



## TRACK-VET project:

“Developing, assessing and validating transversal key competences in the formal initial and continuing VET”

# COUNTRY REPORT – SLOVAKIA

## Intellectual Output 6

Report prepared by: NUCEM and UMB research teams

## Foreword

EU strategic documents related to Vocational Education and Training (VET) – Europe 2020, ET 2020, and New Skills Agenda for Europe – indicate the importance of developing transversal key competences (TKC) within VET.

TRACK-VET project ***“Developing, assessing and validating transversal key competences in the formal initial and continuing VET”*** defines TKC as a subgroup of the eight key competences defined in the Council Recommendation from 2006, namely: **Learning to learn, Social and civic competences, Initiative taking and entrepreneurship, and Cultural awareness and expression.**

On 17 January 2018 European Commission issued Proposal for a Council Recommendation on Key Competences for Lifelong Learning in which the modifications to the key competences framework were introduced [1]. The subgroup of TKC has been changed to **Personal, social and learning competence, Civic competence, Entrepreneurship competence, Cultural awareness and expression competence.**

The main aim of the TRACK-VET project is to provide evidence-based support to national governments and agencies, EU agencies and key stakeholders involved in designing policies on developing, assessing and validating TKC.

There are seven members of the project partnership:

P1: Warsaw School of Economics (Poland) - SGH

P2: Austrian Institute for Research on Vocational Training (Austria) - Oeibf

P3: Fafo Institute for Labour and Social Research (Norway) - Fafo

P4: French Centre for Research on Qualifications (France) - Cereq

P5: National Institute for Certified Educational Measurements (Slovakia) – NUCEM

P6: Matej Bel University Banska Bystrica (Slovakia) - UMB

P7: National Centre for Education (Latvia) – VISC

Associated Partners (AP) – ‘silent partners’ – 6 organizations who will support the project by providing information on national higher education systems and by reviewing project outcomes.

This national report is an intellectual output of the project. The country report of the Slovak Republic presents detailed descriptions of transversal key competences in the formal VET, it also presents qualitative analysis of opinions of different stakeholders (including policy makers, researchers, teachers, employers, and trade unions) on how to improve the development of TKC in the VET system. At the end of the report there are proposed recommendations for national authorities and agencies and institutions

responsible for developing and assessing TKC in the formal VET. The report has been consulted by project associated partners and key stakeholders.

## Abbreviations and acronyms

GDP – Gross Domestic Product (Hrubý domáci produkt)

OECD – Organization for Economic Cooperation and Development (Organizácia pre ekonomickú spoluprácu a rozvoj)

ISCED – The International Standard Classification of Education (medzinárodné štandardné členenie vzdelávania)

VET – Vocational Education and Training (odborné vzdelávanie a príprava)

IVET – Initial VET (počiatočné)

CVET – Continuous VET (pokračujúce)

SEN – Special Education Needs (špeciálne vzdelávacie potreby)

ŠPÚ – National Institute for Education (Štátny pedagogický ústav)

ŠIOV – State Institute for Vocational Education and Training (Štátny inštitút odborného vzdelávania)

MŠVVaŠ SR – Ministry of Education, Science, Research and Sport of the Slovak Republic (Ministerstvo školstva, vedy, výskumu a športu Slovenskej republiky)

NÚCEM – National Institute for Certified Educational Measurements (Národný ústav certifikovaných meraní vzdelávania)

ŠŠI – State School Inspection (Štátna školská inšpekcia)

MPC – Methodology and Pedagogy Centre (Metodicko-pedagogické centrum)

ŠVP – State Educational Programme (Štátny vzdelávací program)

ŠkVP – School Educational Programme (školský vzdelávací program)

SKKR – Slovakia Qualification Framework (Slovenský kvalifikačný rámec)

NQR – National Qualification Register (Národný kvalifikačný register)

QC – Qualification card (kvalifikačná karta)

NOR – National Occupation Register (Národný register povolání)

EQR – European Qualification Framework (Európsky kvalifikačný rámec)

ESF – European Social Fund (Európsky sociálny fond)

ICT – Information Communication Technologies (informačno-komunikačné technológie)

SOČ – students' vocational competition (Stredoškolská odborná činnosť)

WIWAG – management game-business simulation (manažérska hra WIWAG®)

## Preparation of the report

This Slovak national report was prepared by members of the project team of UMB and NÚCEM – partners of the project “Developing, assessing and validating transversal key competences in formal initial and continuing VET”. Namely, on behalf of:

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Representatives of the Ministry of Education, Science, Research and Sport of the Slovak Republic, representatives of the State Institute for Vocational Education and Training, headmasters of VET schools, a representative of the VET School Association, a representative of the Employer Council, representatives of professional – employees institutions, a human resources director participated in the project as respondents and consultants in the focus groups and in-depth interviews.

The national report was prepared based on TRACK-VET material: Information about the project and Methodology of preparing country reports, version of 17 April 2018.

Legislative materials, reports, and curriculum documents were collected and studied by members of the project teams from the beginning of the project. The basic concept of the project was presented during the project meeting in Oslo in March 2018. Opinions of key stakeholders were collected from June to September 2018.

Opinions of the representatives and stakeholders regarding development, assessment and validation of TKC were processed by a qualitative analysis of the interviews transcripts.

Great contribution to the project was given by Ildikó Pathóová from the Lifelong Learning Department of the Ministry of Education, Science, Research and Sport of the Slovak Republic.

## Basic terms

**VET** – vocational education and training is understood here as a preparation for profession

**Formal VET** – in this project it is understood as education and training system funded by the state

Formal **initial** (IVET) and **continuous** (CVET) vocational education and training in this report have these characteristics:

- Both are based on core-curriculum and national standards.
- They are leading to a state recognized, examined qualification with guaranteed quality.
- They are founded by the state.
- They are not parts of the 1<sup>st</sup> or 2<sup>nd</sup> cycle in higher education qualifications.

**Dual VET** is a vocational education and training system based on the close interconnection of general and vocational theoretical education at a secondary vocational school with practical training in a particular enterprise.

**State Educational Programme** is a curriculum issued by the state, which defines the obligatory content and performance outcomes for students at each level of education and each type of school. It is a binding document, which the school is obliged to respect when developing its School Educational Programme.

**Competences** are a combination of knowledge, skills and attitudes appropriate to the context.

**Key competences** are such competences which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment.

**TKC** – Transversal Key Competences [1] – TRACK-VET project defines TKC as a subgroup of 8 key competences issued by the European Commission in January 2018, namely: Personal, Social and Learning Competence, Civic Competence, Entrepreneurship Competence, Cultural Awareness and Expression.

**Personal, social and learning competence** – it is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, the ability of learning to learn, to support one's physical and emotional well-being, empathize and manage conflict. *Descriptive categories:* methods and strategies of learning, motivation and autonomy of learning, maintaining well-being, social and interpersonal relations.

**Civic competence** – it is defined as the ability to act as responsible citizens and to fully participate in civic and social life, based on understanding of social, economic and political concepts and structures, as well as global developments and sustainability. *Descriptive categories:* understanding of society, participation in public affairs, values and identity.

**Entrepreneurship competence** refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem-solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or commercial value. *Descriptive categories*: taking action and making decisions, realization of initiatives.

**Cultural awareness and expression** – the competence in cultural awareness and expression involves having an understanding of and respect for how ideas and meanings are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts. *Descriptive categories*: understanding and appreciation of culture, cultural expression.

*Descriptive categories* related to more than one TKC are: critical thinking, problem-solving, media literacy, creativity and innovation.

**Educational standards** are parts of the State Educational Programme. Each educational standard consists of two parts; i. e. **content standard and performance standard**. Both are evaluated as **learning outcomes** of students.

**The content standard** determines the minimum content of education. Its main goal is to unify, coordinate, and ensure compatibility of the minimum content of education at all schools.

**The performance standard** defines the performance objectives which determine at what level the student has to master the minimum curriculum and what he or she should do. The performance standard is formulated in the form of operationalized objectives, i.e. it is represented by active verbs which also express the level of mastery.

**Internal assessment** can be done verbally, by grading or combining these methods. Within the internal evaluation, **formative** (continuous) and **summative** (semi-annual or final annual) assessments are applied.

**External assessment** is applied in matura leaving examination ensured by the National Institute for Certified Educational Measurements and as an inspection of school and educational process by State School Inspection.

**Validation** – confirmation by competent body that learning outcomes (knowledge, skills and competences acquired by an individual in a formal, non-formal or informal setting) have been assessed against predefined criteria and are compliant with the requirements of a validation standard. Validation typically leads to certification.

|  |           |
|--|-----------|
| <b>Foreword</b> .....  | <b>2</b>  |
| <b>Abbreviations and acronyms</b> .....  | <b>4</b>  |
| <b>Preparation of the report</b> .....   | <b>5</b>  |
| <b>Basic terms</b> .....   | <b>6</b>  |
| <b>Chapter 1 Overview of the Formal Initial and Continuous VET</b> .....   | <b>10</b> |
| 1.1 Slovak Education System and its Characteristics.....   | 10        |
| 1.2 Key policy issues .....  | 11        |
| 1.3 Vocational Education and Training in the Slovak Republic.....  | 11        |
| 1.4 State Educational Programme and School Educational Programme<br>for VET schools .....  | 13        |
| 1.5 Assessment and Evaluation in VET Schools.....  | 15        |
| 1.6 The Slovak Qualifications Framework.....   | 16        |
| <b>Chapter 2 Overview of Transversal Key Competences in Formal VET</b> .....   | <b>19</b> |
| 2.1 TKC in State Educational Programme.....  | 19        |
| 2.2 National Projects Targeted at Development of TKC .....   | 20        |
| <b>Chapter 3 Formulation of TKC and Their Place in Curricula</b> .....   | <b>22</b> |
| 3.1 Formulation of TKC in State Educational Programme for VET schools .....  | 22        |
| <b>Chapter 4 Assessment and Validation of TKC</b> .....  | <b>23</b> |
| 4.1 Assessment and Examination in State School System .....  | 23        |
| 4.2 The Final Internal Examination at the End of the Study.....  | 24        |
| 4.3 TKC Assessment in National External Standardized Tests (maturita exam).....  | 27        |
| 4.3.1 Samples of the maturita external test-tasks in connection with<br>TKC evaluation and assessment.....                                 | 28        |
| 4.4 Validation of Non-formal and Informal Learning .....   | 32        |
| <b>Chapter 5 Opinions of Key Stakeholders Regarding Development, Assessment and<br/>Validation of TKC</b> .....                            | <b>33</b> |
| 5.1 Research Sample and Questions.....   | 33        |
| 5.2 Perceptions of Transversal Key Competences Concept.....  | 34        |
| 5.2.1 The importance of transversal key competences in vocational<br>education and training.....   | 35        |
| 5.2.2 Balance of professional and transversal key competences in VET .....   | 35        |
| 5.2.3 Position and development of transversal key competences<br>in curriculum development for upper secondary vocational education .....  | 36        |
| 5.2.4 The rate of development of transversal key competences<br>in upper secondary vocational education and training .....                 | 37        |
| 5.2.5 The extent of application of European regulations in the<br>national strategies within the area of transversal key competences ..... | 39        |
| 5.3 Strategies for transversal key competences development.....  | 39        |
| 5.4 Assessment of Transversal Key Competences .....  | 40        |
| <b>Chapter 6 Conclusions and Proposals</b> .....   | <b>43</b> |

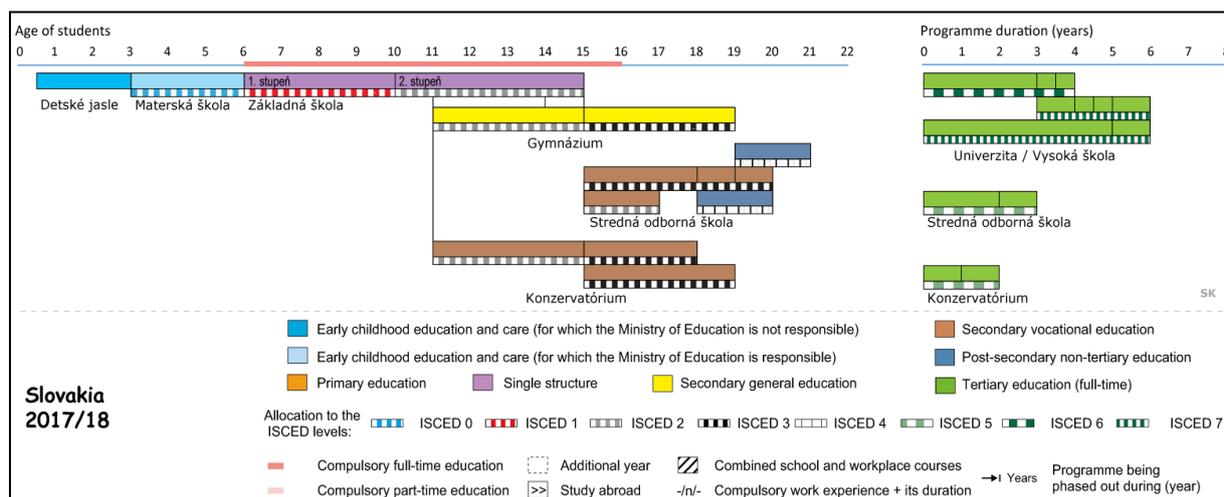
|                   |                     |           |
|-------------------|---------------------|-----------|
| 6.1               | Conclusions .....   | 43        |
| 6.2               | Proposals.....      | 45        |
| 6.3               | End of report ..... | 46        |
| <b>References</b> | .....               | <b>50</b> |

# Chapter 1 Overview of the Formal Initial and Continuous VET

## 1.1 Slovak Education System and its Characteristics

The Slovak education system is diverse, with both public and non-public (religious and private) school providers. Governance of the public education system is shared between the central government and local authorities. The national Ministry of Education, Science, Research and Sports develops educational goals and content. Municipalities are responsible for local administration and provide most pre-primary, primary and lower secondary education; and self-governing regions are in charge of upper secondary education (known as “regional education”). Regional education administration combines activities at the state, municipal and school levels. Per-student expenditure by educational institutions as a percentage of GDP is among the lowest in OECD countries [2].

Figure 1 Structure of the National Education System in Slovakia



Slovakia  
2017/18

Source:

[https://eacea.ec.europa.eu/nationalpolicies/eurydice/sites/eurydice/files/sk\\_2017\\_18.png](https://eacea.ec.europa.eu/nationalpolicies/eurydice/sites/eurydice/files/sk_2017_18.png)

The Slovak education system represents one level model with atypical outflow of pupils during lower secondary education to other types of schools. The outflow of some pupils into different types of schools during lower secondary education has the following manifestations:

- It contributes to its overall segregation by drawing talented pupils or pupils with better social background.
- It contributes to a structural mismatch between education and labour market demand by postponing the decision on the professional orientation of pupils and by reducing the entry cohort for secondary vocational education.
- It makes differences in the provision of a core curriculum (State Educational Programme).

## 1.2 Key policy issues

National Programme for Development of Education and Training [3], approved on 27 June 2018, presents a long-term concept of education and training covering the 10-year perspective goals and objectives from pre-primary education through primary, secondary to higher education. It presents also further education to ensure personal development and the acquisition of the relevant knowledge and skills necessary for the successful employment of graduates in the labor market.

The strategic objectives of the strategy are:

- to increase quality of the education and training system,
- to increase access to quality education for all, and
- to modernize the education and content system as well as management, funding and evaluation.

Cross-section priorities are:

1. Integration and inclusion of marginalized Roma communities and students from a socially disadvantaged environment.
2. Linking the education and training system to the needs of the economy and the labour market.
3. Development of a non-formal education system.

## 1.3 Vocational Education and Training in the Slovak Republic

The Act No. 245/2008 Coll. (Education Act) states that secondary vocational school is an internally differentiated secondary school which **prepares students for profession** in at least two-year and at most in the five-year-lasting initial VET educational programmes. After successful completion of the programme, a graduate receives a certain education degree.

Traditionally, vocational education and training has been a strong pillar of the Slovak education system. Despite growing interest in general education, participation in secondary VET is still among the highest in the EU. While VET programmes offering access to higher education (ISCED 354) remain attractive, the share of learners completing programmes without this option (ISCED 353) has declined sharply. The resulting low supply of skilled workers and craftsmen triggered new legislation in 2015 introducing a 'dual' type of IVET. The introduction of a dual VET scheme has been successful in terms of setting the framework conditions and attracting companies to join the scheme. However, experience of its implementation so far proves that more resources need to be invested in encouraging young people to enter the scheme [4, 5].

Since 2015, VET governance has included the following **partners**:

1. National VET Council, the coordinating body affiliated to the government;
2. Eight regional VET councils responsible for regional development strategies;
3. Sectorial (skills) councils responsible for setting occupational/qualification standards and providing expertise to policy makers;
4. Professional organizations such as chambers and employer associations identified by legislation as counterparts to education authorities with regard to the respective fields of study ('sectoral assignees');
5. Employer Council for dual VET to coordinate activities.

Slovakia has a strong VET tradition, with about 69% of all upper secondary school learners participating in VET programmes (140,000 students). There are 440 VET schools (85 schools participate in the dual education system together with 490 employers). 78 % of the VET schools are governed by the state (18% church, 4% private). Expenditure per student/per year is 2,100 – 3,700 EUR.

#### **Upper secondary schools IVET programmes involve [4]:**

- two- or three-year programmes (**ISCED 253**) for low achievers without completed lower secondary education
- three-year (rarely four-year) programmes (**ISCED 353**) leading to a certificate of apprenticeship and also can be offered as 'dual' VET;
- four-year (rarely five-year) programmes (**ISCED 354**) with extended practical training, leading to a matura school-leaving certificate and in most cases also a certificate of apprenticeship confirming the qualification, also offered as 'dual' VET;
- school-based four-year (rarely five-year) programmes (ISCED 354) mainly theory-focused and leading to a matura school-leaving certificate.

Special Education Needs (SEN) schools offer similar programmes tailored to students with special needs and IVET programmes for mentally challenged students.

Conservatories offer VET programmes for performing arts students lasting for six and eight years and leading to an ISCED 5 non-university diploma and title (specialist in arts diploma, DiS art).

#### **Continuous formal post-secondary non-tertiary VET programmes involve [4]:**

- two-year-follow-up study programmes (ISCED 454) for three-year VET programme graduates (ISCED 353) leading to a matura school-leaving certificate; in Slovak called "nadstavbové štúdium";
- retraining programmes ending with a post-matura exam (lasting for the minimum of six months, ISCED 454); in Slovak called "pomaturitné zdokonaľovacie štúdium";

- programmes leading to a second VET qualification (‘qualifying programmes’), ISCED 454, lasting for a minimum of two years, leading to a second maturity with a specific vocational component, in some cases also to a certificate of apprenticeship; in Slovak called “pomaturitné kvalifikačné štúdium”;
- specialising programmes (ISCED 554), lasting for a minimum of two years, leading to a non-university diploma and title (DiS); in Slovak called “pomaturitné špecializačné štúdium”;
- three-year higher professional programmes (ISCED 554) leading to a non-university diploma and title (DiS) ; in Slovak called “vyššie odborné vzdelanie”.

VET schools in Slovakia provide 27 study branches with more than 80 study programmes.

TRACK-VET report analyses 3 groups of formal IVET and CVET programmes of vocational secondary schools, which have strong base in the Slovak state economy:

1. **Group 23, 24** - *Mechanical engineering and other metalworking*
2. **Group 42, 45** - *Agriculture, forestry and rural development*
3. **Group 62, 63, 64** - *Economy, organization, trade and services*

#### **1.4 State Educational Programme and School Educational Programme for VET schools**

Most formal VET programmes are provided by **upper secondary vocational schools**: initial VET (ISCED 353 and ISCED 354, ISCED 253) and continuous post-secondary non-tertiary VET (ISCED 454, 554).

Each group of study programmes has an established **State Educational Programme**; general part of education was developed by the State Institute for Education (ŠPÚ) and vocational part of education by the State Institute for Vocational Education and Training (ŠIOV). Both institutions are governed by the Ministry of Education, Science, Research and Sport of the Slovak Republic (MŠVVaŠ SR). State Educational Programme is a binding curriculum document for the creation of **School Educational Programme**, textbooks, workbooks, evaluation and assessment of students learning outcomes [6].

*Table 1 Structure of the State Educational Programmes of analysed VET programmes*

| <i>Group number</i>                 | 23,24  | 42,45  | 62,63,64   |
|-------------------------------------|--|--|--|
| <i>Name</i>                         | <i>Mechanical engineering and other metalworking</i>         | <i>Agriculture, forestry and rural development</i> | <i>Economy, organization, trade and services</i> |
| <i>Common frame characteristics</i> | Introduction<br>Aims<br>Conditions for teaching and learning |  |  |

|   |   |   |  |
|---|---|---|--|
|   | Certification<br>Specifics for SEN students   |   |  |
| <i>(Number) of ISCED programmes</i>                                 | 253 (2), 353 (10),<br>354 (8), 454 (8),<br>554 (1)  | 253 (2), 353 (10),<br>354 (15),<br>454 (1), 554 (4) | 253 (1), 353 (9),<br>354 (25), 454 (1),<br>554 (5) |
| <i>Detailed description of each educational programme structure</i> | Characteristics<br>Graduates profile<br>Educational areas with teaching hours<br>Content and performance (learning) standards |   |  |
| <i>Appendices</i>   | Main concepts<br>Evaluation strategies<br>Instructions for School Educational Programme creation                              |   |  |

Proportion of vocational subjects in formal VET curricula depends on a type of programme and ranges from 50% to 80%. Employers involved in dual system of education participate in the preparation of school educational programmes.

The Ministry of Education, Science, Research and Sport of the Slovak Republic has overall responsibility for evaluation and assessment policy. The legislative framework for the evaluation of students is created by the Act No. 245/2008 Z.z. on education and training (hereinafter referred to as the "Education Act"). Internal and external assessments are specified on two levels of evaluation.

According to the Education Act and subsequently State Educational Programme, student's assessment is based on the **educational standards** that are part of the State Educational Programme for each level of education, formulated by the National Institute for Education (ŠPÚ) and the National Institute for Vocational Education and Training (ŠIOV). According to the State Educational Programme, the education standard consists of two parts – content and performance standard.

**The content standard** determines the minimum content of education. Its main goal is to unify, coordinate, and ensure compatibility of the minimum content of education at all schools.

**The performance standard** defines the performance objectives which determine at what level the student has to master the minimum curriculum and what he or she should do. The performance standard is formulated in the form of operationalized objectives, i.e. it is represented by active verbs which also express the level of mastery.

**School Educational Programme** is a fundamental pedagogical document of the school. It is a mandatory part of school documentation. School educational programme is based on the following principles:

- It creates a pluralistic and competitive educational environment between schools.

- It promotes the autonomy and decision-making privileges of the school.
- It regulates the educational conditions at the school – teaching and learning plans, teaching strategies, student assessment and evaluation, teachers professional development and evaluation, and
- fully accepts regional labour market needs and school development priorities.

Each school creates its own school educational programme for the whole particular study branch (e.g. Mechanical engineering and other metalworking ISCED 253, 353, 354, 454, 554, from the first to the last year of study) and all forms of study (internal, external). State educational programme determines maximum teaching hours for the whole study programme in each ISCED level. There are disposable hours in the range of 10-45% (depending on ISCED level) which the school can allocate to different subjects based on their own decision and their fulfilment.

The school head is responsible for school educational programme elaboration and approval. Compliance with the state educational programme is monitored, controlled and evaluated by the State School Inspection.

The school educational programme is the base for self-evaluation report, which is compulsory for each school to be done at the end of each school year. The school is obliged to publish their self-evaluation report on school's website.

## 1.5 Assessment and Evaluation in VET Schools

Under the Education Act, the State Educational Programme and School Educational Programmes determine the framework for **internal** evaluation. Students' assessment can be done verbally, by grading or combining these methods. Within the internal evaluation, formative (continuous) and summative (semi-annual or annual) assessment are applied. The State Educational Programme determines the way and conditions for the final examination and certification.

**External monitoring and evaluation** of students' learning outcomes are ensured by the National Institute for Certified Educational Measurements (NÚCEM) governed by the Ministry of Education. There is a strong focus on summative assessment in Slovakia (5<sup>th</sup> and 9<sup>th</sup> grade monitoring of pupils learning outcomes and maturita (school leaving) examination).

Slovak schools are evaluated externally also by the State School Inspection (ŠŠI). An annual inspection report provides a summary evaluation of the system as a whole. The State School Inspection participates at the maturita (school leaving) examination process in VET schools and final certification process in VET schools.

## 1.6 The Slovak Qualifications Framework

The Slovak Qualifications Framework (SKKR) [7] has opened the way for creation of an open, transparent and flexible qualifications system in Slovakia. The driving force for its implementation in the Slovak Republic was an increasing effort for internationalisation of education and removing barriers to the European mobility. SKKR is a tool, which allows common understanding and fine-tuning of learning outcomes taking into account different learning pathways. It builds on involvement and participation of stakeholders in the development of qualifications and offers opportunities for adaptation of qualifications to the needs of the labour market and society. In the international context, it supports recognition and transparency of qualifications. SKKR is defined as a framework, which “contains classification levels of qualifications according to a set of criteria for the achievement of knowledge, skills and competences and is referred to the European Qualifications Framework”.

Vocational qualifications’ sub-framework in secondary VET (secondary, post-secondary non-tertiary): “VET qualifications” are awarded within the formal VET system of education; they are usually broader and the holder of such qualification is often able to perform several occupations. Qualifications at levels SKKR 3 and above are considered as “skilled worker” qualifications. Qualifications awarded within formal secondary (initial) VET (vocational qualifications) are closely linked to the level of education and represent the first qualification an individual can achieve in formal education.

SKKR is the core of the qualifications system of the Slovak Republic. It is closely linked to the National Qualifications Register (NQR) which contains recognised qualification standards and related assessment standards.

The National Qualifications Register enables:

- a complex overview of the Slovak qualifications system, qualifications’ classification, legislation regulating the conditions for awarding qualifications (especially for regulated professions),
- statistical surveys and analyses of needs for the development of qualifications and their recognition,
- continuous monitoring, assessment and recognition (certification) of qualifications already identified and classified in NQR, critical assessment of its adequacy in terms of the actual labour market needs and possible modification or significant changes.

In the development of NQR, three categories of standards were taken into account:

- *National Occupational Standards*: They determine the requirements of labour market in terms of “fields of working tasks” and their changes; they have informative character only.

- *Qualification Standards*: They are mandatory for shaping the educational content and validation of prior learning in accordance with labour market requirements.
- *Educational Standards*: They state mandatory requirements for a student to complete a certain level of education and achieve a qualification in the formal system of education. They consist of performance and content standards related to a certain qualification; key and transversal key competences, which an individual needs to participate in society, continue his or her education and/or exercise professional activities successfully, are also part of educational standards.

These three standards enable the labour market requirements (expressed in the description of the performance of a particular occupation) to flexibly translate into learning outcomes on two levels: on the “national” level where they are stable, and the “provider” level where they are particularised and specified to support the education and assessment processes.

**Since 2018 all new formal education qualification documents include a reference to the appropriate level of the Slovak Qualifications Framework (SKKR).**

SKKR was developed as a comprehensive framework with eight levels corresponding with EQF levels. Contrary to EQF, categories of SKKR were further divided into subcategories, based on the definitions of knowledge, skills and competences.

The categories which descriptors represent:

**Knowledge** – familiarity of facts (declarative knowledge) as well as deep understanding and ability of explaining and reasoning (operational knowledge). This category is divided into:

- a) general knowledge (theoretical and factual),
- b) vocational knowledge (theoretical and factual).

**Skills** are based on knowledge and developed by the application of knowledge. They are manifested by a particular (manual) performance or by presentation of intellectual activities. Therefore, this category is divided into:

- a) cognitive skills (e.g. logical, creative and intuitive thinking, reflection),
- b) practical skills (e.g. material selection, clinical examination, quality assessment, manufacture of products, organizational skills and time management, communication skills and self-presentation, management skills, etc.).

**Competences** – an individual’s potential for satisfactory performance of tasks. Values, attitudes and social interaction of individuals were taken into account along with the categories of responsibility and autonomy. Therefore, they are divided in line with the EQF recommendation into these categories:

a) responsibility (e. g. taking responsibility for the performance of tasks, for decisions; responsibility for oneself, co-workers, for one's own and joint work, product quality, responsibility for social and common values, responsibility for carrying out duties; protection of life, health, safety and hygiene at work; responsibility for environmental protection, etc.).

b) autonomy (e. g. independence of judgement, critical thinking, autonomy of decisions in problem-solving, autonomy in respect of employment, the implementation of projects, product manufacturing, etc.)

c) social competences (e. g. the ability to work in a team, cooperative attitude, ability to face conflict situations, communication skills, building one's own independence/autonomy as a member of the group, etc.).

The SKKR descriptors reflect increase of the mentioned characteristics in the range of 1 – 8:

The dimension of knowledge increases from factual, declarative level to conceptual level. In other words, it represents the increase from a simple reproduction of facts to understanding of relationships between elements, the ability of flexible association and plasticity of knowledge.

The dimension of skills takes into account simple imitation of activities at the lowest level, mechanical performance and adaptation to concrete conditions. The highest levels of SKKR represent individualised, creative activities.

The dimension of competences comprises receiving impulses, passive reaction to impulses up to creation of one's own attitude system and involvement in the development of a value system of others.

## **Chapter 2 Overview of Transversal Key Competences in Formal VET**

### **2.1 TKC in State Educational Programme**

Since the school year 2013/14, only three overarching **key competences** have been set in a new State Educational Programme and subsequently in School Educational Programmes [6]:

- **Act independently in a social and working life**

These competences are essential for further acquisition of knowledge, skills, attitudes and value orientation. This includes skills necessary for the purposeful and responsible management and organization of one's own personal, social and professional life. Individuals need to create their personal identity in relation to living conditions, occupation, work and the environment, social standards, social and economic institutions, to make the right decisions, choices, measures and procedures. These competences are very closely linked to the acquisition of a culture of thought and cognition.

- **Use knowledge and information communications technology (ICT) interactively, communicate in Slovak, mother tongue and foreign language**

These are competences that students acquire in order to actively participate in a knowledge-based society with a clear sense of their own identity and direction of life, self-improvement and performance improvement, rational and independent learning and learning throughout life, updating and maintaining the necessary basic level of language skills, information and communication skills. A graduate is required to use written and spoken state language; his or her mother tongue and foreign language effectively, present adequate reading and mathematical literacy, and create his or her own personality.

- **Work in heterogeneous groups**

These competences are used in managing interpersonal relationships and forming new types of cooperation. These competences are developed in more demanding conditions, when solving problems is necessary in cooperation with people who are unable to integrate themselves into social life. A graduate should be able to learn, live and work not only as an individual but also in socially mixed groups. These competences are based on acquired knowledge, social skills, intercultural competences, attitudes and value orientation. The competences enable an individual to establish simple algorithms for solving problematic tasks, phenomena and situations and to use the acquired knowledge in personal life and profession.

Development of TKCs (personal, social, learning, civic and entrepreneurship competences and cultural awareness and expression) is stated in the Education Act and in State Educational Programme for VET schools as one of the aims of education.

TKCs are included in the above-mentioned three groups of competences. National strategy for TKCs development, assessment and evaluation is not prepared. Teaching methods, strategies and forms of teaching are the responsibility of teachers themselves. According to long cultural history in Slovakia and aging of teachers, most teachers in VET schools prefer traditional transmissive way of teaching. This teaching strategy does not support TKCs development adequately. Methodology and Pedagogy Centre governed by the Ministry of Education provides different types of methodological materials and seminars to support innovative teaching strategies and active learning of students. Continual development of teachers is voluntary.

State Educational Programme provides description of expected graduate competences for each group of competences. Descriptions are analysed in Annex 1. There are not national authorities promoting, recognising and rewarding schools which are introducing innovation with regards to teaching methods including TKC.

## 2.2 National Projects Targeted at Development of TKC

In response to unfavourable PISA results, in 2016 the Ministry of Education submitted to the government a strategy for improving the level and continuous development of reading literacy. The school year 2016/17 was declared the year of **reading literacy** development. Reading literacy is a prerequisite for the **learning competence**. Since 2018 developmental projects for schools focused on reading literacy have been supported by ESF.

In 2016/17, in response to signs of increasing intolerance in the European Union, secondary education national curricula were supplemented by a document for teachers and counselling staff on how to prevent racism, xenophobia, anti-semitism and extremism. In 2016, the governmental council for human rights initiated a review of national curricula and textbooks concerning human rights and democratic **citizenship education**. The National Institute for Vocational Education and Training (ŠIOV) analysed all textbooks in secondary VET and found adequate reflection of the topic. However, competence development of students may need more attention in terms of teaching and learning strategies and teachers' ability to develop it. [8].

A new national standard for **financial literacy** was approved in 2017 [9]. It replaced the 2014 standard and includes entrepreneurship competence. It also addresses areas like planning, income and labour; consumer protection; counteracting corruption and fraud through financial responsibility of consumers; consumers' decisions and financial management; loans and debts; savings and investment; risk management and insurance. The revision was based on the 2016 thematic assessment of learning outcomes of students in the final grades of primary and secondary education, including VET. Surveys on factors that may affect performance have also been launched. Guides are being prepared to help schools integrate the standard in VET curricula. Small grants were available for schools, including VET, for teacher training in financial literacy. A dedicated portal has been created to inform schools, adult learning

providers, citizens and partly also media about financial literacy issues. Some of the practitioners assessed the standard as being still too ambitious.

Key competences are developed in form of different kinds of extracurricular activities (Baťa Junior Achievement, students' vocational competition (ŠOČ), enterprise school projects (WIWAG, lasting since 1992), school cultural representation – national or international (folk art, dance, music).

## Chapter 3 Formulation of TKC and Their Place in Curricula

### 3.1 Formulation of TKC in State Educational Programme for VET schools

For individual VET programmes, State Educational Programme determines the following key competence groups: act independently in social and work life; use knowledge and ICT interactively, communicate in Slovak, mother tongue and foreign language (one/two foreign languages are mandatory depending on type of VET); work in heterogenous groups.

These key competences have been reinforced as cross-curricular objectives and they have the same pattern for all analyzed groups of programmes (group 23, 24 group 42, 45 and group 62, 63, 64 (see Table 1).

Based on analysis (see Annex 1), it can be concluded that subgroups of TKC (Personal, Social and learning competence, Civic competence, Entrepreneurship competence, Cultural awareness and expression competence) are included in the above-mentioned three broad areas of key competences. There is not competence framework, and no proficiency levels. Each competence is described as an expected demonstrated behavior and performance of a graduate. There is not taxonomic resolution between ISCED levels (partially visible in a group of competences *using knowledge and ICT interactively, communicating in Slovak, mother tongue and foreign language*). ISCED levels are mostly distinguished by a range of expected competences.

Development of TKC – *Personal, Social and learning competence, Civic competence, Entrepreneurship competence and Cultural awareness and expression* – is supported by compulsory general teaching subjects and they are especially targeted in Civic education, Ethic education as an alternative to Religion, and History. Official documents for secondary VET school programmes are prepared by the National Institute for Education (ŠPÚ). Both subjects (civic and ethic education) are defined by content and performance standards and cover area of communication, human relations, human rights, freedom, citizenship, global topics, social relation, society values, healthy lifestyle, ethics of sex, and ethics of work. Performance standards describe expected behavior and knowledge of a graduate. Learning outcomes are assessed in compliance with the evaluation criteria and assessment rules stated in the School Educational Programme.

*Entrepreneurship competence development* is supported by compulsory “economic education” at secondary VET schools. The State Educational Programme determines content and performance standards. Content area includes the world of work, management of finances, consumer rights and enterprise. Performance standards describe expected behavior and knowledge of a graduate. Students’ learning outcomes are evaluated in compliance with the evaluation criteria and assessment rules stated in the School Educational Programme.

## Chapter 4 Assessment and Validation of TKC

### 4.1 Assessment and Examination in State School System

In accordance with the instructions of the State Educational Programme, each individual school develops the evaluation criteria and assessment rules within its School Educational Programme. They are subject to compliance with them after their approval. The School Educational Programme should declare clear criteria, for example, for oral exam, written assignment, group work, laboratory work, etc. It distinguishes:

- Continuous examination (examining mastering of the subject matter of one or several lessons),
- Summative examination (examining mastering of the subject matter of a thematic unit or the entire assessed period),
- Final examination (finals, maturita, graduation exams or corrective exams).

Students' knowledge evaluation and assessment:

- oral examination (question – answer),
- Written examination (tests, written assignments, case studies, projects, etc.),
- Assessment of practical activities (exercises, simulations, projects, etc.),
- “References” provided by competent persons, experts or organizations.

From the TKC point of view, the Regulation No. 21/2011 – evaluation and assessment at upper secondary schools – in point 5 states: “At the end of the grading period, the quality of the work and the learning outcomes achieved by the student are assessed. At the same time, an account is taken of the systematic student’s work, his/her personal and social competences such as responsibility, effort, initiative, willingness and ability to cooperate...”

The evaluation criteria and assessment rules must be developed for the whole period of study. They are set out in the School Educational Programme and are binding for the teacher and student.

According to the State School Inspection (ŠŠI) report for the school year 2016/2017 [11], the internal system of student assessment (evaluation criteria and assessment rules), which is part of the School Educational Programme, often contains only general information. Clearly defined instructions for the evaluation and assessment were missing very often.

## 4.2 The Final Internal Examination at the End of the Study

Completion of study at VET schools takes place in accordance with the Decree No. 318/2008 on the termination of studies at upper secondary schools (Amendment No. 142/2018). The study is completed by a final exam, a maturita exam, a final postgraduate exam, a specialized component of maturita or a graduate exam. The final exam consists of written, oral and practical parts, which verify students' knowledge and skills in the required topic in front of the examining board.

The maturita (school leaving) examination has an external and an internal part. The external part is a written, nationally organized examination. The internal part consists of a written and oral part. The oral part has a theoretical and vocational component. The vocational component has a theoretical and practical part.

In the **theoretical part** of the vocational component, a student draws randomly one of 25 authorized topics. The Decree No. 318/2008 in Part II – **General Guidelines** emphasizes:

The examiner sensitively controls interviews with a student, puts facilitating and stimulating questions, agrees or disagrees with the student, encouraging him/her to support his/her views by arguments and using his/her written preparation as well as his or her own knowledge gained during the preparation for the maturita examination.

The members of the maturita committee for a certain subject take care that the student could respond smoothly to their ideas and have enough time and peace to express his/her thoughts.

### **The criteria of assessment:**

- a) topic comprehension,
- b) use of correct vocational terminology,
- c) autonomy of speech,
- d) ability to apply knowledge,
- e) accurate and substantive response.

The **practical part** of the vocational component in the randomly drawn topic or the designated topic should be carried out by the student as a practical implementation and presentation of a complex assignment, defense of his/her own project, realization and defense of an experiment, defense of an award winning work in a competition, or demonstration of artistic performance.

### **The criteria of assessment:**

- a) topic comprehension,
- b) task's analysis,
- c) choice of procedure,

- d) choice and use of devices, special equipment, apparatus, materials,
- e) organization of work at the workplace,
- f) observance of safety principles and health protection,
- g) protection of the environment,
- h) the result of the work.

The examination can be organized individually or together with others.

### **Defense of one's own project**

Comprehensive professional work or project is elaborated by the student individually or in a team during the study. The work is content-oriented according to the field of study and needs of practice.

The criteria of assessment:

- a) professional level of the project,
- b) graphical level of the project,
- c) author's own defense – presentation level,
- d) use of correct terminology,
- e) use of appropriate literature sources.

### **Execution and defense of an experiment**

Scope: 20 pages of text, charts, drawings, graphs, pictures and photo material.

The criteria of assessment:

- a) professional level of the project,
- b) graphical level of the project,
- c) author's own defense – presentation level,
- d) use of correct terminology,
- e) use of appropriate literature sources.

### **Defense of an award winning work in a competition**

The student will demonstrate and defend his/her successful specialized work that ranked at the 1<sup>st</sup> to 3<sup>rd</sup> place in the regional round or 1<sup>st</sup> to 5<sup>th</sup> place in the national round of a competition for students of upper secondary schools in the Slovak Republic registered by the Ministry of Education, Science, Research and Sport of the Slovak Republic.

Criteria of assessment:

- a) correct choice of procedure,
- b) use of devices and materials,
- c) use of correct terminology,
- d) autonomy of speech,
- e) applicability,
- f) usability in practice.

### **Artistic performance**

Criteria of assessment:

- a) in the case of specialization in music, this part of maturita examination consists of an individual form of performing works of music art,
- b) in the case of specialization in music combined with drama, this part of the maturita examination consists of an individual and group form of presentation of works of art,
- c) in the case of specialization in dance, this part of maturita examination consists of a frontal and individual form of performing the dance technique in the relevant professional field,
- d) in the case of fine art, this part of the maturita examination consists of elaborating the given topic in technological, artistic and material contexts in the form of a proposal, professional documentation and also execution of the proposal in the professional maturita work.

Although the TRACK-VET transversal competences are not explicitly stated in assessment criteria of the upper secondary school final examination, the methods and forms of finalizing the studies allow demonstrating the level of transversal competences. The presentation of the projects represents the student's level of independent learning (personal and learning competence), working with information, processing it, using ICT and presenting to the public (social, civic competence). The ability to work on projects in a group develops students' social and interpersonal competences, develops co-operation and empathy. The opportunity to present the most successful professional work within the final exam gives students space for cultural awareness and expression. Final examinations at upper secondary vocational schools present the competences of students in the field of economic education and entrepreneurship as their natural component (entrepreneurship competence). Final grade involves level of TKC in theoretical and practical part of final examination.

### **4.3 TKC Assessment in National External Standardized Tests (maturita exam)**

In the Slovak education system, Transversal Key Competences (TKC) are not systematically and explicitly assessed by a standardized national test. There are no specific criteria for the assessment of the TKC, neither are the TKC operationalized to the level of assessment and assessment criteria. It is, therefore, unclear to what extent teachers develop them during their lessons. Some of the TKC are externally evaluated in conjunction with the educational content of the general education subjects during finalizing the formal VET via maturita examination.

Out of general education subjects, we are going to focus our analysis on the subject Slovak language and literature (or other taught languages), in which some TKC are explicitly defined in the State Educational Programme. For example, in the competence-oriented performance standard of literature education it defines the following educational goals: cognitive competence, communicative competence, interpersonal (social) competence, intrapersonal (personal) competence. Subsequently, the key competences and special subject objectives are directly and explicitly linked to the subject content of literature (thematic unit). Among the key competences are the following:

- creating a pro-social value system for students,
- critical thinking,
- creating a positive relationship with one's own nation; accepting the difference of others,
- ability to empathize with the inner life of others, ability of interpersonal communication,
- identification with one's own group; creating a positive relationship with different social groups,
- ability to work in a group.

From the point of focus of our project, we can place these competences in the category of personal and social transversal key competences. However, the performance standard is no longer developed to the level of operationalization of competences; therefore its fulfillment exists only as a relatively unclear formal expectation. Similarly, assessment and measurable criteria for these competences have not been created yet. The performance standard only contains a definition, reference to developing and evaluating these competences, and links them to specific learning content. Therefore, not explicitly but in connection with the educational content of the literature education, TKC are assessed at varying scope and different degrees in oral and written expression of students during the study. Slovak (mother) tongue and foreign language are compulsory for maturita examination at upper secondary VET schools (ISCED 354).

It is possible to identify the assessment of TKC in linking with educational content inside the matura exam in its following state-guaranteed components:

1. In the external part of the matura examination: a state-administered and centrally assessed summative test of Slovak language and literature or mother tongue (Hungarian, Ukrainian) and literature
2. In the written form of the internal part of the matura examination: a state-administered test, evaluated by teachers on the basis of centrally determined and uniform criteria – Slovak language and literature or mother tongue (Hungarian, Ukrainian) and literature

#### 4.3.1 Samples of the matura external test-tasks in connection with TKC evaluation and assessment [12]

*A sample of the personal and social competence assessed in an external matura test from Slovak language and literature*

Language tests are structured in such a way that each task in a test is meaningfully linked to the original text (literary texts: lyrical, epic texts, dramatic or publicistic, administrative, educational, scientific-popular, etc.).

The text for tasks 19 and 20 was based on the poem by Kamil Peteraj – The Korzo of Boys Thoughts

|   |
|---|
| Task 19: What is the attitude of the young people to reality expressed by the poet in the third stanza of a poem? |
|---|

|                         |                |                       |     |
|-------------------------|----------------|-----------------------|-----|
| (A) hesitance<br>apathy | (B) commitment | <b>(C) resistance</b> | (D) |
|-------------------------|----------------|-----------------------|-----|

(Correct answer C – rating 1 point)

In this task, the young people's ability to identify a **personal attitude** is assessed on the basis of an artistically described description of the social behavior of young people (task with a choice of answer).

|   |
|---|
| Task 20: In which verses do young people look like contemporary heroes? |
|---|

|   |
|---|
| (A) They have their own truth, I will always believe them.                        |
| <b>(B) A bit ... the last ones who stay when the world is hiding in the dark.</b> |
| (C) Under the lamp they are hiding into the skin of the snail.                    |
| (D) They are fun to adults, adults are fun to them.                               |

(Correct answer B – rating 1 point)

In this task (with a choice of answer), students had to find a corresponding description of the behaviors (characteristics) for the heroism of current young people. This is about verifying **social competence** reflection with a relatively high level of task difficulty.

Student should be able to empathically identify the heroic behavior of young people and understand the complex social relationships related to this context.

*A sample of the **civic competence** assessed in an external maturita test in Slovak language and literature*

The text for task 57 is an extract from Animal Farm by George Orwell.

|  |
|--|
| Task 57: In what alternative is there expressed the idea for which the animals fought? |
| (A) The right of an individual to a well-paid job                                      |
| (B) The privilege of being a member of the great nation.                               |
| <b>(C) Entitlement to an equal status in society</b>                                   |
| (D) Support for private business in the state  |

(Correct answer C – rating 1 point)

This task (with a choice of answer) verifies knowledge, respectively, identification of Civic competences that hide behind the behavior and attitudes of characters in the text. Students should be able to generalize and understand the behavioural motifs of animals in the text which represent the personification of human behavior and the fight for basic human rights.

*A sample of the assessment of **personal, social, civic competences** (critical thinking, creativity, etc.) in a written form of the internal part of the maturita exam in Slovak language and literature*

The written form of the internal part of the exam is a set of 4 centrally-assigned topics and the corresponding genres, from which the students choose one topic and write autonomously their own text (this is a test task with a long structured answer).

The themes are selected from the central database of themes so that they would enable the students to reflect the societal, political, cultural events, as well as elaborate a personal reflection and attitudes of young people in relation to their future, interpersonal and social relationships, cultural values, etc. For example, in 2018 the themes and genres, from which maturita students were choosing, were as follows:

1. J. P. Sartre: "And what is freedom for, if not to engage yourself?" (Discussion contribution)
2. Society changes, but human envy and joy remain the same (Reflective essay)
3. The teacher can open you the door, but you have to enter them yourself (A speech at the ceremony of ending secondary school studies)
4. My friend handed me his/her hand at the right time (Story-telling)

Each student chooses one theme and writes an autonomous creative text (range of 1.5 – 3 pages). The individual genres have their characteristic features that students should know and observe during their own writing production.

The assessment of the written work has precise and objective rules and elaborated assessment instructions for the teachers. Similarly, the assessment for each genre has central and clearly defined criteria with the corresponding point rating for each criterion. Some of these criteria are linked to the assessment of transversal key competences. As an example, we will show the assessment of the discussion contribution, in which, besides professional knowledge, analytical, argumentative skills and critical thinking must be applied, and the following criteria are included [13]:

**1. Extrinsic form (4 points)**

- Overall layout
- Adherence to the pre-defined scope

**2. Intrinsic form (20 points)**

- Contents
  - Adherence to the topic
  - Own evaluation of the problems using current knowledge about the given issue (subjective-objective approach)
    - Using arguments (statements with their proofs) and quotations to convince listeners
- Composition
- Language
- Spelling

**3. Overall impression (4 points)**

- The overall fluency of the work
- The text should not include
  - Non-logical views
  - Anti-social attitudes
  - Anti-human and unethical views
  - Opinions promoting human health damage
  - Others

The assessment criteria are a kind of framework, and it would certainly be possible to define the criteria for the TKC more precisely. However, as noted above, in the State Educational Programme, TKC are not operationalized, no assessment criteria are set. These competences are evaluated in the context of cognitive skills and written (or oral) student speech. For instance, in the 3<sup>rd</sup> part, the overall impression, the criteria

negatively define what attributes a written work should not contain. This is an example of a space which could be replaced with positively defined attributes and criteria corresponding to the TKC in conjunction with the final written presentation in the mother tongue.

*Validity of the national matura school leaving test examination (the 'external part')*

The written test as an external part of matura examination in Slovakia is conducted in three tests – Slovak language and literature (optionally in Hungarian or Ukrainian language for schools in which Slovak is not the language of instruction), foreign language (either English, German, French, Russian, Spanish or Italian) and optionally in mathematics (students chose if they want to undergo school leaving examination in mathematics).

The main part of the validity of matura examination tests is the content validity and it comes from the overlap of items with State Educational Programme in a given subject. The items directly test skills and knowledge required by curriculum and national performance standard.

The second part – the construct validity – comes from the fact that test items are organised into categories given by learning units; common or very similar skills and knowledge are required for items which have specific meaning for the given learning unit, e.g. trigonometry in mathematics or reading comprehension in language tests.

*Table 2 Assessment forms identified according to TKC*

|   | <b>Assessment forms</b>                             |  |  |
|---|---|--|--|
| <b>Transversal key competences</b>              | <b>External standardised assessment (summative)</b> | <b>Continuous assessment by teacher (formative)</b>                                    | <b>Other forms of assessment (e.g. portfolio, assessment center)</b> |
| <b>Personal, Social and learning competence</b> | not explicitly                                      | in accordance with the assessment criteria set out in the school educational programme | project work   |
| <b>Civic competence</b>                         | not explicitly                                      | in accordance with the assessment criteria set out in the school educational programme | project work<br>internal matura exams                                |

|   |                |  |   |
|---|----------------|--|---|
| <b>Entrepreneurship competence</b>  | not explicitly | in accordance with the assessment criteria set out in the school educational programme | internal maturita examination, projects |
| <b>Cultural awareness and expression</b>                                  | not explicitly | in accordance with the assessment criteria set out in the school educational programme | projects, extracurricular activities    |
| <b>Other competences related to TKC important in the national context</b> | –              | –  | –                                       |

#### 4.4 Validation of Non-formal and Informal Learning

There is currently no national system for validating non-formal and informal learning (NFIL) in Slovakia. The underlying principles are set out in the 2009 Act on Lifelong Learning, which created some of the conditions for gradual development of a validation system. The development of the national qualifications system has introduced a new approach to the description of qualifications, based on learning outcomes. However, neither the SKKR nor the national qualifications system is ready to be used for validation of NFIL. For example, qualification standards were approved by the National Council for Education and Qualification but they cannot yet be used for validation of NFIL because they are not yet embedded in the relevant legislation.

In the academic field, the legislation and regulations are set and only validation of existing documentation that testifies acquired education is relevant [10].

# Chapter 5 Opinions of Key Stakeholders Regarding Development, Assessment and Validation of TKC

## 5.1 Research Sample and Questions

The research conducted as a part of the TRACK-VET project „Developing, assessing and validating transversal key competences in the formal initial and continuing VET” was done in cooperation of project teams of UMB and NÚCEM. Table 3 presents the research sample.

*Table 3 Overview of the participants and sample size (based on Methodology Report)*

| <b>Participant</b>   | <b>Number of interviews conducted</b> |
|--|---------------------------------------|
| Representatives of agencies responsible for VET and the development of TKC         | 4                                     |
| Teachers/Representatives of teacher associations                                   | 6                                     |
| Experts involved in designing curricula and assessment                             | 1                                     |
| Representatives of employer associations involved in the design of VET policies    | 1                                     |
| Representatives of trade union associations involved in the design of VET policies | 2                                     |
| Decision-/policy makers  | 4                                     |
| <b>Total</b>   | <b>18</b>                             |

All participants of the research were interviewed with the same questions. The introductory text and the list of questions were in line with the methodology of preparing country report, version of 17 April 2018.

### **List of questions:**

#### **Introductory question**

- Please share your name and the place you work at.

#### **Transition question**

- When you think of the transversal key competences such as Personal, social and learning competence, Civic competence, Entrepreneurship competence and Cultural awareness and expression, what comes to your mind?

#### **Focal questions:**

- To which extent should the TKC be developed in the formal IVET and CVET system?
- Which TKC you perceive as most relevant, and why?
- Are there any “21 st century competences“ that are missing within TKC concept?

- Do you think the TKC (each TKC: Personal, social and learning competence, Civic competence, Entrepreneurship competence, Cultural awareness and expression) are sufficiently *developed* in the current national formal IVET and CVET system?
- Do you think the TKC are *assessed* to a sufficient degree in the formal IVET and CVET system?
- Do you think the current way to assess TKC is a good approach to spur the development of these competences?
- Do National Qualification Framework level descriptions provide sufficient guidance to formulate learning outcomes regarding TKC and to formulate assessment criteria?

**Generic probing questions (if necessary):**

- Does anyone else consider this in the same/a different way?
- Which additional measures should be implemented?

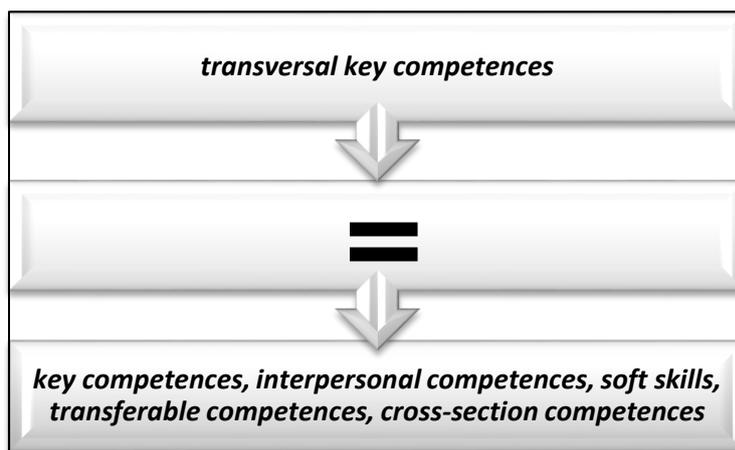
**Ending questions:**

- What advice would you give to people designing VET policies?
- What advice would you give to people designing VET curricula?
- What advice would you give to people teaching and assessing TKC?

## 5.2 Perceptions of Transversal Key Competences Concept

Based on the analysis of the interviews, we note that the surveyed experts described the concept of transversal key competences as problematic.

*Figure 2 Perceptions of transversal key competences*



Experts' answers state that the **term transversal key competences** is often replaced by terms such as key competences, interpersonal competences, soft skills, transferable competences, and cross-section competences (see Figure 2). Especially in the case of key competences, we found it problematic, because the substitution of four transversal key competences by eight key competences may be confusing.

Based on this finding, it would be appropriate to consider the concept of transversal key competences and to try to find a term that would clearly evoke the importance of transversal key competences.

### 5.2.1 The importance of transversal key competences in vocational education and training

Experts in the mentioned interview confirmed and emphasized the importance of transversal key competences in vocational education and training; they identify it as being crucial in terms of application to the labour market and for a further life. The perception of the importance of transversal key competences in vocational education and training is most often seen by research participants as follows (see Table 4):

*Table 4 Importance of transversal key competences in VET from the experts' point of view*

| <b>Importance of transversal key competence in VET</b>               |
|--|
| Transferable at all levels of education                              |
| TKC are applicable regardless of a particular field of study or work |
| TKC allow successful entry into labour market                        |
| TKC allow successful entry into a society                            |
| TKC allow to work actively at the labour market                      |
| TKC allow to live actively in the society                            |
| Applicable in various life situations                                |
| Applicable in different working places                               |
| Applicable in family life  |
| Applicable across the educational spectrum                           |
| Influence on interrelationships                                      |
| Competences for all professions                                      |
| TKC make connections between different areas                         |

Data in Table 4 show that respondents are aware of the **importance of transversal key competences**. They perceive them as competences that are linked to life-long application regardless of a particular study or working area. According to them, transversal key competences are also competences applicable across all professions and can be considered as a prerequisite for successful entry into the labour market and society. These competences are usable in all areas of life (civil, personal, and work). According to the experts, transversal key competences are crucial not only to a specific profession but across all professions, even in everyday life. It is important to recognize that *“we don't prepare students only for labour market but we also prepare citizens for life.”*

### 5.2.2 Balance of professional and transversal key competences in VET

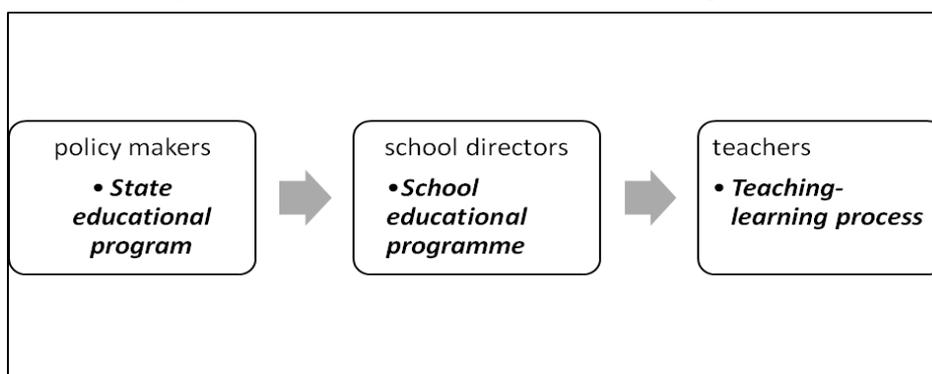
Most experts recommend that transversal key competences should be more extensive than professional competences because, in their view, professional competences can

be easily and quickly acquired by the students in practice (e. g. when working at the company). However, this does not mean neglecting professional competences. In Vocational Education and Training, it would be wrong to focus only on transversal key competences or only on professional competences. During studies at vocational schools, it is necessary to integrate adequately both transversal and professional competences, to find the right balance between them. One of the experts based on his foreign experience in Switzerland even proposed to keep balance: 50% of professional competences and 50% of transversal key competences (calling them "soft skills"). Concerning the importance of the transversal competences, the experts see these competences as equally important in vocational education and training although they have noted that the order of importance may vary depending on the field of study. For example, the economic sectors should put higher importance on developing entrepreneurship competence.

### 5.2.3 Position and development of transversal key competences in curriculum development for upper secondary vocational education

The addressed experts agree that transversal key competences are defined in the State Educational Programmes based on recommendations of the European Commission. One of the experts also stresses that transversal key competences *“are not something new [...] When we go a little bit into history [...], Study programmes have never been very narrowly focused only on preparation for the profession, in VET we have always had a general component of education [...] some civic competences, general education, literacy, some foreign languages.”*

Another analysis of the interviews raises the question: transversal key competences are defined in the State Educational Programmes but are they appropriately developed during the teaching and learning process? There is also a question of how much attention is paid to their development in teaching and learning process. According to the state and school educational programmes, the development of transversal key competences is the main task of each secondary school providing vocational education and training. So it is the responsibility of headmasters and teachers of individual schools to include them in the teaching – learning process. This transfer of responsibility can be illustrated as follows (see Figure 3).



**Figure 3 Responsibility for transversal key competences**

Transversal key competences development depends on teachers themselves, on the quality of content and the teaching process. Interviewed experts emphasized that teachers are the most important factor in the development process of transversal key competences. One expert said: *„We can find a lot of papers and instructions how to prepare things for a business, how students should learn about life and culture, and be proud of it [...] but the question is: How can I – the teacher – do that well in my school? What do I do for it, how do I teach it?“*

The respondents' answers indicate doubts about teachers being adequately prepared to develop transversal key competences of their students.

The experts also pointed out the importance of initial education of teachers. There are different kinds of universities providing initial teacher education in the Slovak Republic (especially educating teachers for lower and upper secondary education and vocational subject's teachers). The pedagogical part of initial teacher education is provided in different quality and quantity. To prepare teachers for transversal key competences development of students requires reconciliation of all initial teacher education programmes.

One expert rightly states that *„in the context of continual education of teachers they need some methodological guidelines, but it is always better to get specific practical training. Their development should be supported by school itself [...] via cooperation between teachers, agreements how to develop certain competences in cross-curricular way“*. Another expert rightly claims that *"Not only student's personality, but also the personality of the teacher must be profiled [...] the student is in the first place, not my teaching subject."*

Based on respondents' answers, we believe that there is an ongoing need for research that will focus on the importance of transversal key competences in the educational process.

#### 5.2.4 The rate of development of transversal key competences in upper secondary vocational education and training

The respondents agreed that all four transversal key competencies are important. Individual transversal key competences should be developed in accordance with the study field and rapidly changing society, emerging technologies, and new job creation. Based on this, students should be fully qualified for work in the labour market: *"Simply, quickly, effectively responding to the needs of the labour market, in a relatively short time horizon (half a year, maximum a year)..."*

Learning competence was highlighted by the respondents as a very important competence for rapidly changing world and constantly increasing knowledge. Ability to learn and be flexible, to be able to make changes and see all possibilities (horizons) and to make the right choices are required competences. It is equally important not to lose one's own motivation, ability to work independently and also to manage and evaluate one's own work (self-reflection).

In the area of civic competences, it is necessary to develop the area of human rights, active and responsible teamwork, active attitudes towards society and governance. Here we can again see the already mentioned importance of both professional and transversal competences.

The participants emphasize that it is extremely important for a person to develop entrepreneurial thinking, which includes the ability of decision making, ability to manage one's own career and to be initiative, and creative. It is also important for a person to be financially literate for possible future business activities. Of course, ethical dimension of entrepreneurship was mentioned as very important and necessary to be developed during the study process.

Culture awareness and its importance for working and personal life: According to the experts, it is necessary to be aware of the values, tradition, and history, to be able to attribute the values and to correctly formulate and express one's own attitudes.

It is important to understand that the four transversal key competences are related to each other. In addition to the transversal key competences, the experts also highlighted other "Competences for the 21<sup>st</sup> century", which should be included in this concept. These are part of the following table (see Table 5).

*Table 5 Competences for 21<sup>st</sup> century by respondents*

| <b>Competences for 21<sup>st</sup> century</b> |
|--|
| Competence for working with ICT                |
| Problem-solving                                |
| Creative approach                              |
| Multiculturalism, tolerance to difference      |
| Personal competence                            |
| Critical thinking                              |
| Working competence                             |
| Emotional intelligence                         |
| Working with information                       |
| Environmental literacy                         |
| Media literacy                                 |

In our opinion, it is important to point out the importance of working with information and media literacy. Not only students but also adults are flooded with a great amount of information that is not always correct. There are various hoaxes that are essentially manipulative, aimed at spreading false, alert information. We cannot omit the risks of online environments and social networks. Taking into account the views of the experts, it would be desirable to find a space within the framework of transversal key competences for the “working with information” competence, which combines both critical thinking and media literacy, *“In any case, this is not just our problem. It is a European problem how to capture new trends, to capture the fact that children are increasingly exposed to different social media and thus a much larger influx of information, how to evaluate them, how to critically process them.”*

### 5.2.5 The extent of application of European regulations in the national strategies within the area of transversal key competences

The interviewed experts agree that the European recommendations have affected the national strategies for transversal key competences development. Based on the European definitions, transversal key competences were adapted to national context and conditions in a certain way (see Chapter 2).

The experts also pointed out that they still see some problems in the VET education process. The state curriculum (State Educational Programme) is overloaded by obligatory content and additional curricular activities are not accepted by teachers very well. Some schools perceive transversal key competences as an additional load of content; however, other schools understand them as an integral part of preparation process for profession. Professional approach of schools towards the transversal key competences development differs but all schools have to cope with it.

According to one expert, EU recommendations are often seen as something that cannot be verified at the first glance. But by comparing the strategies of several EU member states it is possible to assume that if it works in the monitored EU countries, it might work in the conditions of Slovakia as well.

## 5.3 Strategies for transversal key competences development

The concept of key competences appeared in the state curriculum (State Educational Programme) in the year of 2008, when two-level curriculum was introduced (state curriculum and school curriculum). The state curriculum (State Educational Programme) was revised in 2013 and the number of key competences was reduced. Now there can be found three groups of competences:

1. Act independently in social and work life
2. Interactive use of knowledge, information communications technology (ICT), communication in Slovak, mother tongue and a foreign language
3. Work in heterogeneous groups

These key competences are elaborated according to the school conditions and developed in teaching – learning process. It is important to note that TKC are included in these three groups of key competences.

Dual system of VET is seen as a good base for transversal key competences development, according to views of the interviewed experts. In the framework of dual education, students can carry out training at the employer's workplace with the real possibility to develop transversal key competences. Due to the previous practice at the workplace, the adaptation process for employees is then stress-free and smooth.

Schools also have an opportunity to participate in ERASMUS projects that allow students' exchange in schools. Within these exchange periods, students have the opportunity to acquire not only language competence but they also have an opportunity to develop their transversal key competences. Basic strategies for transversal key competences development include appropriate teaching methods, active learning methods, training companies, small businesses, school start-ups, Junior Achievements, as well as students' vocational competition (SOČ).

The strategy that promotes the development of transversal key competences often depends on school headmasters. One of the interviewed heads of upper secondary schools introduced his good experience with transversal key competences development as being an inseparable part of education in his school. He gave examples of presentations of students' own products to younger classmates; he also talked about students' products presented at scientific competitions and the science fair and said that such events give students the opportunity to improve their skills and learn from each other. Although transversal key competences are not clearly defined in the state curriculum, he said that the richness of the school environment and extracurricular activities create conditions for the development of a complex personality of students. It is a clear example of the fact that we need not expect a strategy for the development of transversal key competences only from policy makers, the school culture is also important for their development.

#### **5.4 Assessment of Transversal Key Competences**

The last area, which we interviewed our respondents about, refers to the evaluation and assessment of transversal key competences. They were asked whether the competence descriptors are formulated in such a way that the expected outputs can be achieved and whether it is possible to set the evaluation criteria based on these descriptors. Respondents see this as a difficult task. „*What matters is the usability of knowledge also for personal life and practice, which has been absent for a certain period of time [...] I think the usability of knowledge becomes very important for the future [...] Measurability of these things is quite demanding.*”

Based on the interview analysis, it is possible to make the following approaches to the assessment of transversal competences (ranked according to the views of interviewed experts):

**- Assessment and evaluation of transversal key competences through grading**

Experts stressed the importance of education aims and objectives and the way how to measure their fulfilment. Teachers should learn how to teach students to work together, how to present their own attitudes and work. They should also learn how to assess group work, student's products and projects. Assessment criteria at the school level are very important because they influence teaching methods. Teaching methods are voluntary *and depend on each teacher*.

Two of the experts refused the alternative of grading system (marks 1-5) very strongly. In their view it is very important to learn to accept feedback and criticism. They say that this is feasible only in a narrative way.

**- Assessment of only certain transversal key competences**

Interestingly, three of the experts perceive entrepreneurial competences as the only TKC that can be assessed and quantified. All other transversal key competences help create complex personality of a student and are being developed during the whole study process. The process of TKC development of students is visible for a teacher and allows him/her to carry out formative assessment of TKC.

**- Assessment and evaluation of transversal key competences through research**

Three of the experts are open to evaluate transversal key competences through research procedures at the national level which might include a questionnaire method, surveys and other research methods. This approach is supported by the state education inspectors and researchers from the Faculty of Education UMB.

**- Absence of transversal key competence assessment system**

According to the majority of interviewed experts there is no system for assessing transversal key competences in vocational education and training. Their opinion on the national qualifications framework (SKKR) is also negative. In their view, the descriptors in SKKR are not formulated in such a way to derive the expected outcomes from them and to set the criteria for assessing transversal key competences.

In the context of the transversal key competences assessment one of the experts states: *"I do not think we have any settings [...] maybe that behaviour as assessed element is still something that reflects the social and cultural aspects of personality of a student. However, in the school report it is not possible to identify whether social or cross-curricular competences (transversal competences) have been developed and at what level."*

According to the experts included in this research, *"we do not have educational outcomes for transversal competences, so we do not know what we want to measure. It would be optimal to define what the students at this level of education should know"*

*and are able to use according to the transversal competences concept, only then the assessment and recognition comes into consideration”.*

Several experts argued that the descriptors of competences in SKKR make it possible to formulate expected outcomes and to set the criteria for assessing transversal key competences.

The analysis of the research findings reveals a large disparity of experts' views on the assessment of transversal key competences, reflecting on so far undeveloped system of their assessment. Therefore, in the future, it is important to establish a clearly defined system for evaluation of transversal key competences in vocational education and training.

## Chapter 6 Conclusions and Proposals

### 6.1 Conclusions

To prepare proposals, it is necessary to complete this report with other findings which support TRACK-VET project findings and conclusions.

#### **The Annual Report of the State School Inspection (ŠŠI) for the school year 2016/2017 – secondary vocational education and training schools**

The ŠŠI report for the school year 2016/2017 [11] stated that despite the good facilities with didactic tools and ICT resources, these were used only in the 20% of the visited classes.

The most developed among the key competencies were cognitive competencies of students.

Due to verbal activities of teachers and their dominant position in class, teachers were not able to stimulate interest of students, motivate them to work and use their learning potential.

**Personal, social, learning competences and civic competence** development was another weakness in the teaching process. Cooperative forms of learning and creating space for students to express their values and attitudes was visible in only 30% of the classes visited.

**Practical training** at the visited secondary VET schools confirmed a low ability of students to apply theoretical knowledge in practical work. From the transversal key competences point of view, most students showed a lack of communication, civic and social skills.

Despite the passing of different types of continual education, teachers do not apply the knowledge of new trends and acquired skills with new technologies sufficiently and efficiently in their teaching process. The report stated the absence of internal education of the pedagogical staff.

As the State School Inspection's external survey showed, the inspectors addressed 95 employers, where the students were trained, in order to receive feedback on the level of students' knowledge and skills. The feedback was provided by 63% of respondents. They indicated that the level of most of the student's competences was good or very good. A lack of the following skills was identified as weakness: skills of technological procedures control, work with instructions and technical documentation, the use of modern diagnostic equipment, application of ICT in the relevant field. They also said that students did not always work independently, and not everyone was aware of the necessary responsibility for the quality of the results of their activities. These statements were consistent with the findings of the school inspectors.

**Demographic development** shows a significant fall in population after 1989, which was reflected in a significant drop in the number of students in upper secondary vocational schools. For comparison, in the year 2000 there were 66,538 graduates of upper secondary vocational schools, in the year 2013 there were only 42,285 graduates. This trend will continue until 2019, and then a slight increase is expected until 2025. In November 2018, the average unemployment rate of graduates of upper secondary vocational schools was about 10.65 % (excluding ISCED 554 VET programmes graduates). Graduates of the study programmes (ISCED 253,353) of agriculture, construction, service and clothing showed a higher risk of unemployment among graduates. [14]

### **Citizens' Initiatives Findings**

According to the findings of the Central European Institute for Labour Research [15] – Study on Employers' Experience Focused on Highly Qualified and Low/ Medium Qualified Alumni on the Slovak Labour Market prepared for the Initiative “To dá rozum” (“To give reason”) in 2018 – formal education no longer plays the role as it used to be the case in the past, and it is no longer a guarantee for entering the labour market.

*What do the employers expect from primary and secondary schools graduates?*

Among the most important expectations there were:

- Ability to learn
- Ability to work in a team
- Motivation
- Ability to adapt to change
- Manual skill and physical ability

And the last 5 positions:

- Analytical thinking
- Formal education
- Professional certificates, certificates
- Foreign languages
- Advanced computer skills (programming, databases)

In 2019, the largest job portal Profesia.sk [16] surveyed companies what requirements they have for applicants for their secondary school job positions.

Among the most frequent requirements that companies, which were looking for new employees with secondary education, had in 2019 were: responsible attitude, communication skills, job experience or independence. These findings show that companies are increasingly looking for people who can think and make decisions on

their own. The way of managing work by ordering precise actions is disappearing in many companies and we see a shift to greater responsibility of employees for their work.

TKC requirements are also a trend that comes from the labour market situation. Companies have become accustomed to looking for more flexible people whom they can help develop professionally at the company.

Comparing this research with the research carried out at primary and secondary schools [17] and addressing the priorities of schools in the development of School Educational Programmes, schools show a strong emphasis on cognitive knowledge development and there are no requirements for development of attitudes and values, even in subjects such as ethics and civic education. There is also a lack of application of knowledge and skills in different contexts, which is an obstacle to meeting the vision of competency-based education.

More than 50% of school headmasters have the development of knowledge of individual subjects as a priority. Motivation to learn and ability to work in a team is a priority of only 30% of the addressed school headmasters and the learning ability of only 20% of the school heads questioned. Critical thinking is considered to be a priority of 18% of school principals, 16% of them considers developing civic competences as being important.

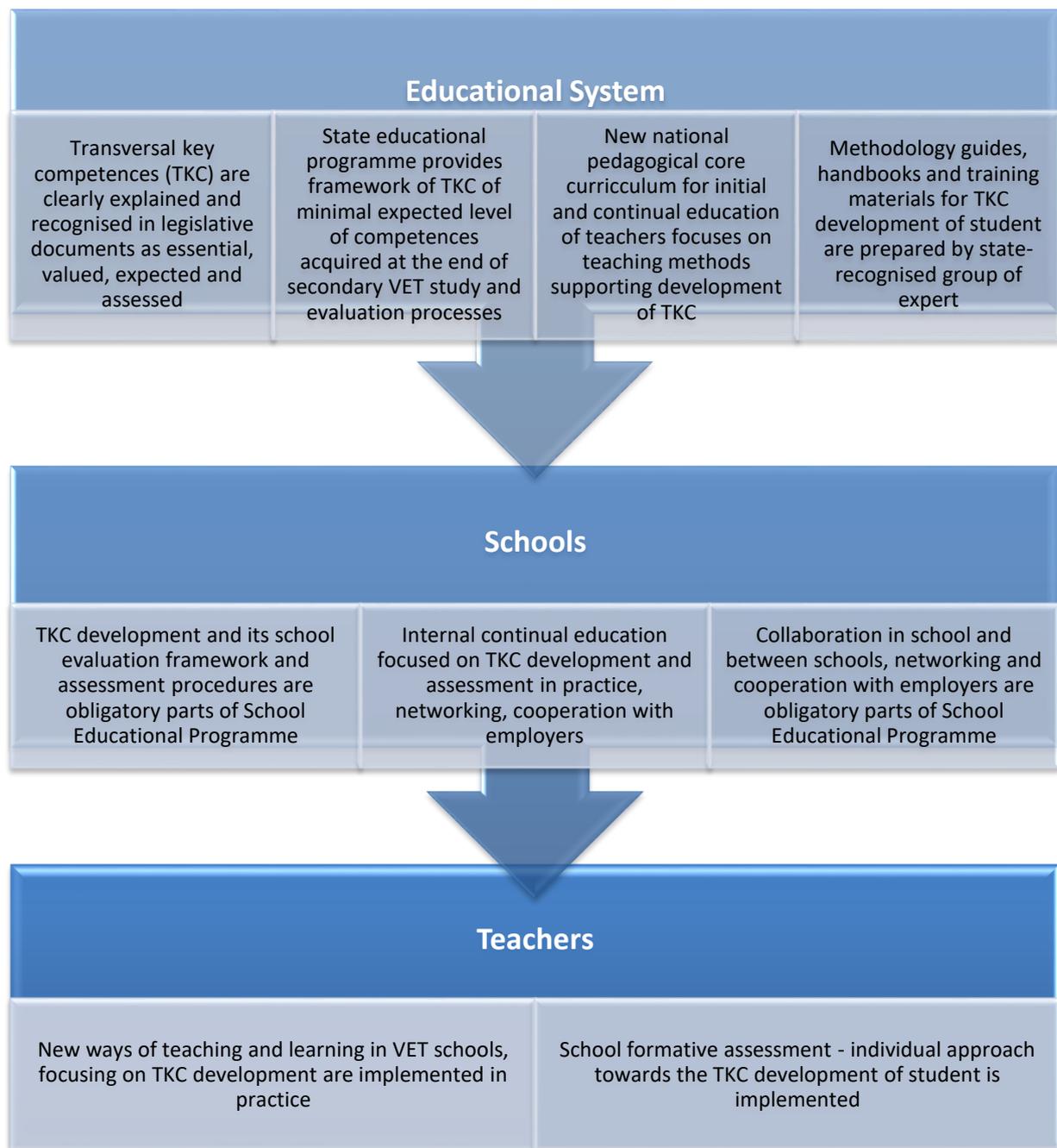
Only 13% of schools communicate with employers, including companies working with the most up-to-date information on industry trends, when developing their school educational programmes. As seen from the previous information, employers perceive the competences of their prospective employees differently than the school leaders perceive their graduates' competences.

The previous considerations are related to the Fourth Industrial Revolution which is characterized by dynamics and change and by building new roles of school. Students need to develop "future literacy" to be prepared for an unclear future.

## **6.2 Proposals**

Based on previous information, improvement in the area of TKC development should be done at three levels. We propose that (see Figure 4)

Figure 4 Proposals for Improvement of TKC



### 6.3 End of report

One of the aims of the school system is to prepare people for life, working life and lifelong learning. The cornerstone of this journey is to receive adequate knowledge in school education. However, knowledge is only one of the several important components of successful life. A person also needs to have practical skills and transversal key competences (TKC), known very often as “soft skills”. There is a belief in a society that school fails in both of these areas. This is what employers as well as experts say.

Analyzing the state curriculum (State Educational Programme) and legislation in force, we found that there is not a clear definition of transversal key competences (TKC). The unclear concepts indicate that there is only a formal fulfilment of obligations to European legislation rather than genuine interest and understanding of the issue. In practice, this manifests a misunderstanding of the content of TKC (personal, social, civil, learning, entrepreneurship competences and cultural awareness and expression). Entrepreneurship competence, which is understood as preparation for business activities in life, is the evidence of this misunderstanding.

Despite clear statements of stakeholders, policy makers and school experts about the importance of TKC, priorities of VET schools are oriented more towards the knowledge and academic achievements of their students.

According to the authors of the study [19] on the development of “soft skills” in young people entering the labour market, the period of adolescence and young adulthood (ages 15 -19 and 19 -29) is a suitable period for developing and strengthening these competences. They even claim that during adolescence “soft skills” are more formable than cognitive abilities. It is also important to note that these competences can also be developed in young people who did not have many incentives for their cultivation in the previous period. Based on the research, the authors recommend five areas of competences that should be developed in young workforce: social skills, higher levels of thinking, communication, self-control and a positive self-perception. These conclusions should be included in the curricula of secondary and tertiary education.

The space given to schools in creating their school educational programmes is not used to foster development of TKC. TKCs are in fact developed by teachers during regular teaching process and complemented by irregular discussions and lectures. In spite of the fact that teachers act as the central figures in the process of TKC development, only few of them have attended courses or trainings on TKC development. Most teachers prefer traditional transmissive methods of teaching, but this does not support adequate TKC development of students.

Proven teaching methods for TKC development are:

- Guided activities: discussion, debate, workshop, case study, project task, simulation;
  - Active-learning activities: role playing, business game, brainstorming, excursions, outdoor training;
  - Experience-based methods: dialogue and group discussion methods, movement activities, art activities, musical activities, written activities, dramatization, simulation games, explorations, activities with discovery, development of creativity and cooperation.

TKC development can be implemented as a short one-off activity, short regular meetings, a multi-day training block (one-time), a combination of regular meetings and

training blocks. Experts say there are more significant effects when training is from 30 hours upwards.

Each school can create a new subject out of disposable time allocations within their School Educational Programme which would focus on developing TKC, and/or “regular class meetings” can also cover the TKC development.

Not only formal education, but also non-formal education (activities in area of individual interest, club activities, etc.) and informal education (experience gained through reading books, watching television, or public discussion) support TKC development.

Assessment of TKC requires a comprehensive approach that captures various outcomes of student learning, including the performance of tasks, the degree of cooperation with other students, a comprehensive approach to solving emerging problems, and also a comprehensive approach to work and assignments. Assessment of TKC can be carried out:

- as a summative assessment in relation to the established criteria for developing TKC in State Educational Programme.
- as a formative assessment in relation to the established criteria for the development of TKC in school educational programme.
- as a peer evaluation and self-evaluation in relation to the criteria of TKC development set by subject teachers.

One way how to systematically monitor the process of TKC development and evaluate outcomes subsequently is the use of portfolio. Some experts also refer to the portfolio as a student learning chronicle because it contains a collection of student's long-term and systematic work (personality tests, protocols, projects, papers, teacher records from student observations, interview results, and student's self-assessment sheets). The teacher can thus follow the direction, and extent of changes in the learner's learning [20]. One advantage of the portfolio is also that it helps students develop their ability to plan their own work, systematically evaluate their personal goals and develop their sense of time management.

Assessment of the portfolio [21] should be preceded by defining evaluation objectives and criteria, as well as by defining what should be included in the portfolio, when and who should store the material. Each element included in the portfolio can be assigned with a different value and its share in the overall assessment. A peer evaluation, self-evaluation, or cooperative evaluation is also included in the portfolio.

Portfolio assessment means a comprehensive assessment of the student's work and behavior on the basis of these pre-defined assessment objectives and criteria.

Methods of TKC development in schools indicate that TKC assessment is closely tied to the teaching process and thus to evaluation at school level (formative and summative school assessment) rather than external “measurement”. Education

experts recommend verifying the development of TKC as a subject of pedagogical research for the needs of evidence-based educational policy.

Famous Albert Einstein commented the mission of the school as follows: “The school should always have as its aim that the young person leave it as a harmonious personality, not as a specialist”. It is not enough to educate a person in some special field. This makes a person a kind of usable machine, but not a fully-fledged personality. It is important to acquire what is worthy of certain time and effort [22].

## References

- [1] Commission staff working document accompanying the document proposal for a council recommendation on Key Competences for LifeLong Learning {COM(2018)24 final}, [cit. 2019-02-05] available online <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0014 &from=EN>
- [2] OECD. 2015. *Education Policy Outlook: Slovak Republic*. Paris, OECD, 2015. [cit. 2019-02-05] available online: <http://www.oecd.org/education/Slovak-republic-Country-Profile.pdf>
- [3] MŠVVaŠ SR. 2018. *Národný program rozvoja výchovy a vzdelávania: Kvalitné a dostupné vzdelanie pre Slovensko* [National Program for Development of Education and Training]. [cit. 2019-03-15] available online <https://www.minedu.sk/data/att/13285.pdf>
- [4] Cedefop. 2016. *Vocational education and training in Slovakia: short description*. Luxembourg: Publications Office. [cit. 2019-01-22] available online <http://dx.doi.org/10.2801/831200>
- [5] European Union, 2016. *Education and Training Monitor 2016. Country Analysis. Slovakia*. Luxembourg: Publications Office of the European Union, 2016. Pg 246 – 256. [cit. 2019-01-22] available online [http://europski-fondovi.eu/sites/default/files/dokumenty/monitor2016-country-reports\\_en.pdf](http://europski-fondovi.eu/sites/default/files/dokumenty/monitor2016-country-reports_en.pdf)
- [6] MŠVVaŠ SR. 2016. *Odborné vzdelávanie a príprava: skupiny odborov ŠVP* [State Educational Programme: Vocational education and training - groups of study programmes]. [cit. 2019-01-24] available online <http://www.siov.sk/Vzdelavanie/SVP.aspx>
- [7] Pathóová, I. & Gállová, L. & Junášková, A. 2017. *Referencing report of the Slovak qualifications framework to the European qualifications framework 2017*. Bratislava, ŠIOV, 2017. [cit. 2019-03-12] available online <https://www.minedu.sk/data/att/15015.pdf>
- [8] Cedefop. 2018. *Developments in vocational education and training policy in 2015-17: Slovakia. Cedefop monitoring and analysis of VET policies*. [cit. 2019-01-22] available online <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/vet-policy-developments-slovakia-2017>
- [9] MŠVVaŠ SR & MF SR. *National standard of financial literacy version 1.2*. [cit. 2019-01-22] available online <https://www.minedu.sk/17937-sk/narodny-standard-financnej-gramotnosti-verzia-12/>
- [10] *Validation of non-formal and informal learning/sk*. [cit. 2019-03-18] available online [http://www.peer-review-network.eu/media/VNFIL%20Extended/IO%2001\\_Slovakia\\_VNFIL\\_country\\_fiche-1.pdf](http://www.peer-review-network.eu/media/VNFIL%20Extended/IO%2001_Slovakia_VNFIL_country_fiche-1.pdf)
- [11] ŠŠI. 2017. *Správa ŠŠI za školský rok 2016-2017* [State School Inspection report] [cit. 2019-01-22] available online [https://www.ssiba.sk/admin/fckeditor/editor/userfiles/file/Dokumenty/velka\\_sprava/sprava\\_16\\_17\\_2.pdf](https://www.ssiba.sk/admin/fckeditor/editor/userfiles/file/Dokumenty/velka_sprava/sprava_16_17_2.pdf)

- [12] NÚCEM 2018. *Slovenský jazyk a literatúra 2018, maturitný test – variant testu 3215* Bratislava, NÚCEM 2018, [cit. 2019-01-22] available online: [http://www.nucem.sk/documents//25/maturita\\_2018/organizacne\\_pokyny\\_a\\_spriev\\_dokumentacia/Pokyny\\_na\\_hodnotenie\\_PFIC\\_MS\\_VUJ\\_2018\\_final.pdf](http://www.nucem.sk/documents//25/maturita_2018/organizacne_pokyny_a_spriev_dokumentacia/Pokyny_na_hodnotenie_PFIC_MS_VUJ_2018_final.pdf)
- [13] NÚCEM 2018. *Kritériá na hodnotenie PFIC MS z vyučovacích jazykov*. [cit. 2019-01-22] available online: [http://www.nucem.sk/documents//25/maturita\\_2018/organizacne\\_pokyny\\_a\\_spriev\\_dokumentacia/Kriteria\\_na\\_hodnotenie\\_PFIC\\_MS\\_VUJ\\_2018\\_final.pdf](http://www.nucem.sk/documents//25/maturita_2018/organizacne_pokyny_a_spriev_dokumentacia/Kriteria_na_hodnotenie_PFIC_MS_VUJ_2018_final.pdf)
- [14] Herich, J. 204. *Prognóza vývoja ukazovateľov stredných odborných škôl do roku 2025*. Bratislava, Centrum vedecko-technických informácií SR, 2014. [cit. 2019-02-19] available online [http://www.cvtisr.sk/buxus/docs//JH/progniza\\_so\\_14v2.pdf](http://www.cvtisr.sk/buxus/docs//JH/progniza_so_14v2.pdf)
- [15] Vančíková, K. 2018. *Čo očakáva pracovný trh od absolventov stredných odborných škôl (blog 14.6.2018)*. Denník N 14.6.2018. [cit. 2019-03-19] available online <https://dennkn.sk/blog/1151585/co-ocakava-pracovny-trh-od-absolventov-strednych-skol>
- [16] *Čo chcú zamestnávateľa od uchádzačov? Toto je zoznam najčastejších požiadaviek od firiem, ktoré hľadali nových ľudí v roku 2019 (zverejnené 14. augusta 2019)*. [cit. 2019-09-14] available online <https://firma.profesia.sk/co-chcu-zamestnavatelia-od-uchadzacov-toto-je-zoznam-najcastejsich-poziadaviek-od-firiem-ktore-hladali-novych-ludi-v-roku-2019/>
- [17] Fridrichová, P. 2018. *Čo učíme a čo by sme sa mali učiť na stredných školách (blog)*. *Denník N*. [cit. 2019-03-19] available online <https://dennin.sk/blog/1325099/co-sa-ucime-a-co-by-sme-sa-mali-ucit-na-strednych-skolach/>
- [18] Potočnáková, D. *Rozvoj mäkkých dovedností vevyšším sekundárním vzdelávaní* Diplomová práca. [cit. 2019-03-25] available online [https://is.muni.cz/th/npyz6/Final\\_DP\\_Potocnakova.pdf](https://is.muni.cz/th/npyz6/Final_DP_Potocnakova.pdf)
- [19] LIPPMAN, L., RYBERG, R., CARNEY, R. & MOORE, K. 2015. *Key “Soft Skills” that Foster Youth Workforce Success: Toward a Consensus across Fields* [online]. *Child Trends*, 2015, [cit. 2019-03-19] available online <https://www.childtrends.org/wp-content/uploads/2015/06/2015-24AWFCSoftSkillsExecSum.pdf>
- [20] Turek, I. 2010. *Didaktika*. Bratislava: Iura Edition, 2010. ISBN 978-80-8078-322-8
- [21] SLAVÍK, J. 1999. *Hodnocení v současné škole*. Praha: Portál, 1999. ISBN 80-7178-262-9
- [22] DUNČÁKOVÁ, Ľ. 2013. *Kariérové poradenstvo pre žiakov stredných škôl: Osvedčená skúsenosť odbornej praxe*. In: Metodicko-pedagogické centrum [online]. Bratislava: Metodicko-pedagogické centrum, 2013. [cit. 2019-04-09] available online [https://mpc-edu.sk/sites/default/files/projekty/vystup/6\\_ops\\_duncakova\\_lubomira\\_-\\_karirove\\_poradenstvo\\_pre\\_ziakov\\_strednych\\_skol.pdf](https://mpc-edu.sk/sites/default/files/projekty/vystup/6_ops_duncakova_lubomira_-_karirove_poradenstvo_pre_ziakov_strednych_skol.pdf)

## Legislation:

1. Zákon č. 245/2008 Z.z. o výchove a vzdelávaní (školský zákon) [Education Act] available online <https://www.minedu.sk/12272-sk/zakony/>
2. Zákon č. 568/2009 Z.z.o celoživotnom vzdelávaní [LLL Act] available online <https://www.minedu.sk/12272-sk/zakony/>
3. Vyhláška o ukončovaní štúdia na stredných školách č. 318/2008, novela č. 142/2018 [Decree of the finalisation of study at upper secondary schools]. [cit. 2019-05-20] available online [https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2018/142/vyhlasene\\_znenie.html](https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2018/142/vyhlasene_znenie.html)
4. Metodický pokyn č. 21/2011 na hodnotenie a klasifikáciu žiakov stredných škôl [Regulation of the evaluation and assessment at upper secondary schools] available online <https://www.minedu.sk/metodicky-pokyn-c-212011-na-hodnotenie-a-klasifikaciju-ziakov-strednych-skol/>

### Sources recommended for deeper study:

1. Cedefop (2014). Policy handbook: Access to and participation in continuous vocational education and training (CVET) in Europe. Luxembourg: Publications Office of the European Union. Cedefop working paper; No 25. available online [http://www.cedefop.europa.eu/files/6125\\_en.pdf](http://www.cedefop.europa.eu/files/6125_en.pdf)
2. Cedefop. (2016). Spotlight on VET SLOVAKIA. Cedefop.
3. Cedefop (2017). European inventory on national qualifications framework 2016: Slovakia. available online <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/slovakia-european-inventory-nqf-2016>
4. Developing cross-cutting competencies for a transdisciplinary world: An extension of Bloom's Taxonomy Iryna [Ashbyiashby@purdue.edu](mailto:Ashbyiashby@purdue.edu) Purdue University , Marisa [Extermexter@purdue.edu](mailto:Extermexter@purdue.edu) Purdue University Deena [Varnerdvarner@purdue.edu](mailto:Varnerdvarner@purdue.edu) Purdue University available online: [https://members.aect.org/events/symposia/Docs/2018AECTSymposium\\_TST\\_Blooms\(2\).pdf](https://members.aect.org/events/symposia/Docs/2018AECTSymposium_TST_Blooms(2).pdf) získané 8.1.2019
5. Erasmus+, KA3: National Authorities for Apprenticeships. Introduction of Elements Dual VET in the Slovak Republic. Review of Slovak Legislation and VET Pilot Schemes . WP4 – Development and Implementation of Dual Technical Apprenticeships in Slovak Republic
6. Moss, S.: Great eight competences available online <https://www.sicotests.com/psyarticle.asp?id=280>
7. Vantuch, J. et al. (2014). Analýza Európskeho kvalifikačného rámca a Národných kvalifikačných rámcov vo vybraných krajinách EÚ [Analysis of EQF and NQFs in selected EU countries]. available online [http://www.tvorbansk.sk/files/Analyza\\_EKR\\_NKR\\_EU.pdf](http://www.tvorbansk.sk/files/Analyza_EKR_NKR_EU.pdf)
8. Vantuch, J., Jelínková, D. (2014). Early leaving from vocational education and training: Slovakia. Cedefop's ReferNet thematic perspectives series. available online [http://libserver.cedefop.europa.eu/vetelib/2014/ReferNet\\_SK\\_ESL.pdf](http://libserver.cedefop.europa.eu/vetelib/2014/ReferNet_SK_ESL.pdf)
9. Vantuch, J.; Jelínková, D. (2016). Key competences in vocational education and training – Slovakia. Cedefop ReferNet thematic perspectives series. available online [http://libserver.cedefop.europa.eu/vetelib/2016/ReferNet\\_SK\\_KC.pdf](http://libserver.cedefop.europa.eu/vetelib/2016/ReferNet_SK_KC.pdf)

## Annex 1

### Key competences analysis

| ISCED   | 253  | 353   | 354  | 454, 554   |
|---|--|---|--|--|
| <p><b>1. Competence of acting independently in social and work life</b></p> <p>TKC – personal, social, civic, entrepreneurship competences and cultural awareness and expression</p> <p>TKC – learning competence</p> | <p>The graduate can:</p> <p><b>justify</b> his/her own views, procedures and decisions,</p> <p><b>identify</b> direct and indirect consequences of his/her own activity,</p> <p><b>choose</b> the right decision and goal from various options,</p> <p><b>explain</b> his/her own life plans, interests and resolutions,</p> <p><b>describe</b> human rights, duties, interests, limitations and needs,</p> <p><b>justify</b> his/her own arguments, solutions, needs, rights, duties and conduct.</p> | <p>The graduate can:</p> <p>realistically <b>justify</b> his/her own views, procedures and decisions,</p> <p><b>compare</b> common rules, regularities, regulations, social standards, moral principles, his/her own and community expectations in the system in which he/she exists,</p> <p><b>identify</b> direct and indirect consequences of his/her own activity</p> <p><b>choose</b> the right decision and goal from various options,</p> <p><b>explain</b> his/her own life plans, interests and resolutions,</p> <p><b>describe</b> human rights, duties, interests,</p> | <p>The graduate can:</p> <p>logically and realistically <b>justify</b> his/her own views, procedures and decisions,</p> <p><b>compare</b> formal and informal rules, regularities, regulations, social standards, moral principles, his/her own and community expectations in the system in which he/she exists,</p> <p><b>identify</b> direct and indirect consequences of his/her own activity,</p> <p><b>choose</b> the right decision and goal from various options,</p> <p><b>explain</b> his/her own life plans, interests and resolutions,</p> <p><b>describe</b> human rights,</p> | <p>The graduate can:</p> <p>logically and realistically <b>justify</b> his/her own views, procedures and decisions,</p> <p><b>compare</b> formal and informal rules, regularities, regulations, social standards, moral principles, his/her own and community expectations in the system in which he/she exists,</p> <p><b>identify</b> direct and indirect consequences of his/her own activity,</p> <p><b>choose</b> the right decision and goal from various options,</p> <p><b>explain</b> his/her own life plans, interests and resolutions,</p> <p><b>describe</b> human rights,</p> |

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|  |  | <p>limitations and needs,<br/> <b>justify</b> his/her own arguments, solutions, needs, rights, duties and conduct.</p>   | <p>duties, interests, limitations and needs,<br/> <b>define</b> his/her own aims and predictions,<br/> <b>determine</b> the sources of personal and social life and their expected development,<br/> <b>justify</b> his/her own arguments, solutions, needs, rights, duties and conduct.</p>                          | <p>duties, interests, limitations and needs,<br/> <b>define</b> his/her own aims and predictions,<br/> <b>determine</b> the sources of personal and social life and their expected development,<br/> <b>justify</b> his/her own arguments, solutions, needs, rights, duties and conduct.</p>                          |
| <p><b>2. Competence of using knowledge, ICT interactively, communication in Slovak, mother tongue and foreign language (one/two foreign languages are mandatory depending on type of VET)</b></p> <p>TKC – learning competence</p> | <p>The graduate can:<br/> <b>express</b> himself/herself in mother tongue in written and spoken form,<br/> <b>solve</b> easier mathematical problems and various situations,<br/> <b>identify, search, sort and process</b> simple information,<br/> work with e-mail.</p> | <p>The graduate can:<br/> <b>express</b> himself/herself reliably in mother tongue in written and spoken form,<br/> <b>express</b> himself/herself in one foreign language in written and spoken form,<br/> <b>solve</b> common mathematical problems and various situations,<br/> <b>identify, search, sort</b></p> | <p>The graduate can:<br/> <b>express</b> himself/herself correctly in mother tongue in written and spoken form,<br/> <b>express</b> himself/herself reliably in a foreign language in written and spoken form,<br/> <b>solve</b> mathematical problems and various situations,<br/> <b>identify, search, sort</b></p> | <p>The graduate can:<br/> <b>express</b> himself/herself correctly in mother tongue in written and spoken form,<br/> <b>express</b> himself/herself reliably in a foreign language in written and spoken form,<br/> <b>solve</b> mathematical problems and various situations,<br/> <b>identify, search, sort</b></p> |

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|   |   | <p>and process various information and information resources,</p> <p>judge the credibility of different sources of information,</p> <p>verify and interpret the data obtained,</p> <p>work with e-mail,</p> <p>work with basic information and communication technologies.</p> | <p>and process various information and information resources,</p> <p>judge the credibility of different sources of information,</p> <p>critically judge the information obtained,</p> <p>formulate, observe, sort and measure hypotheses,</p> <p>verify and interpret the data obtained,</p> <p>work with e-mail,</p> <p>work with various advanced information and communication technologies.</p> | <p>and process various information and information resources,</p> <p>judge the credibility of different sources of information,</p> <p>critically judge the information obtained,</p> <p>formulate, observe, sort and measure hypotheses,</p> <p>verify and interpret the data obtained,</p> <p>work with e-mail,</p> <p>work with various advanced information and communication technologies.</p> |
| <p><b>3. Competence of working in heterogenous groups</b></p> <p>TKC- personal, social, civic and entrepreneurship competences and cultural</p> | <p>The graduate can:</p> <p>show empathy and self-reflection,</p> <p>express his/her own feelings and correct negativity,</p> | <p>The graduate can:</p> <p>show empathy and self-reflection,</p> <p>express his/her own feelings and correct negativity,</p>  | <p>The graduate can:</p> <p>show empathy and self-reflection,</p> <p>express his/her own feelings and correct negativity,</p>   | <p>The graduate can:</p> <p>show empathy and self-reflection,</p> <p>express his/her own feelings and correct negativity,</p>   |

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| <p>awareness and expression</p> <p>TKC – learning competence</p> | <p>positively motivate himself/herself and others,</p> <p>influence people (talk to, persuade),</p> <p>set the priorities of the objectives,</p> <p>present his/her own ideas, proposals and attitudes,</p> <p>discuss and listen to others,</p> <p>identify serious shortcomings and quality of his/her own learning, work performance and personality growth,</p> <p>cooperate to solve problems with other people</p> <p>submit his/her own proposals to improve work, to consider the</p> | <p>positively motivate himself/herself and others,</p> <p>influence people (talk to, persuade),</p> <p>set the priorities of the objectives,</p> <p>make appropriate proposals to allocate the competences and tasks for other team members and to assess together with the teacher and others whether they are capable of managing the competences</p> <p>present his/her own ideas, proposals and attitudes,</p> <p>discuss constructively and listen carefully to others,</p> <p>come to clear agreements,</p> <p>decide about choosing the right opinion from various options,</p> | <p>positively motivate himself/herself and others,</p> <p>influence people (talk to, persuade),</p> <p>set the priorities of the objectives,</p> <p>make appropriate proposals to allocate the competences and tasks for other team members and to assess together with the teacher and others whether they are capable of managing the competences</p> <p>present his/her own ideas, proposals and attitudes,</p> <p>discuss constructively , actively submit progressive proposals and listen carefully to others,</p> <p>build and organize a balanced and</p> | <p>positively motivate himself/herself and others,</p> <p>influence people (talk to, persuade),</p> <p>set the priorities of the objectives,</p> <p>make appropriate proposals to allocate the competences and tasks for other team members and to assess together with the teacher and others whether they are capable of managing the competences</p> <p>present his/her own ideas, proposals and attitudes,</p> <p>discuss constructively , actively submit progressive proposals and listen carefully to others,</p> <p>build and organize a balanced and</p> |
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|  | <p>proposals of others without bias, <b>contribute</b> to the development of friendly <b>interpersonal relations</b>, avoiding personal conflicts.</p> | <p><b>identify the most important features</b> of a problem, its various solutions, pros and cons in the given as well as in the long-term context,</p> <p><b>cooperate</b> to solve problems with other people,</p> <p><b>work independently</b> in a smaller team,</p> <p><b>identify serious shortcomings</b> and <b>quality</b> in his/her own learning, work performance and personality growth,</p> <p><b>submit</b> his/her <b>own proposals to colleagues</b> to improve their work, to consider the proposals of others without bias,</p> <p><b>contribute</b> to the development of friendly <b>interpersonal relations</b>,</p> | <p>sustainable <b>cooperation</b>, <b>come to clear agreements</b>, <b>decide</b> about choosing the right opinion from various options,</p> <p><b>analyze</b> the boundaries of the problem,</p> <p><b>identify the area</b> of the agreement and the contradiction,</p> <p><b>identify the most important features of a problem</b>, its various solutions, pros and cons in the given as well as in the long-term context, criteria for choosing the ultimate optimal solution,</p> <p><b>cooperate</b> to solve problems with other people,</p> <p><b>work independently</b> and <b>manage</b> work in a smaller team,</p> | <p>sustainable <b>cooperation</b>, <b>come to clear agreements</b>, <b>decide</b> about choosing the right opinion from various options,</p> <p><b>analyze</b> the boundaries of the problem,</p> <p><b>identify the area</b> of the agreement and the contradiction,</p> <p><b>identify the most important features of a problem</b>, its <b>various solutions</b>, pros and cons in the given but also in the long-term context, criteria for choosing the ultimate optimal solution,</p> <p><b>cooperate</b> to solve problems with other people,</p> <p><b>work independently</b> and <b>manage</b> work in a smaller team,</p> <p><b>identify serious</b></p> |
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|  |  | <p>avoid personal conflicts, prejudices and stereotyping access to others.</p> | <p>identify serious shortcomings and quality in his/her own learning, work performance and personality growth,<br/> submit his/her own proposals to colleagues to improve their work, to consider the proposals of others without bias,<br/> contribute to the development of friendly interpersonal relations, avoid personal conflicts, prejudices and stereotyping access to others.</p> | <p>shortcomings and quality in his/her own learning, work performance and personality growth,<br/> submit his/her own proposals to colleagues to improve their work, to consider the proposals of others without bias,<br/> contribute to the development of friendly interpersonal relations, avoid personal conflicts, prejudices and stereotyping access to others.</p> |
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