themselves a specific education goal: enabling the young people to acquire basic skills that will guarantee their safe starting base for further life and work. These basic skills refer to the professional and technical competencies, as well as the social and personal competencies that would enable people to work and live together, capable to lead a happy and fulfilled life.

These are innovations caused by the changes in the environment, dictated by the economic trend makers, more precisely the entrepreneurs as their management. The innovativeness is the basis for developing the entrepreneurial spirit at the individuals, in organizations and in society in general. It is the innovations that always create and promote something new, different than whatsoever existing that gives to the whole economy a new energy with development potential.

An important effect of the innovations is the acceleration of the implementation process of accumulated knowledge and know-how strategy in a knowledge based society. This means the education and the training should be ongoing and permanent. Establishing the system of a lifelong interactive learning is the modern society imperative. This approach means bridging over the obstacles in the teaching, research and industry development, allowing developing the creative talent with an exhaustive exploitation of the IT society potential, as elements indispensable for the innovativeness.

Similarly like any other, our country as well, will increasingly strive to provide possibilities for acquiring the suitable education level for all and for all the age groups, to let the get to the knowledge, the skills and know-how that will comply with the society and the labor market requirements. The education and the training will have to possess all the conditions for efficiency and effectiveness so that they can provide to all a sufficient general and vocational education.

Successful realization of the lifelong learning concept requires that the children and the young people during their basic education already acquire capabilities and habits for continuous learning. Therefore, some new tendencies are promoted in the area of the education. One of them is learning new skills, respectively new competences for all, and a universal and continuous approach to the learning in order to develop and improve the skills necessary for participation in a society is in the front position. These new basic competencies include computer skills, knowledge of foreign languages, 'Learning to learn', technology culture, entrepreneurship and social skills.



## 1.1 DEFINING THE BASIC NOTIONS

In the contemporary literature the notion **lifelong learning** has a double sided – wide and narrow sense – understanding. There are countries where the notion lifelong learning designates the learning that takes place after the university diploma. Such a narrow understanding has a whole set of deficiencies. In fact it is not only about continuing the education, it is about the right to education for all the people, regardless their education level or age, regardless the class, the national or any other belonging.

“The objective of the lifelong learning is to keep the positive and active approach to learning, for all the age categories, all along the lifetime” (*Adult education draft programme for Republic of Macedonia in the context of lifelong learning (2006-2015)*, page 2).

Several authors have tried to interpret the idea of lifelong learning or education. These had been attempts to interpret, to breathe life in the idea, both in developed as in the countries in development process. The idea understands education for all, efforts to make the education as civilisation achievement accessible to as many people as possible, in all the periods of their life-time. The most important role for spreading the idea of lifelong learning has been played by UNESCO and some other organizations and agencies. It in the work of their committees, boards, conferences, international symposiums and other meetings of similar nature that the notion of lifelong learning has undergone a process of clarification and by that a substantial fund of ideas and knowledge got created and entered into the world treasure of education and culture.

It is evident that in the countries with transitional economies, and especially in our country, the system of education and training provision, as one of the aspects of human resources is rather weak and not very much adaptable. Education institutions are faced with the problems of dealing with the growing demands, the number and variety of target groups. This is partly due to the notable lack of flexibility and adaptability of structure of these institutions, as well as their attitude towards the changes that take place in the society. Their rigidity represents an obstacle to the adaptations and reformulating of curricula, too. Furthermore, the system of education still puts great emphasis on the academic knowledge only.

In this context the concept of lifelong learning should be promoted. In the EU Member States, the promotion of this concept requires development of learning culture, both on individual and institutional levels in every of the aspects of private and public life. This represents a top priority because of the following two equally important reasons:

1. Europe tends towards a knowledge-based society and economy. Access to up-to-date information and knowledge, together with the motivation and skills to use these resources intelligently are becoming the key to people's overall quality of life.
2. Today's Europeans live in complex and complicated social and political world. More individuals want to plan their own lives, are expected to contribute actively to society, and must learn to live positively with cultural, ethic and linguistic diversity. Education, in its broadest sense, is the key to learning and understanding how to meet these challenges.

These two features of contemporary social and economic change are interrelated. They underline two equally important aims of lifelong learning: promoting active citizenship and promoting employability. Taking what was said so far as a starting point, the following six key messages point to essential components of a comprehensive lifelong learning strategy. Each message proposes an objective to work towards and raises questions about how best to take action.

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1 Polenakovic and Petkovski, *Entrepreneurship in the education system – Demand and opportunities*, 2006.

**Key message 1: *New skills for all***

Objective: guarantee universal and continuing access to learning for gaining and renewing the skills needed for sustained participation in the knowledge society. The new basic skills include information technology skills, foreign languages, technology culture, entrepreneurship and social skills. This is not necessarily an exhaustive list, but it certainly covers key areas. Some of these skills, e.g. digital literacy are genuinely new, whereas others, e.g. foreign languages are becoming more important for many more people than in the past. Social skills such as self-confidence and self-direction are also increasingly important, because people are expected to behave much more autonomously than in the past.

'Learning to learn', to adapt to change and to make sense of vast information flows are now generic skills that everyone should acquire. Employers are increasingly demanding both from job seekers. A solid command of these basic skills is crucial for everyone, but it is only the beginning of a continuum of lifelong learning.

**Key message 2: *More investment in human resources***

Objective: visibly raise levels of investment in human resources in order to place priority on Europe's most important asset – its people. One way forward could be to seek agreement, through the Social Partners, that companies set targets for continuing training as a percentage of their annual expenditure. There is equally a need to make investments in human resources more transparent. At the individual level, however, there is no doubt that incentive measures can be developed. The idea of individual learning accounts for encouraging people to contribute to the cost of their own learning. Company schemes that provide the employees with the amount of time or money needed to pursue the education of their own choice. In some Member States, the unemployed, too, have rights to training opportunities. Rights to subsidised study leaves have been negotiated for employees.

It is important that raising investment in human resources requires moving towards a culture of shared responsibilities and towards clear co-financing arrangements for participation in lifelong learning.

**Key message 3: *Innovation in teaching and learning***

Objective: develop effective teaching and learning methods and context for the continuum of lifelong learning. There is no doubt that the character of the learning environment and the counsellors take on the key role. We increasingly expect teaching and learning methods and contexts to recognize and adapt them to a highly diverse range of interests, needs and demands, not only of individuals but also of specific interest groups in multicultural European societies. This implies a major shift towards user-oriented learning systems with permeable boundaries across sectors and levels. Little effective change and innovation can take place without the active involvement of professionals in the field, who are linked to the citizen as a learner and are most familiar with the diversity of learning needs and processes.

ICT –based learning technologies offer great potential for innovation in teaching and learning methods. Whether ICT –based or not, diversified and individualized learning provision makes significant extra and new demands in time and skills on the part of the teacher and trainer. Learning systems have to be adapted to the changing conditions in which people live and learn. This means, above all, thorough –going review and reform of initial and in-service teacher training, whereby, the very term "teacher" needs to be redefined. The role of the teacher is gradually replaced by that of a guide, mentor or mediator.

### **Key message 4: *Valuing learning***

Objective: significantly improves the ways in which learning participation and outcomes are understood and appreciated. Diplomas, certificates and qualifications are an important reference point for employers and individuals alike. How to modernize the national certification system and practices to best suit the new economic and social conditions has become an important policy and an issue of professional dispute in all parts of the EU.

### **Key message 5: *Reconsidering guidance and counseling***

Objective: Ensure that everyone can easily have access to good quality information and advice about learning opportunities throughout Europe. Today, more than ever before, we all need information and advice on “what to do next” many times in the course of life, and usually, quite unpredictably. This is an integral part of planning and running the life project, in which, paid job is but one component, however important that might be. Putting the options on a scale and making decisions certainly demands relevant and accurate information, but professional assistance can sometimes help clarify one’s mind.

The future role of guidance and counseling professionals could be described as “brokerage”. Having clients’ interests in the forefront, “the guidance broker” is in a position to offer a wide range of information in order to help in decision-making and to contribute for the selection of the best course for the future. IT and Internet-based sources of information open up new horizons for improving the range and quality of guidance and counseling services. They must therefore be moved to a more holistic style of provision to address a wider range of needs and for various clients.

### **Key message 6: *Taking learning home***

Objective: provide lifelong learning opportunities and bringing them as close as possible to the learners, in their own communities, and supported by ICT-based facilities where possible. For many people learning takes place in the local environment of their birth. Local and regional authorities are the ones that take care of the infrastructure for access to lifelong learning, including childcare, transport and social welfare services.

There are however, three absolutely critical factors that crosscut the six messages: access to learning, equal opportunities and quality of learning. These three factors have to be taken into account at every stage and regardless of the specific issue, no lifelong learning strategy can be successfully implemented without their full integration into the policy measures and within the overall education and training practice.

One important effect from innovations is the acceleration of the process of implementing the knowledge and the necessary know-how in knowledge-based society. This means that education and training have to be ongoing and permanent. To set up a system of a life long interactive education and training is the imperative of the society we live in. This approach understands building bridges between teaching, research and industry and allowing the creative talent to fully develop by exhausting all the possibilities offered in the information society, and considered indispensable to innovation.

## **1.2 DEFINING THE TERM “COMPETENCE”**

The discussion on key competences is not new. But interest in it has recently grown in view of the slow progress that education systems have made to prepare learners for economies requiring multiskilled, highly innovative and adaptive people and for societies in which individuals need to manage complex careers alternating more frequently between working and learning. Empirical studies by the Organisation for Economic Co-operation

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and Development (OECD) have confirmed the importance of literacy and numeracy in work and everyday life. Analyses of results from the Adult Literacy and Lifeskills survey in 2003, for example, showed a direct link between numeracy and activity rate: the lower the level of numeracy, the higher the risk of professional inactivity. Obviously, however, reading and mathematical competences are not sufficient to help individuals to meet important demands today at the workplace, in the political sphere, in acting as responsible citizens, as partners, as parents and in keeping healthy.

### OECD's DeSeCo project

The starting point for OECD's Definition and Selection of Key Competencies (DeSeCo) project was the question: What competencies do people need for a successful life and a well-functioning society? Competency was defined as:

- the ability to meet complex demands;
- a combination of interrelated knowledge, cognitive skills, attitudes, values, motivation and emotions;
- action-based and context-oriented.

Key features of the underlying action competency model include the combination of knowledge and skills with psychosocial prerequisites, or the fact that 'reasoning and emotions are vitally connected', as well as its context orientation.

**Key competencies** were distinguished from competencies in that:

- they 'are important for all individuals', which rules out specific competencies used only in particular occupations or walks of life, such as specific technical knowledge and skills to set up or manage a business;
- they are 'transversal';
- they require a 'critical stance and a reflective practice that goes well beyond the accumulation of knowledge and facts and basic skills'.

The main outcome of the DeSeCo project was an overarching reference frame for the identification and clustering of key competencies, which serves as a conceptual basis, not least for OECD's international skill assessment surveys. It organises key competencies into three broad categories.

The DeSeCo project argued that everyone needs to be able to:

- use and adapt a wide range of 'tools', including not only IT, but also language, symbols and text, as well as knowledge and information, for interacting effectively with their environment;
- interact in heterogeneous groups, which includes the ability to relate well with others, to cooperate, and to manage and resolve conflicts;
- and take responsibility and manage their own lives, i.e. to act autonomously.

All categories require an understanding of the 'broader picture', of the context in which people operate, including value systems, as well as the ability to analyse the demands made on them, the search for suitable strategies, self-knowledge, the ability to plan, make choices, manage, etc.

### EU framework for key competences for lifelong learning

Key Competences for Lifelong Learning – A European Reference Framework defines the following eight domains:

- Communication in the mother tongue;

- Communication in a foreign language;
- Mathematical literacy, basic competence in science and technology;
- Digital competence;
- Learning to learn;
- Interpersonal, intercultural, social and civic competences;
- Sense of innovation and entrepreneurship;
- Cultural awareness and expression.

**Competencies are defined as combination of certain knowledge, know-how, skills and attitudes** suitable to the above stated. The key competencies are something indispensable for each and every individual for achieving their own satisfaction and progress, active citizenship, social inclusion and employment. It is supposed that by the end of their education, the pupils should already possess the key competences at a minimum level which would have them prepared for taking participation in the life of adults. Also, during their further learning they would add in and progress to perfect the already acquired knowledge. Many of these competencies are merely a basis for developing other competencies such as: critical thinking, creativity, and initiative, problem solving capability, risk taking and capability to manage in all the eight competencies.



## 2. KEY COMPETENCE PROJECT

### 2.1 DEFINING 'LEARNING TO LEARN' COMPETENCES

The competence 'Learning to learn' means insisting and striving to learn. It comprises "the dispositions or capability to organize or structure the own learning, both individual and learning in groups. It also comprises the ability for effective time management and learning information management, problem solving, acquiring, applying and evaluating the new knowledge and applying the new knowledge and skills in various circumstances – at home, at work, in the education and training process". (ibid, p. 16). This competence involves the awareness for the learning process as well as the own learning needs together with the capability to overcome obstacles for purpose of more effective learning. More extensively, 'Learning to learn' contributes to manage the own career path. The crucial knowledge, skills and know-how connected to this competence are here below presented in a table. 'Learning to learn' is not solely a set of learning skills, nor a trick by usage of which we could become more successful students. It is far more a philosophy that places the pupil in the focus of the attention with the help of:

- **The schools**, as providers of best possible learning environment connected with the parents and wider with the social community.
- **The parents** that shape the learning process and provide incentive for pupils to find their own methods and techniques of learning.
- **The pupils/students**, understanding themselves and their needs in the complex world of knowledge and information, trying to develop themselves into persons that will practice the lifelong learning.

#### 2.1.1 Definition

Learning to learn – is ability to persist in learning. The individuals are expected to organize their own learning process, expressed by effective time management and information management, either individually or in groups. The competence involves awareness for a learning process and for needs, identification of possibilities and abilities available for dealing with obstacles to successful learning. This all means acquiring, processing and assimilating new knowledge and skills and looking for and utilization of advisory kind of directing. Learning to learn engages the pupils to build over the previously learnt and the life experience in order to use and apply knowledge and skills in various contexts – at home, at work, in the training and education. Motivation and competency are crucial for the competence of the person.

#### 2.1.2 Essential knowledge, skills and know-how connected to the competence 'Learning to learn'

Whenever the knowledge is aimed for specific job or specific career goals, the person needs to have **knowledge** that covers competences, knowledge, skills and necessary qualifications. In any case, 'Learning to learn' requires from the person to know and to understand its preferred learning strategies, the strengths and weaknesses of its skills and qualifications and to be able to research the possibilities for training and education, as well as advising/support that is there available.

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FRAMEWORK FOR KEY COMPETENCES IN A KNOWLEDGE-BASED SOCIETY <sup>2</sup>			
Definition of the competence	Definition of the lowering elements of knowledge, skills and attitudes as appropriate to the context:		
<i>Learning-to-learn</i>	<i>Knowledge</i>	<i>Skills</i>	<i>Attitudes</i>
<p>'Learning-to-learn' comprises the disposition and ability to organise and regulate one's own learning, both individually and in groups. It includes the ability to manage one's time effectively, to solve problems, to acquire, process, evaluate and assimilate new knowledge, and to apply new knowledge and skills in a variety of contexts — at home, at work, in education and in training. In more general terms, learning-to-learn contributes strongly to managing one's own career path.</p>	<ul style="list-style-type: none"> <li>● understanding of one's preferred learning methods, the strengths and weaknesses of one's skills and ualifications.</li> <li>● Knowledge of available education and training opportunities and how different decisions during the course of education and training lead to different careers.</li> </ul>	<ul style="list-style-type: none"> <li>● Effective self-management of learning and careers in general<sup>20</sup>: ability to dedicate time to learning, autonomy, discipline, perseverance and information management in the learning process.</li> <li>● Ability to concentrate for extended as well as short periods of time.</li> <li>● Ability to reflect critically on the object and purpose of learning.</li> <li>● Ability to communicate as part of the learning process by using appropriate means (intonation, gesture, mimicry, etc.) to support oral communication as well as by understanding and producing variousmultimedia messages (written or spoken language, sound, music etc.).</li> </ul>	<ul style="list-style-type: none"> <li>● A self-concept that supports a willingness to change and further develop competences as well as self-motivation and confidence in one's capability to succeed.</li> <li>● Positive appreciation of learning as a life-enriching activity and a sense of initiative to learn.</li> <li>● Adaptability and flexibility.</li> </ul>

**The skills** how to learn require, first of all, acquiring some fundamental skills like literacy, calculation and ICT indispensable for further learning. Building on top of this, the person should be able to access, to obtain, to process and assimilate new knowledge and skills. This anticipates effective learning management of the individual, either for career or working schemes and individual persistence to hold out in the learning process, to concentrate for longer periods and to critically think for the intentions and the goals of the learning. The individuals should be able to dedicate time to autonomous and self-disciplined learning, but also to also learn in cooperation as part of the process, to draw gain from heterogeneous groups and to share what they have learned. They should be able to evaluate their work and to ask for advice, information and support as needed.

Positive attitude involves motivation and trust? for pursuing in order to succeed in learning, all along the lifetime. The problem solving orientation supports the learning and the ability of the person to deal with changes and obstacles. The wish to implement the previously learnt, the life experience and the curiosity for searching possibilities to learn and to implement the already learnt in various living contexts are essential elements of the positive attitude.

<sup>2</sup> Council Resolution 9286/04 of 18 May 2004 on Strengthening Policies, Systems and Practices in the field of Guidance calls for the promotion of learning techniques and autonomous learning in order to enable young people and adults to self-manage their learning and career paths effectively.



## 2. KEY COMPETENCE PROJECT

The basis of the effective learning is made of appropriate learning skills, methods and strategies that each individual personally coordinates in its own, personal learning system.

Individuals learn on different ways. There are those who learn by means of the eyes (the visual type), others by ears (the auditive types), some prefer to learn via experience i.e. by “manual” tasks (kinetic types); some learn better when they work alone while others prefer working in group.

The most often the teaching content is transferred to the pupils/students by way of the approach that activates listening and writing. The pupils/students whose preferred learning methods are not any of these two may be considered poor pupils/students – which is wrong. They simply have not been given a chance to learn in a way that suits them the best.

The competence ‘Learning to learn’ can help identify the ways for best learning or the preferred learning ways by the pupils/students.

This competence anticipates:

- **Knowing ones-self** – meaning making an honest estimate of the strengths and weaknesses the pupils/students have, identifying the best learning models (reading, listening, working etc) and the best time when one can learn.
- **Managing its own time and life** – by means of identifying its own goals and priorities.
- **Improving the concentration** – refers finding out the own speed and capacity for learning (better is to learn less and slower but more effectively), and to enabling to focus the attention to a specific task.
- **Active reading** – reading the book from cover page till the last one is not the purpose of the effective learning. The important is to select what to read and how.
- **Active writing** – by writing down the ideas, their refining and debating some higher level of thinking are applied. Bearing this in mind, the learning approach these last years is very much applied.

The significance of developing the competence ‘Learning to learn’ has many times been underlined in a whole set of documents of the EU, but also in the research in education. Developing this competence serves as a kind of self-regulation mechanism for the pupils/students maturing and their entry on the labor market. The competence ‘Learning to learn’ comprises some of the vital assumptions and conclusions of the OECD project on “*Defining and selecting the key competencies*”. Namely, it can be considered as especially important for the development of the individual flexibility and adaptability to changing requirements of the knowledge-based society.

### 2.1.3 Components of the 'Learning to learn' competence

The competence 'Learning to learn' is made of three significant elements:

1. "component linked to learning competences;
2. component linked to attitudes and beliefs (perceiving) ourselves;
3. Component linked to attitudes and beliefs (perceiving) the environment." (Assessing Learning to learn: A framework, 2002, p. 39)

#### 1. Learning competencies

This component is made of several fields, or areas, of skills and attitudes. They are divided in four main categories, that comprise few sub-categories. The four main categories of skills and attitudes are: the learning area, the comprehension area, learning management and affective self-regulation.

##### Learning area

This area is made of three sub-categories: verbal understanding, numeric understanding and culturally linked knowledge.

- **Verbal understanding** refers the ability to use any kind of material based on words.
- **Numeric understanding** refers the ability to use the mathematical and analytical operations in new and unknown contexts.
- **Cultural knowledge** refers the general knowledge that helps the pupil/student (future citizen) to orientate religiously and in cultural aspect, as well as to further connect with the other national traditions and cultural experiences.

##### Comprehension area

This area comprises two sub-categories: logical thinking and performing abstraction.

- **Logical thinking** refers the capability for inductive and deductive thinking/reflecting
- **Performing abstractions** refers the ability of the pupils/students to perform specific higher level thinking processes such as: classifying, selecting, correlating, constructing etc.

##### Learning management

The learning management anticipates effective time management and effective utilization of the learning methods and strategies.

##### Affective self-regulation

This area refers to the ability to control the short but also the longer emotional states of the pupils/students linked to their level of aspiration, respectively their hopes for success or fear of failure. It also refers the level of persistence that pupils/students have inside them, and the capacity to remain mentally focused on a specific item (goal) despite the ongoing frustrations or confusions.

#### 2. Perceiving oneself

The attitudes or beliefs on oneself contain, in fact, the personal identity of the individual. In the learning context these attitudes and beliefs get expressed when it concerns the motivation for learning of various teaching subjects, when the individual is faced with new tasks or with the challenge of self-evaluating.

### Motivation for learning

The motivation for learning is made of the target orientation of the pupils/students (preferring certain teaching classes against others, preferring specific learning methods etc), awareness for the meaning of the school and the knowledge in general, the fear of failure, the academic withdrawal etc.

### Accepting new tasks

This sub-component comprises the ability of self-estimation in given situations, such as the estimate of the difficulty of a given item and the efficiency or the handicap of the pupils/students to resolve it.

### Self-evaluation

The self-evaluation comprises in fact the self-esteem of the pupils/students, as something acquired in various ways: with support of the close persons, with the acquired moral values at school or at work.

### *3. Perceiving the environment*

The attitudes or beliefs for the environment are those that get reflected in the contacts of individuals in their various social contacts. They all have indirect effect over the learning. As an example, the cultural difference, the sex/GENDER, the social or age differences, they all are factors that pupils/students recognize partially, but they do have further influence over their future attitudes and beliefs.

### Perceiving the value of education

This sub-component refers the enabling of pupils/students to identify the social and cultural factors linked to the education.

### Perceiving the support for learning

Perceiving the support for learning refers to the close but also the farther environment of the pupils/students as one that supports and values their work and functions in compliance with the school. This, the most often means the parents, teachers, fellow pupils and other friends.

### Understanding the potential to get information

This sub-component represents the meaning and the application of various ways for getting to the information. The most often that means the computers and Internet, the books and libraries, newspapers, manuals etc.

## **2.2 DEFINING COMPETENCES FOR ENTREPRENEURSHIP**

The present day's world has a strongly expressed tendency for creating an entrepreneurial society, the developed countries the same as the countries on their development path. The basis of any entrepreneurial society is creating entrepreneurship awareness and culture, both for each and every individual as for the society as a whole. The entrepreneurship, entrepreneurial culture and entrepreneurial management are the main features of the contemporary market economies.

There are numerous definitions for the 'Entrepreneurship', but they all have the same message.

### 2.2.1 Definition

The definition of 'Entrepreneurship' by the European Council:

The 'Entrepreneurship' stands for ability of a person to turn ideas into action. That involves creativity, innovativeness and risk taking, ability to plan and manage projects in order to achieve goals. All that happens to all of us in the everyday life, at home, in the society, furthermore, the employees become aware of the context of their work and become capable to seize the opportunity, which is a basis for several specific skills and knowledge indispensable for entrepreneurs for establishing a social or commercial activity. (Commission of the European Communities, 2005, p. 18).

The indispensable essential knowledge for this competence includes resources available for personal, professional and/or business activities.

"The entrepreneurship is a complex and dynamic process that constantly seeks for new solutions, makes optimum combination of the resources available, takes risk etc, all in purpose to increase the successful work of the company. This attitude of the entrepreneurs and entrepreneurship in general contributes to the overall development of the national economy. Therefore, the economic theory and practice dedicates a special attention to the entrepreneurship as it is of its dynamics and success that the economic growth of the country depends". (Gocevski Trajan, 2003, p. 230)

"The entrepreneurship is a continuous process of changes that involves, besides the innovative component also the risk and the wish for success. The essence of the entrepreneurship is universal and counts for all the societies at any period of the history of its development. It brings down to: **success, risk, uncertainty, fantasy, innovativeness, militancy, wish for self-confirmation, intuition, self-confidence, motivation, knowledge**" (Petkovski Konstantin, 2004, p. 68)

On the ground of the above stated definitions we can conclude that the entrepreneurship, besides being a permanent process of relocation of the developmental resources in search for better results, or a continuous process of combining and substituting the development factors for achieving certain goals. It always is connected with the innovation as they create and promote something new, something different than the existing. This is what gives a new energy for developing, not only to the micro-subjects but to the whole of the national economy. Therefore, the entrepreneurship as an uninterrupted process of changes incorporates also the risk as its inherent feature.

FRAMEWORK FOR KEY COMPETENCES IN A KNOWLEDGE-BASED SOCIETY <sup>3</sup>			
Definition of the competence	Definition of the lowering elements of knowledge, skills and attitudes as appropriate to the context:		
<i>Entrepreneurship</i>	<i>Knowledge</i>	<i>Skills</i>	<i>Attitudes</i>
<p>Entrepreneurship has an active and a passive component: the propensity to bring about innovation oneself, but also the ability to welcome and support innovation brought about by external factors.</p> <p>Entrepreneurship includes welcoming change, taking responsibility for one's actions (positive or negative), setting objectives and meeting them and having the motivation to succeed.</p>	<ul style="list-style-type: none"> <li>● Knowledge of available opportunities in order to identify those suited to one's own personal, professional and/or business activities.</li> </ul>	<ul style="list-style-type: none"> <li>● Skills for planning, organising, analysing, communicating, doing, de-briefing, evaluating and recording.</li> <li>● Skills for project development and implementation.</li> <li>● Ability to work co-operatively and flexibly as part of a team.</li> <li>● Being able to identify one's personal strengths and weaknesses.</li> <li>● Ability to act proactively and respond positively to changes.</li> <li>● Ability to assess and take risks as and when warranted.</li> </ul>	<ul style="list-style-type: none"> <li>● Disposition to show initiative.</li> <li>● Positive attitude to change and innovation.</li> <li>● Willingness to identify areas where one can demonstrate the full range of enterprise skills — for example at home, at work and in the community.</li> </ul>

### 2.2.2 Essential meaning, skills and attitudes linked to the competence 'Entrepreneurship'

Indispensable **knowledge** includes available opportunities for personal, professional and/or business activities, involving also aspects of – the big picture- that provides the framework where people live and work, such as the general understanding of the economy and the possibilities side by side with the challenges that the employee as well as the organisation faces with.

The persons should also be aware of the ethical position of the companies, of the question how can they be a driving force and a good example via fair trade or via social entrepreneurship.

**The skills** correspond to a proactive project management (including skills like planning, organizing, managing, leadership and delegating, analysing, communicating, reporting and evaluating, written trace and ability to work as individual but also in cooperation with teams. It is of essential importance to evaluate the strengths and weaknesses, as well as taking risks when necessary.

The entrepreneurial **attitude** is characterized by initiative, pro-activity, independence and innovativeness in the personal and social life as well as in the work. It also comprises motivating and determining intentions and their achievement, in situations when the short-term, medium and long-term objectives are common with others and/or with the work.

Reviewing the literature tells us that the entrepreneurs have a strong need for achievement, risk taking (they enjoy entering in activities with uncertain result) and internal control system (they believe that the result can be controlled against the belief that it

<sup>3</sup> Council Resolution 9286/04 of 18 May 2004 on Strengthening Policies, Systems and Practices in the field of Guidance calls for the promotion of learning techniques and autonomous learning in order to enable young people and adults to self-manage their learning and career paths effectively.

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depends the circumstances and/or luck). Other factors used to depict the entrepreneur often involve creativity or innovation, self-confidence, need for independence or autonomy, strong engagement or energetic person, wish for continuity and long-run participation in the activities. So, the entrepreneur can be defined as a person that recognizes the possibilities on the market and has the will to prepare all the resources indispensable for exploitation of those possibilities for purpose of a long-term personal gain.

There are in the literature several features stated as something an entrepreneur should have:

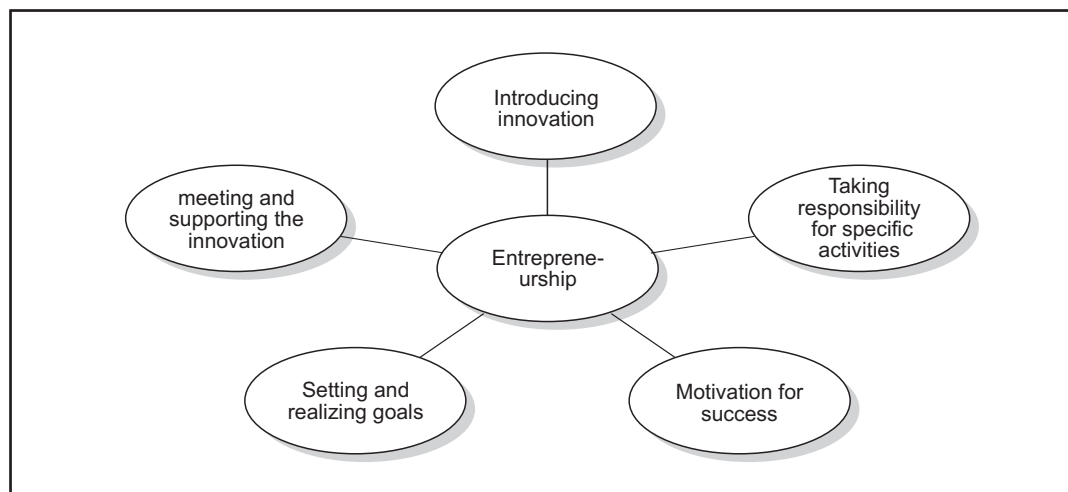
- should possess power to look farther than the others and of what is obvious on a first sight;
- is a person willing to take the risk for its activity at any time;
- takes the problems as challenges for new business successes;
- is a person result and success oriented person not looking at the technology how it is achieved;
- is an individualist, energetic, motivated, with affinity etc;
- possesses the features of a leader;
- willing to permanently innovate;
- possesses capacity for extensive and full of effort work;
- the real entrepreneur never leaves the things unfinished;
- is a good organizer, etc.

Possessing these features, realizing the goals set, constantly achieving success, besides the education, experience, personal traits etc, and the entrepreneur should also respect certain rules in its work and engagement, including the ethical rules. Namely, according to David Robinson, the entrepreneur at the same time is both a hero and a victim of its own path, so he/she has to respect certain rules:

- Meet yourself
- Be universal
- Be consistent
- Minimize the consequences of your failures
- Search for new paths
- Be prepared to change

### 2.2.3 Components of the competence 'Entrepreneurship'

The 'Entrepreneurship' is made of a passive and active component: strive to provoke change at oneself but also the capacity to meet and support the innovation caused by the external factors, at the same time taking responsibility for the activity, positive or negative, in direction to complete what has been started, to know where to go, to set the goals and to strive to achieve them with a permanent wish for success:



### 2.3 OVERALL OBJECTIVE

Essential competencies in the context of lifelong learning project will be investigated through the different researches. A group of experts from EU countries defined a framework comprising eight domains of key competencies.

This project will undertake an analysis of the extent to which the environment for learning and pedagogical approaches are conducive to the development of key competences – with a specific focus on two selected key competences: ‘Learning to learn’ and ‘Entrepreneurship’ competences. The encouragement of students’ creativity and innovation, as well as meta-learning skills and techniques are considered as very important to meet the above-mentioned educational goals. Target research areas in the former Yugoslav Republic of Macedonia will include secondary VET and higher education.

Following the analysis, the project will come up with recommendations as to how to improve environmental factors and pedagogical approaches and outline implications for the shaping of the legal framework, teacher training, the curriculum framework, etc. This way, work on these two competences could be envisaged as a platform for the introduction of the concept of key competences for lifelong learning in the Macedonian education system in general.

The ‘Learning to learn’ and ‘Entrepreneurship’ competences will be examined as changing and developing concepts throughout secondary VET and higher education, where such competences can be acquired, strengthened or weakened as student’s progress along their educational path. Through an examination and promotion of the ‘Learning to learn’ and ‘Entrepreneurship’ competences in secondary VET schools and higher education, special attention will be devoted to findings from the field of developmental psychology, that demonstrate different levels of cognitive functioning at different stages of a child’s development. By combining these two competences, the present project aims to amplify the empowering elements intrinsic to the ‘Learning to learn’ competence. The examination and promotion of this concept will aim to place the learner at the centre of the educational endeavour, thus shifting from a paradigm of ‘the learner as object’ to one of ‘the learner as the subject of learning’ – or essentially from teaching to learning.

### 2.4 SPECIFIC OBJECTIVE

The project aims to assess to which extent the environment and pedagogical approaches are conducive to developing ‘Learning to learn’ and ‘Entrepreneurship’ competences with students in secondary VET and higher education in the former Yugoslav Republic of Macedonia and to identify what could be changed to improve the situation. In addition, through research-based advocacy, the project aims to introduce and promote the ‘Learning to learn’ and ‘Entrepreneurship’ competences in secondary VET and higher education in the former Yugoslav Republic of Macedonia. By adopting a policy orientation, a specific design and method for reporting findings will be established in order to most effectively advocate both competences in secondary VET and higher education to the educational policy and support structures in the former Yugoslav Republic of Macedonia.

### 2.5 METHODOLOGY

Research into ‘Learning to learn’ and ‘Entrepreneurship’ competences and students’ perceived needs will reflect different stages of the Macedonian education system and a young person’s development for following target groups:

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**2.5.1 Sampling**

The sample is random for VET schools and Higher education

*2.5.1.1 VET schools:*

The research was conducted with the random sample:

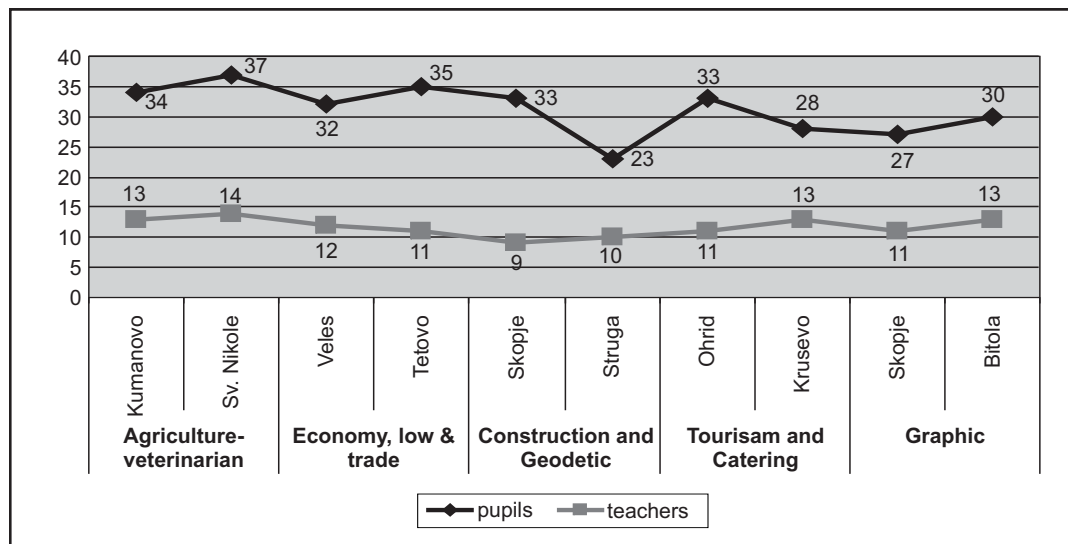
- 312 pupils from secondary VET - 3 and 4 grade,
- 117 teachers from VET schools,
- 10 Directors and 2 deputy directors from VET schools,

The research was realized in 10 schools. In order to cover whole country, the selected schools were from the different regions. The research was realized in one class in each school, for both competences 'Learning to learn' and 'Entrepreneurship' in 5 branches:

- Agriculture-veterinarian
- Economy, low & trade
- Construction and Geodetic
- Tourism and Catering
- Graphic

**Table 1: Sample by branches, VET schools, city, number of pupils and teachers from VET schools for the 'Learning to learn' and 'Entrepreneurship' competences**

branch	VET school	city	pupils	Teach.
Agriculture-veterinarian	Kiro Burnaz	Kumanovo	34	13
	Koco Racin	Sv. Nikole	37	14
Economy, low & trade	Jovce Teslickov	Veles	32	12
	8 Septemvri	Tetovo	35	11
Construction and Geodetic	Zdravko Cvetkovski	Skopje	33	9
	Niko Nestor	Struga	23	10
Tourism and Catering	Vanco Pitosevski	Ohrid	33	11
	Naum Naumovski Borce	Krusevo	28	13
Graphic	Dimitar Vlahov	Skopje	27	11
	Taki Dasklo	Bitola	30	13
Вкупно			312	117





The sample by sex

The number of pupils by sex is equal. Most of the teachers are female in accordance with the fact that most of the teachers in the state education system are female.

**Table 2: Pupils from VET schools by sex for the ‘Learning to learn’ and ‘Entrepreneurship’ competences**

Sex	pupils		teachers	
	f	%	f	%
female	156	50.0	70	59.8
male	156	50.0	47	40.2
<b>total</b>	<b>312</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>

By school grade

The sample is mostly in 4-th grade.

**Table 3: Pupils from VET schools by school grade for the ‘Learning to learn’ and ‘Entrepreneurship’ competences**

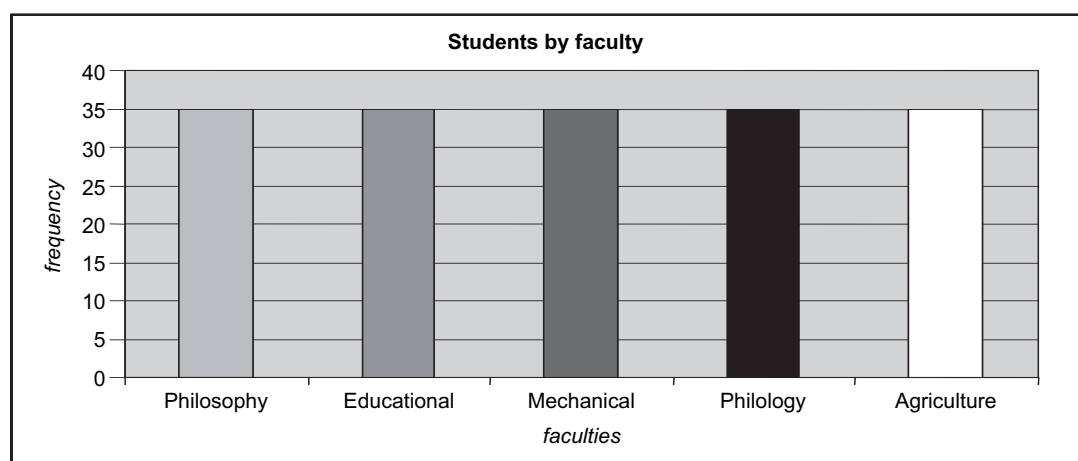
School grade	
III	38 12.2
IV	274 87.8
<b>total</b>	<b>312 100.0</b>

## 2.5.1.2 Higher Education:

The ‘Learning to learn’ survey was done with 175 higher education students and survey for entrepreneurship with 190 students from University St. Cyril and Methodius in Skopje (see tables below )

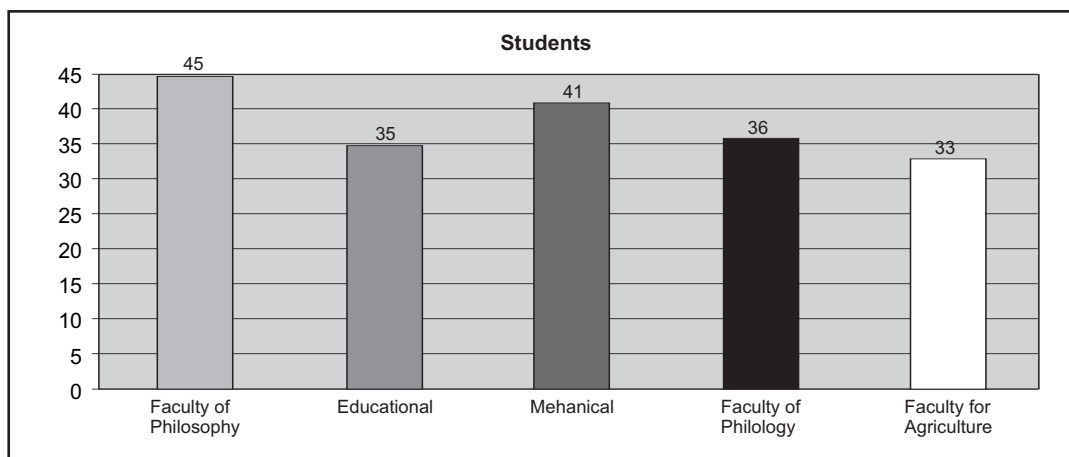
**Table 4: Sample of students in higher education for the ‘Learning to learn’ competence**

Faculties	students (f)	%
Faculty of Philosophy	35	20.00%
Educational	35	20.00%
Mechanical	35	20.00%
Faculty of Philology	35	20.00%
Faculty for Agriculture	35	20.00%
<b>Total</b>	<b>175</b>	<b>100.00</b>



**Table 5: Sample of higher education students for the 'Entrepreneurship' competence**

Faculties	f	%
Faculty of Philosophy	45	24%
Educational	35	18%
Mehanical	41	22%
Faculty of Philology	36	19%
Faculty for Agriculture	33	17%
<b>Total</b>	<b>190</b>	<b>100%</b>



## 2.6 TOOLS

The research was realized with the specially prepared questionnaires.

### Questionnaire for pupils for 'Learning to learn' and 'Entrepreneurship'

- about their own experiences and needs regarding the 'Learning to learn' and 'Entrepreneurship' competences. The topics in the questionnaires were from ten different areas

### Questionnaire for teachers for 'Learning to learn' and 'Entrepreneurship'

- Teachers were asked to evaluate whether their (compulsory) teacher training equipped them with sufficient skills in order to stimulate and develop the 'Learning to learn' and 'Entrepreneurship' competences with their students, and in what ways this training might be improved.

### Questionnaire for students for 'Learning to learn' competences

- Students assess the teaching process, assessment and other components for their self, the way of learning, methodology of teaching and other content specific for this competence.

### Questionnaire for students for 'Entrepreneurship' competences

- Students evaluated their competences for 'Entrepreneurship' and assessed their opportunities for gathering knowledge, skills and attitudes.

### Interviews

- With the directors and deputy directors with the questions prepared in advance.

### **SWOT analysis:**

- In accordance with the fact that the schools already have developed plans which are based on a SWOT analysis, the results were used for general conclusions and recommendations.

## **2.7 ANALYSIS OF THE RESULTS**

The analysis is quantitative and qualitative. The data are shown in the tables.

Quantitative analyses are prepared on the basis of data gathered as part of the research.

Qualitative analysis means processing existing documents and documents which are in phase of preparation, and the results of implemented or ongoing projects.

As planned, the media was involved in the project.



### 3. ASSESSMENT RESULTS

The research was carried out in November 2006. The results came from a set of conducted interviews and filled-out forms designed for the purpose especially for VET schools and higher education.

The distributed questionnaires refer to competences research:

- Learning to learn
- Entrepreneurship

#### 3.1 SECONDARY VOCATIONAL EDUCATION SCHOOL RESULTS

The research included 10 vocational secondary schools from the five branches, two of each branch. It was conducted via two questionnaires which refer to both competences and via interviews with the principals. The first questionnaire is meant for the students Annex I and the second one for the teachers Annex II.

The questions with regard to both of the competences for the students included the following set of questions:

1. How do you see yourself?
2. Learning
3. What is it that motivates you?
4. How do you study?
5. How do you study during practical teaching or professional practice?
6. How do you keep yourself motivated for further studying or practice preparation?
7. How much and how do you cooperate with your friends while studying or working in practices?
8. How do you feel about grading?
9. How do you feel about the teaching and the practical work?
10. How do you envision your future job?
11. Any experience with entrepreneurship and
12. Do I know what I need to know?

The results were graded according to a key created by the team. Annex IX

The overall quantitative results can be referred to in Annex V.

The questions in the teacher questionnaire included the following set of questions:

1. How do you see yourself?
2. Learning
3. What motivates students?
4. How do you keep students motivated for further studying and practice preparation?
5. How do you grade?
6. What's your perception of teaching and practical work?
7. How do you feel about your present job?

8. How and to which extent do you collaborate with your colleagues?
9. The school
10. Teachers and entrepreneurship

The results were graded according to a key created by the team. Annex X

The overall quantitative results can be referred to in Annex VI.

### 3.1.1 VET questionnaire result analysis

The teacher and student questionnaire analysis is the basis for the concept of recognizing abilities and the obstacles in the competence development in the 'Learning to learn' domain as well as the competence for the 'Entrepreneurship' domain in secondary vocational schools. Each domain consists of three interrelated components: knowledge, skills and attitudes.

1. *The first question, **how do you see yourself**, is made up of eight subquestions and is the same for teachers and students (question No.1 in the teacher questionnaire and question No. 1 in the student questionnaire).*

The highest positive attitude can be seen in the number of answers of teachers and students that *for every problem it's better to try and find several solutions and not just one*: teachers (99.1%) and students (96.1%). Furthermore, there seems to be remarkable agreement for the following questions as well: *I'd like to come up with some new ideas and activities, I'd like to approach the usual work I do in a new, completely different way*. The lowest percentage can be found in answers like: *What I like most is activities that require us to go by the rules*. The biggest discrepancy between teachers and students refers to the following questions: *I solve my problems in the same, usual way* (19.2% more students than teachers say that they don't agree with the statement that they always solve their problems in exactly the same way; *and I feel that for every problem there is only one best solution* (16.5% more students compared to teachers say that they do not agree that for every problem there's only one solution considered the best)

**Comment:** These two questions where there's a discrepancy with regard to the competence '*Learning to learn*' in teachers and students reflect the teachers' lack of knowledge and understanding of their own preferred learning methods as well as their strengths and weaknesses when it comes to their skills and qualifications. This surely emphasizes the need to increase the skill capacity in teachers as well as to try and stimulate their need for change and urge further development of competences. They need to have a positive attitude towards the increase of their adaptability and flexibility as well.

When it comes to the 'Entrepreneurship' ability, the identified discrepancy in opinions indicates that teachers ought to acquire skills which they'll use to be more proactive and positive to changes and to build a positive attitude towards changes and innovations. They would also have to feel encouraged to identify particular areas where a person could demonstrate their entrepreneur capacity in accordance to students' needs.

2. *The second part refers to **learning** and includes two sets of questions:*

The first set of questions (2.1) refers to the way students feel about studying and comprises of seven minor questions and the same set of questions for the teachers' stance in how they think their students feel about studying (question No.2 in the questionnaire for teachers and the same for students)

When it comes to questions regarding studying - *if studying is hard, interesting, useful, pleasant etc* - there's considerable disagreement in the teachers' and students' opinions.

### 3. ASSESSMENT RESULTS

Namely, 29% more of students than teachers said that studying is useful which is the biggest discrepancy in opinions between teachers and students when it comes to studying.

Furthermore, there are favorable differences in the opinions of students with regard to question *studying is important for my future life* (17.2%) and *studying is useful for my current life* (13.3%)

The second set of questions (2.2) refers to questions connected to what studying means to the students. This set of questions consists of thirteen questions.

With regard to those questions, the biggest difference between the teachers' and the students' opinions refer to the following questions: *I study only what's necessary for school* (21.4% difference, i.e. 56.4% of students don't agree with that as opposed to 35.0% of teachers who don't agree with that). Moreover, differences appear in the degree of agreement between teachers and students and students have expressed themselves favorably for the following questions: *sometimes it is only afterwards that it gets clear to me why I had been studying something* (17.3%) and *I study outside of school, too* (12.7%). Nevertheless, the degree of the teachers' positive attitude with regard to students and which refers to students' knowledge is indicative of the following two questions: *I had access to information that had to do with my further education or vocation* (14.1%) and *I feel that teachers give me the necessary information/knowledge to implement their ideas in the future* (13.3%)

**Comment:** Because of the striking disagreement in the opinions of teachers and students we may come to the conclusion that there are some serious indicators that teachers are the ones who need to change toward the competence 'Learning to learn' more effectively and efficiently and the competence 'Entrepreneurship', i.e. change their knowledge, skills and attitudes in regard to the two of these competences. Students are more focused on the future, they study outside school and think about what they have studied, don't agree with teachers that what they have learnt at school is going to help them put their ideas into practice in the future nor that they have enough access to information needed for their future education. On the other hand, we have to bear in mind that teachers *teach* while students ask to be *taught*. Students ask for studying which is going to increase their prospects for the future as well as their abilities, information and entrepreneurship and management tools to be able to recognize what's lying ahead. Those are the basic components of 'Entrepreneurship', 'Learning to learn' and lifelong learning.

3. *The third part refers to **what keeps them motivated** and consists of two sets of questions.*

The first set of questions (3.1) refers to what motivates/encourages students to studying. This set of questions consists of seven subquestions. It refers to the reasons for studying (question No.3 in the teacher questionnaire and question No.3 in the student questionnaire).

With regard to the questions (3.1) what motivates students to study there's relatively similar opinion in teachers and students: (1) they learn to become professionals in what they'll be doing, (2) they enjoy studying, (3) because they have to and (4) they would like to enroll at the faculty of their choice. The biggest discrepancy between teachers and students can be found in the questions: *because that's what they're required* (33.6% in favour of the teachers, i.e. teachers think that students study because that's what they are required to do (75.2%) and the student's opinion on this matter is 41.6%) Namely, students' opinion is substantially different from the teachers' in that most of them don't agree that the study because they are required to do so. This is one of the essential differences between students and teachers when it comes to their motive for studying. In addition, there's also difference in the degree of their motivation for studying in the

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question *studying is important* (19.9%) in favor of the students and the question that the students' motive for studying is because *they want to do their best in their future job* (18.6%) in favor of the students.

With regard to question 3.2 about **what makes students study**, which consists of two subquestions, there seems to be high agreement between teachers and students for the question whether students like to be given questions/assignments that they know they can answer/do when they're studying (teachers 83.3% and students 78.6%). The control question (in an inverted form) proves the same degree of agreement.

**Comment:** The conclusion about what motivates students (except for the part when students and teachers agree) is the low motivation degree which comes as a result of the evaluation that students study because that's what they're required to do - according to students - and the high percentage of teachers thinking that this is a major motivating factor for the students. In other words, the positive thing is that students are aware of the fact that motivation doesn't come from the work they do and the negative thing in teachers is that they think that one of the more important motivating factors for students is that school requires that. It's hard to predict what the student's future career is going to be, whether they'll start up their own business or will get self-employed so teachers shouldn't insist on knowing that. What's more, they should be more flexible toward the students' yet-to-be-formed opinions and wishes, i.e. to be more adaptable and flexible in identifying areas where students can demonstrate their full entrepreneurial capacity. When it comes to motivational factors for students there should be other tools created which are going to support the 'Learning to learn' and 'Entrepreneurship' competences.

4. *Part four of the teacher questionnaire refers to the question **what teachers do to motivate students to study** further which corresponds to part 6 of the student questionnaire (how they motivate themselves for further studying and practice preparation). This part consists of 16 questions.*

There's a high percentage of agreement between teachers who motivate students and the way in which students are motivated. The motivation methods given for further studying and practice preparation were the following:

- *I tend to make students focus on what's interesting in the unit (teachers) and I tend to focus on what I find interesting in the Unit (students)*
- *I remind them (and remind myself) that in doing that I'll have an increased capacity of working at a good work place*
- *I tell them (tell myself) that when they finish (I finish) with studying they'll be doing (I'll be doing) something which they/I like best*
- *I remind them (remind myself) that when they finish (I finish) they/I will be professionals in what they/I do*
- *I remind them/remind myself that only by doing that will they/I be able to enroll at the Faculty of their/my choice, vocation schools or other*

The questions in which there is a considerable difference in the opinions of both teachers and students when it comes to motivating students to study further are:

- *I remind them that they shouldn't disappoint their parents (teachers 74.3%) and I remind myself that I shouldn't disappoint my parents (43.7%)*
- *I try to make myself/students see the relatedness between the studying material (teachers 98.3% and something I/they find interesting (students 64.2%)*
- *I tell them/myself that I am interested in what I'm training for (teachers 94.9%) and that I will enjoy my future work (64.3%)*
- *I remind them/myself that others study, too and*



- *I make an effort to connect the studying material from class with what I'm/they're studying to work in practice*

**Comment:** With regard to the teachers' implementation of methods for motivating students for further studying and development and the students' effort in preparing themselves for practical work by encouraging or motivating themselves we need to point out the methods where there's been difference in opinions. For example, the method whereby students get motivated by being constantly reminded that if they don't study they'll be disappointing their parents is not a suitable motivating method and therefore rejected by the students. And indeed, the development of the two competences 'Learning to learn' and 'Entrepreneurship' shouldn't be linked to the disappointment of parents. After all, practice shows that students who have high marks at school are not necessarily capable of creating the best tools for how to learn throughout life or to become entrepreneurs. The same goes also for the method of reminding students that others study, too. On the other hand, motivating students by (1) telling them or making them aware that they are interested in what they are studying at school or that they are going to enjoy their future jobs and (2) making conscious efforts in connecting the studying material with what they find interesting is always the best approach towards motivating students. The difference in opinions between teachers and students on this matter is most likely a result of the teachers' overestimating themselves that they have found the best ways to keep students motivated.

The two competences 'Learning to learn' and 'Entrepreneurship' should be encouraged in students by addressing their needs for individual study, the transition of the individual study to studying in groups and the transition of studying in one group to studying with other groups of students. Students should also be motivated to accept changes and teachers ought to support their desire for change and further development of competences as well as their self-motivation, bigger self-confidence in their capabilities for success, help them identify their full potential, boost their self-confidence by supporting their ideas and believing in their immediate success, encourage them to accept challenges and take risks etc. These motivation methods should stimulate students to acquire, process and assimilate new knowledge and skills. With regard to 'Entrepreneurship' the student should be encouraged to learn how to put his ideas into action. The motivational instruments used by teachers should combine a heterogeneous approach to motivating students and a homogeneous approach to studying. Motivating students should rely on confidence, reciprocity and mutual support of students and teachers.

5. *Part 5 of the teachers' questionnaire refers to **how teachers grade students** whereas part 8 of the students' questionnaire refers to **how students feel about their teachers grading their work** (question No.5 in the teacher questionnaire and question No.8 in the student questionnaire). This part consists of 25 identical questions with regard to grading but looked at from a teacher's and a student's point of view. We've given the difference in opinions between teachers and students into 5 sets of questions. Namely, the first set consists of questions where the discrepancy was at its highest - over 50%. The second one consists of questions where the difference is between 40 to 49.9%, the third, from 30 to 39.9% and the fourth set of questions refers to differences in opinions lower than 30%, i.e. the rest of the questions.*

In the first set of questions, the following two questions show the biggest difference in opinions in students and teachers:

- *I do my grading properly (98.2% of teachers think that their grading is justified while only 48.2% of students mostly or completely agree with the teachers' grading methods) and*
- *When being graded, all students get the grades they deserve (94.7% of teachers think, mostly or completely that students get the grades they deserve while only 46.5% of students agree on this with their teachers)*

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The second set of questions with difference in opinions between 40 to 49.9% is:

- *I always explain to my students why they have been given that mark (teachers) and teachers explain to us why they have given us that mark (students). 96.5% of teachers say that they very often or almost always explain this to their students while 52.9% of students agree on this with their teachers and*
- *We very often or always grade our students' homework or other given assignments (teachers 96.5%) and the teachers grade our homework or other assignments (students 50.2%)*

The third set of questions with difference in opinions between 30.0% and 39.9% is:

- *I always give feedback to my students (teachers) and I get feedback for my work (students)*
- *I grade the method the students have used to solve the problem/task (teachers) and teachers grade the our method of finding the solution to the problem/task (students)*
- *I encourage students to grade their work (teachers) and we are being encouraged to grade our work (students)*
- *I encourage students to grade each other's work (teachers) and we are being encouraged to grade each other's work (students)*
- *I encourage students to evaluate the approach used to solve the problem (teachers) and the teachers encourage my classmates to evaluate my work in terms of the approach I chose in solving the problem (students) and*
- *I encourage students to evaluate our skills and capabilities in teaching (teachers) and the teachers encourage us to assess their skills and capabilities (students)*

And in the fourth set of questions with bigger or smaller differences of opinion (difference of 29%) between teachers and students, consists of 15 questions. For example, here we have asked the question whether *the practical work instructors assess the skills gained which will be necessary in our future work* or the question whether *the teachers evaluates the way we work and communicate in a group*.

**Comment:** The skills 'Learning to learn' and 'Entrepreneurship' are interrelated with grading educational achievement in secondary vocational schools. Both of the components depend on the individuality of the students, their ability to spot emerging opportunities but also on their ability to detect potential risks. Those three abilities help the student search for answers on his own in either in the 'Learning to learn' or 'Entrepreneurship' domain. The effects of such individual actions are individual studying, risky endeavors in business, life and other areas of it as well as creating markets, finance wise or not.

These three types of results are evaluated either by the teachers or by the fierce socio-economic environment. Grading, though, as a kind of feedback link between the teacher and the student or the market and the entrepreneur is a feedback signal for the student or the entrepreneur and in that a signal which shows us the individual building capacity of the student and the entrepreneur, a sort of feedback which gives an insight into the student's ability to recognize the 'Learning to learn' abilities or how to recognize opportunities for their future as well being able to see the potential risk in any of these two competences.

When it comes to grading, the way teachers grade and what students think of their teachers' grading methods or the two competences 'Learning to learn' and 'Entrepreneurship', the survey results clearly indicate that there isn't good feedback between teachers and students. Simply put, students highly disagree with their teachers that they do their grading properly, that they explain their reasons for such grading methods, that they give feedback to their students about their work, that they assess their assignments etc. Not only is this not the way to guide students towards their future, but what's even more they become totally misguided.

### 3. ASSESSMENT RESULTS

It's highly recommended that a grading instrument be designed. In doing so, the grading process gets a lot more transparent and students feel that they have some more influence over the same process. This transparent grading, along with the students' participation allows students to get feedback so that they can work on their own methods for Learning to learn and to develop an entrepreneurial spirit. The instrument ought to be flexible and capable of being updated depending on the changes and needs of the environment.

6. *Part (9) of the student questionnaire refers to **how students feel about the teaching and the practice in schools** while part 6 refers to how teachers address this issue. In other words, students give their opinion on any problems connected to teaching and practice and teachers do the same. This part of the questionnaire consists of 35 questions.*

The analysis of the answers given showed that there's a considerable difference between the opinions of teachers and students on this subject. The answers to the 35 questions have been grouped according to difference in opinions of teachers and students into four groups.

The first group consists of questions where the difference in opinions is bigger than 50%, in the second, the differences vary from 40 to 49.9%, in the third from 30 to 39.9% and in the fourth, the differences are less than 30%, i.e. the rest of the questions.

There is only one question in the first group where the difference in opinions of teachers and students is more than 52.1%. Namely, 98.2% of teachers feel that they interrelate what they teach with what's being taught in other subjects and practical work while only 46.1% of students think that their teachers do that.

The second group where there's considerable difference in opinions of teachers and students (from 40.0 to 49.9%) consists of the following two questions: *teachers dictate* and *teachers stand in front of the class and teach the whole 45 minutes*.

The third group of questions (from 30.0 to 39.9%) are the following:

1. *teachers accept our various answers and solutions*
2. *teachers urge us to work independently (by doing assignments, projects, seminar papers...)*
3. *I encourage them to take notes during class*
4. *teachers accept different ways of solving the problem (teachers 93.2%, students 61.2%)*
5. *teachers support all students*
6. *teachers choose to work most with the best students in class*
7. *teachers leave enough time for students to ask questions at the end of the lesson*
8. *teachers encourage students to present their work before the whole class*
9. *teachers suggest we do self-appraisal of our own work*
10. *teachers allows us to ask specific questions even after class*
11. *teachers encourage us to bring forth new ideas or work in a different way from before*
12. *teachers encourage us to make our own decisions*
13. *teachers make adjustments when giving assignments to different students, according to their capacities.*

From the third group of questions (from 20.0 to 29.9%) we'll mention a few more important questions:

- *I give them/they give us clear instructions*
- *I offer them/they offer us different approaches to solving problems*

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- *I give them/the teachers give us suggestions for finding literature connected to what's being taught in class like different textbooks, sites in the Internet, parents etc.*
- *I encourage/teachers encourage work in pairs and groups*
- *They commend students that come up with their own ideas*
- *When grading, they give me an insight into what I'm capable of and where I need improvement etc.*

As far as the other questions are concerned, there's little difference in opinions and those are the answers from the fourth group.

A need for **dialogue** between the students and the teachers for the question: *how do we see teaching and practical work?* There's a big difference in the opinions of students and teachers on this subject. Those very differences indicate that both competences 'Learning to learn' and 'Entrepreneurship' in the lifelong learning process cannot be fully realized. Above all, it's very logical to come to the conclusion, according to the differences of opinion in work appraisal of students and teachers, that teachers don't evaluate their work objectively. For example, the definition for the 'Learning to learn' competence is, among other things, organizing and controlling their own learning process, solving problems, evaluation and acquiring new knowledge at home, at work, as a part of the education process and at trainings; managing their own career etc. While the 'Entrepreneurship' definition, among other things, refers to the ability to willfully introduce innovations, a positive attitude towards change, taking responsibility for actions, motivation for success etc.

Both of these competences cannot be fully realized in there're such big differences in the opinions of teachers and students when it comes to how they see teaching and practical work in schools. In that sense, we'll just remind you that 98.2% teachers think they do find a relation between the subject they teach and other subjects while only 46.1% of students think that their teachers actually do that. Furthermore, there are considerable differences to be found in questions regarding teachers' effort to encourage students of coming up with new ideas, to make them think for themselves when making decisions, to work in teams etc. And according to the definitions for 'Learning to learn' and 'Entrepreneurship' neither of these can start to develop any faster in students.

Disregarding what the students have to say on certain subjects is far from acceptable so it is our suggestion that *a round table for dialogue between students and teachers in secondary vocational schools be set up on regular basis*. By doing that, we increase the chance of bringing the opinions of teachers closer to those of students. And since we're talking about difference in opinions, as well as setting up round tables in schools and a round table of representatives of all schools we should also nominate *facilitators* for those round tables who'll have their own designated tasks in the process.

7. *The part **how and to which extent do you co-operate** refers to teachers (co-operation with their teacher colleagues) and to students (co-operation with their friends in studying and/or practical work). This part of the questionnaire consists of ten identical questions for both teachers and students.*

The general impression from the questionnaire is that there's extensive co-operation among teachers which is a lot more than the co-operation among students and that goes for all the ten questions in the questionnaire. The questions, where there's considerable difference in opinions between teachers and students when it comes to their co-operation (with their colleagues or classmates) are the following:

- *In joint activities I usually let someone else take the initiative (95.8% of teachers and 59.0% of students agreed completely or partially with this opinion. The difference in opinions is 36.8% for the teachers)*

### 3. ASSESSMENT RESULTS

- *I suggest new activities very frequently and I also encourage the others to work (88.8% of teachers and 58.0% of students agree with this. The difference of opinions is 30.8% for the teachers.)*
- *I very often collaborate with my colleagues/classmates on a certain assignment*
- *I happily join in the activities that my colleagues/the others have suggested*

**Comment:** The high degree of co-operation between teachers and the students' compared to that of teachers which is not that high, but still high enough only goes to show that the internal co-operation in separate groups does exist. However, there's still some more work to be done on trying to bridge the collaboration of these two sociological entities. If we want to build bridges of collaboration between the two groups and in the process, convey their particular experience - of both teachers and students - we need to 'even out' the difference in opinions of teachers and students. With that said, maybe it'd be better if there was a coordination unit formed by teachers and students whose tasks will be to strengthen the mutual collaboration within and outside these groups. This synergy between students and teachers will enable strengthening of the human and social capital.

The aforementioned, i.e. the connection of teachers and students into a 'net' is surely an important factor for the development of the 'Learning to learn' and 'Entrepreneurship' competences. In the 'Learning to learn' competence, in both teachers and students, it will facilitate the process of being able to understand their preferred learning strategies, identifying the weak and strong points in people and facilitate exploring possibilities for education and training. As far as entrepreneurship is concerned, the teacher-student community will work on building common awareness of the specific skills and knowledge needed for becoming an entrepreneur and for establishing commercial and sociological activities.

8. *The fifth part refers to question regarding **how we see our future work**. This part refers to the students (number 10) and teachers (number 7). The package of questions consists of nine questions for the students and 11 for the teachers where all the questions in the students' questionnaire are the same in the teachers'.*

The opinions of teachers when it comes to the last two questions, i.e. the question *I would like my job to be more interesting than it currently is* and the question *I'd like to do a job where I could experiment a lot more*, are divided among teachers - 50:50 which makes them irrelevant to the questions' context. This also refers to the students when they were asked the question *I'd like to do a job where all rules are clear and where I would not be forced to make the decisions for myself*. Teachers agreed that the most desirable job would be the one where they could learn new things all the time (89.7%). However, only 25.4% of students agreed on this with the teachers. Therefore, we end up with a difference of 64.5% in the teacher-student relation, i.e. teachers would like a job where they would be learning new things all the time while students don't.

The biggest difference in opinions between teachers and students is on the question *whether they would like a job which offers a lot of new opportunities* (65.5% difference of teachers vs students), i.e. teachers are in favor of such jobs while students aren't. On the other hand, 82.3% of students would like a job where they could earn a lot of money while only 33.9% of teachers would want the same (which makes up for a 48.9% difference between teachers and students)

**Comment:** And now, in this light, how do we comment on the 'Learning to learn' and 'Entrepreneurship' competences with regard to students and teachers? IN any case, we could argue that students are more sincere in their answers, which in fact would not be hard to guess. And, fact of the matter is that students have already entered the 'real' world while teachers have a substantial life experience left behind. The same goes for the question where less students like jobs in which they'll be acquiring new skills and will face

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new opportunities being opened up. Whatever the outcome, these results should be taken as an indicator that students need to be grow a passion for learning something new as well as for being able to want and make use of new opportunities. These are necessary for the development of the 'Entrepreneurship' skills, i.e. developing knowledge, the ability to spot business opportunities and a sense, drive that they can achieve that. And who if not the teachers themselves to pass on that knowledge and deliver training to their students? Are they ready for such things or is that the weak point of teachers?

9. *Questions for teachers and 'Entrepreneurship' and students with regard to do **I know what I need to know** or with regard to entrepreneurship.*

In fact, this group of questions refers to teachers and students (questions 10.1; 10.2 and 10.3 for teachers and questions 12.1; 12.4 and 12.5 for students). The questions' content has to do with entrepreneurship and the questions are the same.

With regard to the question: *to set up a firm they need to choose three answers from a list of eight*, the teacher/student, who have put themselves in the role of an entrepreneur have given the following answers:

To set up a firm you would need:	Teachers %	Students %	Difference %
To have money for business	24.0	26.1	-2.1
To own particular skills and abilities	23.4	19.0	4.4
To be an innovator	9.9	8.3	1.6
To be able to recognize arising possibilities and potential risks	19.5	15.5	4.0
To know how to make a business plan	14.4	13.7	0.7
To know people from the business world	7.5	10.1	-2.6
To be an excellent student	0.6	2.6	-2
To want to be employed in a profitable firm	0.9	4.7	-3.8

According to latest research the entrepreneur needs the following resources to start up and develop a company:

1. To have special abilities and skills
2. To be able to recognize possibilities and risks
3. To know people from the business world (for which students agreed more on than teachers)

According to the survey for the question to set up a new firm and in the 'Learning to learn' and 'Entrepreneurship' competence, the teachers and students have given the following answers:

- a. In order to set up a new firm the first-ranked answer in both teachers and students is that you need money for business. Starting up your own business does not start with money for it but with all of the three aforementioned entrepreneurial resources, which means that the **first-ranked answer is wrong** in both, teachers in students. Both of these sociological groups think wrong when assuming that the first thing you need to start up a business is money. Supplying money is an entrepreneurial process and is based on these three basic entrepreneurial resources.
- b. **The second-ranked answer**, that you needed to possess certain skills and abilities for both teachers and students is **correct**, i.e. the skills and abilities are one of the starting resources of the entrepreneur.
- c. **The third answer** is also **correct**, i.e. another resource for the entrepreneur to set up a firm is *to have the capability of recognizing arising possibilities and potential risks*.

- d. **The fourth (ranked) answer**, that for starting up a new firm you needed a business plan is **wrong**. The entrepreneur sets up a firm based on the three basic entrepreneurial resources, skills, recognizing and knowing people from the business community. Then, he/she could hire an expert to draft a business plan based on the mix of his basic entrepreneurial resources. Therefore, the entrepreneur asks for money if he/she doesn't have his/her own to start a risky business enterprise or asks someone else to do a business plan for him if he can't do it on his own and needs it so that he could get credit for his business.
- e. **The fifth (ranked) answer**, that one of the basic resources for starting up your own firm is *knowing people* from the business world is **correct**.

**Comment:** With regard to this question (for teachers as well as for students) we can come to the conclusion that the 'Entrepreneurship' as a life competence is not yet fully implemented by neither teachers nor students, who in the future should become entrepreneurs. Namely, people believe much too firmly that to have money for business is one of the essential things to start up a business, which is incorrect. Similarly, one the high ranked answers is also the one that knowing how to draft a business plan is the basic means for an entrepreneurial enterprise. On the other hand, not much attention is paid to the fact that knowing people from the business world is one of the basic means for starting up a business. In this regard, students proved better than teachers in recognizing that you need to know people from the business world in order to be able to undertake a risky business venture. Knowing people from the business world means to become a part of a certain business community. These so-called 'nets' of confidence, reciprocity and helping out are primary for any entrepreneurial process. In conclusion, both students and teachers should know more about 'social nets' as something essential for staying competitive in 'Entrepreneurship'.

The survey results show that there are considerable differences in the level of agreement between teachers and students for the following questions:

- Productivity is
- We pay taxes
- The most limited resource is
- Public goods are and
- On Valentine Day the price of flowers goes up considerably because of

When it comes to the question that *productivity is to produce a certain number of products in a certain time frame*, 73.5% of teachers and 44.9% of students have answered right.

What is worrying is the big difference in the percentages of teachers and students who knew the right answer. Namely, students, compared to teachers, know a lot less about productivity which is most likely from both aspects, theoretically and in practice.

We find the same discrepancy in the opinions of teachers and students with regard to the question: *we pay taxes and public goods are*.

In this context, we'll point out the question that the most limited resource is time, a question to which 49.1% of teachers and 47.0% of students answered right. This low percentage, i.e. a vague understanding that time is the most limited resource, in both teachers and students indicates that the capacity building for the 'Entrepreneurship' competence needs to be linked with the 'Learning to learn' competence and with all other lifelong learning competences, starting from the earliest age in the education process. That way, the entrepreneurs will use their knowledge of what productivity is as specific skills in their entrepreneurial processes with allowing for that productivity knowledge to evolve into a keen entrepreneurial sense.

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Knowing how the market mechanism works is essential in building entrepreneurial skills and decisions. The percentage of students and teachers who are familiar with how the market functions is relatively high (higher in teachers though) which can be seen in the answer to the question about the increased price of flowers during Valentine's Day.

Teachers and student chose the right answers with regard to the 'entrepreneurship' competence. Nevertheless, teachers have a higher percentage of right answers given to the questions asked than students. And that the tiniest difference in opinions refers to the question about the most limited resource, i.e. time. Both of them though have shown reluctance in answering what the most limited resource is.

There's one more essential question to be pointed out here and that is what teachers and students think an **entrepreneurial business possibility** is. Teachers, as is the case so far, have chosen the right answer with a lot higher percentage than students (75.4% of teachers answered right while 43.1% of students answered right with a margin of 32.3%). However, in context with the previously said and for further research into the entrepreneurial competence, we should ask ourselves the question: how and in which direction should the 'entrepreneur' competence evolve in secondary vocational schools, that is to say where does that big difference in opinions about what an *entrepreneurial business possibility is*, really come from between teachers and students (teachers 75.4% and students 43.1%). And second of all, how do we create suitable instruments for students to effectively and efficiently recognize something that could grow into a business as well as believe it to be manageable. In other words, students lack knowledge, skills and opinions for recognizing possibilities and for believing them to be achievable. Can the teachers deliver that knowledge, skills and opinions to their students throughout the education process and trainings?

### 3.1.2 Analysis of the VET schools interview results

Along with the school principals, an interview was designed which consisted of the following set of questions:

1. How do you see yourself?
2. Students, studying and teaching
3. An overview of one's own work
4. Teachers, their work and guidance

The questions from the first group about how principals see themselves were a closed set of questions. Principals answered these questions with yes or no. The rest of the question were open and the principals could give their opinions freely.

All in all, there were 10 principals and 2 assistants interviewed in ten schools.



### 1. How do you see yourself?

Results according to the questions asked:

We kindly ask you to tell us to which extent you agree with each of the following statements	yes	no
I'd like to do the usual things in an entirely different way	11	1
The activities I like most are those where there is an exactly set, set of rules of how I need to get the work done	12	/
I solve problems in the same, usual way	11	1
Every problem needs to be addressed by finding several solutions to it and not just one	10	2
I like activities where there are no precise rules and I need to come up with something new	11	1
I think that every problem has only one solution considered the best	10	2

#### Conclusion:

The interviewed principals have stated to want to implement novelties in their work, that they think they give new ideas, but at the same time they want to have precise working rules. They haven't been firm when saying they want to take risks, but don't claim they feel comfortable with a way of work that has already been tried out because they are aware that solving problems asks for a versatile approach, i.e. ordinarily, there isn't a perfect solution to the problem but that it would be much better to seek for alternative solutions, which will need to be discussed.

### 2. Students, studying and teaching

Results from the question asked:

1. What is your opinion on how students feel about studying ? (if they think it to be important, hard, boring, useful etc)  
How important 8, boring for them 2, useful 2
2. Do you think that what they learn here at your school they'll find useful in their future work and life in general?  
Yes, not only useful but very useful in their life and work in the future 10, somewhat useful 2
3. Do your students have enough information about their future occupation or their future education?  
Principals feel that their students get enough information especially from teachers teaching vocational subjects
4. Do you students learn enough from their teachers about what they're supposed to achieve so that they could put their own ideas into practice?  
Principals feel that some of the teachers give enough of this information, but some don't pay much attention and therefore need additional training.
5. Do you think your students are motivated enough to make them experts in what they'll do in the future?  
When it comes to professional work, most of the students are motivated while some really lesser part aren't interested at all and for them this isn't motivating enough
6. Are your students ready to set up their own business? To which extent does your school help them in this?  
There are students (a really small part of them) whose main preoccupation is to open up their own business (especially from the catering industry) while the others don't even think about that but look for excuses by saying that they lack the needed financial

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resources or that their parents don't trust their capabilities enough so they don't give them the necessary funds to implement the idea. The school prepares them in this, to a certain extent.

7. Do teachers make an effort to link the lectures from the theoretical classes with what they'll be doing in practice classes?

In the vocational subjects most of the teachers do make that effort. Some don't even pay attention to that and address the lectures as merely lectures.

8. Are teachers capable of using new – active methods in teaching? Might they need training in that field?

The number of those who do that is small. Most of them are in need of additional training to increase their capacity for those kind of activities and they need to be monitored closely to ensure that they have implemented what they had learnt before.

9. How do teachers do their grading? Do they use a test or they examine students orally? Mostly in the form of an essay test, sometimes orally.

10. How transparent is the grading process and how realistic? Do teachers give their grading criteria in advance? Are they capable of doing that?

When we speak of transparent grading in terms of announcing grades to all students, most teachers practice that but when it comes to setting grading criteria that students are aware of, such a thing barely exists and certainly needs further work. Teachers lack the necessary skills to set criteria according to the programme's standards. That is one of their greatest weaknesses.

### *Conclusion:*

With regard to how students feel about studying it's difficult to say for certain, but what we can say is that most of them know that studying is a useful way of providing them with future existence because what they learn now they will find useful later in life and the topics they do in class will be additionally addressed in their practice classes or even explained further in their future education.

As a proof of this is the fact that in the Employment Agency in Skopje there isn't a single hairdresser unemployed. Another proof is that connections are being made with trade organizations, for example with businesses from the construction industry. We should also not disregard the impression that some students find studying hard.

Principals do admit that the teacher's motivation and involvement is not at its highest, so there are those who are more enthusiastic and introduce new things which enables students to use their knowledge more but there are also those who are 'old-fashioned' and do their work in the same old way, almost as a part of a routine. Staying motivated is connected to the prospects for a future employment and for some branches that's to be expected but for others there isn't any motivation at all because the prospects for future employment are slim.

It is thought that students are prepared and willing enough to start up their own business, but feel hesitant with regard to the possibilities for providing conditions for that. It was emphasized that students' willingness for opening up their own business depends on many factors and especially on the students themselves and the family environment in which this person grows and starts to mature. Teachers stress the fact that the knowledge students get in classes is useful and they emphasize that even further by trying to link the theory with the practice.

There is general awareness of the need for lifelong learning and we've had a specific suggestion that a big part of the teachers need additional education in English, if not for anything else then merely because of the large number of resources in English available, especially on the Internet. The examinations are usually oral or written, tests aren't used that often but aren't neglected either. However, one of the principals pointed out the fact

that whenever they (the teachers) discuss the frequent use of tests as a means of examination they always start arguing and they would always say: 'it's always tests and tests.' There aren't any serious comments made on the reality and the transparency of the grading process, but the combined impressions that teachers get - in the form of grades - sometimes instigate a negative comment. In that sense, conscious and persistent efforts are made to write down all grades in front of the students.

#### 3. A look at one's own work

*Results according to the questions asked:*

1. Would you like a job that leaves no much changes and where you can experiment a lot?  
Most of the principals tend to favor jobs which leave no room for a lot of experimenting
2. How and to which extent do you collaborate with the employees? Do you suggest any activities and do you encourage the teachers to work a lot harder and better?  
Most of the principals think they collaborate enough with their teachers. They do suggest different activities and ideas which get accepted. Most of the surveyed principals think that they could use some professional help in this matter as well as some additional training so that they could offer their teachers the proper professional help

*Conclusion:*

Principals don't have the impression that their possibilities are too limited even though there are rules that have to be obeyed because their personal engagement and the individual actions aren't contradictory to the given environment, but it is very likely that there isn't too much room for a lot of experiments. It's be wise to discuss ideas in an organized way, though (council, professional body) as well as instigating informal conversations with teachers and it seems that the boundaries of any activities that need to be done individually or together with the other employees can be easily set, where they could either agree on team work or the activities would be delegated to individuals.

#### 4. Teachers, their work and guidance

*Results according to the questions asked:*

1. To which extent can the teachers at your school solve their problems on their own?  
The do have room enough for that for most frequently they ask for my help and the professional service inside the school when the problem refers to either the students or the teaching process
2. Are teachers in your school allowed to openly criticize the school's working methods?  
I think that they have that opportunity but they are not familiar with that, which is why they rarely do it or some may even think that teachers don't criticize because they don't feel motivated enough or they just don't have any clever ideas to give
3. Do you insist that the teachers at your school continue studying and that they introduce new things in their work? Do you remind them that learning is a lifelong process?  
Most of the principals have said that they keep emphasizing that: I do remind them but there are always those who think they know enough and that they don't need any professional development. They think if this obligation were to be stipulated by law, it'd be more stimulating.
4. Do you take their ideas into account, do you support them?  
Most of the directors have said that they do take their ideas into account even when they weren't impressed by them
5. Do you encourage the mutual collaboration of teachers? In what way?  
Yes, I do encourage them to work together, to go to each other's classes, exchange ideas, seek professional advice, do lesson analysis, but rarely do any of the teachers actually do that

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6. Have you made any efforts to provide teachers with additional professional development? How, in what way?  
So far, only through the Bureau for Development of Education, i.e. MoES and sometimes through some other projects, VET 4 Programme, the Modernization Project. For a small part of the teachers, we try to disseminate seminars and organize internal seminars as well.
7. Can they ask for your expertise? How capable are you of offering it?  
Most Principals have said that their expertise is not asked for that often because: they may distrust me or they may think by doing that they would expose their weaknesses and problems encountered in teaching
8. Do you feel you need professional help, additional training in your work so that you could offer your assistance in improving the teaching process?  
All principals, except for one, concurred that this would indeed be needed and that they would find it very useful. At some of the trainings it was mentioned that there'll be a training as a preparation for taking the principal exam which as an activity has helped them in that direction but that that would not be enough and that more trainings are needed.
9. Your own suggestions and thoughts on how to improve the work of teachers so that they could prepare students to create their own future and learn throughout their whole life.  
Some of the principals think that those teachers who teach business have already started doing that, but only if the teacher graduated from a business school. If the teacher has graduated Economics for example, then he/she will talk about business actions in general and they would do less activities which have to do with the students' vocation. It'd be much better if teachers in vocational subjects had additional training for this issue, together with activities and exercises, so that they provoke students into thinking and coming up with their own ideas which will motivate them for creating their own future and learning throughout their entire life. This is necessary - would be the general conclusion of the school principals.

*Conclusion:*

The independence teachers enjoy in their work depends largely on the nature of the topic, but they are expected to report back on development of events occasionally. Flexibility and openness do exist. In fact, all teachers can express their opinions and give remarks openly; different initiatives have been taken and in some cases the staff is involved in a lot of projects. If the ideas proposed by teachers are found to be useful - or seem promising - then they are supported by principals.

There are groups which naturally co-operate closely and the professional bodies are a means of directing and commenting on activities/development of ideas. The professional development of teachers is considered an obligation so efforts in that sense are far from rare. It is a known fact that teachers can turn to their principals for professional advice and the principals are quite aware that they can help them only if they have the knowledge to address the problem properly. Consequently, teachers are in need of professional development, too, as well as additional knowledge so that they could become more efficient in improving teaching. There have been some strong suggestions for the theoretical knowledge to be applied in practice more (field work) but no less stronger are those which refer to the increase of salaries which would make teachers more motivated and more willing to prepare their students for the future and make them learn throughout their life. There isn't even a shadow of a doubt that more trainings are needed as well as more technical equipment and more of professional literature available but that all of those things need money, i.e. financial resources.

## 3.2 RESULTS FOR HIGHER EDUCATION

### 3.2.1 Results and interpretation of part of the questions from the Questionnaire (Annex III) for the students for the 'Learning to learn' competence

The survey produced huge set of data. Some of them are presented in the following tables.

**Table 1: Students' opinions regarding the question: What is the significance of learning in the former Yugoslav Republic of Macedonia?**

Students opinion		Not agree at all	Usually not agreed	Usually agreed	Totally agreed	Total	
1.	The majority of famous persons in our country were good students.	f	52	83	34	6	<b>175</b>
		%	29.71%	47.43%	19.43%	3.43%	<b>100.00%</b>
2.	You have to be a good student in order to become rich in the former Yugoslav Republic of Macedonia.	f	104	49	18	4	<b>175</b>
		%	59.43%	28.00%	10.28%	2.28%	<b>99.99%</b>
3.	In our society, students know perfectly clear that studying one day will pay off.	f	58	72	31	14	<b>175</b>
		%	33.14%	41.14%	17.71%	8.00%	<b>99.99%</b>
4.	Education in the former Yugoslav Republic of Macedonia soon will be improved and become more important.	f	14	66	81	14	<b>175</b>
		%	8.00%	37.71%	46.28%	8.00%	<b>99.99%</b>
5.	Professor's status is clearly representing the significance of education in the former Yugoslav Republic of Macedonia.	f	17	60	76	20	<b>173</b>
		%	9.83%	34.68%	43.93%	11.56%	<b>100.00%</b>
6.	In the former Yugoslav Republic of Macedonia people who do not have any education take all the credit.	f	32	62	52	29	<b>175</b>
		%	18.28%	35.43%	29.71%	16.57%	<b>99.99%</b>

In the statement marked with number 2, there are 2/3 of the students, i.e. (87%) who claim that in order to become rich in the former Yugoslav Republic of Macedonia one does not have to be a good student. That is also shown with the results from the statement number 3 where, according to 75% of the students - learning does not pay off.

Still, a dose of future optimism is given with the statement number 4, where 55% of the polled students think that the education in the former Yugoslav Republic of Macedonia soon will be improved and become more important for the people and the society it self.

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**Table 2: Students' opinions regarding the question about their learning methods and strategies, i.e. the ways of learning**

Students opinion		Never	Rare	Often	Always	Total	
1.	Before I start learning, I think about what I need to know.	f	5	19	80	71	<b>175</b>
		%	2.86%	10.86%	45.71%	40.57%	<b>100.00%</b>
2.	Several times I'm going through the content which I need to know.	f	5	28	67	75	<b>175</b>
		%	2.86%	16.00%	38.28%	42.86%	<b>100.00%</b>
3.	Main definitions and terms I'm learning by hart.	f	20	63	49	43	<b>175</b>
		%	11.43%	36.00%	28.00%	24.57%	<b>100.00%</b>
4.	When I learn, I underlie the text in my notebook or my book.	f	13	21	34	107	<b>175</b>
		%	7.43%	12.00%	19.43%	61.14%	<b>100.00%</b>
5.	I try to understand new content in a way to connect it with prior knowledge.	f	1	12	80	82	<b>175</b>
		%	0.57%	6.86%	45.71%	46.86%	<b>100.00%</b>
6.	I try to understand how I can use some information in everyday life.	f	1	41	99	34	<b>175</b>
		%	0.57%	23.43%	56.57%	19.43%	<b>100.00%</b>
7.	When I learn, I repeat (check myself) at loud.	f	44	56	33	42	<b>175</b>
		%	25.14%	32.00%	18.86%	24.00%	<b>100.00%</b>
8.	When I learn, I'm telling the content with my own words.	f	10	41	73	50	<b>174</b>
		%	5.71%	23.43%	41.71%	28.57%	<b>99.43%</b>
9.	When I learn, I make notes in my notebook.	f	21	47	50	57	<b>175</b>
		%	12.00%	26.86%	28.57%	32.57%	<b>100.00%</b>
10.	When I learn, I do tables, graphs and diagrams according to text.	f	63	68	30	14	<b>175</b>
		%	36.00%	38.86%	17.14%	8.00%	<b>100.00%</b>
11.	When I learn, I'm passing through the content and separating the most important parts.	f	3	23	55	93	<b>174</b>
		%	1.71%	13.14%	31.43%	53.14%	<b>99.43%</b>
12.	When I read a text, it happens that I don't know what is about.	f	19	97	50	9	<b>175</b>
		%	10.86%	44.00%	31.43%	13.71%	<b>100.00%</b>
13.	When something is not clear to me, I stop and go through the text again.	f	4	7	74	89	<b>174</b>
		%	2.28%	4.00%	42.29%	50.86%	<b>99.43%</b>
14.	When I learn, I use different sources (books, magazines, TV, internet...).	f	19	77	55	24	<b>175</b>
		%	10.86%	44.00%	31.43%	13.71%	<b>100.00%</b>
15.	I learn only according to the resources given by the professor.	f	8	34	79	53	<b>174</b>
		%	4.57%	19.43%	45.14%	30.29%	<b>99.43%</b>
16.	I learn thoroughly, using resources that are not given by the professor.	f	20	92	54	8	<b>174</b>
		%	11.43%	52.57%	30.86%	4.57%	<b>99.43%</b>
17.	I look for the unfamiliar words in dictionaries, encyclopedias, etc.	f	21	58	43	52	<b>174</b>
		%	12.00%	33.15%	24.57%	29.71%	<b>99.43%</b>

### 3. ASSESSMENT RESULTS

From the statement number 4, we notice that nearly 80% of the polled students underline the text when they learn - which show us that they are competent to use certain learning technique.

Encouraging are the given results for the statement number 14, where almost 93% of the students answered that they insist to connect the new material with one that they already know, which help them to form one firm, logic based system of knowledge.

On the other hand, disappointing are the shown results in the statement number 10, where 2/3 of the polled students answered that during studying they do not use different sources like books, magazines, TV, internet, etc. The results from statement number 16, also show us that 64% of the students declaimed that they don't learn thoroughly, and do not use outside resources given by the professor.

**Table 3: Students' opinions regarding the question about their professor's and assistant's way of teaching**

Students opinion		Never	Rare	Often	Always	Total
1.	Professors say clearly to us what we need to do during the lessons.	f 6	65	86	17	<b>174</b>
		% 3.43%	37.15%	49.14%	9.71%	<b>99.43%</b>
2.	Professors dictate all we need to know.	f 17	97	50	10	<b>174</b>
		% 9.71%	55.43%	28.57%	5.72%	<b>99.43%</b>
3.	Professors always have right answers.	f 6	67	86	15	<b>174</b>
		% 3.43%	38.29%	49.14%	8.57%	<b>99.43%</b>
4.	Professors accept different answers or solutions.	f 14	82	67	12	<b>175</b>
		% 8.00%	46.86%	38.28%	6.86%	<b>100.00%</b>
5.	Professors support students who are independent in their work (during the solving of the tasks).	f 12	58	74	31	<b>175</b>
		% 6.86%	33.14%	42.29%	17.71%	<b>100.00%</b>
6.	Professors says us precisely what we need to learn and know.	f 17	52	77	27	<b>173</b>
		% 9.71%	29.72%	44.00%	15.43%	<b>98.86%</b>
7.	Professors propose to us to look more on the content of what we learnt and support us to use different sources.	f 16	64	69	26	<b>175</b>
		% 9.14%	36.57%	39.43%	14.86%	<b>100.00%</b>
8.	Professors support us that we work on the assignment in pairs or groups.	f 6	45	91	30	<b>172</b>
		% 3.43%	25.71%	52.00%	17.14%	<b>98.28%</b>
9.	Professors stand in front of the class, during the whole lesson he/she is talking and we need to listen.	f 7	40	78	48	<b>173</b>
		% 4.00%	22.86%	44.57%	27.43%	<b>98.86%</b>
10.	Professors use teaching tools: projector, overhead projector, computer, video.	f 27	44	56	48	<b>175</b>
		% 15.43%	25.14%	32.00%	27.43%	<b>100.00%</b>

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Students opinion		Never	Rare	Often	Always	Total
11. Professors leave enough time to students for asking questions.	f	13	62	69	30	174
	%	7.43%	35.43%	39.43%	17.14%	99.43%
12. Professors connect content from their subject with the content of different subjects.	f	15	74	76	10	175
	%	8.57%	42.29%	43.43%	5.71%	100.00%
13. Professors encourage students to express their own ideas.	f	16	59	74	26	175
	%	9.14%	33.71%	42.29%	14.86%	100.00%
14. Professors give examples from everyday life.	f	9	35	90	40	174
	%	5.14%	20.00%	51.43%	22.86%	99.43%
15. Professors propose us how to learn certain content.	f	35	70	44	23	172
	%	20.00%	40.00%	25.14%	13.14%	98.28%
16. Professors support us to think something new, and work on a new way.	f	27	79	49	20	175
	%	15.43%	45.14%	28.00%	11.43%	100.00%
17. Professors support us that we make decisions independently.	f	21	57	67	30	175
	%	12.00%	32.57%	38.29%	17.14%	100.00%
18. Professors encourage us to suggest activities that will be realized during lessons.	f	26	80	49	15	170
	%	14.86%	45.71%	28.00%	8.57%	97.14%
19. Professors encourage us to plan our own time and effort.	f	24	63	70	17	174
	%	13.71%	36.00%	40.00%	9.72%	99.43%
20. Professors encourage us to take responsibility for our own actions.	f	20	42	83	30	175
	%	11.43%	24.00%	47.43%	17.14%	100.00%
21. My professors discuss with me about what I can do in the future.	f	18	42	78	37	175
	%	10.29%	24.00%	44.57%	21.14%	100.00%
22. Professors treat us all with respect.	f	13	56	68	36	173
	%	7.43%	32.00%	38.86%	20.57%	98.86%
23. Professors make effort weakest students to understand learning material.	f	38	74	46	17	175
	%	21.71%	42.29%	26.29%	9.71%	100.00%
24. Professors do not care whether we understand the learning material	f	36	71	52	15	174
	%	20.57%	40.57%	29.71%	8.58%	99.43%
25. Professors supports all students.	f	18	51	72	33	174
	%	10.29%	29.14%	41.14%	18.86%	99.43%
26. I can always get help from my professor when I ask for it.	f	12	46	83	33	174
	%	6.86%	26.28%	47.43%	18.86%	99.43%
27. Professors show us how to distinguish what is more from what is less important.	f	11	60	81	22	174
	%	6.28%	34.29%	46.29%	12.57%	99.43%



### 3. ASSESSMENT RESULTS

Students opinion			Never	Rare	Often	Always	Total
28.	Professors offer us different ways for solving a certain problem.	f	5	63	81	24	<b>173</b>
		%	2.86%	36.00%	46.29%	13.71%	<b>98.86%</b>
29.	Professors support us that we make self evaluation on how we solved certain problem /task.	f	17	69	56	33	<b>175</b>
		%	9.71%	39.43%	32.00%	18.86%	<b>100.00%</b>

Student's opinion from this table corresponds with the opinion from the previous table, where 64% of the students declaimed that they don't learn teheraly, and outside resources given by the professor.

Furthermore, from the statement number 7, half of the polled students consider that professors and their assistants do not support them to use different textbooks, internet, ask their parents, colleagues, use magazines.

Moreover, the half of the polled students in the statement 10 declaimed that even the professors them selves do not use different teaching tools like projector, overhead projector, computer, video...

Disappointing are the results from the statement number 15, where 60% of the students think that their professors do not propose them how to learn certain content. With the same percentage students declaimed also at the statement number 16, where they think that the professors do not support them to think something new, and work in a new way, give creative ideas.

Interesting and more optimistic is the data given with the statement number 21, where majority of the polled students say that the professors and their assistants discuss with them about what they can do in the future and encourage them to think about their future plans and take responsibility for our own actions.

#### 3.2.2 Results and interpretation of part of the questions from the questionnaire (Annex IV) for the students for the 'Enterpreneurship' competence

**Table 4: Students opinion regarding the question: What kind of job they wish?**

How you see your future job?			Not agree at all	Usually not agreed	Usually agreed	Totally agreed	Total
1.	Job where the rules are clear and I don't need to make a lot of decisions.	f	16	76	70	27	<b>189</b>
		%	8.47	40.21	37.03	14.29	<b>100.00</b>
2.	Job without many changes.	f	25	73	71	21	<b>190</b>
		%	13.16	38.42	37.37	11.05	<b>100.00</b>
3.	Job which I will be independent in decision making.	f	5	27	80	77	<b>189</b>
		%	2.65	14.28	42.33	40.74	<b>100.00</b>
4.	Secure job with no risk.	f	6	30	75	79	<b>190</b>
		%	3.16	15.79	39.47	41.58	<b>100.00</b>
5.	Job on which I will constantly learn something new.	f	1	3	71	114	<b>189</b>
		%	0.52	1.59	37.57	60.32	<b>100.00</b>

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How you see your future job?			Not agree at all	Usually not agreed	Usually agreed	Totally agreed	Total
6.	Job on which I would be given a lot of new chances.	f	0	4	45	141	190
		%	0.00	2.11	23.68	74.21	100.00
7.	Job which is not far from home.	f	7	43	89	51	190
		%	3.69	22.63	46.84	26.84	100.00
8.	Job without chief on which I will take decisions independently and responsibility for eventual failure.	f	6	55	78	51	190
		%	3.16	28.95	41.05	26.84	100.00

According to the results, the largest part (83%) of the students want a job that they will create by themselves, and job in which they will feel independent. This means that the majority of students already think about self – employing, and they want to found own business. (signature 3).

All this can be supported with the opinion which stresses in statement number 5 and 6, where 98% of the students express that they want a job where they will have opportunities to learn something new.

In addition is the declaring of students in statement number 8 in which 68% of the respondents express wish to have a job where they can be bosses and where they can make their own decisions.

**Table 5: Students' experience with 'Entrepreneurship' during their initial education**

During your education, did you have chance to:			Never	Rare	Often	Always	Total
1.	...talk with entrepreneurs, who lead their own firms?	f	47	91	31	21	190
		%	24.74	47.89	16.32	11.05	100.00
2.	...to be inform for employment in some enterprise?	f	37	89	49	15	190
		%	19.47	46.84	25.80	7.89	100.00
3.	...visit successful companies?	f	46	93	36	15	190
		%	24.21	48.95	18.95	7.89	100.00
4.	...learn more how functions a certain company (firm)?	f	41	87	50	11	189
		%	21.69	46.03	26.46	5.82	100.00
5.	...know how to establish company?	f	74	72	32	11	189
		%	39.15	38.10	16.93	5.82	100.00
6.	...know how with your energy (efforts) you can earn money?	f	19	83	60	27	189
		%	10.05	43.91	31.75	14.29	100.00
7.	... research possibilities for employment in your sector?	f	17	58	82	33	190
		%	8.95	30.53	43.15	17.37	100.00
8.	...to ask for a job complementary with your education	f	71	61	41	16	189
		%	37.57	32.27	21.69	8.47	100.00

### 3. ASSESSMENT RESULTS

During your education, did you have chance to:			Never	Rare	Often	Always	Total
9.	...know to whom ask for help if you have business idea?	f	38	92	43	16	<b>189</b>
		%	20.10	48.68	22.75	8.47	<b>100.00</b>
10.	...work on development of business idea?	f	62	82	34	12	<b>190</b>
		%	32.63	43.16	17.89	6.32	<b>100.00</b>
11.	...know what you need to do to develop successful firm?	f	58	81	33	18	<b>190</b>
		%	30.53	42.63	17.37	9.47	<b>100.00</b>

Generally, results of this question shows deficiency of learning about 'Entrepreneurship' during the initial education of students at their faculties. From statement number 1 we can conclude that 48% of the students rarely had the chance to talk with an entrepreneur who owns a company, and 25% of them never had that chance. Largest part of the subjects never had the chance to know the basic characteristics of entrepreneurs, or to obtain entrepreneurship experience.

In according to this is the fact that 77% of students never had opportunity to learn how to establish a company, or more precisely, 39% of them never had such an opportunity, and 38% rarely have opportunities for obtaining that kind of information. (signature 5).

Similar are data in the last question where 43% students declared that they rarely had been in situation to think about developing successful company , and 30% of them have never had opportunities to produce idea for developing own firm.

**Table 6: Students' responses on how much professors encourage entepeneurship at the faculties**

Professors help me to learn how...			Never	Rare	Often	Always	Total
1.	... how to achieve my aims before I start to work	f	13	93	61	22	<b>189</b>
		%	6.88	49.21	32.27	11.64	<b>100.00</b>
2.	...to plan my activities and obligations	f	11	55	85	38	<b>189</b>
		%	5.82	29.10	44.97	20.11	<b>100.00</b>
3.	...to think about my future occupation	f	15	45	74	55	<b>189</b>
		%	7.94	23.81	39.15	29.10	<b>100.00</b>
4.	...to promote the development of personal qualities that are relevant to entrepreneurship, such as creativity, spirit of initiative, risk-taking and responsibility	f	31	72	58	27	<b>188</b>
		%	16.49	38.30	30.85	14.36	<b>100.00</b>
5.	...to gain early knowledge and contact with the world of business	f	50	83	44	12	<b>189</b>
		%	26.45	43.92	23.28	6.35	<b>100.00</b>
6.	...to understand the role of entrepreneurship in the community	f	53	82	43	10	<b>188</b>
		%	28.19	43.62	22.87	5.32	<b>100.00</b>

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Professors help me to learn how...		Never	Rare	Often	Always	Total
7. ...to raise my awareness of self-employment and entrepreneurship as a career option	f	65	75	42	8	<b>190</b>
	%	34.21	39.47	22.11	4.21	<b>100.00</b>
8. ...to understand the message: "you can become not only an employee, but also an entrepreneur"	f	32	65	61	32	<b>190</b>
	%	16.84	34.21	32.11	16.84	<b>100.00</b>
9. ...to organize activities based on learning by doing	f	20	33	80	57	<b>190</b>
	%	10.53	17.37	42.10	30.00	<b>100.00</b>
10. ... to start a business with delivery of specific training	f	79	68	31	10	<b>188</b>
	%	42.02	36.17	16.49	5.32	<b>100.00</b>
11. ...to create by myself new ideas and activities in order to start my own business	f	58	68	39	25	<b>190</b>
	%	30.53	35.79	20.52	13.16	<b>100.00</b>

Students' opinions about their teachers are little bit more optimistic compare to the results of the previous table. Less than half of the students (45%) express that their teachers stimulate them in developing skills and personal qualities that are relevant to entrepreneurship, such as creativity, spirit of initiative, risk-taking and responsibility about leading the company, but 55% of the students express that they never had that kind of chance (signature 4). Furthermore, only 28% of the students declared that their professors helped them to understand the role of entrepreneurship in the community. (signature 6) Similar are data on the last question in which only 30% of students declared that they were stimulated to create new ideas and activities in order to start their own business.

**Table 4: Students' results on the question: Why do entrepreneurs develop business plans before they begin a new task?**

The basis of the business plan is to...		f	%
a.	...help them to become a Director	12	6.32
b.	...inform the school/faculty where they graduated about what they learned	9	4.74
c.	...ensure that the idea is good and can be profitable	165	86.84
Didn't respond		4	2.10
<b>Total</b>		<b>190</b>	<b>100.00</b>

This is relatively simple question and the percent of right answers for the basis of the business plan is very high (87%) which show that the students have basic knowledge for economy and entrepreneurship, which can be developed.

### 3.3 ANALYSIS OF THE RESULTS OF MEDIA PLAN

The media was informed about the project.

### 3. ASSESSMENT RESULTS

For that purpose on 30 January 2007 in the Parliamentarian Club in Skopje the Closing Conference was organized (**Annex XI** – Agenda). The Conference was attended by representatives of the media and more than 80 participants, representatives of the Ministry of Education and Science, Bureau for the Development of Education, Inspectorate, Sector for valuing the results of the pupils, Austrian Development Agency, representatives of different projects, representatives of the Consortium, universities and social partners, and the representatives included in the research from the faculties and schools, professors, students, teachers, directors.

The material with general information about the project and results and recommendation was delivered to each participant.

The Conference was opened with a welcome address from the Deputy Minister for Education and Science, Mr, Jovan Lazarov. The Team Leader was also the Chair of the Conference. The whole team participated in the presentation and discussion.

The Ministry of Education and Science found the results very useful and requested a large-scale Conference, and provided the venue.

As result of the Conference Ministry of Education and Science will publish the Final report on the web: [www.mon.gov.mk](http://www.mon.gov.mk)

The media reacted to the event with information in the newspapers, TV and radio and media interest is still high.



## 4. OVERALL POLICY ASSESSMENT

### Background

During the last few years, as a result of various projects which have been implemented and which are being implemented, our country has noted some changes in its educational system. The in-service teacher training programmes have not always proved to be beneficial to the professional development of the teachers at VET schools and other educational institutions. This is mainly due to the fact that relatively few activities are dedicated to improving the quality of teaching.

The key factor to the development of every country is VET. The countries that have achieved economic growth and prosperity are characterized, among other things, with well organized education systems, especially for VET. This was particularly expressed in the process of transition in all countries. At this point it should be stressed that in the period before 1990, in former Yugoslavia, there existed a consistent system of VET with an intricate network of various forms and degrees of education. The specific of VET at the time, in accordance with the socio-economic and political system, was that it was completely designed to meet the requirements of the economic structure which was focusing on industrialization and development of gigantic companies.

The objective in reshaping the education system is to enable its present and future students to learn and build up their knowledge and skills with a view to finding their place in the rapidly and ever changing society and to implant in them the desire and competence for lifelong learning. Even if the educational reforms are implemented in all levels of education it was not focused on development of key competences for lifelong learning.

### 4.1 LEGISLATION

**Researching the conditions connected to the key competences the project team studied more documents which regulate the vocational high schools and tertiary education in the former Yugoslav Republic of Macedonia.**

**4.1.1** For the first time, this concept is considered in the process of developing the national core curricula and idea for implementation in the existing school programmes, in the ***National Strategy for the Development of Education 2005 – 2015***. This programme is funded by the Foundation Open Society Institute Macedonia and the Ministry for Education and Science

The National Strategy for the Development of Education is a project concerned with the advancement and promotion of cultural heritage issues within the country. It constantly strives to contribute to the sustainable development and improvement of society and its promotion as an equal and respected member of the European and world communities. Furthermore, the National Strategy for the Development of Education assists in the development of an effective education system which will prepare both young people and adults for entrance into the workforce.

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In order to achieve its objectives, the National Strategy for the Development of Education works within the framework of the principles and ideas listed below:

- Education for all/providing equality in education
- Promotion of cultural heritage
- Raising social participation
- Raising the educational, cultural and economic competency of society
- Reinforcing and developing international cooperation.
- Change management

On 9 March 2006, the Government approved ten documents prepared by experts in the Working Groups for the National Strategy. These documents promote big changes in the VET sector. More specifically they propose the incorporation of the VET Centre in the Ministry of Education and Science.

### 4.1.2 Document: Resolution for introducing the subject Business and Enterprise in the high schools

In compliance with the draft - record from the twelfth session of the Government of the Republic of Macedonia held on the 28 December 2006 with a purpose to create capable people to work in the private sector, it gave a recommendation for establishing the subject Business and enterprise in the first year in all high schools. The Ministry for Education and Science was entrusted for preparing a suggestion for implementing of this subject in the following school year. Concerning the implementation of the recommendation from the high school education for strengthening the collaboration between the high schools and the business sector, stressing them as a good practice the virtual and real companies.

### 4.1.3 Document: Law on vocational education and training

Official Gazette of the former Yugoslav Republic of Macedonia No 71/2006  
June 8, 2006

Certain concepts used in this Law have the following meaning:

1. **Vocational education and training** is part of the education system which provides individual development of the personality by acquiring competences, knowledge and skills which are necessary for taking part in the labor market or for continuation of the education;
2. **Institution for vocational education and training** is institution that has the vocational education and training as core area of activity;
3. **An employer represents** trade association, institution or craftsman where the practical training is performed in accordance with the current conditions of their activity, having in mind that the training does not represent their core area of activity.
4. **Social partners** are associations which represent the interests of the workers and the employers who in collaboration with the bodies of government authority, the units of local self-government are in charge for implementation of the system for vocational education and training.
5. **Standard of vocation** represents determination of the type of the vocation, the level and the job requirements and the necessary competences, knowledge and skills.
6. **Module** represents independent learning unit, which as a program unit allows acquiring competences, knowledge and skills in certain area.
7. **Diploma, certificate** are public documents which verify the completion of certain vocational education and training program.



### **Scope of the vocational education and training**

#### *Article 4*

The goal of the vocational education and training is to enable for work, respectively for continuation of the education.

- Developing competences, knowledge and skills necessary for the professional activities of the individual, as well as for self-employment within the framework of the society based on the market and democratic principles, and
- Providing basis for lifelong learning.

### **The system for vocational education and training**

#### *Article 5*

The vocational education and training, in accordance with this law, is practiced by vocational education and training institutions, employers and social partners.

The following are the vocational education and training institutions:

- Vocational education and training schools which provide general and vocational-theoretical education and practical training, and
- Centre for vocational training which provide vocational-theoretical education and practical training.

### **Vocational education and training centre**

#### *Article 30*

The Vocational Education and Training Centre is a public institution for vocational education and training in the former Yugoslav Republic of Macedonia.

The Centre is established by the Government of the former Yugoslav Republic of Macedonia.

#### *Article 31*

The Centre joins together and integrates the public interests and the interests of the social partners in the vocational education and training in the former Yugoslav Republic of Macedonia.

The Centre coordinates the cooperation with international institutions and organizations in the field of vocational education and training.

#### *Article 32*

The Centre performs the following activities:

- develops the vocational education and training in order to harmonize it to the needs of the modern technological and social development;
- provides support to the social partnership on all levels and phases in the planning, development and realization of the vocational education and training;
- relates the education and work in the lifelong learning content;
- develops the European orientation of the vocational education, with provided transparency and competitiveness of the acquired vocational competencies, adjusted to the international labour market needs;
- is involved in the labour market research in cooperation with social partners;

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- is involved in the implementation of the accreditation procedures for provision of services in relation to implementation of the programs for training of the appropriate staff in vocational-theoretical subjects and practical training;
- develops concepts for all types of vocational education and training;
- develops occupational standards as a basis for development of the teaching plans and programs;
- proposes and develops teaching plans for all types and levels of vocational education and training and submits them for opinion to the Bureau for Development of Education;
- develops the models for teaching programs for the vocational subjects for vocational education and training;
- implements the public procurements for provision of services in development of new teaching programs for the vocational subjects i.e. modernization of the existing teaching programs in vocational subjects, in accordance with the Law;
- monitors the delivery of services of the selected bidders, with regards to their quality and timely delivery;
- proposes exam programs in accordance with the established standards for implementation of the exams at the end of every type of vocational education and training;
- monitors the results from the exam at the end of every type of vocational education and training;
- drafts and proposes a List of Standards for Occupation for vocational education and training;
- provides support to the vocational education through expertise, instructions and mentorship of the teachers and trainers in vocational subjects in the vocational education and training;
- provides opinions on whether the institutions that require verification for delivery of vocational education and training have met the requirements;
- drafts standards for premises and equipment for the schools;
- mediates in the career development and professional orientation of the students in the vocational education and training;
- proposes solutions for improvement of relations between the vocational education and elementary education, vocational education and general education and the vocational education and high education.

*Article 33*

The Centre cooperates with the following institutions:

- Ministry of Education and Science;
- Ministry of Labor and Social Policy;
- Ministry of Economy;
- Employment Agency of the former Yugoslav Republic of Macedonia;
- State Statistical Office;
- Chamber of Commerce of the former Yugoslav Republic of Macedonia;
- Chamber of Craftsmen of the former Yugoslav Republic of Macedonia;
- The Trade Union;
- The Bureau for Development of Education;
- The State Centre for Examinations;
- vocational education and training institutions;
- universities;
- international institutions and organizations in the field of vocational education and training.

### 4.1.4 Document: programme for the education of adults in the former Yugoslav Republic of Macedonia in the context of lifelong learning

The purpose of the educational policy of every country is to provide possibilities for gaining of an appropriate educational level for everyone and for all age groups and to ensure that they will possess:

- Knowledge
- Skills
- Attitudes

That is in compliance with the requirements of:

- Society
- The labor market.

The purpose of lifelong learning is to keep and sustain the positive and active approach towards learning in all ages throughout life.

The mobilization of these population groups to who for different reasons the knowledge grew older will be very important.

It is necessary that children and young people during their basic education should gain:

- Competences
- Habits for continuous learning.

In the following period, measures will be made for the enforcement of collaboration between:

- Institutions for formal education
- Informal education.

“The former Yugoslav Republic of Macedonia, as well as the other countries in the world is captured in the whirl of the processes of globalization and aggressiveness by the technological i.e. informatics revolution which determents every segment of the society. Thus phenomenon is especially expressed in the educational sphere” (Programme for professional development of teaching staff in the former Yugoslav Republic of Macedonia, 2006, p.321)

As a result, with the analysis of the National Education documents of the former Yugoslav Republic of Macedonia: *The national programme for development of the education in the former Yugoslav Republic of Macedonia* with the accompanying documents: *Programme for the development of tertiary education in the former Yugoslav Republic of Macedonia* and *the program for professional development of the teaching staff in the former Yugoslav Republic Macedonia*, *Law for tertiary education in the former Yugoslav Republic of Macedonia*, *proposed law for tertiary education in the former Yugoslav Republic of Macedonia*, - we want to show the previous inconsistencies and the future steps that the R. Macedonia should make in order to advance the education and lifelong learning, and especially the advancement of the competence ‘Learning to learn’.

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4 The programme for the education of adults in the former Yugoslav Republic of Macedonia in the context of lifelong learning is prepared in collaboration with the European Training Foundation, in the framework of a special project.

**4.1.5 UNESCO's programme Education for all, The Millennium's Aims of the UN, The Stability Pact and the Bologna Process**, represent a referential framework that contains larger parts of the aims scheduled in the National education documents of the former Yugoslav Republic of Macedonia.

One of those aims is creating a positive atmosphere for a continuous, lifelong learning and self-development of all population groups. "For a successful realization of the concept of lifelong learning it is necessary that the children and the youth during their basic education should gain competences and habits for a continuous learning". (The National Programme for Development of the Education in the former Yugoslav Republic of Macedonia 2005-2015, p.46)

In the Law for Tertiary Education in the Republic of Macedonia it is said: "The high educational institutions can establish forms of continuous education for the citizenship. Through the forms of continuous education you gain new knowledge, you broad your knowledge and professionalism. The continuous education is done through training courses, seminars, distant learning and other forms of continuous education" (Law for Tertiary Education, 2000, Article 123).

The framework of the concept for lifelong learning includes the competences that should be developed and that represent a mechanism for preparation of the youth and the adults for all the challenges and changes they will encounter in the future. The key competences that R. Macedonia adopted from the official documents of EU imply: "...better start positions in the transition from learning to working, keeping or changing of the work places and the active participation in the processes of democratic decision-making." (The National Programme for Development of the Education in the former Yugoslav Republic of Macedonia 2005-2015, p.11).

#### **4.1.6 Education in "The Self-assessment Report concerning the European Charter for Small Enterprises", (former Yugoslav Republic of Macedonia 2006), Draft Version.**

##### **1. Education and Training for Enterprises**

###### **1.1 Politics and delivery**

###### **1.1.1 Politics**

Until 2005, the politics of this country concerning the education was realized in the direction of implementing of a new legislative in order to introduce changes in the system. The implementation was difficult to perform because of the complexity of the institutional infrastructure. In 2005, under the patronage of the ETF and with a purpose of realization of the principle of lifelong learning. In the same year the Ministry for Education and Science approved the National Strategy for Development of the Education in RM in the period of 2005-2015. In June 2006 the Law for vocational high school education was passed. In that Law the principle for lifelong learning is mentioned, but it is a fact that in this country there is no special National Strategy for lifelong enterprise learning.

###### **1.1.2 Primary Education (ISCED 2 ) (level 1)**

According to the International standard definition for classification of education (ISCED 2) includes the first 2 years of high school education. So far the learning of enterprise as a separate subject in the first 2 years of high school education is not the case.

Sources: The Ministry for Education and Science ([www.mon.gov.mk](http://www.mon.gov.mk)).

###### **1.1.3 High School Education (ISCED 3) ( between level 2 and 3)**

The situation is different in the third and the fourth year of high school education. According to the teaching plans and programmes for a four-year education the

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5 Government Gazette of the former Yugoslav Republic of Macedonia No. 71/06

6 International standard definition for classification of education ISCED;

subject business is present, and in the economic schools the subject Business covers the area of enterprises. With the passing of the new Law for vocational education and science, the learning of enterprises should become an integral part of high school education.

Sources: The Ministry for Education and Science ([www.mon.gov.mk](http://www.mon.gov.mk)).  
Bureau for Development of Education ([www.bro.gov.mk](http://www.bro.gov.mk))

### 1.1.4 Draft Projects and Experimenting (level 3)

Several international projects exist, whose aim is to develop informal learning outside of the regular teaching in the schools. Most of these projects have the students from the high schools as their main target group.

Junior Achievement (JA) is a program for economic education of the youth aging from 8 to 18.

JA program is learnt in high schools with several programs: "Applied Economy", "The Student's Company", "Business Ethics" and "Global Economy".

The Project EcoNet, financed by the Austrian Government, introduces the idea for opening of training firms in the economic high schools. These firms have a few departments such as marketing, administration, accountancy and sales.

Actually, the students work as a real company with only one difference - their products and money are virtual. Also, the role of the teachers as managers is in the focus.

## 4.2 COMPETENCES IN THE TEACHING CURRICULA

Referring to the competence 'Learning to learn' in the analysis of the national education documents we encountered **two questions connected with this competence**: the question connected to the promotion of the syllabus and learning and the question for the professional development of the teaching staff.

- "The analysis of the teaching process and learning speaks about a number of inconsistencies that prevents the efforts for modernization or it slows down the initiatives for their innovation and are characteristic for all educational subsystems. The setting of the syllabus and teaching programs in large favorites the encyclopedias and facts, knowledge as opposite to ability." (ibid, p.38)

The competence "enterprise" is present in various programs. The National Programme for Development of the Education helps to develop an effective educational system that possesses mechanisms for preparing the youth and adults for all challenges and changes, increase of the possibilities for their educational mobility and realization of the dynamic collaboration between the education institutions and the needs that arise from the labour sphere and the social life. At the same time, it means a permanent affirmation and stressing of the meaning that the education has in everyday lives and work. The educational system will establish a structure and organization that will provide its functional connection with the labor market. The dynamics of changes in the educational system will follow the dynamics of the changes in the required competences dictated by the labor market.

As a result of that, the national programme for the development of education stresses even more the development of the basic competences, the development of the enterprise behavior and skills. Actually, the programs should be based on studying through practice, which will be a part of every strategy for stimulating of the basic competences.

In the programming of the high school education we should start from the needs of the labor market, to predict the appropriate possibility for project activities from various areas, including the area of Enterprise and Business (real and virtual school companies).

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It concerns managing school companies which function as real companies, selling products or services, that is the students will perform a real economic activity by leading their company, where they will produce or sell real products or services and virtual companies that will provide a real stimulation of activities where the students will work as a team, in a project for the company, reproducing the functions, processes and the aims of a real firm, they will be responsible for all the aspects of management in the simulated company.

The school company is a pedagogical tool based on a practical experience of leading a complete company and interaction with the surroundings (the world of business and the local community).

### 4.3 PROJECTS FOR DEVELOPMENT PLANS OF THE SCHOOLS, SCHOOL CLIMATE AND TEACHING AND LEARNING STRATEGIES

The *European Training Foundation* has undertaken and is continuing a number of development projects providing added value to earlier and ongoing EU CARDS programmes in TVET. For example, small training and coaching was provided to key stakeholders in TVET on National Qualifications Frameworks (NQF) in 2005, as bridging support to this CARDS project. In addition, a number of reviews and studies were carried out (Peer Review on TVET and decentralization, Feasibility Study on TVET reform in 2003, Labor Market Review in 2004/05) or are planned (Curriculum Peer Review, Adult Learning Review in 2005) to inform and support TVET reform.

The Bureau for Development of Education (BDE), belonging to the MoES, is responsible for curriculum development, in-service teacher training, and didactical material, criteria for evaluation of students and research and development for all levels of education, except higher education.

**4.3.1** In the period between 1998 and 2001 **VET 1** project was realized with a coverage of 16 pilot schools and containing the following principle components: curriculum development for the four-year VET programs, school equipment, teacher and coordinator training, establishing partnerships between pilot schools and similar schools abroad, researches for the needs of the labor market. It should be emphasised that in the process of curriculum design, the promotion of the social partnership was included.

**4.3.2** The CARDS **VET II** project (2002-2004) was focused on establishing more sustainable cooperation between schools and enterprises, completing the process of modernization of the initial VET system and providing support for its dissemination and consolidation. The legal framework regulating the provision of VET was reviewed and preparatory work for establishing a regulatory qualification framework to support the integration of initial and continuing training was undertaken.

**4.3.3** CARDS **VET III** (2004/05) aimed at complementing the curriculum-driven approach by a policy driven reform strategy to ensure a coherent and consistent systemic reform and to take forward the developed "building blocks" of VET reform. A VET Law has been developed and agreed on and new institutions for policy (VET Council) and operations (VET Centre) are going to be established

**4.3.4** The last phase of this reform was implementation of the **TA VET – phase IV – Training of Teachers and VET Centre Staff.**

## 4. OVERALL POLICY ASSESSMENT

This project was the fourth in a series of EU supported VET reform projects, which began in 1998 to enhance the reform for secondary education in the country and to modernise VET schools to meet the needs of the labour market.

Previous support to the VET sector had aimed at facilitating the implementation of curricula related to the purchase of IT equipment, as well as of modern branch-specific equipment in workshops and laboratories – in which the equipment was to be included as a training tool. However, teachers in classrooms and workshops still had difficulties coping with the curricula and lacked in the respective skills needed to master the modern equipment.

In general the project aimed at enhancing the quality of teaching in VET-schools in order to increase the schools attraction and to improve qualification-levels of students who graduate from them. Thus, the project intended to enhance the “watered down” image of the VET sector, which appeared probably - among other reasons - on account of lacking institutional capacities and personal resources. Regarding this, institutional capacities and personal resources were enhanced and schools provided with support and advice during the implementation process of modern didactic, active learning and new updated equipment.

The project's general objective was to assist the Government in the implementation of a modern vocational education and training system designed to support social and economic development through the adaptation of vocational education and training to the needs of the labour market and students.

In order to achieve the overall objectives, VET Phase IV activities were split into two components.

**Component 1:** “Complementary teacher training linked to prepare then for the implementation of new curricula linked to practical training and use of modern equipment”, aims to provide training to VET teachers to prepare them for the implementation of curricula linked to practical training and use of modern equipment.

**Component 2:** “Consolidation of VET reform by further capacity building for national VET Centre (Modular Development Programme)”, aims to consolidate the VET reform by building the capacity of the national VET Centre through the establishment and implementation of a Short-term Modular Development Programme (SMDP).

During the implementation of the project, after four years, the Law for Secondary Education was passed on May, 30, 2006. This law obliges the Government to establish the VET Centre within a period of six months. This development can have positive effects. This development in the nation's legislation can improve the sustainability of the activities foreseen under the project

There are also some other projects linked to the development of basic competences in education.

**4.3.5 Education Modernization Project**, funded by the Dutch Government and the World Bank, began in 2001 and is still ongoing until 2010.

The project has two objectives:

- (a) To improve school based learning and attendance at the local level and
- (b) To empower schools and school communities to strengthen school level planning and management and improve performance.

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In order to reach these objectives, the project has two major components:

- (1) Improving Education Quality and Participation –to improve the quality of learning and education participation at the targeted schools through strengthening school level planning and management and through the implementation of a school grants program.
- (2) Capacity Building for Decentralised Education - to build the capacity of central and local governments to operate in a decentralised education system. The component will improve strategic planning, management, and monitoring and accountability procedures in the education sector.

### **4.3.6 Creative Teaching and Learning, USAID & FOSIM**

The main goal of the project is to offer a model of a whole-school reform actively involving students in curricular and extra-curricular activities, and promote the development of creative and critical thinkers in the former Yugoslav Republic of Macedonia. This project was developed in 2002 in order to help schools, management staff, teachers, and students and their parents build better understanding, knowledge, and competences required from them for the upcoming decentralization of the educational system. In June 2005, with additional USAID funds, CTL expanded its interventions on pre-service teacher training institutes aiming to support university teachers from all pre-service teacher training institutes in delivering high-quality instructions to their students.

In 2006 the Pedagogical Faculties in Skopje, Stip and Bitola will be supported in their efforts to develop strong pre-service teacher training for K-4 teachers by updating curriculum, increasing the use of IT, and improving the delivery of teaching methods. In addition, the pre-service teacher training institutions that prepare subject teachers will be also supported, so as to produce students-future teachers, with better methodological skills. The project will continue its implementation until September 2008.  
(<http://soros.org.mk>)

### **4.3.7 Secondary Education Activities (SEA) Project, 2003 – 2008, funded by USAID**

This project comprises four components. Two of which are important to VET school teachers.

The first is Teacher Development Component where the main target group are teachers from secondary vocational schools

*The goal for this component is* the preparation and training of teachers for the implementation of contextual teaching and learning processes in order to develop and upgrade the students' achievements. The desired result would be teachers from all schools being able to apply contextual learning and better trained students meeting labour market needs.

*Objectives:*

- Creating and developing the topics and the content of the modules for teacher training;
- Preparing a model for organizing the training in the project schools;
- Training of teacher-trainers and dissemination of seminars at their schools;
- Dissemination of seminars in the project schools;
- Monitoring and evaluation of the activities for professional development of teachers.

The other component concerns the Career Development of Students

*The main target groups are* teachers from secondary vocational schools, staff and directors



The goal of all career development activities is to increase the employability of secondary vocational students in 50 vocational schools assigned to the SEA project. The intent is with those activities to help schools improve the practical, business-related experience of students, form closer links between schools and businesses and provide relevant information to the students about the labour market industry they are entering and possibilities for further education.

*Objectives:*

- Creating and developing the topics and the content of the modules for teacher training;
- Preparing a model for organizing the training in the project schools;
- Training of teachers-trainers disseminating the seminars in their schools;
- Dissemination of the seminars in the project schools;
- Monitoring and evaluation of the activities for professional development of teachers.

### **4.3.8 Promotion of the Vocational Education System in the former Yugoslav Republic of Macedonia, finished last year, funded by GTZ**

The main target groups were the students in three-year education, teachers and instructors from the selected schools, school management and representatives of the ministry and the Bureau for Development of Education.

The goal was vocational qualification of professional staff in accordance with the requirements of the country's economy, which at the moment is undergoing a process of structural changes.

Activities: The following fields are the highlighted points in the project's scope of work: Mechanics, Electro-techniques and Automotive-techniques.

In cooperation with the partner, the project developed a reformation model for the three-year education by selecting a vocation from all of the three above-mentioned fields each covered by the project. The pilot programme was implemented in three secondary schools in the country, which on their part are envisioned to become centres of excellence.

The systems of technical education followed by Germany and the EU simultaneously were taken into consideration throughout the project.

The project's implementation focused on: using school equipment, developing curricula in compliance with the European standards and upgrading the partner's professional staff in Germany and the former Yugoslav Republic of Macedonia.



## 5. CONCLUSIONS AND RECOMMENDATIONS FOR POLICY AND ACTION

Education evaluation in the past (at present as well) used to mean evaluation of the educational achievements, more precisely how well the pupils/students surmount the knowledge and the skills but also the content of a specific field taught according to the curriculum of the educational institution. Hence, in today's world the education faces a challenge of rapid transformation and requirements in the field of business but also of life in general, so it is very often that several questions arise which the contemporary evaluation could not answer so far:

- How much the existing education curriculum, respectively its objectives, corresponds to the educational needs of the societies?
- What kinds of skills and know how of the competence 'Learning to learn' produces the education?
- How is the influence of the education over the pupils' motivation for lifelong learning?

Therefore, what is emphasized is the need to build a new evaluation system of the education process, i.e. the educational solutions, that would overstep the limits of the existing curriculums and will provide an answer to these questions – arising so often.

The objective of this new evaluation is not to replace but to complement the traditional evaluation methods and in that manner to enable understanding for the hidden factors that stand behind the pupils'/students' behavior.

Consequently, the focus of the evaluation of the 'Learning to learn' competence is transferred from the knowledge linked to the education programme to the various cognitive and affective factors that lead the pupil along the learning process but also along further life. "Besides guiding the learning process, these factors also reflect on the way the pupils apply their knowledge (practically and intellectually) in new contexts." (ibid, page 47)

However, developing evaluation tools and instruments for 'Learning to learn' is an extremely difficult and challenging task, which, once successfully realized, will provide essential information for all those directly or indirectly involved in the development of the education.

Considering the lack of longitudinal studies in this area, when it concerns the evaluation of the educational solutions in a society based on knowledge, several distinguished experts in the respective area find that the average success of the pupils combined with the results of the evaluation the competence 'Learning to learn' are the best possible indicators of how much the pupils are prepared to get into the maelstrom of life.

In order to realize all this some appropriately trained staff is needed. "Therefore, all the schools personnel is in the focus of the society efforts to improve the quality of the educational work and to upgrade the efficiency of the institutions for education and up-bringing. Thus, the requirements arising from the position and the role of this personnel put in the focus their qualification, more precisely the ability to respect, perceiving power and implementation of the contemporary scientific achievements of education and up-bringing theory and practice" (*Programme for school personnel professional*)

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*development* (2005-2015), p. 321). Consequently, when defining the study programmes for the initial education of the teachers what has to be taken in consideration is: professionalism, pedagogical competences, competences to apply the educational technology, entrepreneurship, 'Learning to learn', organizational and team work competences, flexibility, openness etc.

During the last decade of the previous and the beginning of this century, the former Yugoslav Republic of Macedonia in line with all the other countries of the world faces new challenges. The globalization process and the technological, respectively the IT revolution determines each segment of the society. The same is very strongly felt in the education area. The economies have transformed from standardized manual production to more varied and knowledge based production of goods and services. The economic, cultural, political and environment protection revolution became fundamental determinant of development of the countries worldwide.

"The young generations experience this period with an increased wish for better quality of living and for creating new goods, the wish to get to know the world and emphasized spirit for adventure, greater awareness for the environment protection, the wish for fun and free life, greater individuality and independence." (*National programme for education development in the former Yugoslav Republic of Macedonia* (1005 – 2015), p. 5).

All this requires a new organizational structuring of the schools and developing a system of institutions for support and development of the education. The increased the quality of work, especially the quality of the education process and the total effectiveness of the education and up-bringing institutions, sets up the new directions for where to direct the education policy creation in our country.

Related to the two questions on the 'Learning to learn' competence, in the analysis provided in the national documents, concerning the education area the issues on advancing the teaching and learning and on professional upgrading of the teaching personnel, the steps to be undertaken should enable:

- Setting up basis that will enable curricular and instructional transition from teaching to learning (i.e. the accent in the teaching process should be less on the teacher and its teaching, more precisely covering the teaching content but more to practice learning of the content and skills by the pupils/students);
- Complex approach to the process of learning by the pupils/students;
- Applying contemporary teaching and learning techniques by the teachers;
- Efficient preparation of pupils/students for a quality life and acquired routines and competencies for life long learning;
- Possibilities for developing the competence for creative and critical thinking and reasoning in pupils'/students' minds." (ibid, p. 40).

**Such new concept of the teaching process foresees also a new role of the teacher as a participant in it.**

"The new challenges education and up-bringing are faced with favour teachers who are professionally trained for creative action, able to give incentives, motivate, create various teaching, education and up-bringing situations where the pupils would experience their own self-realization." (*Programme for professional development of the teaching personnel*, 2006, p. 330).

The teacher is expected to have some new pedagogical competencies:

- He/she should be "...competent in a general pedagogic and didactic plan so that he/she is able to transfer a wide range of knowledge and skills with a special focus on the

## 5. CONCLUSIONS AND RECOMMENDATIONS FOR POLICY AND ACTION

strategies for acquiring knowledge and skills by the pupils/students, cooperation, independence, critical thinking, problem resolving capability and creativity as their features..." (ibid, p. 336)

- To have "capacity to integrate the life long learning principles into the teaching process, as well as capacity to reach the international (European) standards in their teaching." (ibid, p. 337).

In this context we have to mention the high level education as one of the essential pillars of the social and economical development of any country. Higher education is the highest priority of the former Yugoslav Republic of Macedonia, especially if we bear in mind the importance of the participation of highly educated human resources in the economic development of the state, let alone the advantages provided by this education level from the viewpoint of employability, welfare and culture of living of the population. Therefore, in the coming period it is indispensable to undertake adapted measures which would enable wide coverage of the youth and the adults in the high education, in direction of upgrading the high education quality and preparing suitably qualified human resources. There should also be adapted activities undertaken for enabling the students to acquire basic business activities and to develop personal qualities such as: creativity, self-confidence, team work, taking responsibility and initiative as, in fact, the key skills being increasingly appreciated.

As part of the efforts for acquiring additional development resources and activity financing, for improving the conditions for studying and everyday life of the students, the high education institutions should build capacities and develop the component of entrepreneurial culture.

"The European experience shows that under the umbrella of higher education and research work, there should be a strive to develop the following skills and competencies: ability to anticipate tendencies and capacity to deal with unexpected development of events; team work and capacity to work with networks of teams; leadership; communication skills including usage of foreign languages; excellent capacity for usage of IT in the area the student is being prepared for; knowledge of the legislation in the area of intellectual property (problems inclusive)" (*Programme for the development of higher education (2006-2010)*, p. 299).

In this context we can conclude that the general approach to the lifelong learning should be promoted. In the EU, the affirmation of this approach requires developing culture of learning both on institutional and the individual level, in all the spheres of the public and private life.

The Ministry of Education and science, in the forthcoming period will, for these purposes, strive to create a positive atmosphere for permanent learning and development for all the age categories and all along the lifetime. "It foresees increasing of the possibilities for youth and adult's educational mobility and realization of dynamic cooperation between the educational institutions and needs that arise from the area of labor and social life." (*National programme for education development in the former Yugoslav Republic of Macedonia (2005-2015)*, p. 45).

In circumstances of globalization, economy modernization and IT society development, the business development tendency is closely linked to the application of the latest technology, with investing in development of the human resources, by means of the most contemporary methods of work. A primary development factor in the contemporary conditions of work is the knowledge-based economy, capable for sustainable economic development with more and better jobs and greater social cohesion. In this context, the European Council, in March 2000, recognized the utmost importance of the education as an integral part of the economic and social policies as instrument for strengthening the competitiveness, social inclusion, cohesion, mobility and increasing the employment. For

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this purpose it is indispensable to develop entrepreneurship spirit and entrepreneurial culture, as these are the keys for the economic growth and development all over Europe. It is in this direction that the educational institutions play a very important role. Thus, the education and the training are perceived as investment for the future.

Developing business starts with the education system. Almost all transition economies have placed their focus on education reform at all levels, starting with the pre-school and primary school level, through secondary and especially vocational education to higher education. In the frames of these reforms, a constantly strengthening element is the awareness for the enlarged influence over the culture of the society, the attitude towards the job, towards the business and the entrepreneurship.

Europe has to accelerate the entrepreneurship learning as much as possible. This goal requires several new companies willing to take risks and to invest money for creating as many as possible creative and innovative entrepreneurs. The education can strongly contribute in creating entrepreneurial culture, starting with the youngest ones, already in the preschool institutions and the schools. By upgrading the entrepreneurial attitude and skills a progress is expected not only for the pupils, but also for the society as a whole. So, the entrepreneurship is to be considered as the principal trait that can be useful for all the working as well as life activities. Consequently, the education objective will strive to cherish at the youth those qualities that make the basis for the entrepreneurship such as: creativity, initiative, responsibility, independence, risk taking capability and similar ones. Stimulating the entrepreneurial spirit is the basis for achieving these goals. The education can help in developing the entrepreneurial culture among the youth, as that is a way to make them to become aware of the entrepreneurship, by means of developing skills and competencies that would help them – besides in their professional career, in the everyday life but also in becoming responsible and active society members.

This competence is especially underlined by the European Council in Lisbon and by the European Document on Small Businesses. This document obliges the EU to teach business at all the education levels and to develop management trainings. February 2001, the Education Council has also adopted a report on the future objectives of the education systems. The focus is placed on strengthening the links between the education institutions and the businesses, respectively the development of the entrepreneurial spirit all along the education and training systems. The entrepreneurship as a new branch in the learning and as essential competence, should be introduced in the education systems already at the earliest age by means of active teaching instead of passive learning.

The goal of a programme for a school company should include not only knowledge on procedures of leading a business, but also developing a wider extent of entrepreneurial and professional competencies. The school companies are one of the best methods and the most effective instrument for stimulating the entrepreneurial spirit in the schools. An extremely important effect is the motivation of the young people to search for possibilities to develop their own businesses or a dynamic realization of their career in small and medium businesses. In a long run this influences the development and the competitiveness of the economy on a national but also international level.

In order to make it possible for the pupils to participate in such activities, providing some essential pre-conditions is indispensable: adapted curriculums, schools' independence, appropriate financing, teachers' training and motivating. This whole must be a responsibility of not only the education institutions, it is necessary to develop cooperation among several ministries, the local community, employers, the NGOs and other key stakeholders.

"The EU member states required the preparation of a common definition of the term **"learning entrepreneurship"**. The definition is being viewed in two ways:

## 5. CONCLUSIONS AND RECOMMENDATIONS FOR POLICY AND ACTION

- **In the wide sense**, the concept of education for the entrepreneurial skills and attitudes refers to developing the personal qualities for entrepreneurship and is not directly focused on creating new businesses;
- **In the narrow sense**, the entrepreneurial skills and attitudes refer the training how to create a business". (Liicanen, Erkki 2004, p. 6)

Compliant to this definition, the education goals for the 'Entrepreneurship' competence that are to be adopted on all the education levels, will focus on the following:

- Upgrading the development of the **personal qualities** for entrepreneurship such as creativity, initiative, taking risks and responsibility.
- **Early acquiring knowledge and contact** with the business world, together with understanding the meaning and the role of the entrepreneurship in the society;
- Developing, among the students, the **awareness** for the career possibilities as **entrepreneurs** (the message that besides the fact they would be employed, they would also be able to employ, to be employers) ;
- Organizing activities based on "**learning by doing**" – i.e. students can create mini-companies or virtual businesses;
- Realizing a **special training** on the issue how to start a business (especially in the vocational and/or technical schools and on university level) .

These objectives are already being implemented in several European countries. In this perspective, the European Commission created a quality basis for creating "**effective implementation**" in the area of entrepreneurship education and training. Several projects for educating and training for entrepreneurship have been adopted on the basis of the decisions of this forum.

In fact, the European countries have elaborated **21 cases for effective implementation** for developing entrepreneurial skills and attitudes among the youth along the education, from the primary school till the university. These cases are categorized in **seven key categories**:

- Political measures of support and coordination;
- 'Entrepreneurship' in primary and secondary schools;
- Initial vocational trainings in secondary education;
- Learning by doing and mini-businesses;
- Cooperation between the education institutions and the business world;
- Teachers training for entrepreneurship;
- Incentives for entrepreneurship and its beginnings at the university level.

The European Commission has ascertained that in several EU member states there presently are a government level document on the education upgrading for entrepreneurship in the education systems.

Nevertheless, 'Entrepreneurship' is not sufficiently spread yet, and especially not in our education system. There still is not any training developed for the teachers on how to "bring in" and develop the entrepreneurship in their classroom. An additional difficulty is the establishment of the indicators and gathering the quantitative data, which drags out the entrepreneurship development.





## 6. GENERAL CONCLUSIONS AND RECOMMENDATIONS

Based upon the research carried out and the data elaboration, the following conclusive views and recommendations can be provided:

**According to the research carried out by areas:**

### 1. How do you see yourself?

*Conclusion 1:*

The knowledge and understanding of the own preferred learning methods and the strengths and weaknesses of the own skills and qualifications if we discuss the teachers is on a level lower than the pupils'/students' needs.

*Recommendation 1:*

With regard to the competence '*Learning to learn*', a certain increase of the capacity for teachers' skills is required together with a certain change of their attitudes and willingness to change, to further develop their competencies and positive understanding of the learning as well as increasing the adaptability and flexibility of the teachers.

Concerning '*Entrepreneurship*' as a competence, teachers should acquire abilities for proactive and positive responding to the changes and for building positive attitude towards changes and innovation, to stimulate the wish to identify in areas where the personality can best demonstrate the capacity of entrepreneurial skills, always in accordance with the pupils' needs.

### 2. Learning

*Conclusion 2:* The pupils are more turned to the future, they learn wider and outside the school and reflect on what they have learnt, they disagree with the teachers about learning at school what they need for being able to implement their ideas in future, or that at school they have appropriate access to information for their further education.

*Recommendation 2:* The teachers should more effectively and more efficiently change towards the competence '*Learning to learn*' and the competence '*Entrepreneurship*', i.e. to change their knowledge, skills and attitude regarding these two competencies. They should offer a high quality product – *learning*, as the pupils require the product *learning*. The pupils require learning that will offer them perspective, potential and information together with management and entrepreneurial tools for anticipating the future. These are some of the major factors of the Entrepreneurship, the '*Learning to learn*' and lifelong learning.

### 3. What motivates the pupils to learn?

*Conclusion 3:* An important pupil strength is their awareness of the fact they are not motivated by what their job will require, while the teachers'/professors' weakness is that they consider the same as an important motivation factor for the pupils. The future job, the

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possibilities for starting up their own business or their self-employment is hardly familiar situation for the pupils.

*Recommendation 3:* Teachers should be more flexible with regard to the still unshaped wishes of the pupils, respectively more adaptable when it comes to identifying fields where the person can demonstrate its full entrepreneurship capacity. In the area of pupils' motivation factors, there should be a lot more tools for supporting the competence 'Learning to learn' and 'Entrepreneurship'.

### **4. How teachers motivate pupils/students?**

*Conclusion 4:* Development of the competences 'Learning to learn' and 'Entrepreneurship' should not depend of the disappointment or not-disappointment of the parents. The practice does not confirm that the pupils with high grades are the ones that create the best and independently the tools for how to learn along the life or how to become entrepreneurs. The pupils neither are motivated by the reminding that the others learn as well. On the other hand, the perception that they will enjoy the future work, the connection of the content with what interests them or what they like, are convenient instruments for motivating the analyzed competences. The difference of opinion on these two questions appearing between the teachers and the pupils, arise – the most probably – by the over-estimation of the teachers thinking they have found the most suitable ways for the respective types of motivation.

*Recommendation 4:* The motivating should aim towards self-motivating, developing self-confidence about the personal potential to succeed, towards a wish to identify possibilities where the person can demonstrate its full capacity, to strengthen the belief that the idea will succeed, to motivate for estimating and accepting innovations and risks etc. In the area of entrepreneurship, the motivation should aim to developing ability of the person to turn its ideas into actions.

### **5. How is the assessment experienced?**

*Conclusion 5:* There is no feedback link of sufficient quality between the teachers and the pupils on the competences 'Learning to learn' and 'Entrepreneurship', on the issue how the teachers proceed with assessment and how the pupils find them doing it. According to the pupils, the teachers are not doing it objectively, do not give explanations for the grades, they don't receive feedback information on their work, when grading - several aspects of the grading action are not taken in consideration, like various works or participation and similar. Such situation is not helping the pupils to orientate themselves for their future movement, they can give even a wrong direction, i.e. can direct to something different.

*Recommendation 5:* It is indispensable to undertake an extensive teachers' training in the area of assessment with a focus on the assessment policy together with assessment criterion and standards. Designing instruments for grading should enable a greater transparency and pupils' participation in the grading process. The transparent grading with pupils' participation, will provide some feedback signals for the pupils so that they can successfully develop their own methods for learning and how to learn or for developing the entrepreneurial spirit. The instruments should be flexible and open for upgrading with relation to changes and necessities of the environment.

### **6. How is the view on teaching and practice?**

*Conclusion 6:* The pupils/students do not think that the teachers sufficiently practice linking the content of their own subjects with the content of the other ones nor with the professional apprenticeship, although the teachers claim the opposite. It can also be concluded that the teachers do not provide sufficient incentive for new ideas, do not

## 6. GENERAL CONCLUSIONS AND RECOMMENDATIONS

motivate towards independent decision making, do not accept different ways of problem resolving, do not motivate team work etc.

*Recommendation 6:* This is the source for the need to intensify the teachers' training on the concepts of critical thinking and creative teaching, classroom management as well, the team work and similar concepts which would enable developing competencies useful for introducing changes into the teaching process in direction of developing the abilities for earning both mentioned competencies.

It would be useful to establish a *permanent round table for teacher-pupil dialogue in the secondary vocational schools* which would serve to approximate the views of both sides concerning the teaching and the practical professional apprenticeship, in a realistic and permanently moving surrounding. Besides establishing the round tables in the schools and one interschool round table for the secondary education level, there should also be mediators for the round tables with specified tasks.

### 7. Extent and quality of the cooperation

*Conclusion 7:* There is a good teacher-pupil cooperation. Yet, there is a need to bridge the cooperation between these two sociological communities in order to transmit the specific experiences of the teachers' as well as the pupils community with a special focus on the questions on which significant difference of opinions appear between the communities.

*Recommendation 7:* Creating conditions and building capacities between these two communities. Therefore appears the need to establish a coordination body made of teachers and pupils whose tasks would be in the area of strengthening the intra-community as well as inter-community cooperation. Besides building human capital, this way will also develop a social capital that will result in synergy of this link between teachers and pupils. The networking of pupils with teachers is certainly a significant factor for developing the competencies 'Learning to learn' and 'Entrepreneurship'. In the area of the 'Learning to learn' competence concerning the pupils, it will facilitate the knowledge and understanding about their preferred learning strategies, will also facilitate the identification of their personal strengths and weaknesses and the research process for possibilities for education and training. With regard to the 'Entrepreneurship' the teachers-pupils community is expected to build a common awareness on specific skills and knowledge indispensable for entrepreneurs in direction of establishing social or commercial activities.

### 8. Attitudes regarding the future job

*Conclusion 8:* Pupils are not fond of jobs that open many new opportunities, what they are attracted to is job that will make them earn a lot. The teachers gave totally opposite answers which points to the fact that the pupils are a lot more sincere in their answers. However, it is a fact that the pupils are hardly stepping into the real world while the teachers already have the life experience.

*Recommendation 8:* The pupils should be motivated to develop a passion and wish for learning new things and for new opportunities. These factors – on the other hand – are the base for developing entrepreneurship, respectively to develop knowledge, abilities and attitudes for recognizing business opportunities or actions and to develop passion for the idea that they are the ones able to realize that. This could be achieved by means of building personality traits that are in compliance with the necessities of the actual tendencies, regarding both mentioned competences.

### **9. Do I know what I should know in the area of entrepreneurship?**

*Conclusion 9:* 'Entrepreneurship' as vital competence has not yet been sufficiently adopted by the teachers nor by the pupils that in the future are expected to become entrepreneurs.

*Recommendation 9:* The trust nets, support and reciprocity nets are essential for any entrepreneurial process. Consequently both the communities (teachers and pupils) should learn about social networks as one of the essential things for competence in the entrepreneurship.

### **10. What is an entrepreneurial business opportunity?**

*Conclusion 10:* The pupils lack knowledge, skills and attitude to recognize opportunities and to believe they are feasible.

*Recommendation 10:* Developing the competence for 'Entrepreneurship' in the secondary schools is indispensable. Also needed is to create, in the students mind, appropriate instruments for putting into effect and making efficient the problem area of recognizing something that can be turned into a business, and to believe that is feasible.

## **GENERAL RECOMMENDATIONS**

**Conclusion 1.** The pupils and students are not satisfied of the way of teaching. The data gathered during the research and following the documents present that even if the teachers are trained during different trainings and projects, there is not sustainability of that.

**Recommendation 1:** Improve the quality of teaching in all level of education. The pupils and students must have institutional role in VET sector. Their influence is necessary in their own learning and the environment for learning in the schools and faculties. They must take responsibilities for their own learning. The researches which would be realized with the pupils and students need to have influence in educational policy in the reforms on national level.

It is necessary to modernize the teaching with establishment of system for teaching, monitoring and evaluation. To improve the quality assurance the system for monitoring the quality must be established. For that purpose there is a need MoES and Inspectorate to define the priority areas for quality assurance and its development which will result with monitoring and evaluation of the teachers This recommendation is in connection with the national strategy for education.

**Conclusion 2:** The pupils and students had not enough knowledge about two competences. The system of accreditation for providers and programs it is not still established, even it is began on general level, but it is not established on the level of the needs of vocational education.

**Recommendation 2:** It is evident that there is a need of transferring knowledge to the pupils and students for both competences. For that purpose there is a need of teacher training for the basic elements of both competences and developing specific skills. The training of teachers will be implemented by accredited providers (institutions, NGOs, state organizations, individuals, senior experts and consultants) with accredited programmes. In accordance with this there is a need of establishment system of accreditation with specific criteria and establishing Accreditation Body under the MoES, Accreditation Unit, and cooperation and support with VET Centre which will be responsible for labour market

## 6. GENERAL CONCLUSIONS AND RECOMMENDATIONS

including the VET schools as possible providers. In this framework the faculties must be involved with specific programs.

**Conclusion 3:** Need for changes in the assessment

**Recommendation 3:** Development of standards for assessment within the appropriate criteria. Development of assessment policy and active participation of the pupils and students in the process of assessment. Assessment for knowledge, skills and abilities. One of the factors in that process is testing and examination. This would be the way to ensure that the knowledge, skills and academic standards are relevant and compatible with programs and needs of labor market. In accordance with that there is a need of capacity building and training for staff of the sector for valuing the results of the pupils and exchanging the experience with other countries.

**Conclusion 4:** Low level of knowledge for communication skills and content of entrepreneurship.

**Recommendation 4:** General education need to provide a functional background to vocational content, thus: languages, both foreign and mother, dealing with communication skills; science and computer classes are applied; 'Entrepreneurship' is included in the curriculum as is vocational guidance and counseling; there are cross curricular themes and optional modules which allow integration of general education into specialized vocational content as well as possibilities of upgrading within a particular trade.

Process of gathering knowledge for entrepreneurship must begin in earliest ages. 'Entrepreneurship' might be introduced in all levels and in each area of education system. It will include new way of learning and communicational skills for entrepreneurship. That approach will ensure changes in the role of teachers and project base learning for development of entrepreneurial skills: initiative, taking risks, conscientious for the difference of the others, building positive attitude for other people.

**Conclusion 5:** Process of establishing of the VET centre is not finished

**Recommendation 5:**

1. *Prolonging the process of establishing of a Center for Vocational Education and a Council for Vocational Education.*

1.1 The establishment of VET Centre as the main operational body is a necessity having in mind that this centre will promote the social partnership through defining of standards and development of curricula in TVET.

**The functions of the Centre would be as proposed in Law on VET**

1.2 Establishing of TVET Council as policy maker body at the state level becomes vital thus the partnership among Ministry of Education and Science, Ministry of Labour, Economic Chamber, Chamber of crafts, Trade Union will be promoted.

The realistic situation requires building in the entrepreneurial education within the standard curricula and providing corresponding training of the teaching staff. The major problem, as it is always the case, lies in not having sufficient financial resources for provision of new teaching materials for teacher training and the low motivation of the teaching staff, on one, and the extensive changes taking place in their environment, on the other hand.

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7 Mr Petkovski Konstantin, Ms Janevski Vesna, *Social partnership – reality or future priority?* – UNESCO-UNEVOC, Bonn, Germany, 2006.

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**Conclusion 6:** Lack of training standards, need of curriculum development and trainers training.

**Recommendation 6:** Training standards, curriculum development and trainers training could be organized by mixed teams of vocational teachers, teachers from universities, skilled trainers, experts, independent consultants with appropriate background and social partners. With considerable decentralization the total process will involve: the municipal authorities, the ministries; the social partners; the chambers of commerce; craft chambers, directors of schools, teachers.....

**Conclusion 7:** Lack of cooperation and direct communication between higher education, VET schools and social partners.

**Recommendation 7:** TVET schools and higher education have to strengthen the social partnership where besides regular courses as educational forms tailor made courses will be offered to clients.

Modular organization will have three variables: an overarching framework with certification / qualification for skilled workers and technicians; a credit based partial pattern for adult clients; a core or key skills element.

Teacher training is to be oriented to the supervision of 'self learning' and the 'self organization' of the student. While the process of changing teaching styles will be slow, the curriculum will aim at a level of competency for students where they can perform autonomously in the work place.

Knowledge of ICT and foreign languages are crucial for individual learning and represent opportunity for establishment of networks for direct communication. The networks could be established on the following levels:

- Between higher education and VET schools and professional training centers on a state level.
- Between higher education and VET schools and professional training centers with countries from the region.
- Between higher education and VET schools and vocational institutions within the ministries of education, labor and economy
- Between higher education and VET schools and Economic Chambers and Chambers of Crafts.
- Between higher education and VET schools and companies relevant to the profiles of the school.
- Between higher education and VET schools and providers in education (all kinds).

**Conclusion 8:** It is not established the appropriate pre-service and in-service teacher training for VET subjects connected with the needs of social partners.

**Recommendation 8:** Requirements for establishing appropriate pre-service and in-service teacher training for VET subjects. All the forms of pre-service and in-service teacher training should be focused on the approach of fostering the social partnership as a solid foundation for quality in training for VET staff.

**Conclusion 9:** Need of education for adult learners.

**Recommendation 9:** Regarding to this conclusion the strategy for education of adults is promoted. The process of elaboration of the Law for education of adults is started. For that purpose there is a need of development of new professional oriented curricula, oriented to the needs of the companies. Student practice must be strengthened and the development of teachers' competences made obligatory.

## 6. GENERAL CONCLUSIONS AND RECOMMENDATIONS

If VET and higher education is to be opened to adult clients then certification reform must embrace both process (learning time) and competences (assessed in the workplace). Output measurements (including level) are one issue and progression another (craft / technician / technologist). Self standing modules need to be evolved simultaneously for initial and continuing VET. Accumulated credits need to count for progression to the Matura. Experience of short courses in specific areas such as fork lift trucks etc. for the unemployed - may help. Initially, certification may need to follow informal mechanisms.

**Conclusion 10:** There is a need for self-employment

**Recommendation 10:** The education system must offer knowledge for the self-employment and development of the business. The subject "business and 'Entrepreneurship' will be in the curricula from the next school year, but content must be included in another subjects. The pupils and students need skills which would be developed during the pre-service teacher training in VET schools and in faculties (in the new specific subjects and in the subjects in the existing curricula).





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# ANNEXES

## ANNEX I QUESTIONNAIRE FOR PUPILS

Key competences for lifelong learning - former Yugoslav Republic of Macedonia

Profile code


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Dear pupils,

Would you please fill this questionnaire that is directed toward two competences: 'Learning to learn' and 'Entrepreneurship'. The questions are divided in several parts, and the answers are very simple. You should mark the answer that in your opinion is more suitable for the given statement, and it is in accordance with you and your experience.

*Your participation in this survey is extremely important, because it will contribute in our study to come to new conclusions that will further be used in the process of reforming the education system.*

School	_____
Professional area	_____
Grade	_____
Gender	f    m



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1. How do you see yourself?

Please choose how much you agree or disagree with all off the statements	Totally disagree	Disagree	Agree	Totally agree
I like to do the usual common thing in a new totally different way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer the activities where precise rules for performance are strictly defined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually solve all problems in a same usual way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to think of new ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For every problem it is good to look for several possible solutions, not just a single one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like activities with no strict rules, but I would have to think of new ideas myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that for one problem there is only one single solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to participate in multiple different activities at the same time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Learning

**2.1. Please choose how much you agree or disagree with all of the statements regarding learning and concepts of learning. First read the words in every line. In every line circle the sign that represents your opinion regarding learning the most. For example: If you think that learning is hard circle the sign that is closest to the word hard, and if you think that it is easy circle the sign closer to the word easy.**

Important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not important
Boring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Interesting
Useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Useless
Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pleasant
Hard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Easy
Useless for my life at the moment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Useful for my life at the moment
Important for my future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not important for my future

**2.2. For each one of us learning has a different meaning, or everybody want to learn for a different reason. We would like to find out what learning means to you. Below are several statements regarding learning. Please decide how much you agree or disagree with the given statement by circling appropriate sign for each statement.**

	Totally disagree	Disagree	Agree	Totally agree
By learning I come to new ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By learning I only increase the information I already know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I study only what is necessary for school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I study other things as well, outside of school materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time spent studying I consider it waste of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes I afterwards realize why I have studied a certain thing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learnig stops in the moment one finishes school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What I learn I can use in my everyday life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At school I have learned my capabilities, and what am I good at	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I already have a clear idea about what will I be doing in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At school I had access to information regarding my future education or my future profession	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teachers can teach me what I can be working in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teachers can teach me what do I have to accomplish in order to use my ideas in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3. What is that motivates you to learn?

3.1. Please assess all of the stated reasons that apply to you. Circle the sign for each statement.	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me
Why I am studying ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To become professional in the area that I am studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Because others expect that from me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning is important to me personally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Because I have to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I want to continue at a University of my choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I want to get a very good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2. Please assess all of the stated reasons that apply to you. Circle the sign that you agree with more (answer 1 or answer 2).			
When studying I prefer:		When studying I prefer:	
1) assignments or questions for which I am certain I can answer right away	1	1) assignments or questions where I have to try harder	1
2) assignments or questions for which I am not certain that I know the answer	2	2) assignments or questions that I can easily solve	2

### 4. How do you study?

Pupils study in many different ways. We would like to know how you study! Think of different situations when you are studying, how often to you study in the stated ways? Circle one of the signs in each row.	Never	Rarely	Often	Almost always
Before I start studying I am thinking of all of the things that I have to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to understand the new material by relating it to things I already know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to understand how some information can be used in the everyday life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I study I retell the material in my own words.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learn by heart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Before I start studying I think whether those things will be useful for me in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to understand the new material by relating it to things I have done in practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Before I start doing something in practice I think how to use the theory I have learned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 5. How do you study during practical teaching or professional practice?

We would like to know how you learn during lectures or in professional practice	Never	Rare	Often	Always
When I perform my work in practice I am using previously learned knowledge from theory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I am learning to do something in practice I need someone to show that to me in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I am learning to do something in practice, for me it is enough to use the written directions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I am learning to do something in practice I use my everyday experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learn practical capabilities by repeating it several times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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We would like to know how you learn during lectures or in professional practice	Never	Rare	Often	Always
I recheck several times the operations and processes I perform in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We perform experiments and practical assignments regarding the theory we have studied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are using examples for everyday real life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In class we create something realistic and useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How do you keep yourself motivated for further studying or practice preparation?

When you are studying or preparing for work is it hard or boring? How do you motivate yourself, what methods do you use? Think of situations like that. How often have you used the following methods?	Never	Rare	Often	Always
I try to concentrate on the interesting segments of the content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tell myself that I am interested in the things I am studying and that I will enjoy in my future professional work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to relate the material with what is interesting to me and things that I like	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to relate the material with what I learn from practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind myself that that is the way to build up my skills so that I can have a good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to isolate myself (no TV, no telephone ...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to study at times when I can concentrate the most	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I convince myself that when I am done studying I will be doing things I really want to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think of how great I will feel when I learn the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I say to myself "you can do it"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I repeat to myself that It is important to study because it will be useful in my future life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind myself that I don't want to disappoint my parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind myself that I will be very good at my job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind myself that others are studying as well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tell to myself that it is important to learn as much as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind myself that is the only way to continue education at university or other school of my choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How much and how do you cooperate with your friends while studying or working in practice?

The following statements relate to teaching activities. Please assess how much of each statement applies to you:	Totally disagree	Disagree	Agree	Fully agree
I often suggest activities and motivate the others to participate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I very often cooperate with other pupils on some assignment or practical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I gladly participate in activities suggested by others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have friends in my class that I can always ask for help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the joint activities I usually let the others take initiatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I work with others we can easily come to an agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually know when is better to work alone and when is better to work with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often we jointly solve the problems coming out of the practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During practice we learn to work in teams and assigne	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I participate and work in teams while learning or in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### 8. How do you feel about grading?

How often does the following happen to you?	Never	Rarely	Often	Always
I can learn something useful from written examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can learn something useful from oral examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers explain to us why certain grades have been given to someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teacher appraise students for their improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To get a good grade the pupil must show that he/she really understands the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers give grades rightfully	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While grading all pupils get grades that are fully deserved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers grade pupils homework and other assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is clear to what I have to learn in order to get a certain grade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers comments and explanations regarding my work help me to improve my learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructors in practice give me feedback on my performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examinations check how we can use our knowledge in concrete situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers grade the way we have reached the solution of the problem or assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage pupils to assess their own work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage pupils to assess each others work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers grade us only on things that can be memorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers test us only on matters we have covered in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructors in practice assess the skills we gain that are needed for our professional work in the future that we study for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test examinations check whether we have remembered all facts thought in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing group work means assessing the work of the entire group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers assess how we communicate within the group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers assess the approach I have toward assigned problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers give us test for matters we haven't covered in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage students to assess me and the approach I take toward solving assigned problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage students to assess their capabilities and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 9. How do you feel about the teaching and the practical work?

The following statements relate to some teaching activities regarding realization of practice. Please assess how much of each statements is true	Never	Rarely	Often	Always
Teachers are very clear on what we have to take notes of during the class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers give clear instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers dictate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers always have the right answer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers offer different ways for solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers accept our variety of answers and solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage individuality in the work (through solving problems, projects, papers ...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are very precise in what we have to learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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The following statements relate to some teaching activities regarding realization of practice. Please assess how much of each statements is true	Never	Rarely	Often	Always
Teachers give suggestions for new material related to the one covered in class, and encourage the use of different resources: book, internet, friends, parents, magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage work in pairs and groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage taking notes during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers accept different ways of solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desks are placed in the form of theatre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers stand in the front and talk the entire time, and we have to listen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers support all pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers work mostly with good pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are using additional class equipment: LCD, video, projector, computer.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers leave enough time for asking questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers relate material of their courses with material of other subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers praise pupils that present their own ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage pupils to present their work in front of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers don't set time limits for solving assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers use examples from everyday life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers suggest self assessment of the work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers let us ask specific questions after class / praxis as well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers always help if asked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers let us ourselves decide how we are going to find a solution to the assignment / problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers ask us to present the way we have come to the specific solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading is done in a way that shows pupils what are they good at and what needs improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage new ideas or working in new ways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers encourage individual decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers let us choose who to work with in a group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers give same assignments for all students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers work more with pupils that are not showing good results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers adjust the assignments according to pupils skills, for each student separately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. How do you envision your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all
Work with clear rules and where I don't have to make decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure work with no risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with no changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work that I will start myself and I will be independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work where I will learn something new all the time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with many new opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work that is not too far from my house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work where I will be making decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work where I will be earning a lot of money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**11. Experience with entrepreneurship?**

During your education have you had a chance to	Never	Rarely	Often	Very often
..... talk to entrepreneurs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... visit successful entrepreneurs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... find out how one enterprise is functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... read magazines related to your field of work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... explore employment opportunities in the specific field of work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... learn to whom to turn when you have some new idea for work (business)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... work on developing ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..... know what is to be done in order to develop a successful enterprise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**12. Do I know what I need to know?**

*12.1 Different people have different understandings regarding assets and resources for entrepreneurs for starting a business. That is related to the approach and the methods of learning about entrepreneurship. Please, in accordance to your opinion choose three of the presented statements:*

In order to start a new business the entrepreneur needs:

- To have finances for starting a business
- To have specific skills and capabilities
- To be innovative
- To be able to know opportunities and risks
- To know how to prepare a business plan
- To know people from the business community
- To have been a good student
- To have a desire to be employed in a successful company

*12.2 To start an enterprise you have to do the following (think of several things):*

- .....
- .....
- .....
- .....
- .....

*12.3 To calculate the price of a loaf of bread you have to take into consideration the following expenses:*

- .....
- .....
- .....
- .....
- .....

*12.4 Circle one of the answers:*

Productivity is:

- a) To earn more money

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- b) To produce certain number of products for a given period of time
- c) To reach the goal at all cause

We pay taxes:

- a) so that public servants have something to do
- b) to satisfy the need for public goods
- c) so that retired people can live better

The most limited resource is:

- a) Gold
- b) Solar energy
- c) Air
- d) Time
- e) Water

Public good is:

- f) Street lightning
- g) City park
- h) Education
- i) Public transportation
- j) Army

For Valentine's day the price of the flowers increases because:

- k) Florist have decided to do so
- l) Green peace is fighting against flower destruction
- m) There are less flowers in winter
- n) The demand has increased
- o) They are cheaper than jewelry

*12.5 Different people have different understandings regarding what is entrepreneurship opportunity. That is related to the approach and the methods of learning about entrepreneurship opportunity. Please, in accordance to your opinion chouse one of the presented statements:*

Entrepreneurship opportunity for a business is:

- To know how to prepare a business plan
- To be able to recognize something that has a potential for business and to believe that it is possible
- To have money
- To have completed your education
- To have free time

## ANNEX II QUESTIONNAIRE FOR TEACHERS

Key competences for lifelong learning – former Yugoslav Republic of Macedonia

Profile code

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**As our collaborators, please fill in this questionnaire. The questions are divided in several parts, and the answers are very simple. You should mark the answer that in your opinion is more suitable for the given statement, and is in accordance with you and your experience. Your participation in this survey is extremely important, because it will contribute in our study to come to new conclusions that will further be used in the process of reforming the education system.**

<p><b>School</b> _____</p> <p><b>Education</b> _____</p> <p><b>Gender</b>    f    m</p>
---

Work experience	
a) up to 5 years	<input type="checkbox"/>
b) from 6 to 10	<input type="checkbox"/>
c) from 10 to 15	<input type="checkbox"/>
d) from 16 to 20	<input type="checkbox"/>
e) from 21 to 25	<input type="checkbox"/>
f) 26 up	<input type="checkbox"/>

I am teaching:	
a) general subjects	<input type="checkbox"/>
b) general vocational subjects	<input type="checkbox"/>
c) special vocational subjects	<input type="checkbox"/>
d) practice	<input type="checkbox"/>



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**1. How do you see yourself?**

Please choose how much you agree or disagree with all the statements	Totally disagree	Disagree	Agree	Totally agree
I like to do the usual common thing in a new totally different way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer the activities where precise rules for performance are strictly defined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually solve all problems in a same usual way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to think of new ideas and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For every problem it is good to look for several possible solutions, not just a single one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like activities with no strict rules, but I would have to think of new ideas myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that for one problem there is only one single solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to participate in multiple different activities at the same time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2. Learning**

Please choose how much you agree or disagree with all the statements regarding learning and concepts of learning.

2.1 How do your pupils feel about learning? If you think that learning for pupils is hard, circle the box that is closest to the word hard, and if you think that it is easy circle the box closer to the word easy.						
Important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not important
Boring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Interesting
Useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Useless
Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pleasant
Hard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Easy
Useless for my life at the moment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Useful for my life at the moment
Important for my future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not important for my future

2.2 What do your pupils think about learning?				
Pupils think that:	Totally disagree	Disagree	Agree	Totally agree
By learning they come to new ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By learning they only increase the information they already know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They study only what is necessary for school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They study other things as well, outside of school materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time spent studying they consider it waste of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes they afterwards realize why they have studied a certain thing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is no need to learn, The learning stops in the moment one finishes school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What they learn they can use in my everyday life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At school they have learned their capabilities, and what are they good at	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They already have a clear idea about what will they be doing in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At school they had access to information regarding their future education or their future profession	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teachers can teach them what they can be working in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teachers can teach them what do they have to accomplish in order to use their ideas in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3. What motivates them to learn?

3.1 What motivates pupils?	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me
Why they learn.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To become professional in the area that they are studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Because work expects that from them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They enjoy studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning is important to them personally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Because they have to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They want to continue at a university of their choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They want to get a very good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2 Which are the reasons for the learning of the pupils? Circle the sign that you agree with more (answer 1 or answer 2).			
When studying they prefer:		When studying they prefer:	
1) assignments or questions for which they are certain they can answer right away	<input type="checkbox"/>	1) assignments or questions where they have to try harder	<input type="checkbox"/>
2) assignments or questions for which they are not certain that they know the answer	<input type="checkbox"/>	2) assignments or questions that they can easily solve	<input type="checkbox"/>

### 4. How do you keep yourself motivated for further studying or practice preparation?

How often have you used the following methods?	Never	Rarely	Often	Always
I try to get pupils to concentrate on the interesting segments of the content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tell them that the things they are studying are interesting and that they will enjoy in their future professional work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to relate the material with what is interesting to them and things that they like	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to relate the material with what I learn from practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that that is the way to build up their skills so that they can have a good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that they will be good workers in their job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them how good they will feel when they will learn the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tell them that when they will finish with learning they will do something which they like most	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I assure them that they will feel good when they finish learning the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I convince them "you can do it"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I repeat that It is important to study because it will be useful in their future life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that they don't want to disappoint their parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that others are studying as well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that it is important to learn as much as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I assure myself that it is important for the pupils to learn as much as can	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remind them that is the only way to continue education at the university or other school of their choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**5. How you are grading**

How often does the following happen to you?	Never	Rarely	Often	Always
They can learn something useful from written examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They can learn something useful from oral examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am always explaining to the pupils why a certain grade has been given to someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I praise the pupils for their improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To get a good grade the student must show that he/she really understands the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give grades justly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While grading all pupils get grades they deserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I grade pupils homework and other assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is clear to the pupils what they have to learn in order to get a certain grade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers comments and explanations regarding their work help them to improve their learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I always give my feedback for the pupils performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examinations check how they can use their knowledge in concrete situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I grade the way they have reached the solution of the problem or assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage pupils to assess their own work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage pupils to assess each others' work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I grade only on things that can be memorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I test them only on matters we have covered in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructors in practice assess the skills they gain that are needed for their professional work in the future that they study for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test examinations check whether they have remembered all facts thought in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing group work means assessing the work of the entire group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I assess how we communicate within the group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I assess the approach they have toward assigned problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give them test for matters we haven't covered in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage pupils to assess their self and the approach they take toward solving assigned problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage students to assess our capabilities and skills for the teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**6. What do you think about teaching and practice?**

Please evaluate how each of these statements is related to you	Never	Rarely	Often	Always
I am very clear in what the pupils note during the class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give clear instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I dictate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I always have the right answer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I offer different ways for solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I accept their variety of answers and solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage individuality in the work (through solving problems, projects, papers ...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	Never	Rarely	Often	Always
I am very precise in what they have to learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give suggestions for new material related to the one covered in class, and encourage the use of different resources: books, internet, friends, parents, magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage work in pairs and groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage taking notes during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I accept different ways of solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desks are placed in the theatre format	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I stand in the front and talk the entire time, and they have to listen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I support all pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I work mostly with good pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I use additional class equipment: LCD, video, projector, computer.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I leave enough time for asking questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I relate material of their courses with material of other subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I praise pupils that present their own ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage pupils to present their work in front of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't set time limits for solving assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I use examples from everyday life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I suggest self assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I let them ask specific questions after class / practice as well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I always help if asked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I let them decide how they are going to find a solution to the assignment / problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I ask them to present the way we have come to the specific solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading is done in a way that shows pupils what are they good at and what needs improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage new ideas or working in new ways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage individual decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I let them choose who to work with in a group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give the same assignments to all students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I work more with pupils that do not show good results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I adjust the assignments according to pupils' skills, for each student separately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 7. How do you envisage your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all
Work with clear rules and where I don't have to make decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure work with no risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with no changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work that I will start myself and I will be independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work where I will learn something new all the time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with many new opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work that is not too far from my house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work where I will be making decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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What type of work would you like to be doing?	Very important	Important	Less important	Not important at all
Work where I will be earning a lot of money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with clear rules and where I don't have to make decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure work with no risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 8. How do you cooperate with the colleges?

Please evaluate how each of these statements is related to you	Totally disagree	Disagree	Agree	Fully agree
I often suggest activities and motivate the others to participate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I very often cooperate with other teacher on some assignment or practical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I gladly participate in activities suggested by others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have friends in my job that I can always ask for help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In joint activities I usually let the others take initiatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I work with others we can easily come to an agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually know when is better to work alone and when is better to work with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often we jointly solve the problems that stem from the practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During practice we learn to work in teams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I participate and work in teams while learning or in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 9. School

Encouraging activities and innovativity of teachers in the school	Totally disagree	Disagree	Agree	Fully agree
In our school:				
Teachers have opportunity to solve the problems individually	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Some of the teachers do not take responsibility for their job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are active in creation of development plans for the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers have opportunities to influence the organization and implementation of the teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers must not care about rules of behaviour.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teacher's work is carefully supervised.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers do not have opportunities to criticize school openly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are encouraged to work with new teaching strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is expected that teachers learn continuously and innovate their teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The changes are well accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Support from the director and colleges	Totally disagree	Disagree	Agree	Fully agree
Director is taking into consideration teacher's ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Director encourage teachers to give initiatives and suggestions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Director encourages cooperation between teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Director is always available when the teachers need him	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Director trys to ensure professional education for teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Director trys to ensure teaching conditions for work (teaching, didactical tools)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers can have influence on the director's decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are encouraged to cooperate in the projects and activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers might ask their colleges for the professional help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers are open for comments about their work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 10. Teachers and Entrepreneurship

*10.1 Different people have different understandings regarding assets and resources for entrepreneurs for starting a business. That is related to the approach and the methods of learning about entrepreneurship. Please, in accordance to your opinion choose three of the following statements:*

In order to start a new business the entrepreneur needs:

- To have finances for starting a business
- To have specific skills and capabilities
- To be innovative
- To be able to know opportunities and risks
- To know how to prepare a business plan
- To know people from the business community
- To have been a good student
- To have a desire to be employed in a successful company

*10.2 Circle one of the answers:*

Productivity is:

- a) To earn more money
- b) To produce certain number of products for a given period of time
- c) To reach the goal at all cause

We pay taxes:

- a) So that public servants have something to do
- b) To satisfy the need for public good
- c) So that retired people can live better

The most limited resource is:

- d) Gold
- e) Solar energy
- f) Air
- g) Time
- h) Water

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Public good is:

- a) Street lightning
- b) City parks
- c) Education
- d) Public transportation
- e) Army

For Valentine's day the price of the flowers increases because:

- a) Florist have decided to do so
- b) Green peace is fighting against flower destruction
- c) There are less flowers in winter
- d) The demand has increased
- e) They are cheaper than jewelry

*10.3 Different people have different understandings regarding what is entrepreneurship opportunity. That is related to the approach and the methods of learning about entrepreneurship opportunity. Please, in accordance to your opinion choose one of the presented statements:*

Entrepreneurship opportunity for a business is:

- To know how to prepare a business plan
- To be able to recognize something that has a potential for business and to believe that it is possible
- To have money
- To have completed your education
- To have free time

## ANNEX III QUESTIONNAIRE FOR STUDENTS

Q1HES- LTL ID

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Faculty: \_\_\_\_\_

Gender (circle): M F

With this questionnaire we would like to examine the opinion and attitudes of the students towards ability to learn. One of the most important competences in the concept of lifelong learning is 'Learning to learn'. Your answers will help to establish whether this particular competence is represented in the higher education in the former Yugoslav Republic of Macedonia.

Please carefully and without any rush, answer the questions. To fill out the questionnaire you need 20 minutes. Do not be discouraged by the size of the questionnaire, for the most of the questions need your opinion.

Thank you for your cooperation!

## I. What do you think about learning and learning concepts?

In every row circle one number which characterizes your opinion and emotions regarding learning.

1. Learning is ...	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. Important for me and my future	1	2	3	4
2. Interesting and fun	1	2	3	4
3. Easy and pleasant	1	2	3	4
4. Useful for my nowadays life	1	2	3	4

2. Read and circle	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. Learning refers to certain intellectual effort.	1	2	3	4
2. The main goal of learning is gaining new information.	1	2	3	4
3. Dedication to learning is the main condition to become a fulfilled person.	1	2	3	4
4. The bigger part of the learning process is carried out in the formal education.	1	2	3	4
5. For me, learning finishes the moment I graduate.	1	2	3	4
6. The time dedicated to learning is a lost time.	1	2	3	4
7. Sometimes the effort invested in learning, later makes sense.	1	2	3	4
8. One learns during the whole life.	1	2	3	4
9. Things I learn help me to manage problems in everyday life.	1	2	3	4
10. Learning helps me to understand the world around me.	1	2	3	4
11. The closest word to learning is memorizing.	1	2	3	4
12. I learn a lot of things outside the faculty.	1	2	3	4
13. When I learn, I get a lot of new ideas.	1	2	3	4
14. Sometimes I learn and I'm not aware of it.	1	2	3	4

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The following statements are related to the reasons why students learn. Please circle the appropriate answer for you.

3. Why do I learn?	It is not related to me at all	It is slightly not related to me	It is slightly related to me	It is completely related to me
1. For the grades	1	2	3	4
2. Because I want to learn something new	1	2	3	4
3. Because others expect that from me	1	2	3	4
4. So that my parents won't criticize me	1	2	3	4
5. Because learning is fun	1	2	3	4
6. Because I enjoy learning	1	2	3	4
7. Because I must	1	2	3	4
8. So that I can get a good job	1	2	3	4

Now we will ask you that what learning means in the former Yugoslav Republic of Macedonia. Read the following statements and think how much you agree with them. Read each of them and circle the appropriate answer for you.

4. Read and circle	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. The majority of famous people in our country were good students.	1	2	3	4
2. In order to become rich you must be a good student.	1	2	3	4
3. In our society, students know perfectly well that studying one day will pay off.	1	2	3	4
4. Education will soon be improved and become more important.	1	2	3	4
5. Professor status is clearly representing the significance of education.	1	2	3	4
6. People who do not have any education take all the credit.	1	2	3	4

## II. How do you motivate yourself for further learning?

5. Read and circle	Never	Rare	Often	Always
1. I'm trying to concentrate on interesting content	1	2	3	4
2. I say to myself that my future job for which I'm educated is interesting for me and I'll enjoy my future job.	1	2	3	4
3. I try to relate the content with something interesting or with something which I like.	1	2	3	4
4. I try to isolate myself (switch off TV, telephone etc)	1	2	3	4
5. I try to learn in the period of day when I can have the best concentration.	1	2	3	4
6. I think about how good I will feel when I know the content.	1	2	3	4
7. I say to myself "You can do it".	1	2	3	4
8. I repeat to myself that learning is important because it will be useful in life.	1	2	3	4
9. remind myself that it is important to get a diploma.	1	2	3	4
10. I remind myself that I don't want to disappoint my parents.	1	2	3	4
11. I remind myself that I will get a job more quickly.	1	2	3	4

### III. Which learning strategies do you use?

Students learn in different ways. We are interested how you learn. Think about situations in which you learn. How often you learn in the following situations?

6. Read and circle	Never	Rare	Often	Always
1. Before I start learning, I think about what I need to know.	1	2	3	4
2. Several times I go through the content which I need to know.	1	2	3	4
3. I learn main definitions and terms by heart.	1	2	3	4
4. When I learn, I underline the text in my notebook or my book.	1	2	3	4
5. I try to understand new content in a way to connect it with prior knowledge.	1	2	3	4
6. I try to understand how I can use some information in everyday life.	1	2	3	4
7. When I learn, I repeat (check myself) out loud.	1	2	3	4
8. When I learn, I tell the content with my own words.	1	2	3	4
9. When I learn, I make notes in my textbook or notebook.	1	2	3	4
10. When I learn, I do tables, graphs and diagrams according to text.	1	2	3	4
11. When I learn, I go through the content and separate the most important parts.	1	2	3	4
12. When I read a text, sometimes I don't know what is about.	1	2	3	4
13. When something is not clear to me, I stop and go through the text again.	1	2	3	4
14. When I learn, I use different sources (books, magazines, TV, internet...).	1	2	3	4
15. I learn only according to the resources given by the professor.	1	2	3	4
16. I learn thoroughly, using resources that are not given by the professor.	1	2	3	4
17. I look the unfamiliar words up in dictionaries, encyclopedias, etc.	1	2	3	4

### IV. Your opinion about the professors at your faculty and their teaching ability

The following statements describe learning activities and practical work. Please evaluate how each of them relates to you.

7. At the faculty...	Never	Rare	Often	Always
1. Professors say clearly to us what we need to do during the lessons.	1	2	3	4
2. Professors dictate all we need to know.	1	2	3	4
3. Professors always have right answers.	1	2	3	4
4. Professors accept different answers or solutions.	1	2	3	4
5. Professors support students who are independent in their work (during the solving of the tasks, projects, seminars' tasks).	1	2	3	4
6. Professors tell us precisely what we need to learn and know.	1	2	3	4
7. Professors suggest that we look up more on the content of what we learnt in the class, and support us to use different textbooks, internet, ask our parents, colleagues, use magazines...	1	2	3	4
8. Professors support us to work on the assignment in pairs or groups.	1	2	3	4
9. Professors always stand in front of the class and during the whole lesson he/she talks and we need to listen.	1	2	3	4

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	Never	Rare	Often	Always
10. Professors use teaching tools: projectors, overheads , computers, video...	1	2	3	4
11. Professors leave enough time to ask questions.	1	2	3	4
12. Professors connect content from their subject with the content of different subjects.	1	2	3	4
13. Professors encourage students to express their own ideas.	1	2	3	4
14. Professors give examples from everyday life.	1	2	3	4
15. Professors propose how to learn certain content.	1	2	3	4
16. Professors support us to think new things, and work in new ways.	1	2	3	4
17. Professors support us to make decisions independently.	1	2	3	4
18. Professors encourage us to suggest activities that will be realized during lessons.	1	2	3	4
19. Professors encourage us to plan our own time and effort.	1	2	3	4
20. Professors encourage us to take responsibility for our own actions.	1	2	3	4
21. My professors discuss with me about what I can do in the future.	1	2	3	4
22. Professors treat us all with respect.	1	2	3	4
23. Professors make efforts so the weakest students can understand the learning material.	1	2	3	4
24. Professors do not care whether we understand the learning material.	1	2	3	4
25. Professors support all students.	1	2	3	4
26. I can always get help from my professor when I ask for it.	1	2	3	4
27. Professors show us how to distinguish what is more from what is less important.	1	2	3	4
28. Professors offer us different ways of solving certain problems.	1	2	3	4
29. Professors support us to self evaluate how we solved certain problem/tasks.	1	2	3	4

The following statements refer to the evaluation of the learning process. Please circle the appropriate answer for you.

8. Read and circle	Never	Rare	Often	Always
1. Professors give the explanations to the students for the given mark.	1	2	3	4
2. Professors thank students for their learning progress.	1	2	3	4
3. Professors give the right marks.	1	2	3	4
4. Professors check homework or other student work.	1	2	3	4
5. It is clear what I must know in order to get certain mark.	1	2	3	4
6. Comments of the professor on my work help me to improve my learning.	1	2	3	4
7. Professors evaluate the way (the procedure) used in which we have achieved the problem/task solution, not just the result.	1	2	3	4
8. Professors encourage students to evaluate the work of their colleagues.	1	2	3	4
9. Professors help us to get skills which we will need for future jobs.	1	2	3	4
10. Professors gives us tests which ask only the content they taught during the lesson hours.	1	2	3	4
11. Teachers assess how we worked and communicated in groups.	1	2	3	4
12. Professors encourage students to evaluate their work.	1	2	3	4



### V. How do you see your future job?

The following statements describe learning activities and practical work at your faculty. Please evaluate how each of them is related to you.

9. At the faculty...	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. ... I learn at school what my strengths are and what I am good at.	1	2	3	4
2. ... I already have a clear picture what I can do in the future.	1	2	3	4
3. ... At school I have access to information about opportunities for my future educational or professional career.	1	2	3	4
4. ... My professors discuss with me about what I can do in the future.	1	2	3	4
5. ... My professors discuss with me what I need to achieve to be able to implement my ideas for the future.	1	2	3	4

The following questions are related to the question: How do you want your future job to be? Please circle the appropriate answer for you.

10. I want my future job to be...	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. ... where the rules are clear and I don't need to make a lot of decisions.	1	2	3	4
2. ... secure with no risk.	1	2	3	4
3. ... one in which I will be independent and take decisions.	1	2	3	4
4. ... one in which I will constantly learn something new.	1	2	3	4
5. ... one in which I'll earn a lot of money.	1	2	3	4
6. ... one which is not far from home.	1	2	3	4

*Once again we thank you for your cooperation!*

## ANNEX IV QUESTIONNAIRE FOR STUDENTS

Q2HES- E

ID

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Faculty: \_\_\_\_\_

Gender (circle): M F

**With this questionnaire we would like to examine student's attitudes and opinions about their ability for entrepreneurship which is one of the key competences for lifelong learning. Your answers will help us to establish whether this particular competence is represented in higher education in the former Yugoslav Republic of Macedonia.**

**Please, carefully and without rush, answer the following questions. To fill in the questionnaire you need twenty minutes. Do not be discouraged by the size of the questionnaire, because for the most of the questions you only need to circle your opinion.**

**Thank you for your cooperation!**

### I. How do you see yourself?

We would like to know something more about you and your thoughts. Please assess how much you agree with following statements in a way that you circle appropriate answer for you for every statement.

1. Read and assess	Not agree at all	Usually not agree	Usually agree	Agree totally
1. I like to think new ideas and activities	1	2	3	4
2. I like activities where the rules are not set in stone, then I need to find something new	1	2	3	4
3. I prefer to solve the problems in the same usual way	1	2	3	4
4. I like to do usually things in new different ways	1	2	3	4
5. When I know that I won't succeed the first time, I'm easily discouraged	1	2	3	4
6. If I try enough I can be successful in solving every problem	1	2	3	4
7. I like to make decisions	1	2	3	4
8. When I work with others, I can easily agree with them	1	2	3	4
9. Often I work with other students in some tasks	1	2	3	4
10. Often I propose activities and support others to attend these activities	1	2	3	4
11. In joint activities usually I leave initiatives to the others	1	2	3	4
12. I'm responsible for my personal behaviour	1	2	3	4
13. When I know that I won't succeed the first, I'm sure that I'll succeed the second one	1	2	3	4
14. My friends think that I can establish my own enterprise	1	2	3	4
15. Today is impossible to achieve success at work without money	1	2	3	4
16. The buyer is always right	1	2	3	4

## II. How do you see your future job?

2. What would you like that your future job will be . . .	Not agree at all	Usually not agreed	Usually agreed	Totally agreed
1. Where the rules are clear and I don't need to make a lot of decisions	1	2	3	4
2. Without many changes	1	2	3	4
3. One which I will start and be independent	1	2	3	4
4. Secure with no risk	1	2	3	4
5. One on which I will constantly learn something new	1	2	3	4
6. One on which I would be given a lot of new chances	1	2	3	4
7. One which is not far from home	1	2	3	4
8. One without a boss in which I will take decisions independently and responsibility for eventual failure	1	2	3	4

## III. Experience with entrepreneurship

3. Did you have a chance during your education to . . .	Never	Rare	Often	Always
1. ...talk with entrepreneurs, who lead their own firms?	1	2	3	4
2. ...to be informed about employment in some enterprises?	1	2	3	4
3. ...visit successful companies?	1	2	3	4
4. ...learn more how a certain company functions?	1	2	3	4
5. ...learn how to establish company?	1	2	3	4
6. ...learn how with your energy (efforts) you can earn money?	1	2	3	4
7. ...research possibilities for employment in your sector?	1	2	3	4
8. ...ask for a job complementary with your education	1	2	3	4
9. ...learn to whom ask for help if you have business idea?	1	2	3	4
10. ...work on the development of business ideas?	1	2	3	4
11. ...learn what you need to do to develop successful firm?	1	2	3	4

Some characteristics and personal skills which entrepreneurs should possess:

4. Please evaluate how much do you agree with the following statements:	Very important	Important	Less important	Not at all important
1. the entrepreneur should have a power to see further than the other person	1	2	3	4
2. he's a person who's always ready to take risks for his own activities	1	2	3	4
3. he should accept the problems like challenges for new business successes and achievements	1	2	3	4
4. He's a person who is commitment to achieve results, success and final realization, but he's not interested in technology for achieving that	1	2	3	4
5. He's an individualist, with energy, motivation, affinity	1	2	3	4
6. the entrepreneur has the characteristics and a role of leader	1	2	3	4
7. he's always prepared for further innovation	1	2	3	4
8. he possesses capacity for hard work	1	2	3	4
9. the real entrepreneur never leaves things unfinished	1	2	3	4
10. the entrepreneur is good organizer	1	2	3	4

5. To establish a business activity you need to take certain steps (think about it)

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<b>6. To calculate the price of a loaf of bread you need to take into account the following cost:</b>

**IV. Education for entrepreneurship**

<b>7. At the faculty teachers encourage me ...</b>	<b>Never</b>	<b>Rare</b>	<b>Often</b>	<b>Always</b>
1. ...to achieve my aims before I start to work	1	2	3	4
2. ...to plan my activities and obligations	1	2	3	4
3. ...to think about my future occupation	1	2	3	4
4. ...to promote the development of personal qualities that are relevant to entrepreneurship, such as creativity, spirit of initiative, risk-taking and responsibility	1	2	3	4
5. ...to gain early knowledge and contact with the world of business	1	2	3	4
6. ...to understand the role of entrepreneurship in the community	1	2	3	4
7. ...to raise my awareness of self-employment and entrepreneurship as a career option	1	2	3	4
8. ...to understand the message: 'you can become not only an employee, but also an entrepreneur'	1	2	3	4
9. ...Teachers organize activities based on learning by doing	1	2	3	4
10. ...Teachers provide specific training on how to start a business	1	2	3	4
11. ...Teachers encourage me how to create by myself new ideas and activities in order to start my own business	1	2	3	4

<b>8. Which are the three main benefits of the studies or training that you have undertaken? (Please choose the three answers that best describe your own situation):</b>
1. I have met new people
2. I'm less likely to find a job
3. I can better enjoy my free time
4. I can do my job better
5. I obtained a certificate, diploma or qualification
6. I can better manage my everyday life
7. I could change type of work, including starting my own business
8. It has given me a lot of personal satisfaction
9. I don't think I have benefitted much from it
10. Nothing yet, because it is not yet completed

**V. Circle one answer:**

**9. Productivity is:**

- a) Earn more money
- b) Produce certain number of products in a unit of time
- c) Reach the goal for any price

**10. We pay taxes**

- a) so that civil servants have a job
- b) to satisfy the need for a public good
- c) pensioners have a better life

**11. The most limited resource is:**

- a) gold
- b) solar energy
- c) air
- d) time
- e) water

**12. Public good isn't:**

- f) street lights
- g) city parks
- h) education
- i) city transport
- j) army

**VI How much do you know about economics and entrepreneurship?**

<p><b>1. Marco opened a factory for producing shoes in a small town in the east of the country. Which of the following statements describes the role of Marco's factory in the local community?</b></p> <ul style="list-style-type: none"> <li>a) Marco's factory will supply shoes primarily to the citizens of this town (citizens of the town will primarily have the shoes from this factory)</li> <li>b) Marco will employ enough people from this town</li> <li>c) The taxes that which Marco pays are the only income of the city</li> </ul>	<p><b>2. Maria wants to start production of sweets. In order to buy the necessary raw materials (flour, eggs, cocoa) Maria needs to spend her own pocket money. Sweets need to be prepared in her house, in her kitchen. She is planning to keep all income for herself. Which kind of business does Maria want to start?</b></p> <ul style="list-style-type: none"> <li>a) Individual entrepreneur</li> <li>b) Partnership</li> <li>c) Joint stock company</li> </ul>
<p><b>3. Before starting, the new business entrepreneur needs to make a business plan. The purpose of the business plan is ...</b></p> <ul style="list-style-type: none"> <li>a) ... to help them to become a director</li> <li>b) ... to send them to school which they finish and show them what they learn</li> <li>c) ... to convince themselves that the starting of this business is a good idea and give them possibility for fundraising</li> </ul>	<p><b>4. The most simple frame in which members are responsible for the success, but also for the loss in the business is:</b></p> <ul style="list-style-type: none"> <li>a) Limited liability company</li> <li>b) Individual entrepreneur</li> <li>c) Commentate partnership</li> </ul>
<p><b>5. Why do consumers not have everything they want?</b></p> <ul style="list-style-type: none"> <li>a) Resources are limited</li> <li>b) Central banks don't emit enough money for people to buy what they want</li> <li>c) Producers are not effective</li> </ul>	<p><b>6. For women's day (8 March) the prices of flowers significantly increase because:</b></p> <ul style="list-style-type: none"> <li>a) The sellers of the flowers decide so</li> <li>b) It's cheaper than jewellery</li> <li>c) There is increasing demand</li> </ul>
<p><b>7. When a firm introduces a new product in the market, it:</b></p> <ul style="list-style-type: none"> <li>a) Will plan in advance how the product will be successful on the market according to the market research</li> <li>b) Buys insurance in case that consumers don't want to buy the product</li> <li>c) Goes in blindly without having any idea about the success of the product</li> </ul>	<p><b>8. Marketing is important for the success of the company. We can describe it as:</b></p> <ul style="list-style-type: none"> <li>a) Promotion of the product (TV spots, posters, advertisements, etc.)</li> <li>b) Supply of the product to the buyers in country and abroad</li> <li>c) Activities in which we find out what consumers want and after we try to satisfy that need efficiently.</li> </ul>

## ANNEX V POSITIVE ATTITUDES OF THE PUPILS IN PERCENT %

### 1. How do you see yourself?

Please choose how much you agree or disagree with all the statements	Positive attitude
I like to do the usual common thing in a new totally different way	82.6
I prefer the activities where precise rules for performance are strictly defined	16.5
I usually solve all problems in a same way	39.8
I like to think of new ideas	90.7
For every problem it is good to seek for several possible solutions, not just a single one	96.1
I like activities with no strict rules, but I would have to think of new ideas myself	53.1
I believe that for one problem there is only one single solution	59.2
I like to participate in multiple activities at the same time	68.5

### 2. Learning

2.1. Please choose how much you agree or disagree with all off the statements regarding learning and concepts of learning. First read the words in every line. In every line circle the sign that represents your opinion regarding learning, to the most. For example: If you think that learning is hard circle the sign that is closest to the word hard, and if you think that it is easy circle the sign closer to the word easy	
Important	79.9
Interesting	50.7
Useful	82.3
Pleasant	54.4
Easy	33.8
Useful for my life at the moment	66.4
Important for my future	77.6

2.2. For every each one of us learning has a different meaning, or everybody wants to learn for a different reason. We would like to find out what learning means to you. Below are several statements regarding learning. Please decide how much you agree or disagree with the given statement by circling the appropriate sign for each statement	
	Positive attitude
By learning I come to new ideas	92
By learning I only increase the information I already know	23.8
I study only what is necessary for school	56.4
I study other things as well, outside of school materials	68.4
Time spent studying I consider it waste of time	82.3
Sometimes I afterwards realize why I have studied a certain thing	31.5
Learning stops the moment one finishes school	80.7
What I learn I can use in my everyday life	96.8
At school I have learned my capabilities, and what am I good at	85.7
I already have a clear idea about what will I be doing in the future	70
At school I had access to information regarding my future education or my future profession	66.6
The teachers can teach me what I can be working in the future	61.9
The teachers can teach me what do I have to accomplish in order to use my ideas in the future	72.7

### 3. What motivates you to learn?

3.1 Please assess all of the stated reasons that apply to you. Circle the sign for each statement	Positive attitude
I am studying ...	
To become professional in the area that I am studying	81.7
Because others expect that from me	41.6
Because I enjoy studying	55
Because learning is important to me personally	76.4
Because I have to	48.9
Because I want to continue at a university of my choice	20.6
Because I want to get a very good job	88.7

3.2 Please assess all of the stated reasons that apply to you. Circle the sign that you agree with more (answer 1 or answer 2)			
When studying I prefer:		When studying I prefer:	
1) assignments or questions which I am certain I can answer correctly	78.6	1) assignments or questions where I have to try harder	34.8
2) assignments or questions for which I am not certain that I know the answer	21.4	2) assignments or questions that I can easily solve	65.2

### 4. How do you study?

Pupils are studying in many different ways. We would like to know how you are studying! Think of different situations when you are studying, how often do you study in the stated ways. Circle one of the signs in each row	Positive attitude
Before I start studying I think of all of the things that I have to learn.	68.3
I try to understand the new material by relating it to things I already know.	70
I try to understand how some information can be used in everyday life.	70.6
When I study I retell the material in my own words.	71.2
I learn by heart.	75.2
Before I start studying I think whether those things will be useful for me in my life.	46
I try to understand the new material by relating it to things I have done in praxis.	62.5
Before I start doing something in praxis I think how to use the theory I have learned.	65.4

### 5. How do you study during practical teaching or professional practice?

We would like to know how are you learning during the lectures or in professional praxis	Positive attitude
When I perform my work in praxis I use previously learned knowledge from theory	72
When I am learning to do something in praxis I need someone to show that to me in praxis	22.5
When I am learning to do something in praxis, for me it is enough to use the written directions	55.8
When I am learning to do something in praxis I use my everyday experience	73.5
I learn practical capabilities by repeating it several times	70.5
I recheck several times the operations and processes I perform in praxis	62.2
We perform experiments and practical assignments regarding the theory we have studied	46.1
Teachers are using examples for everyday real life	69.9
In class we create something realistic and useful	72.7

KEY COMPETENCES FOR LIFELONG LEARNING: 'LEARNING TO LEARN' AND 'ENTREPRENEURSHIP' – FINAL REPORT OF THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

**6. How do you keep yourself motivated for further studying or practice preparation?**

<b>When you are studying or preparing for work is it hard or boring? How do you motivate yourself, what methods are you using? Think of situations like that. How often have you used the following methods?</b>	<b>Positive attitude</b>
I try to concentrate on the interesting segments of the content	84
I tell myself I am interested in the things I am studying and that I will enjoy in my future professional work	64.3
I try to relate the material with what is interesting to me and things that I like	66.2
I try to relate the material with what I learn from praxis	59.8
I remind myself that that is the way to build up my skills so that I can have a good job	76.5
I try to isolate myself (no TV, no telephone ...)	42.1
I try to study at times when I can concentrate the most	80.4
I convince myself that when I am done studying I will be doing things I really want to do	82.1
I think of how great I will feel when I learn the material	70.1
I say to myself "you can do it"	75.2
I repeat to myself that It is important to study because it will be useful in my future life	80.1
I remind myself that I don't want to disappoint my parents	30
I remind myself that I will be very good at my job	75.8
I remind myself that others are studying as well	43.7
I tell to myself that it is important to learn as much as possible	74.7
I remind myself that is the only way to continue education at university or other school of my choice	74.3

**7. How much and how do you cooperate with your friends while studying or working?**

<b>The following statements relate to teaching activities. Please assess how much each statement applies to you:</b>	<b>Positive attitude</b>
I often suggest activities and motivate the others to participate	58
I very often cooperate with other pupils on some assignment or practical activity	71.3
I gladly participate in activities suggested by others	73.3
I have friends in my class that I can always ask for help	89.7
In the joint activities I usually let the others take initiatives	59
When I work with others we can easily come to an agreement	82.8
I usually know when is better to work alone and when is better to work with others	88
Often we jointly solve the problems coming out of the praxis	73
During praxis we learn to work in teams and assigne	76.3
I participate and work in teams while learning or in praxis	81.4

**8. How do you feel about grading?**

<b>How often the following happens to you?</b>	<b>Positive attitude</b>
I can learn something useful from written examination	36.7
I can learn something useful from oral examination	17.4
Teachers explain to us why certain grade has been given to someone	52.9
Teacher apprise student for their improvements	74
To get a good grade the student must show that he/she really understands the material	85.2
Teachers give grades correctly	48.2
While grading all students get grades that are fully deserved	46.5
Teachers grade pupils homework and other assignments	50.2
It is clear to what I have to learn in order to get a certain grade	86.1
Teachers comments and explanations regarding my work help me to improve my learning	70.3
Instructors in praxis give me feedback on my performance	62.5
Examinations check how we can use our knowledge in concrete situations	71.4
Teachers grade the way we have reached the solution of the problem or assignment	59.9
Teachers encourage students to assess their own work	63.4



	Positive attitude
Teachers encourage students to assess each others work	41.6
Teachers grade us only on things that can be memorized by heart	64.1
Teachers test us only on matters we have covered in class	78.7
Instructors in praxis assess the skills we gain that are needed for our professional work in the future that we study for	64.3
Test examinations check whether we have remembered all facts thought in class	25.6
Assessing group work means assessing the work of the entire group	24.3
Teachers assess how we communicate within the group	69.6
Teachers assess the approach I have toward assigned problems	70.9
Teachers give us test for matters we haven't covered in class	73.9
Teachers encourage students to assess me and the approach I take toward solving assigned problems	33.2
Teachers encourage students to assess their capabilities and skills	34.8

### 9. How do you feel about the teaching and the practical work?

The following statements relate to some teaching activities regarding realization of praxis. Please asses how much of each statements is true	Positive attitude
Teachers are very clear on what we have to take notes of during the class	19.6
Teachers give clear instructions	75.6
Teachers dictate	27.9
Teachers always have the right answer	28.3
Teachers offer different ways for solving problems	70.9
Teachers accept our variety of answers and solutions	64
Teachers encourage individuality in the work (through solving problems, projects, papers ...)	62.3
Teachers are very precise in what we have to learn	73.2
Teachers give suggestions for new material related to the one covered in class, and encourage the use of different resources: books, internet, friends, parents, magazines	69.5
Teachers encourage work in pairs and groups	66.1
Teachers encourage taking notes during class	43.9
Teachers accept different ways of solving problems	61.2
Desks are placed in theatre format	65.6
Teachers stand at the front and talk the entire time, and we have to listen	33.7
Teachers support all pupils	55
Teachers work mostly with good pupils	32.8
Teachers are using additional class equipment: LCD, video, projector, computer.....	44.5
Teachers leave enough time for asking questions	63.2
Teachers relate material of their courses with material of other subjects	46.1
Teachers apprise pupils that present their own ideas	72.7
Teachers encourage pupils to present their work in front of others	65.7
Teachers don't set time limits for solving assignments	48.9
Teachers use examples from everyday life	75.6
Teachers suggest self assessment of the work	59.7
Teachers let us ask specific questions after class / praxis as well	56.2
Teachers always help if asked	76
Teachers let us ourselves decide how we are going to find a solution to the assignment / problem	70.6
Teachers ask us to present the way we have come to the specific solution	68
Grading is done in a way that shows pupils what are they good at and what needs improvements	71.2
Teachers encourage new ideas or working in new ways	62.5
Teachers encourage individual decision making	56.5
Teachers let us choose who to work with in a group	40.2
Teachers give same assignments for all students	38.5
Teachers work more with pupils that are not showing good results	67
Teachers adjust the assignments according to pupils skills, for each student separately	36

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**10. How do you envision your future job?**

What type of work would you like to be doing?	Positive attitude
Work with clear rules and where I don't have to make decisions	53.7
Secure work with no risk	73.4
Work with no changes	58.5
Work that I will start myself and I will be independent	34
Work where I will learn something new all the time	25.4
Work with many new opportunities	18.8
Work that is not too far from my house	43.9
Work where I will be making decisions	41.3
Work where I will be earning a lot of money	82.3

**11. Experience with entrepreneurship?**

During your education have you had a chance to	Positive attitude
..... talk to entrepreneurs	23.8
..... visit successful entrepreneurs	27.8
..... find out how one enterprise is functioning	49.2
..... read magazines related to your field of work	53.1
..... explore employment opportunities in the specific field of work	56.5
..... learn to whom to turn when you have some new idea for work (business)	57
..... work on developing ideas	49
..... know what is to be done in order to develop a successful enterprise	66.8

**12. Do I know what I need to know?**

*12.1 Different people have different understandings regarding assets and resources for entrepreneurs for starting a business. That is related to the approach and the methods of learning about entrepreneurship. Please choose three of the following statements:*

In order to start a new business the entrepreneur needs:

- To have finances for starting a business
- To have specific skills and capabilities
- To be innovative
- To be able to know opportunities and risks
- To know how to prepare a business plan
- To know people from the business community
- To have been a good student
- To have a desire to be employed in a successful company

*12.2 To start an enterprise you have to do the following (think of several things):*

- .....
- .....
- .....
- .....
- .....

*12.3 To calculate the price of a loaf of bread you have to take into consideration the following expenses:*

- .....
- .....
- .....

- .....
- .....

12.4 Circle one of the answers:

Productivity is:

- a) To earn more money
- b) To produce certain number of products for a given period of time
- c) To reach the goal at all cause

We pay taxes:

- a) So that public servants have something to do
- b) To satisfy the need for public good
- c) So that retired people can live better

The most limited resource is:

- a) Gold
- b) Solar energy
- c) Air
- d) Time
- e) Water

Public good is:

- a) Street lightning
- b) City park
- c) Education
- d) Public transportation
- e) Army

For valentine day the price of the flowers increases because:

- a) Florists have decided to do so
- b) Green peace is fighting against flowers destruction
- c) There is less flowers in winter
- d) The demand has increased
- e) Is cheaper than jewellery

12.5 Different people have different understandings regarding what is entrepreneurship opportunity. That is related to the approach and the methods of learning about entrepreneurship opportunity. Please choose one of the following statements:

Entrepreneurship opportunity for a business is:

- To know how to prepare a business plan
- To be able to recognize something that has a potential for business and to believe that it is possible
- To have money
- To have completed your education
- To have free time

## ANNEX VI POSITIVE ATTITUDES OF THE TEACHERS IN PERCENT

### 1. How do you see yourself?

Please choose how much you agree or disagree with all off the statements	Positive attitude
I like to do the usual common thing in a new totally different way	85.5
I prefer the activities where precise rules for performance are strictly defined	21.6
I usually solve all problems in a same usual way	59
I would like to think of new ideas and	98.3
For every problem it is good to look for several possible solutions, not just a single one	99.1
I like activities with no strict rules, but I would have to think of new ideas myself	56.9
I believe that for one problem there is only one single solution	75.7
I like to participate in multiple different activities at the same time	66.4

### 2. Learning

Please choose how much you agree or disagree with all off the statements regarding learning and concepts of learning.

2.1 How do your pupils feel about learning? If you think that learning for pupils is hard, circle the sign that is closest to the word hard, and if you think that it is easy circle the sign closest to the word easy	
Important	50
Interesting	45.3
Useful	69.1
Pleasant	51.6
Easy	21.4
Useful for my life at the moment	53.1
Important for my future	60.4

2.2. What your pupils think about learning?	
Pupils think that:	Positive attitude
By learning they come to new ideas	93.1
By learning they only increase the information they already know	37.4
They study only what is necessary for school	35
They study other things as well, outside of school materials	55.7
Time spent studying they consider it waste of time	84.6
Sometimes they afterwards realize why they have studied a certain thing	17.2
There is no need to learn, the learning stops in the moment one finishes school	74.6
What they learn they can use in my everyday life	89.6
At school they have learned their capabilities, and what are they good at	94.7
They already have a clear idea about what will they be doing in the future	67.5
At school they had access to information regarding their future education or their future profession	80.7
The teachers can teach them what they can be working in the future	73.7
The teachers can teach them what do they have to accomplish in order to use their ideas in the future	86

### 3. What is that motivates them to learn?

3.1. What motivate the pupils?	Positive attitude
Why they learn.....	
To become professional in the area that they are studying	81.7
Because work expects that from them	75.2
They enjoy studying	54.8
Learning is important to them personally	56.5
Because they have to	45.3
They want to continue at a university of their choice	29
They want to get a very good job	70.1

3.2 Which are the reasons for the learning of the pupils? Circle the sign that you agree with more (answer 1 or answer 2)			
When studying they prefer:		When studying they prefer:	
1) assignments or questions for which they are certain they can answer right away	83.3	1) assignments or questions where they have to try harder	17.9
2) assignments or questions for which they are not certain that they know the answer	16.7	2) assignments or questions that they can easily solve	82.1

### 4. How do you keep yourself motivated for further studying or practice preparation

How often have you used the following methods?	Positive attitude
I try to get pupils to concentrate on the interesting segments of the content	97,4
I tell them that the things they are studying are interesting and that they will enjoy in their future professional work	94,9
I try to relate the material to what is interesting to them and things that they like	98.3
I try to relate the material to what I learn from practice	87.8
I remind them that they need to build up their skills so that they can have a good job	87.9
I remind them that they will be good workers in their job	85.3
I remind them how great they will feel when they learn the material	94.7
I tell them that when they finish leaning they will do something they like most	74.6
I convince them that they will feel great when they will finish with learning of the material	82.1
I convince them "you can do it"	94.7
I remind that it is important to study because it will be useful in their future life	97.4
I remind them that they don't want to disappoint their parents	74.3
I remind them that others are studying as well	72.3
I remind them that it is important to learn as much as possible	92
I remind myself that it is important for the pupils to learn as much as can	73.6
I remind them that it is the only way to continue education at the university or other school of their choice	82.9

### 5. How do you grade?

How often the following happens to you?	Positive attitude
They can learn something useful from written examinations	31.3
They can learn something useful from oral examinations	3.5
I am always explaining to the pupils why certain grades have been given	96.5
I praise the pupils for their improvements	99.1
To get a good grade the student must show that he/she really understands the material	99.1
I give grades correctly	98.2
All pupils get grades that they deserve	97.4
I grade pupils homework and other assignments	96.5

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	Positive attitude
It is clear to the pupils what they have to learn in order to get a certain grade	99.1
Teachers comments and explanations regarding their work help them to improve their learning	93.8
I always give feedback for pupils' performance	98.2
Examinations check how they can use their knowledge in concrete situations	91.2
I grade the way they have reached the solution of the problem or assignment	96.5
I encourage pupils to assess their own work	93.8
I encourage pupils to assess each others' work	75.2
I grade only on things that can be memorized	86.6
I test them only on matters we have covered in class	85.5
Instructors in practice assess the skills they gain that are needed for their professional work in the future that they study for	91.3
Test examinations check whether they have remembered all facts thought in class	17.7
Assessing group work means assessing the work of the entire group	17
I assess how we communicate within the group	95.4
I assess the approach they have toward assigned problems	91.6
I give them tests for matters we haven't covered in class	77.4
I encourage pupils to assess themselves and the approach they take to solving assigned problems	70.3
I encourage students to assess our capabilities and skills for the teaching	67

6. What do you think about teaching and practice?

Please evaluate how each of these statements is related to you.	Positive attitude
I am very clear in what the pupils take notes during the class	5.2
I give clear instructions	98.3
I dictate	73.7
I always have the right answer	1.8
I offer different ways for solving problems	94.7
I accept a variety of answers and solutions	94.7
I encourage individuality in the work (through solving problems, projects, papers ...)	99.1
I am very precise in what they have to learn	98.2
I give suggestions for new material related to the ones covered in class, and encourage the use of different resources: books, internet, friends, parents, magazines	91.2
I encourage work in pairs and groups	90.4
I encourage taking notes during class	6.3
I accept different ways of solving problems	93.2
Desks are placed in the form of theater	67
I stand in the front and talk the entire time, and they have to listen	77
I support all pupils	93
I work mostly with good pupils	71.4
I am using additional class equipment: LCD, video, projector, computer.....	61.4
I leave enough time for asking questions	99.1
I relate material of their courses with material of other subjects	98.2
I praise pupils that present their own ideas	100
I encourage pupils to present their work in front of others	99.1
I don't set time limits for solving assignments	72.6
I use examples from everyday life	95.6
I suggest self assessment of the work	95.5
I let them ask specific questions after class / practice as well	89.5
I always help if asked	99.1
I let them decide how they are going to find a solution to the assignment / problem	95.7
I ask us to present the way we have come to the specific solution	95.7
Grading is done in a way that shows pupils what are they good at and what needs improvement	94.7

	Positive attitude
I encourage new ideas or working in new ways	93.8
I encourage individual decision making	92
I let them choose who to work with in a group	27.4
I give the same assignments to all students	44.2
I work more with pupils that are not showing good results	49.6
I adjust assignments according to pupils' skills, for each student separately	70.2

### 7. How do you envision your future job?

What type of work would you like to be doing?	Positive attitude
Work with clear rules and where I don't have to make decisions	38.3
Secure work with no risk	75.4
Work with no changes	65.2
Work that I will start myself and I will be independent	89.7
Work where I will learn something new all the time	84.3
Work with many new opportunities	64.3
Work that is not too far from my house	57.8
Work where I will be making decisions	33.9
Work where I will be earning a lot of money	47.3
Work with clear rules and where I don't have to make decisions	53

### 8. How you cooperate with the colleges?

Please evaluate how each of these statements is related to you.	Positive attitude
I often suggest activities and motivate others to participate	88.8
I very often cooperate with other teachers on some assignment or practical activity	91.4
I gladly participate in activities suggested by others	93.1
I have friends in my job that I can always ask for help	93.9
In the joint activities I usually let the others take initiatives	58.4
When I work with others we can easily come to an agreement	94
I usually know when is better to work alone and when is better to work with others	95.8
Often we jointly solve the problems arising from practice	92.7
During practice we learn to work in teams	92
I participate and work in teams while learning or in practice	94.6

### 9. School

Encouraging on activities and inovativity of the teachers in the school.	Positive attitude
In our school:	
Teachers have opportunity to solve the problems individually	73.2
Some of the teachers have deficiency of responsibilities for their job	19.6
Teachers are active in creation of development plan of the school	67.5
Teachers have opportunities to influence in organization and implementation of the teaching	88.5
Teachers must not care about rules of behavior	79.3
Teacher's work is carefully supervised	82.1
Teachers have not opportunities to criticize school openly	37.8
Teachers are encouraged to work with new teaching strategies	93.8
It is expected of the teachers to learn continuously and to innovate their teaching	94.7
The changes are very well accepted	78.6

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Support from the director and colleges	Positive attitude
Director considers teacher's ideas	86.7
Direktor encourage teachers to give initiatives and suggestions	90.3
Director encourages cooperation between teachers	85.7
Director is always available when the teachers need him	87.4
Director is trying to ensure professional education for teachers	92
Director is trying to ensure teaching conditions for work (teaching, didactical tools)	87.6
Teachers can have influence on the director's decisions	66.7
Teachers are encouraged to cooperate in projects and activities	91
Teachers might ask their colleges for the professional help	97.3
Teachers are open for comments about their work	81.8

## 10. Teachers and Entrepreneurship

10.1 Different people have different understandings regarding assets and resources for entrepreneurs for starting a business. That is related to the approach and the methods of learning about entrepreneurship. Please choose three of the following statements:

In order to start a new business the entrepreneur needs:

- To have finances for starting a business 24
- To have specific skills and capabilities 23.4
- To be innovative 9.9
- To be able to know opportunities and risks 19.5
- To know how to prepare a business plan 14.4
- To know people from the business community 7.5
- To have been a good student 0.6
- To have a desire to be employed in a successful company 0.9

10.2 Circle one of the answers:

Productivity is:

- a) To earn more money 12.4
- b) To produce certain number of products for a given period of time 73.5
- c) To reach the goal at all cause 14.2

We pay taxes for:

- a) Public servants have something to do 7
- b) To satisfy the need for public good 92.1
- c) So that retired people can live better 0.9

The most limited resource is:

- d) Gold 23.2
- e) Solar energy 3.6
- f) Air 4.5
- g) Time 49.1
- h) Water 19.6

Public good is:

- i) Street lightning 9.1
- j) City park 6.4
- k) Education 81.8



- |                          |     |
|--------------------------|-----|
| l) Public transportation | 0.9 |
| m) Army                  | 1.8 |

For Valentine's day the price of the flowers increases because:

- |   |      |
|---|------|
| a) Florists have decided to do so                     | 8.8  |
| b) Green peace is fighting against flower destruction | 1.8  |
| c) There are less flowers in winter                   | 4.4  |
| d) The demand has increased                           | 79.6 |
| e) They are cheaper than jewellery                    | 5.3  |

*10.3 Different people have different understandings regarding what is entrepreneurship opportunity. That is related to the approach and the methods of learning about entrepreneurship opportunity. Please choose one of the following statements:*

Entrepreneurship opportunity for a business is:

- |  |      |
|--|------|
| ■ To know how to prepare a business plan   | 16.7 |
| ■ To be able to recognize something that has a potential for business and to believe that it is possible | 75.4 |
| ■ To have money  | 5.3  |
| ■ To have completed your education   | 2.6  |
| ■ To have free time  | 0    |

## ANNEX VII RESULTS OF THE RESEARCH AMONG PUPILS FROM VET SCHOOLS

### 1. How do you see yourself?

Please choose how much you agree or disagree with all of the statements	Totally disagree	Disagree	Agree	Totally agree	Total
I like to do the usual common thing in a new totally different way	17	37	157	100	311
	5.5%	11.9%	50.5%	32.2%	100%
I prefer activities where precise rules for performance are strictly defined	18	3	87	172	310
	5.8%	10.6%	28.1%	55.5%	100%
I usually solve all problems in the same way	50	73	112	74	309
	16.2%	23.6%	36.2%	23.9%	100%
I would like to think of new ideas	12	17	84	198	311
	3.9%	5.5%	27%	63.7%	100%
For every problem it is good to look for several possible solutions, not just a single one	6	6	52	246	310
	1.9%	1.9%	16.8%	79.4%	100%
I like activities with no strict rules, but I would have to think of new ideas myself	61	85	112	53	311
	19.6%	27.3%	36%	17%	100%
I believe that for one problem there is only one solution	92	91	62	64	309
	29.8%	29.4%	20.1%	20.7	100%
I like to participate in multiple activities at the same time	35	63	129	84	311
	11.3%	20.3	41.5%	27%	100%

### 2. Learning

2.2. For each one of us learning has a different meaning, or everybody want to learn for a different reason. We would like to find out what learning means to you. Below are several statements regarding learning. Please decide how much you agree or disagree with the given statement by circling appropriate sign for each statement.

	Totally disagree	Disagree	Agree	Totally agree	Total
By learning I come to new ideas	14	11	119	168	31
	4.5%	3.5%	38.1%	53.8%	100%
By learning I only increase the information I already know	24	50	105	132	311
	7.7%	16.1%	33.8%	42.4%	100%
I study only what is necessary for school	76	97	85	49	309
	24.8%	31.7%	27.7%	16%	100%
I study other things as well, outside of school materials	55	42	107	103	307
	17.9%	13.7%	34.9%	33.6%	100%
Time spent studying I consider a waste of time	204	52	29	26	311
	65.6%	16.7%	9.3%	8.4%	100%
Sometimes I afterwards realize why I have studied a certain thing	47	51	125	88	311
	15.1%	16.4%	40.2%	28.3%	100%
Learning stops in the moment one finishes school	202	49	33	27	311
	65%	15.8%	10.6%	8.7%	100%
What I learn I can use in my everyday life	4	6	61	241	312
	1.3%	1.9%	19.6%	77.2%	100%
At school I have learned my capabilities, and what am I good at	12	32	114	150	308
	3.9%	10.4%	37%	48.7%	100%
I already have a clear idea about what will I be doing in the future	33	60	118	99	310
	10.6%	19.4%	38.1%	31.9%	100%
At school I had access to information regarding my future education or my future profession	49	55	100	107	311
	15.8%	17.7%	32.2%	34.4%	100%

	Totally disagree	Disagree	Agree	Totally agree	Total
The teachers can teach me what I can be working as in the future	51 16.5%	67 21.6%	116 37.4%	76 24.5%	310 100%
The teachers can teach me what do I have to accomplish in order to use my ideas in the future	32 10.3%	53 17%	121 38.9%	105 33.8%	311 100%

### 3. What is that motivates you to learn?

3.1 Please assess all of the reasons that apply to you. Circle the sign for each statement.	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me	Total
Why I am studying ...					
To become professional in the area that I am studying	22 7.1%	35 11.2%	107 34.3%	148 47.4%	312 100%
Because others expect that from me	81 26.1%	100 32.3%	90 29%	39 12.6%	310 100%
I enjoy studying	69 22.3%	70 22.7%	111 35.9%	59 19.1%	309 100%
Learning is important to me personally	30 9.7%	43 13.9%	118 38.2%	118 38.2%	309 100%
Because I have to	95 30.7%	63 20.4%	80 22.7%	81 26.2%	309 100%
I want to continue at a university of my choice	37 11.9%	27 8.7%	67 21.5%	180 57.9%	311 100%
I want to get a very good job	12 3.9%	23 7.4%	70 22.6%	205 66.1%	310 100%

3.2 Please assess all of the reasons that apply to you. Circle the sign that you agree with more (answer 1 or answer 2).			
When studying I prefer:		When studying I prefer:	
1) assignments or questions for which I am certain I can answer right away	224 78.6%	1) assignments or questions where I have to try harder	102 34.8%
2) assignments or questions for which I am not certain that I know the answer	61 21.4%	2) assignments or questions that I can easily solve	191 65.2%

### 4. How do you study?

Pupils study in many different ways. We would like to know how you study! Thinking of different situations when you are studying, how often to you study in the stated ways. Circle one of the signs in each row.	Never	Rarely	Often	Almost always	Total
Before I start studying I think of all of the things that I have to learn.	26 8.3%	73 23.4%	109 34.9%	104 33.3%	312 100%
I try to understand the new material by relating it to things I already know.	17 5.5%	76 24.5%	130 41.9%	87 28.1%	310 100%
I try to understand how some information can be used in the everyday life.	22 7.1%	69 22.3%	136 44%	82 26.5%	309 100%
When I study I retell the material in my own words.	31 10%	58 18.8%	98 31.7%	122 39.5%	309 100%
I learn by heart.	119 38.3%	115 37%	26 8.4%	51 16.4%	311 100%

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	Never	Rarely	Often	Almost always	Total
Before I start studying I think whether those things will be useful for me in my life.	54	114	98	45	311
	17.4%	36.7%	31.5%	14.5%	100%
I try to understand the new material by relating it to things I have done in practice.	37	79	113	80	309
	12%	25.6%	36.6%	25.9%	100%
Before I start doing something in practice I think how to use the theory I have learned.	34	74	108	96	312
	10.9%	23.7%	34.6%	30.8%	100%

5. How do you study during practical teaching or professional practice?

We would like to know how are you learning during the lectures or in professional practice	Never	Rare	Often	Always	Total
When I perform my work in practice I am using previously learned knowledge from theory	27	60	136	88	311
	8.7%	19.3%	43.7%	28.3%	100%
When I learn to do something in practice I need someone to show it to me in practice	10	60	92	149	311
	3.2%	19.3%	29.6%	47.9%	100%
When I learn to do something in practice, for me it is enough to use written directions	27	109	110	62	308
	8.8%	35.4%	35.7%	20.1%	100%
When I learn to do something in practice I use my everyday experience	17	65	134	94	310
	5.5%	21%	43.2%	30.3%	100%
I learn practical capabilities by repeating it several times	28	63	118	99	308
	9.1%	20.5%	38.3%	32.1%	100%
I recheck several times the operations and processes I perform in practice	21	95	114	77	307
	6.8%	30.9%	37.1%	25.1%	100%
We perform experiments and practical assignments regarding the theory we have studied	52	115	94	49	310
	16.8%	37.1%	30.3%	15.8%	100%
Teachers are using examples from everyday life	25	68	137	79	310
	8.1%	22%	44.3%	25.6%	100%
In class we create something realistic and useful	23	62	113	113	311
	7.4%	19.9%	36.3%	36.3%	100%

6. How do you keep yourself motivated for further studying or practice preparation?

When you are studying or preparing for work is it hard or boring? How do you motivate yourself, what methods are you using? Think of situations like that. How often have you used the following methods?	Never	Rare	Often	Always	Total
I try to concentrate on the interesting segments of the content	18	32	136	126	312
	5.8%	10.3%	43.6%	40.4%	100%
I tell myself the I am interested in the things I am studying and that I will enjoy in my future professional work	32	74	104	96	311
	10.3%	25.4%	33.4%	30.9%	100%
I try to relate the material with what is interesting to me and things that I like	21	83	140	64	308
	6.8%	26.9%	45.5%	20.8%	100%
I try to relate the material with what I learn from practice	23	102	122	64	311
	7.4%	32.8%	39.2%	20.6%	100%
I remind myself that that is the way to build up my skills so that I can have a good job	24	49	109	128	310
	7.7%	15.8%	35.2%	41.3%	100%
I try to isolate myself (no TV, no telephone ...)	88	92	66	65	311
	28.3%	29.6%	21.2%	20.9%	100%
I try to study at times when I can concentrate the most	22	39	100	150	311
	7.1%	12.5%	32.2%	48.2%	100%
I convince myself that when I am done studying I will be doing things I really want to do	7	49	89	167	312
	2.2%	15.7%	28.5%	53.5%	100%

	Never	Rarely	Often	Almost always	Total
I think of how great I will feel when I learn the material	22	70	112	104	308
	7.1%	22.7%	36.4%	33.8%	100%
I say to myself "you can do it"	26	51	105	129	311
	8.4%	16.4%	33.8%	41.5%	100%
I repeat to myself that It is important to study because it will be useful in my future life	21	41	94	156	312
	6.7%	13.1%	30.1%	50%	100%
I remind myself that I don't want to disappoint my parents	32	61	102	115	310
	10.3%	19.7%	32.9%	37.1%	100%
I remind myself that I will be very good at my job	17	58	128	107	310
	5.5%	18.7%	41.3%	34.5%	100%
I remind myself that others are studying as well	46	89	97	77	309
	14.9%	28.8%	31.4%	24.9%	100%
I tell myself that it is important to learn as much as possible	26	53	112	121	312
	8.3%	17%	35.9%	38.8%	100%
I remind myself that is the only way to continue education at university or other school of my choice	44	87	36	144	311
	14.1%	11.6%	28%	46.3%	100%

### 7. How much and how do you cooperate with your friends while studying or working in practice?

The following statements relate to some teaching activities. Please assess how much of each statement applies to you:	Totally disagree	Disagree	Agree	Fully agree	Total
I often suggest activities and motivate others to participate	43	88	138	43	312
	13.8%	28.2%	44.2%	13.8%	100%
I very often cooperate with other pupils on some assignment or practical activity	29	60	138	83	310
	9.4%	19.4%	44.5%	26.8%	100%
I gladly participate in activities suggested by others	19	64	127	101	311
	6.1%	20.6%	40.8%	32.5%	100%
I have friends in my class that I can always ask for help	16	16	99	179	310
	5.2%	5.2%	31.9%	57.7%	100%
In the joint activities I usually let the others take initiatives	62	121	89	38	310
	20%	39%	28.7%	12.3%	100%
When I work with others we can easily come to an agreement	15	38	139	117	309
	4.9%	12.3%	45%	37.9%	100%
I usually know when is better to work alone and when is better to work with others	7	30	105	166	308
	2.3%	9.7%	34.1%	53.9%	100%
Often we jointly solve the problems resulting from practice	25	59	133	94	311
	8%	19%	42.8%	30.2%	100%
During practice we learn to work in teams	23	51	123	115	312
	7.4%	16.3%	39.4%	36.9%	100%
I participate and work in teams while learning or in practice	21	37	115	139	312
	6.7%	11.9%	36.9%	44.6%	100%

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8. How do you feel about grading?

How often does the following happen to you?	Never	Rarely	Often	Always	Total
I can learn something useful from written examinations	26	88	132	65	311
	8.4%	28.3%	42.4%	20.9%	100%
I can learn something useful from oral examinations	9	45	153	104	311
	2.9%	14.5%	49.2%	33.4%	100%
Teachers explain to us why certain grades have been given to someone	36	110	100	64	310
	11.6%	35.5%	32.3%	20.6%	100%
Teachers praise students for their improvements	18	63	125	105	311
	5.8%	20.3%	40.2%	33.8%	100%
To get a good grade the pupil must show that he/she really understands the material	12	34	110	155	311
	3.9%	10.9%	35.4%	49.8%	100%
Teachers give grades justly	58	103	115	35	311
	18.6%	33.1%	37%	11.3%	100%
While grading all pupils get grades that they deserve	46	120	103	41	310
	14.8%	38.7%	33.2%	13.2%	100%
Teachers grade pupils homework and other assignments	36	118	108	47	309
	11.7%	38.2%	35%	15.2%	100%
It is clear what I have to learn in order to get a certain grade	9	34	99	167	309
	2.9%	11%	32%	54%	100%
Teachers' comments and explanations regarding my work help me to improve my learning	20	72	118	100	310
	6.5%	23.2%	38.1%	32.3%	100%
Instructors in practice give me feedback on my performance	34	82	125	68	309
	11%	26.5%	40.5%	22%	100%
Examinations check how we can use our knowledge in concrete situations	22	67	133	89	311
	7.1%	21.5%	42.8%	28.6%	100%
Teachers grade the way we have reached the solution of the problem or assignment	26	98	118	67	309
	8.4%	31.7%	38.2%	21.7%	100%
Teachers encourage pupils to assess their own work	36	77	133	63	309
	11.7%	24.9%	43%	20.4%	100%
Teachers encourage pupils to assess each others work	63	117	98	30	308
	20.5%	38%	31.8%	9.7%	100%
Teachers grade us only on things that can be memorized	83	113	69	41	306
	27.1%	36.9%	22.5%	13.4%	100%
Teachers test us only on matters we have covered in class	22	44	75	169	310
	7.1%	14.2%	24.2%	54.5%	100%
Instructors in practice assess the skills we gain that are needed for our professional work in the future that we study for	37	73	120	78	308
	12%	23.7%	39%	25.3%	100%
Test examinations check whether we have remembered all facts thought in class	25	54	120	110	309
	8.1%	17.5%	38.8%	35.6%	100%
Assessing group work means assessing the work of the entire group	25	49	86	145	305
	8.2%	16.1%	28.2%	47.5%	100%
Teachers assess how we communicate within the group	26	67	107	106	306
	8.5%	21.9%	35%	34.6%	100%
Teachers assess the approach I have towards assigned problems	29	60	142	75	306
	9.5%	19.6%	46.4%	24.5%	100%
Teachers give us tests for matters we haven't covered in class	138	89	48	32	307
	45%	29%	15.6%	10.4%	100%
Teachers encourage students to assess me and the approach I take toward solving assigned problems	90	117	78	25	310
	29%	37.7%	25.2%	8.1%	100%
Teachers encourage students to assess their capabilities and skills	102	100	71	37	310
	32.9%	32.3%	22.9%	11.9%	100%

## 9. How do you feel about the teaching and the practical work?

The following statements relate to some teaching activities regarding realization of practice. Please assess how much of each statements is true	Never	Rarely	Often	Always	Total
Teachers are very clear on what we have to take notes of during the class	18	43	118	132	311
	5.8%	13.8%	37.9%	42.4%	100%
Teachers give clear instructions	12	64	139	96	311
	3.9%	20.6%	44.7%	30.9%	100%
Teachers dictate	10	76	152	70	308
	3.2%	24.7%	49.4%	22.7%	100%
Teachers always have the right answer	20	68	152	71	311
	6.4%	21.9%	48.9%	22.8%	100%
Teachers offer different ways for solving problems	18	72	136	83	309
	5.8%	23.3%	44%	26.9%	100%
Teachers accept our variety of answers and solutions	28	84	136	63	311
	9%	27%	43.7	20.3%	100%
Teachers encourage individuality in the work (through solving problems, projects, papers ...)	35	82	141	52	310
	11.3%	26.5%	45.5%	16.8%	100%
Teachers are very precise in what we have to learn	19	64	119	108	310
	6.1%	20.6%	38.4%	34.8%	100%
Teachers give suggestions for new material related to that covered in class, and encourage the use of different resources: books, internet, friends, parents, magazines	25	69	137	77	308
	8.1%	22.4%	44.5%	25%	100%
Teachers encourage work in pairs and groups	21	84	137	68	310
	6.8%	27.1%	44.2%	21.9%	100%
Teachers encourage taking notes during class	32	104	107	67	310
	10.3%	33.5%	34.5%	21.6%	100%
Teachers accept different ways of solving problems	30	89	132	56	307
	9.8%	29%	43%	18.2%	100%
Desks are placed in theatre format	112	92	64	43	311
	36%	29.6%	20.6%	13.8%	100%
Teachers stand in the front and talk the entire time, and we have to listen	18	85	119	84	306
	5.9%	27.8%	38.9%	27.5%	100%
Teachers support all pupils	36	103	105	65	309
	11.7%	33.3%	34%	21%	100%
Teachers work mostly with good pupils	30	71	129	78	308
	9.7%	23.1%	41.9%	25.3%	100%
Teachers are using additional class equipment: LCD, video, projector, computer.....	73	98	97	40	308
	23.7%	31.8%	31.5%	13%	100%
Teachers leave enough time for asking questions	30	84	149	47	310
	9.7%	27.1%	48.1%	15.2%	100%
Teachers relate material of their courses with material of other subjects	47	118	109	32	306
	15.4%	38.6%	35.6%	10.5%	100%
Teachers praise pupils that present their own ideas	29	55	141	83	308
	9.4%	17.9%	45.8%	26.9%	100%
Teachers encourage pupils to present their work in front of others	20	85	133	68	306
	6.5%	27.8%	43.5%	22.2%	100%
Teachers don't set time limits for solving assignments	32	117	117	39	305
	10.5%	38.4%	38.4%	12.8%	100%
Teachers use examples from everyday life	17	58	132	101	308
	5.5%	18.8%	42.9%	32.8%	100%
Teachers suggest self assessment of work	25	99	128	56	308
	8.1%	32.1	41.6	18.2	100%

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	Never	Rarely	Often	Always	Total
Teachers let us ask specific questions after class / praxis as well	49 15.9%	86 27.9%	121 39.3%	52 16.9%	308 100%
Teachers always help if asked	23 7.5%	51 16.6%	113 36.7%	121 39.3%	308 100%
Teachers let us decide how we are going to find a solution to the assignment / problem	16 5.2%	75 24.3%	159 51.5%	59 19.1%	309 100% <sup>2</sup>
Teachers ask us to present the way we have come to the specific solution	22 7.1%	77 24.9%	135 43.7%	75 24.3%	309 100%
Grading is done in a way that shows pupils what are they good at and what needs improvements	28 9.1%	61 19.7	141 45.6	79 25.6	309 100%
Teachers encourage new ideas or working in new ways	27 8.8%	88 28.7%	120 39.1%	72 23.5%	307 100%
Teachers encourage individual decision making	31 10.1%	103 33.4%	128 41.6%	46 14.9%	308 100%
Teachers let us choose who to work with in a group	39 12.7%	84 27.5%	93 30.4%	90 29.4%	306 100%
Teachers give the same assignments to all students	40 12.9%	79 25.6%	110 35.6%	80 25.9%	309 100%
Teachers work more with pupils that are not showing good results	79 25.6%	128 41.4	76 24.6	26 8.4	309 100%
Teachers adjust the assignments according to pupils' skills, for each student separately	93 30.2%	104 33.8%	70 22.7%	41 13.3%	308 100%

10. How do you envisage your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all	Total
Work with clear rules and where I don't have to make decisions	55 17.8%	111 35.9%	95 30.7%	48 15.5%	309 100%
Secure work with no risk	126 40.9%	100 32.5%	47 15.3	35 11.4	308 100%
Work with no changes	56 18.3%	123 40.2%	97 31.7%	30 9.8%	306 100%
Work that I will start myself and I will be independent	105 34%	99 32%	65 21%	40 12.9%	309 100%
Work where I will learn something new all the time	110 35.4%	122 39.2%	46 14.8%	33 10.6%	311 100%
Work with many new opportunities	136 44%	115 37.2%	32 10.4%	26 8.4%	309 100%
Work that is not too far from my house	67 21.6%	69 22.3%	105 33.9%	69 22.3%	310 100%
Work where I will be making decisions	79 25.5%	103 33.2%	93 30%	35 11.3%	310 100%
Work where I will be earning a lot of money	153 49.4%	102 32.9%	29 9.4%	26 8.4%	310 100%



## 11. Experience with entrepreneurship?

During your education have you had a chance to	Never	Rarely	Often	Very often	Total
.....talk to entrepreneurs	117	120	47	27	311
	37.6%	38.6%	15.1%	8.7%	100%
..... to visit successful entrepreneurs	105	118	54	32	309
	34%	38.2%	17.5%	10.4%	100%
..... to find out how one enterprise functions	46	110	108	43	307
	15%	35.8	35.2	14%	100%
..... to read magazines related to your field of work	45	99	102	61	307
	14.7%	32.2%	33.2%	19.9%	100%
..... to explore employment opportunities in the specific field of work	47	87	112	62	308
	15.3%	28.2%	36.4%	20.1%	100%
.....to learn to whom to turn when you have some new idea for work (business)	43	89	121	54	307
	14%	29%	39.4%	17.6%	100%
..... to work on developing ideas	56	101	109	42	308
	18.2%	32.8%	35.4%	13.6%	100%
.....to know what is to be done in order to develop a successful enterprise	32	71	117	90	310
	10.3%	22.9%	37.7%	29%	100%

## ANNEX VIII RESULTS OF THE RESEARCH AMONG TEACHERS IN VET SCHOOLS

### 1. How do you see yourself?

Please choose how much you agree or disagree with the statements	Totally disagree	Disagree	Agree	Totally agree	Total
I like to do the usual common thing in a new totally different way	3	14	64	36	117
	2.6%	12%	54.7%	30.8%	100%
I prefer the activities where precise rules for performance are strictly defined					
I usually solve all problems in the same usual way	4	21	40	51	116
I would like to think of new ideas	3.4%	18.1%	34.5%	44%	100%
For every problem it is good to look for several possible solutions, not just a single one	18	51	39	9	117
I like activities with no strict rules, but I would have to think of new ideas myself	15.4%	43.6%	33.3%	7.7%	100%
I believe that for one problem there is only one single solution	1	1	48	66	116
	0.9%	0.9%	41.4%	56.9%	100%
I like to do the usual thing in a totally new way	1	25	90	116	116
I prefer activities where precise rules for performance are strictly defined		0.9%	21.6%	77.6%	100%
I usually solve all problems in a same usual way	12	38	40	24	116
I would like to think of new ideas	10.3%	32.8%	34.5%	22.4%	100%
For every problem it is good to look for several possible solutions, not just a single one	44	43	18	10	115
I like activities with no strict rules, but I would have to think of new ideas myself	38.3%	37.4%	15.7%	8.7%	100%
I believe that for one problem there is only one single solution	11	28	49	28	116
	9.5%	24.1%	42.2%	24.1	100%

### 2. Learning

Please choose how much you agree or disagree with the statements regarding learning and concepts of learning.

2.2 What do your pupils think about learning?					
Pupils think that:	Totally disagree	Disagree	Agree	Totally agree	Total
By learning they come to new ideas	1	7	52	56	116
	0.9%	6%	44.8%	48.3%	100%
By learning they only increase the information they already know	8	35	47	25	115
	7%	30.4%	40.9%	21.7%	100%
They study only what is necessary for school	11	30	46	30	117
	9.4%	25.6%	39.3%	26.5%	100%
They study other things as well, outside of school materials	17	34	44	20	115
	14.8%	29.6%	38.3%	17.4%	100%
Time spent studying they consider it waste of time	69	30	11	7	117
	59%	25.6%	9.4%	6%	100%
Sometimes they afterwards realize why they have studied a certain thing	3	17	61	35	116
	2.6%	14.7%	52.6%	30.2%	100%
There is no need to learn, learning stops the moment one finishes school	67	19	17	12	115
	58.3%	16.5%	14.8%	10.4%	100%
What they learn they can use in everyday life	1	11	38	65	115
	0.9%	9.6%	33%	56.5%	100%
At school they have learned their capabilities and what are they good at		6	55	52	113
		5.3%	48.7%	46%	100%

	Totally disagree	Disagree	Agree	Totally agree	Total
They already have a clear idea about what will they be doing in the future	7 6.1%	30 26.3%	51 44.7%	26 22.8%	114 100%
At school they had access to information regarding their future education or their future profession	2 1.8%	20 17.5%	55 48.2%	37 32.5%	114 100%
The teachers can teach them what they can be working on in the future	7 6.1%	23 20.2%	60 52.6%	24 21.1%	114 100%
The teachers can teach them what they have to accomplish in order to use their ideas in the future	2 1.8%	14 12.3%	68 59.6%	30 26.3%	114 100%

### 3. What is that motivates them to learn?

3.1 What motivates pupils? Why they learn.....	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me	Total
To become professional in the area that they are studying	5 4.6%	15 13.8%	34 31.2%	55 50.5%	109 100%
Because work requires that from them	2 1.8%	25 22.9%	35 32.1%	47 43.1%	109 100%
They enjoy studying	14 13.5%	33 31.7%	37 35.6%	20 19.2%	104 100%
Learning is important to them personally	10 9.3%	37 34.3%	40 37%	21 19.4%	108 100%
Because they have to	14 13.2%	34 32.1%	33 31.1%	25 23.6%	106 100%
They want to continue at a university of their choice	11 10.3%	20 18.7%	37 34.6%	39 36.4%	107 100%
They want to get a very good job	10 9.3%	22 20.6%	39 36.4%	36 33.6%	107 100%

### 3.2 Which are the reasons for pupils learning? Circle the sign that you agree with more (answer 1 or answer 2)

When studying they prefer:		When studying they prefer:	
1) assignments or questions for which they are certain they can answer right away	85 83.3%	1) assignments or questions where they have to try harder	19 17.9%
1) assignments or questions for which they are certain they can answer right away	17 16.7%	1) assignments or questions where they have to try harder	87 82.1%

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**4. How do you keep yourself motivated for further studying or practice preparation?**

How often have you used the following methods?	Never	Rarely	Often	Always	Total
I try to get pupils to concentrate on the interesting segments of the content		3	50	64	117
		2.6%	42.7%	54.7%	100%
I tell them that in the things they are studying are interesting and that they will enjoy their future professional work		6	58	53	117
		5.1%	49.6%	45.3%	100%
I try to relate the material to what is interesting to them and things that they like	1	1	45	69	116
	0.9%	0.9%	38.8%	59.5%	100%
I try to relate the material with what I learn from practice		14	43	58	115
		12.2%	37.4%	50.4%	100%
I remind them that that is the way to build up their skills so that they can have a good job	1	13	57	45	116
	0.9%	11.2%	49.1%	38.8%	100%
I remind them that they will be good workers in their jobs	4	13	59	40	116
	3.4%	11.2%	50.9%	34.5%	100%
I remind them how great they will feel when they learn the material	2	4	56	52	114
	1.8%	3.5%	49.1%	45.6%	100%
I tell them that when they will finish with leaning they will do something which they like most	5	24	53	32	114
	4.4%	21.1%	46.5%	28.1%	100%
I convince them that they will feel great when they finish learning the material	4	16	60	32	112
	3.6%	14.3%	53.6%	28.6%	100%
I convince them "you can do it"		6	57	51	114
		5.3%	50%	44.7%	100%
I remind them that it is important to study because it will be useful in their future life	1	2	48	65	116
	0.9%	1.7%	41.4%	56%	100%
I remind them that they don't want to disappoint their parents	4	25	53	31	113
	3.5%	22.1%	46.9%	27.4%	100%
I remind them that others are studying as well	3	28	57	24	112
	2.7%	25%	50.9%	21.4%	100%
I remind them that it is important to learn as much as possible		9	64	40	113
		8%	56.6%	35.4%	100%
I remind myself that it is important for the pupils to learn as much as can	9	19	47	31	106
	8.5%	17.9%	44.3%	29.2%	100%
I remind them that is the only way to continue education at the university or other school of their choice	3	16	46	46	111
	2.7%	14.4%	41.4%	41.4%	100%

**5. How do you are grade**

How often does the following happen to you?	Never	Rarely	Often	Always	Total
They can learn something useful from written examinations	4	31	64	13	112
	3.6%	27.1%	57.1%	11.6%	100%
They can learn something useful from oral examinations		4	70	39	113
		3.5%	61.9%	34.5%	100%
I am always explaining to pupils why certain grades have been given to someone	1	3	35	75	114
	0.9%	2.6%	30.7%	65.8%	100%
I praise the pupils for their improvements		1	30	82	113
		0.9%	26.5%	72.6%	100%
To get a good grade the student must show that he/she really understands the material		1	43	70	114
		0.9%	37.7%	61.4%	100%
I give grades justly		2	42	69	113
		1.8%	37.2%	61.1%	100%
While grading all pupils get grades they deserve		3	48	63	114
		2.6%	42.1%	55.3%	100%
I grade pupils homework and other assignments	1	3	41	68	113
	0.9%	2.7%	36.3%	60.2%	100%

	Never	Rarely	Often	Always	Total
It is clear to the pupils what they have to learn in order to get a certain grade		1	30	82	113
		0.9%	26.5%	72.6%	100%
Teachers' comments and explanations regarding their work help them to improve their learning		7	61	44	112
		6.3%	54.5%	39.3%	100%
I always give my feedback on pupils' performance		2	40	71	113
		1.8%	35.4%	62.8%	100%
Examinations check how they can use their knowledge in concrete situations		2	8	69	34
		1.8%	7.1%	61.1%	30.1%
I grade the way they have reached the solution of the problem or assignment		4	58	51	113
		3.5%	51.3%	45.1%	100%
I encourage pupils to assess their own work		7	50	55	112
		6.3%	44.6%	49.1%	100%
I encourage pupils to assess each others' work		5	23	52	33
		4.4%	20.4%	46%	29.2%
I grade only on things that can be memorized		61	36	12	3
		54.5%	32.1%	10.7%	2.7%
I test them only on matters we have covered in class		3	13	45	49
		2.7%	11.8%	40.9%	44.5%
Instructors in practice assess the skills they gain that are needed for their professional work in the future that they study for		2	7	60	34
		1.9%	6.8%	58.3%	33%
Test examinations check whether they have remembered all facts from the class		2	18	70	23
		1.8%	15.9%	61.9%	20.4%
Assessing group work means assessing the work of the entire group		4	15	52	41
		3.6%	13.4%	46.4%	36.6%
I assess how we communicate within the group		5	50	54	109
		4.6%	45.9%	49.5%	100%
I assess the approach they have towards assigned problems		1	8	56	42
		0.9%	7.5%	52.3%	39.3%
I give them tests for matters we haven't covered in class		66	23	18	8
		57.4%	20%	15.7%	7%
I encourage pupils to assess themselves and the approach they take toward solving assigned problems		6	27	55	23
		5.4%	24.3%	49.5%	20.7%
I encourage students to assess our capabilities and skills for teaching		12	25	52	23
		10.7%	22.3%	46.4%	20.5%

## 6. What do you think about teaching and practice?

Please evaluate how each of these statements is related to you	Never	Rarely	Often	Always	Total
I am very clear in what the pupils take notes during the class		6	32	77	115
		5.2%	27.8%	67%	100%
I give clear instructions		2	22	91	115
		1.7%	19.1%	79.1%	100%
I dictate		26	58	21	9
		22.8%	50.9%	18.4%	7.9%
I always have the right answer		1	1	49	62
		0.9%	0.9%	43.4%	54.9%
I offer different ways for solving problems		1	5	64	44
		0.9%	4.4%	56.1%	38.6%
I accept their variety of answers and solutions		6	56	51	113
		5.3%	49.6%	45.1%	100%
I encourage individuality in work (through solving problems, projects, papers ...)		1	48	65	114
		0.9%	42.1%	57%	100%

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	Never	Rarely	Often	Always	Total
I am very precise in what they have to learn		2	36	76	114
		1.8%	31.6%	66.7%	100%
I give suggestions for new material related to the one covered in class, and encourage the use of different resources: book, internet, friends, parents, magazines	2	8	49	54	113
	1.8%	7.1%	43.4%	47.8%	100%
I encourage work in pairs and groups		11	59	44	114
		9.6%	51.8%	38.6%	100%
I encourage taking notes during class	1	6	47	58	112
	0.9%	5.4%	42%	51.8%	100%
I accept different ways of solving problems	1	3	49	60	113
	0.9%	2.7%	43.4%	53.1%	100%
Desks are placed in theatre format	23	52	26	11	112
	20.5%	46.4%	23.2%	9.8%	100%
I stand at the front and talk the entire time, and they have to listen	29	58	20	6	113
	25.7%	51.3%	17.7%	5.3%	100%
I support all pupils	3	5	35	72	115
	2.6%	4.3%	30.4%	62.6%	100%
I work mostly with good pupils	22	58	30	2	112
	19.6%	51.8%	26.8%	1.8%	100%
I am using additional class equipment: LCD, video, projector, computer.....	9	35	54	16	114
	7.9%	30.7%	47.4%	14%	100%
I leave enough time for asking questions		1	69	42	112
		0.9%	61.6%	37.5%	100%
I relate course material to material of other subjects		2	54	57	113
		1.8%	47.8%	50.4%	100%
I praise pupils that present their own ideas			35	78	113
			31%	69%	100%
I encourage pupils to present their work in front of others		1	38	72	111
		0.9%	34.2%	64.9%	100%
I don't set time limits for solving assignments		25	57	31	113
		22.1%	50.4%	27.4%	100%
I use examples from everyday life	1	4	45	64	114
	0.9%	3.5%	39.5%	56.1%	100%
I suggest self assessment of work		5	71	35	111
		4.5%	65%	31.5%	100%
I let them ask specific questions after class / practice as well		12	59	43	114
		10.5%	51.8%	37.7%	100%
I always help if asked		1	34	78	113
		0.9%	31%	61.9%	100%
I let them decide how they are going to find a solution to the assignment / problem		5	74	36	115
		4.3%	64.3%	31.3%	100%
I ask them to present the way we have come to the specific solution		5	75	35	115
		4.3%	65.2%	30.4%	100%
Grading is done in a way that shows pupils what are they good at and what needs improvements		6	55	52	113
		5.3%	48.7%	46.0%	100%
I encourage new ideas or working in new ways		7	49	57	113
		6.2%	43.4%	50.4%	100%
I encourage individual decision making		9	49	55	113
		8.0%	43.4%	48.7%	100%
I let them choose who to work with in a group	1	30	58	24	113
	0.9%	26.5%	51.3%	21.2%	100%
I give same assignments to all students	5	45	38	25	113
	4.4%	39.8%	33.6%	22.1%	100%

	Never	Rarely	Often	Always	Total
I work more with pupils that are not showing good results	13	44	46	12	115
	11.3%	38.3%	40%	10.4%	100%
I adjust the assignments according to pupils skills, for each student separately	7	27	57	23	114
	6.1%	23.7%	50%	20.2%	100%

## 7. How do you envision your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all	Total
Work with clear rules and where I don't have to make decisions	10	44	39	22	115
	8.7%	38.3%	33.9%	19.1%	100%
Secure work with no risk	24	47	30	14	115
	20.9%	40.9%	26.1%	12.2%	100%
Work with no changes		28	62	24	114
		24.6%	54.4%	21.1%	100%
Work that I will start myself and I will be independent	24	59	29	11	113
	20.9%	44.3%	25.2%	9.6%	100%
Work where I will learn something new all the time	50	54	7	5	116
	43.1%	46.6%	6%	4.3%	100%
Work with many new opportunities	53	43	13	5	114
	46.1%	38.3%	11.3%	4.3%	100%
Work that is not too far from my house	12	29	44	30	115
	10.4%	25.2%	38.3%	26.1%	100%
Work where I will be making decisions	21	46	41	8	116
	18.1%	39.7%	35.3%	6.9%	100%
Work where I will be earning a lot of money	35	41	29	10	115
	30.4%	35.7%	25.2%	8.7%	100%
Work with clear rules and where I don't have to make decisions	28	31	37	16	112
	25%	27.7%	33%	14.3%	100%
Secure work with no risk	24	37	43	11	115
	20.9%	32.2%	37.4%	9.6%	100%

## 8. How you cooperate with the colleges?

Please evaluate how each of these statements is related to you	Totally disagree	Disagree	Agree	Fully agree	Total
I often suggest activities and motivate the others to participate	1	12	69	34	116
	0.9%	10.3%	59.5%	29.3%	100%
I very often cooperate with other teachers on some assignment or practical activity	1	9	62	44	116
	0.9%	7.8%	53.4%	37.9%	100%
I gladly participate in activities suggested by others		8	45	63	116
		6.9%	38.8%	54.3%	100%
I have friends in my job that I can always ask for help	2	5	33	75	115
	20.9%	32.2%	37.4%	9.6%	100%
In the joint activities I usually let the others take initiatives	1	12	64	39	116
	0.9%	10.3%	59.5%	29.3%	100%
When I work with others we can easily come to an agreement	1	9	62	44	116
	0.9%	7.8%	53.4%	37.9%	100%
I usually know when it is better to work alone and when it is better to work with others		8	45	63	116
		6.9%	38.8%	54.3%	100%
Often we jointly solve the problems coming from practice	2	5	33	75	115
	1.7%	4.3%	28.7%	65.2%	100%

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	Totally disagree	Disagree	Agree	Fully agree	Total
During practice we learn to work in teams	11	55	40	7	113
	9.7%	48.7%	35.4%	6.2%	100%
I participate and work in teams while learning or in practice		6	55	51	112
		5.4%	49.1%	45.5%	100%

## 9. School

Encouraging on activities and innovativity of the teachers in the school	Totally disagree	Disagree	Agree	Fully agree	Total
<b>In our school:</b>					
Teachers have opportunity to solve the problems individually	4	26	54	28	112
	3.6%	23.2%	48.2%	25%	100%
Some of the teachers don't have enough responsibilities for their job	5	17	58	32	112
	4.5%	15.2%	51.8%	28.6%	100%
Teachers are active in creation of Development plan of the school	6	31	45	32	114
	5.3%	27.2%	39.5%	28.1%	100%
Teachers have opportunities to influence the organization and implementation of teaching	2	11	66	34	113
	1.8%	9.7%	58.4%	30.1%	100%
Teachers must not care about behaviour	44	44	13	10	111
	39.6%	39.6%	11.7%	9%	100%
Teacher's work is carefully supervised	5	15	57	35	112
	4.5%	13.4%	50.9%	31.3%	100%
Teachers do not have opportunities to criticize the school openly	24	45	28	14	111
	21.6%	40.5%	25.2%	12.6%	100%
Teachers are encouraged to work with new teaching strategies	1	6	48	57	112
	0.9%	5.4%	42.9%	50.9%	100%
It is expected of the teachers to learn continuously and innovate their teaching	2	4	41	66	113
	1.8%	3.5%	36.3%	58.4%	100%
Changes are very well accepted	3	21	64	24	112
	2.7%	18.8%	57.1%	21.4%	100%
<b>Support from the director and colleges</b>					
Director considers teacher's ideas	4	11	51	47	113
	3.5%	9.7%	45.1%	41.6%	100%
Director encourage teachers to give initiatives and suggestions	3	8	52	50	113
	2.7%	7.1%	46%	44.2%	100%
Director encourages cooperation between teachers	2	14	41	55	112
	1.8%	12.5%	36.6%	49.1%	100%
Director is always available when the teachers need him	4	10	40	57	111
	3.6%	9%	36%	51.4%	100%
Director is trying to ensure professional education for teachers	2	7	39	64	112
	1.8%	6.3%	34.8%	57.1%	100%
Director is trying to ensure teaching conditions for work (teaching, didactical tools)	3	11	41	58	114
	2.7%	9.7%	36.3%	51.3%	100%
Teachers can have influence on director's decisions	8	29	54	20	111
	7.2%	26.1%	48.6%	18%	100%
Teachers are encouraged to cooperate in the projects and activities	3	7	58	43	111
	2.7%	6.3%	52.3%	38.7%	100%
Teachers might ask their colleges for the professional help	1	2	61	47	111
	0.9%	1.8%	55%	42.3%	100%
Teachers are open for comments about their work	4	16	49	41	110
	3.6%	14.5%	44.5%	37.3%	100%



## ANNEX IX KEY TO THE QUESTIONNAIRE FOR PUPILS FROM VET SCHOOLS

### 1. How do you see your self?

Please choose how much you agree or disagree with the statements	Totally disagree	Disagree	Agree	Totally agree
I like to do the usual thing in a new totally different way	1	2	3	4
I prefer activities where precise rules for performance are strictly defined	4	3	2	1
I usually solve all problems in a same usual way	4	3	2	1
I would like to think of new ideas	1	2	3	4
For every problem it is good to look for several possible solutions, not just a single one	1	2	3	4
I like activities with no strict rules, but I would have to think of new ideas myself	1	2	3	4
I believe that for one problem there is only one single solution	4	3	2	1
I like to participate in multiple activities at the same time	1	2	3	4

### 2. Learning

**2.1 Please choose how much you agree or disagree with the statements regarding learning and concepts of learning. First read the words in every line. In every line circle the sign that represents your opinion regarding learning the most. For example: If you think that learning is hard, circle the sign that is closest to the word hard, and if you think that it is easy circle the sign closest to the word easy**

Important	5	4	3	2	1	Not important
Boring	1	2	3	4	5	Interesting
Useful	5	4	3	2	1	Useless
Unpleasant	1	2	3	4	5	Pleasant
Hard	1	2	3	4	5	Easy
Useless for my life at the moment	1	2	3	4	5	Useful for my life at the moment
Important for my future	5	4	3	2	1	Not important for my future

**2.2 For each one of us learning has a different meaning, or everybody wants to learn for a different reason. We would like to find out what learning means to you. Below are several statements regarding learning. Please decide how much you agree or disagree with the given statement by circling the appropriate sign for each statement**

	Totally disagree	Disagree	Agree	Totally agree
By learning I come to new ideas	1	2	3	4
By learning I only increase the information I already know	4	3	2	1
I study only what is necessary for school	4	3	2	1
I study other things as well, outside of school materials	1	2	3	4
I consider time spent studying a waste of time	4	3	2	1
Sometimes I afterwards realize why I have studied a certain thing	4	3	2	1
Learning stops the moment one finishes school	4	3	2	1
What I learn I can use in my everyday life	1	2	3	4
At school I have learned my capabilities, and what am I good at	1	2	3	4
I already have a clear idea about what will I be doing in the future	1	2	3	4
At school I had access to information regarding my future education or my future profession	1	2	3	4
Teachers can teach me what I can be working as in the future	1	2	3	4
Teachers can teach me what I have to accomplish in order to use my ideas in the future	1	2	3	4

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**3. What is that motivates you to learn?**

3.1 Please assess the reasons that apply to you. Circle the sign for each statement	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me
Why I am studying ...				
To become professional in the area that I am studying	1	2	3	4
Because others expect that from me	1	2	3	4
I enjoy studying	1	2	3	4
Learning is important to me personally	1	2	3	4
Because I have to	4	3	2	1
I want to continue at a university of my choice	1	2	3	4
I want to get a very good job	1	2	3	4

3.2 Please assess the reasons that apply to you. Circle the sign that you agree with more (answer 1 or answer 2)			
When studying I prefer:		When studying I prefer:	
1) assignments or questions for which I am certain I can answer right away	1	1) assignments or questions where I have to try harder	1
2) assignments or questions for which I am not certain that I know the answer	2	2) assignments or questions that I can easily solve	2

**4. How do you study?**

Pupils study in many different ways. We would like to know how you study! Thinking of different situations when you are studying, how often to you study in the stated ways. Circle one of the signs in each row	Never	Rarely	Often	Almost always
Before I start studying I think of all of the things that I have to learn	1	2	3	4
I try to understand the new material by relating it to things I already know	1	2	3	4
I try to understand how some information can be used in the everyday life	1	2	3	4
When I study I retell the material in my own words	1	2	3	4
I learn by heart	4	3	2	1
Before I start studying I think whether those things will be useful for me in my life	1	2	3	4
I try to understand the new material by relating it to things I have done in praxis	1	2	3	4
Before I start doing something in practice I think how to use the theory I have learned	1	2	3	4

**5. How do you study during practical teaching or professional practice?**

We would like to know how you learn during lectures or in professional practice	Never	Rare	Often	Always
When I perform my work in practice I am using previously learned knowledge from theory	1	2	3	4
When I learn to do something in practice I need someone to show it to me in practice	4	3	2	1
When I learn to do something in practice, for me it is enough to use written directions	1	2	3	4
When I learn to do something in practice I use my everyday experience	1	2	3	4
I learn practical capabilities by repeating them several times	1	2	3	4
I recheck several times the operations and processes I perform in practice	1	2	3	4
We perform experiments and practical assignments regarding the theory we have studied	1	2	3	4
Teachers use examples from everyday life	1	2	3	4
In class we create something realistic and useful	1	2	3	4

## 6. How do you keep yourself motivated for further studying or practice preparation?

When you are studying or preparing for work does it happen to be hard or boring? How do you motivate yourself, what methods are you using? Think of situations like that. How often have you used the following methods?	Never	Rare	Often	Always
I try to concentrate on the interesting segments of the content	1	2	3	4
I tell myself that I am interested in the things I am studying and that I will enjoy in my future professional work	1	2	3	4
I try to relate the material with what is interesting to me and things that I like	1	2	3	4
I try to relate the material with what I learn from practice	1	2	3	4
I remind myself that that is the way to build up my skills so that I can have a good job	4	3	2	1
I try to isolate myself (no TV, no telephone ...)	1	2	3	4
I try to study at times when I can concentrate the most	1	2	3	4
I convince myself that when I am done studying I will be doing things I really want to do	1	2	3	4
I think of how great I will feel when I learn the material	1	2	3	4
I say to myself "you can do it"	1	2	3	4
I repeat to myself that It is important to study because it will be useful in my future life	1	2	3	4
I remind myself that I don't want to disappoint my parents	4	3	2	1
I remind myself that I will be very good at my job	1	2	3	4
I remind myself that others are studying as well	4	3	2	1
I tell to myself that it is important to learn as much as possible	4	3	2	1
I remind myself that is the only way to continue education at the university or other school of my choice	1	2	3	4

## 7. How much and how do you cooperate with your friends while studying or working in practices?

The following statements relate to teaching activities. Please assess how much each statement applies to you:	Totally disagree	Disagree	Agree	Fully agree
I often suggest activities and motivate the others to participate	1	2	3	4
I very often cooperate with other pupils on some assignment or practical activity	1	2	3	4
I gladly participate in activities suggested by others	1	2	3	4
I have friends in my class that I can always ask for help	1	2	3	4
In joint activities I usually let others take initiatives	4	3	2	1
When I work with others we can easily come to an agreement	1	2	3	4
I usually know when is better to work alone and when is better to work with others	1	2	3	4
Often we jointly solve the problems coming out of the practice	1	2	3	4
During practice we learn to work in teams and assigne	1	2	3	4
I participate and work in teams while learning or in practice	1	2	3	4

## 8. How do you feel about grading?

How often does the following happen to you?	Never	Rarely	Often	Always
I can learn something useful from written examination	4	3	2	1
I can learn something useful from oral examination	4	3	2	1
Teachers explain to us why certain grade has been given to someone	1	2	3	4
Teacher apprise student for their improvements	1	2	3	4
To get a good grade the pupil must show that he/she really understands the material	1	2	3	4
Teachers give grades rightfully	1	2	3	4

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	Never	Rarely	Often	Always
While grading all pupils get grades they deserve	1	2	3	4
Teachers grade pupils homework and other assignments	1	2	3	4
It is clear to what I have to learn in order to get a certain grade	1	2	3	4
Teachers comments and explanations regarding my work help me to improve my learning	1	2	3	4
Instructors in practice give me feedback on my performance	1	2	3	4
Examinations check how we can use our knowledge in concrete situations	1	2	3	4
Teachers grade the way we have reached the solution of the problem or assignment	1	2	3	4
Teachers encourage pupils to assess their own work	1	2	3	4
Teachers encourage pupils to assess each others work	4	3	2	1
Teachers grade us only on things that can be memorized	1	2	3	4
Teachers test us only on matters we have covered in class	1	2	3	4
Instructors in practice assess the skills we gain that are needed for our professional work in the future that we study for	1	2	3	4
Test examinations check whether we have remembered all facts thought in class	4	3	2	1
Assessing group work means assessing the work of the entire group	4	3	2	1
Teachers assess how we communicate within the group	1	2	3	4
Teachers assess the approach I have to problems	1	2	3	4
Teachers give us tests for matters we haven't covered in class	4	3	2	1
Teachers encourage us to assess ourselves and the approach we take to solving problems	1	2	3	4
Teachers encourage students to assess their capabilities and skills	1	2	3	4

9. How do you feel about the teaching and the practical work?

The following statements relate to some teaching activities regarding realization of practice. Please asses how much of each statements is true	Never	Rarely	Often	Always
Teachers are very clear on what we have to take notes of during the class	4	3	2	1
Teachers give clear instructions	1	2	3	4
Teachers dictate	4	3	2	1
Teachers always have the right answer	4	3	2	1
Teachers offer different ways for solving problems	1	2	3	4
Teachers accept our variety of answers and solutions	1	2	3	4
Teachers encourage individuality in the work (through solving problems, projects, papers ...)	1	2	3	4
Teachers are very precise in what we have to learn	1	2	3	4
Teachers give suggestions for new material related to the one covered in class, and encourage the use of different resources: book, internet, friends, parents, magazines	1	2	3	4
Teachers encourage work in pairs and groups	1	2	3	4
Teachers encourage taking notes during class	4	3	2	1
Teachers accept different ways of solving problems	1	2	3	4
Desks are placed in theatre format	4	3	2	1
Teachers stand at the front and talk the entire time, and we have to listen	4	3	2	1
Teachers support all pupils	1	2	3	4
Teachers work mostly with good pupils	4	3	2	1
Teachers are using additional class equipment: LCD, video, projector, computer.....	1	2	3	4

	Never	Rarely	Often	Always
Teachers leave enough time for questions	1	2	3	4
Teachers relate course material to material of other subjects	1	2	3	4
Teachers praise pupils that present their own ideas	1	2	3	4
Teachers encourage pupils to present their work in front of others	1	2	3	4
Teachers don't set time limits for solving assignments	4	3	2	1
Teachers use examples from everyday life	1	2	3	4
Teachers suggest self assessment of work	1	2	3	4
Teachers let us ask specific questions after class / praxis as well	1	2	3	4
Teachers always help if asked	1	2	3	4
Teachers let us decide how we are going to find a solution to the assignment / problem	1	2	3	4
Teachers ask us to present the way we have come to the specific solution	1	2	3	4
Grading is done in a way that shows pupils what are they good at and what needs improvements	1	2	3	4
Teachers encourage new ideas or working in new ways	1	2	3	4
Teachers encourage individual decision making	1	2	3	4
Teachers let us choose who to work with in a group	4	3	2	1
Teachers give same assignments for all students	4	3	2	1
Teachers work more with pupils that are not showing good results	4	3	2	1
Teachers adjust the assignments according to pupils' skills, for each student separately	1	2	3	4

### 10. How do you envision your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all
Work with clear rules and where I don't have to make decisions	4	3	2	1
Secure work with no risk	4	3	2	1
Work with no changes	4	3	2	1
Work that I will start my self and I will be independent	1	2	3	4
Work where I will learn something new all the time	1	2	3	4
Work with many new opportunities	1	2	3	4
Work that is not too far from my house	4	3	2	1
Work where I will be making decisions	1	2	3	4
Work where I will be earning a lot of money	4	3	2	1

### 11. Experience with entrepreneurship?

During your education have you had a chance to	Never	Rarely	Often	Very often
.....talk to entrepreneurs	1	2	3	4
..... to visit successful entrepreneurs	1	2	3	4
..... to find out how one enterprise is functioning	1	2	3	4
..... to read magazines related to your field of work	1	2	3	4
..... to explore employment opportunities in the specific field of work	1	2	3	4
.....to learn to whom to turn when you have some new idea for work (business)	1	2	3	4
..... To work on developing ideas	1	2	3	4
.....to know what is to be done in order to develop a successful enterprise	1	2	3	4

## ANNEX X KEY TO THE QUESTIONNAIRE FOR TEACHERS FROM VET SCHOOLS

### 1. How do you see yourself?

Please choose how much you agree or disagree with the statements	Totally disagree	Disagree	Agree	Totally agree
I like to do the usual thing in a new totally different way	1	2	3	4
I prefer activities where precise rules for performance are strictly defined	4	3	2	1
I usually solve all problems in a same usual way	4	3	2	1
I would like to think of new ideas	1	2	3	4
For every problem it is good to seek for several possible solutions, not just a single one	1	2	3	4
I like activities with no strict rules, but I would have to think of new ideas myself	1	2	3	4
I believe that for one problem there is only one single solution	4	3	2	1
I like to participate in multiple activities at the same time	1	2	3	4

### 2. Learning

Please choose how much you agree or disagree with the statements regarding learning and concepts of learning.

2.1 How do your pupils feel about learning? If you think that learning for pupils is hard, circle the sign that is closest to the word hard, and if you think that it is easy circle the sign closest to the word easy							
Important	5	4	3	2	1	Not important	
Boring	1	2	3	4	5	Interesting	
Useful	5	4	3	2	1	Useless	
Unpleasant	1	2	3	4	5	Pleasant	
Hard	1	2	3	4	5	Easy	
Useless for my life at the moment	1	2	3	4	5	Useful for my life at the moment	
Important for my future	5	4	3	2	1	Not important for my future	

2.2 What do your pupils think about learning?				
Pupils think that:	Totally disagree	Disagree	Agree	Totally agree
By learning they come to new ideas	1	2	3	4
By learning they only increase the information they already know	4	3	2	1
They study only what is necessary for school	4	3	2	1
They study other things as well, outside of school materials	1	2	3	4
Time spent studying they consider it waste of time	4	3	2	1
Sometimes they afterwards realize why they have studied a certain thing	4	3	2	1
There is no need to learn, learning stops the moment one finishes school	4	3	2	1
What they learn they can use in my everyday life	1	2	3	4
At school they have learned their capabilities, and what are they good at	1	2	3	4
They already have a clear idea about what will they be doing in the future	1	2	3	4
At school they had access to information regarding their future education or their future profession	1	2	3	4
Teachers can teach them what they can work as in the future	1	2	3	4
Teachers can teach them what they have to accomplish in order to use their ideas in the future	1	2	3	4

### 3. What is that motivates them to learn?

#### 3.1. What motivate the pupils?

Why they learn.....

	Totally doesn't apply to me	Doesn't apply to me	Applies to me	Fully applies to me
To become professional in the area that they are studying	1	2	3	4
Because work expects that from them	1	2	3	4
They enjoy studying	1	2	3	4
Learning is important to them personally	1	2	3	4
Because they have to	4	3	2	1
They want to continue at a university of their choice	4	3	2	1
They want to get a very good job	1	2	3	4

3.2 Which are the reasons for the learning of the pupils? Circle the sign that you agree with more (answer 1 or answer 2).

When studying they prefer:		When studying they prefer:	
1) assignments or questions for which they are certain they can answer right away	1	1) assignments or questions where they have to try harder	1
2) assignments or questions for which they are not certain that they know the answer	2	2) assignments or questions that they can easily solve	2

### 4. How do you keep yourself motivated for further studying or practice preparation?

How often have you used the following methods?	Never	Rarely	Often	Always
I try to get pupils to concentrate on the interesting segments of the content	1	2	3	4
I tell them that the things they are studying are interesting and that they will enjoy their future professional work	1	2	3	4
I try to relate the material with what is interesting to them and things that they like	1	2	3	4
I try to relate the material with what I learn from practice	1	2	3	4
I remind them that that is the way to build up their skills so that they can have a good job	1	2	3	4
I remind them that they will be good workers in their jobs	1	2	3	4
I remind them how great they will feel when they learn the material	1	2	3	4
I tell them that when they finish learning they will do something which they like most	1	2	3	4
I convince them that they will feel great when they will finish with learning of the material	1	2	3	4
I convince them "you can do it"	1	2	3	4
I repeat that it is important to study because it will be useful in their future life	1	2	3	4
I remind them that they don't want to disappoint their parents	1	2	3	4
I remind them that others are studying as well	1	2	3	4
I remind them that it is important to learn as much as possible	1	2	3	4
I remind myself that it is important for the pupils to learn as much as can	1	2	3	4
I remind them that is the only way to continue education at the university or other school of their choice	1	2	3	4

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**5. How you are grading**

How often does the following happen to you?	Never	Rarely	Often	Always
They can learn something useful from written examinations	4	3	2	1
They can learn something useful from oral examinations	4	3	2	1
I am always explaining to the pupils why certain grades have been given to someone	1	2	3	4
I praise the pupils for their improvements	1	2	3	4
To get a good grade the student must show that he/she really understands the material	1	2	3	4
I give grades justly	1	2	3	4
While grading all pupils get grades that they deserve	1	2	3	4
I grade pupils homework and other assignments	1	2	3	4
It is clear to the pupils what they have to learn in order to get a certain grade	1	2	3	4
Teachers comments and explanations regarding their work help them to improve their learning	1	2	3	4
I always give feedback on pupils' performance	1	2	3	4
Examinations check how they can use their knowledge in concrete situations	1	2	3	4
I grade the way they have reached the solution of the problem or assignment	1	2	3	4
I encourage pupils to assess their own work	1	2	3	4
I encourage pupils to assess each others' work	1	2	3	4
I grade only on things that can be memorized	1	2	3	4
I test them only on matters we have covered in class	1	2	3	4
Instructors in practice assess the skills they gain that are needed for their professional work in the future that they study for	1	2	3	4
Test examinations check whether they have remembered all facts from the class	4	3	2	1
Assessing group work means assessing the work of the entire group	4	3	2	1
I assess how we communicate within the group	1	2	3	4
I assess the approach they have to assigned problems	1	2	3	4
I give them test for matters we haven't covered in class	4	3	2	1
I encourage pupils to assess their self and the approach they take toward solving assigned problems	1	2	3	4
I encourage students to assess our capabilities and skills for the teaching	1	2	3	4

**6. What do you think about teaching and practice?**

Please evaluate how each of these statements is related to you	Never	Rarely	Often	Always
I am very clear in what the pupils take notes during the class	4	3	2	1
I give clear instructions	1	2	3	4
I dictate	4	3	2	1
I always have the right answer	4	3	2	1
I offer different ways for solving problems	1	2	3	4
I accept their variety of answers and solutions	1	2	3	4
I encourage individuality in the work (through solving problems, projects, papers ...)	1	2	3	4
I am very precise in what they have to learn	1	2	3	4
I give suggestions for new material related to the one covered in class, and encourage the use of different resources: books, internet, friends, parents, magazines	1	2	3	4
I encourage work in pairs and groups	1	2	3	4
I encourage taking notes during class	4	3	2	1



	Never	Rarely	Often	Always
I accept different ways of solving problems	1	2	3	4
Desks are placed in theatre format	4	3	2	1
I stand at the front and talk the entire time, and they have to listen	4	3	2	1
I support all pupils	1	2	3	4
I work mostly with good pupils	4	3	2	1
I am using additional class equipment: LCD, video, projector, computer.....	1	2	3	4
I leave enough time for asking questions	1	2	3	4
I relate material of their courses with material of other subjects	1	2	3	4
I praise pupils that present their own ideas	1	2	3	4
I encourage pupils to present their work in front of others	1	2	3	4
I don't set time limits for solving assignments	4	3	2	1
I use examples from everyday life	1	2	3	4
I suggest self assessment of the work	1	2	3	4
I let them ask specific questions after class / practice as well	1	2	3	4
I always help if asked	1	2	3	4
I let them decide how they are going to find a solution to the assignment / problem	1	2	3	4
I ask them to present the way they have come to the specific solution	1	2	3	4
Grading is done in a way that shows pupils what are they good at and what needs improvement	1	2	3	4
I encourage new ideas or working in new ways	1	2	3	4
I encourage individual decision making	1	2	3	4
I let them choose who to work with in a group	4	3	2	1
I give the same assignments to all students	4	3	2	1
I work more with pupils that are not showing good results	4	3	2	1
I adjust the assignments according to pupils' skills, for each student separately	1	2	3	4

## 7. How do you envision your future job?

What type of work would you like to be doing?	Very important	Important	Less important	Not important at all
Work with clear rules and where I don't have to make decisions	4	3	2	1
Secure work with no risk	4	3	2	1
Work with no changes	4	3	2	1
Work that I will start my self and I will be independent	1	2	3	4
Work where I will learn something new all the time	1	2	3	4
Work with many new opportunities	1	2	3	4
Work that is not too far from my house	4	3	2	1
Work where I will be making decisions	1	2	3	4
Work where I will be earning a lot of money	4	3	2	1
Work with clear rules and where I don't have to make decisions	1	2	3	4
Secure work with no risk	1	2	3	4

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**8. How do you cooperate with colleagues?**

Please evaluate how each of these statements is related to you	Totally disagree	Disagree	Agree	Fully agree
I often suggest activities and motivate others to participate	1	2	3	4
I very often cooperate with other teachers on some assignment or practical activity	1	2	3	4
I gladly participate in activities suggested by others	1	2	3	4
I have friends in my job that I can always ask for help	1	2	3	4
In joint activities I usually let the others take initiatives	4	3	2	1
When I work with others we can easily come to an agreement	1	2	3	4
I usually know when is better to work alone and when is better to work with others	1	2	3	4
Often we jointly solve the problems coming out of the practice	1	2	3	4
During practice we learn to work in teams	1	2	3	4
I participate and work in teams while learning or in practice	1	2	3	4

**9. School**

Encouraging activities and innovativity of the teachers in the school	Totally disagree	Disagree	Agree	Fully agree
<b>In our school:</b>				
Teachers have the opportunity to solve the problems individually	1	2	3	4
Some of the teachers have deficiency of responsibilities for their job	4	3	2	1
Teachers are active in creation of development plan of the school	1	2	3	4
Teachers have opportunities to influence in organization and implementation of the teaching	1	2	3	4
Teachers must not care about behaviour	4	3	2	1
Teacher's work is carefully supervised	1	2	3	4
Teachers do not have opportunities to criticize the school openly	1	2	3	4
Teachers are encouraged to work with new teaching strategies	1	2	3	4
It is expected of the teachers to learn continuously and to innovate their teaching	1	2	3	4
The changes are very well accepted	1	2	3	4

Support from the director and colleagues	Totally disagree	Disagree	Agree	Fully agree
Director is taking in consideration teacher's ideas	1	2	3	4
Director encourages teachers to take initiatives and make suggestions	1	2	3	4
Director encourages cooperation between teachers	1	2	3	4
Director is always available when the teachers need him/her	1	2	3	4
Director tries to ensure professional education for teachers	1	2	3	4
Director tries to ensure teaching conditions for work (teaching, didactical tools)	1	2	3	4
Teachers can have influence on the director's decisions	1	2	3	4
Teachers are encouraged to cooperate in the projects and activities	1	2	3	4
Teachers might ask their colleagues for professional help	1	2	3	4
Teachers are open for comments about their work	1	2	3	4

## ANNEX XI AGENDA

### Key competences for Lifelong Learning

Competences: 'Learning to learn' and 'Entrepreneurship'

### Closing Conference

Tuesday, January 30, 2007, 10.00 a.m.

Parliamentarian Club, Skopje

10.00 – 10.05	<b>Welcome</b> <ul style="list-style-type: none"> <li>● Ms. Vesna Janevski – Chair of the Conference</li> </ul>
10.05 – 10.20	<b>Welcome address</b> <ul style="list-style-type: none"> <li>● Mr. Jovan Lazarev – Deputy Minister for Education and Science</li> </ul>
10.20 – 10.30	<b>Introductory word</b> <ul style="list-style-type: none"> <li>● Ms. Vesna Janevski –Team Leader</li> </ul>
10.30 – 10.45	<b>Presentations of the Results of the project</b> Members of the Team: <ul style="list-style-type: none"> <li>● Ms. Dejan Pendev</li> <li>● Ms. Blagoj Trajkov</li> <li>● Ms. Natasa Angeloska – Galevska</li> </ul>
10.45 – 11.00	<b>General recommendations</b> <ul style="list-style-type: none"> <li>● Ms. Vesna Janevski –Team Leader</li> </ul>
11.00 – 11.30	<b>Discussion, questions</b> Team members / Invitees / Media
11.30 – 11.45	<b>Final conclusions</b>

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**“Key competences for lifelong learning”**

**Competences: 'Learning to learn' and 'Entrepreneurship'**

**Subject: Invitation for the Closing Conference**

**Dear Sir/Madamme,**

You are cordially invited to attend the Closing Conference for the project “Key competences for lifelong learning”, for the ‘Learning to learn’ and ‘Entrepreneurship’ competences.

This project is part of the ETF Work programme 2006 - activity 6 “Innovation and Learning”. It contributes to the strand objective for the “Innovation and Learning” activities: To support and facilitate the ongoing development of VET expertise in EU priority policy areas within ETF and its stakeholders.

The “Key competences for lifelong learning” project is international. Target countries are: Albania, Croatia, Macedonia, Serbia and Montenegro

In accordance with the project objective, the Macedonian Team in cooperation with the Ministry of Education and Science wants to present the results of the research realized for VET schools and Higher Education in Macedonia and to improve the recommendations which will be submit to ETF.

**The event will take place on Tuesday, January 30, 2007 from 10.00 to 12.00 hrs at the Parliamentarian Club in Skopje.**

**Yours sincerely,**



**Team Leader**  
**“Key competences for lifelong learning”**