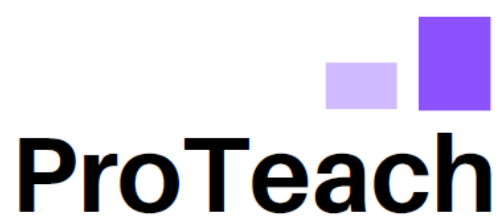


# Theoretical and practical model for professional development of pedagogical specialists



## **Theoretical and practical model for professional development of pedagogical specialists**

The publication is created within the European project "ProTeach", which includes three organizations - the Bulgarian Union of Teachers (SEB), Teachers Union of Serbia (TUS) and the Trade Union of Teachers in Romania (FSLI).

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Dear colleagues,

It is my pleasure to present the result of our cooperation with colleagues from Serbia and Romania on the Professional Development of Teachers in Digital Education (ProTeach) project, supported by the Erasmus + program.

In the current theoretical and practical model, we have combined the experience of our countries in the application of a modern model for professional development of pedagogical specialists. The model is reconfirming the benefits of quality mentoring in the education system, which considers the new challenges facing the modern teacher.

We are grateful to the whole team of academic researchers, trade unionists and especially to the pilot group of over 60 Bulgarian, Serbian and Romanian colleagues who put the model into practice and helped us confirm that we are on the right track.

Mentoring provides valuable support for professional development for both first-year teachers and more experienced colleagues. Following a structured sequence of clear steps to organize the process of interaction between the mentor and the pedagogical specialist creates a condition for sustainable and quality educational results.

The starting point in the work of any good mentor is to focus on the impact that the development process of the pedagogical specialist will have on the higher achievements of students.

I wish you all a pleasant reading and putting into practice what you have learned.

With respect,

Ph.D. Yanka Takeva

A handwritten signature in blue ink, appearing to read 'Yanka Takeva', written in a cursive style.

Chairman of the SBU



A few years ago, the OECD published a Study on Assessment and Examination in Education (2017). The file dedicated to Romania mentioned that it is necessary to review and update the approaches regarding the professionalization of the teaching career of the pre-university education staff, in order to more clearly define the roles and responsibilities of the different actors involved, to develop a coherent national system of training and occupational standards didactic, to reconfigure the types of evaluation of the teaching career and to increase the degree of stimulation and motivation of the teachers in order to improve the performances of the effective teaching activity in the classroom.

FSLI Romania has taken numerous actions to establish a teaching career mentoring institution, which should function as a self-regulatory body, based on teaching standards (occupational and training), both in the segment of early career teaching - internship / insertion mentoring - and, especially, in the segment of career development and professional development - professional development mentoring.

From this perspective, the Project 2020-1-BG01-KA226-SCH-094955 entitled “PROFESSIONAL DEVELOPMENT OF TEACHERS IN DIGITAL EDUCATION” is an extraordinary opportunity for our organization to take a significant step forward in mentoring the entire pre-university teaching career, by creating a coherent and reliable system of professional training and development of the didactic competence necessary for the occupation and exercise of a didactic function as well as for obtaining the pedagogical performance in the pre-university education in Romania.

This book is a valuable guide for those who want to contribute to the professionalization of teaching careers in our region, providing concrete information on teamwork, observing other teachers and the wider professional learning communities that can be strong forms of collaboration between colleagues, but have not yet become the norm in Europe. In order to improve the learning experience of students, teachers need to be able and willing to work and learn in teams - with other teachers, in multi-professional school teams and with external partners, and this project is a great opportunity to put in practice a new innovative mentoring method.

Simion Hancescu,

A handwritten signature in blue ink, appearing to read 'Simion Hancescu', with a stylized flourish at the end.

President of FSLI Romania



The piloting of the new methodology of continuous professional development of teachers in the era of digitalization and new challenges is of utmost importance for teachers, for improvement of pedagogical outcomes and for benefit of students and the success of their future education

The mentor's work with teachers, with respect of recommended methodological steps in the evaluation and improvement of their work has the great impact to strengthening the internal capacities of teachers' communities and contributed to stronger cooperation and mutual confidence, as well to the growing of self-confidence of teachers when they are facing with the new tasks.

Common work on the project "Professional development for pedagogical specialists in Bulgaria, Serbia and Romania" in the program Erasmus +, realized by three trade unions is important for further improvement of cooperation between unions and exchanging experiences of teachers in their efforts to find the best answers and solutions in pedagogical practice.

It was our pleasure to be the part of this important project, the new field of trade union work, committed to improvement of pedagogical competences of our teachers.

Valentina Ilic

President of Teachers Union of Serbia

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## Introduction

The idea for the current theoretical-practical model arose in response to the challenges posed by the pandemic to education systems in Europe related to the transition from offline to distance learning. Three teachers' trade unions from Bulgaria, Romania and Serbia joined forces to find an answer on how to support the professional development of teachers in the era of hybrid education. The end of the pandemic did not automatically solve all the extraordinary challenges but served as a catalyst for deep transformation of educational systems in line with the expectations and requirements of society.

This publication is an attempt to provide guidance on some of the possible long-term solutions for sustainable professional development of teachers. The presented content is organised in four main chapters and four appendices.

Chapters 1 and 2 provide an overview of the topic of qualification and professional development of pedagogical specialists in modern education and propose a model for personalized professional development of pedagogical specialists.

Chapter 3 provides guidelines for the development and implementation of mentoring as an element of the professional development of pedagogical specialists. The main phases for the implementation of mentoring in school environment are presented.

Chapter 4 describes the research findings from using the model with 64 teachers from Bulgaria, Romania and Serbia and draws conclusions on possible future steps for the dissemination and implementation of mentoring as a form of professional development.

The appendices present useful materials that can be applied in practice by both academic researchers and school mentors.



## Chapter 1 - Qualification and professional development of pedagogical specialists in modern education

Education is a continuous process that continues throughout the life of every teacher, every pedagogical specialist and every educational leader. The necessary change of the educational systems due to the pandemic conditions and the inclusion of electronic models of education provoke new forms of qualifications. Pedagogical specialists need to know the constantly changing educational and digital technologies, functionalities of electronic platforms, digital media, electronic resources; as well as innovative models and teaching methods. At the same time, not only to keep up with the latest trends in education, but also to apply them in their practice.

Pedagogical specialists increase their competences through continuing training in various forms of qualification and through independent professional learning. When pedagogical specialists are implementing continuous professional learning as an important element for their professional development, they not only master new competences, but also provide the most innovative and interesting methods in the teaching process and motivate their students for maximum achievements according to their potential. With constant professional development, teachers become more effective, create a more appropriate, interesting and better educational design for students. Students themselves are more motivated for achievements, including they are also motivated for active and effective learning. According to a study by the US Department of Education's Institute of Educational Science, student achievement can improve by up to 21 percent as a result of teachers' participation in well-designed professional development programs (Yoon et al, 2007).

In the modern educational systems, the continuing qualification (continuing professional development) of teachers is extremely important for their professional career and the quality of their pedagogical activity in the classroom and outside it.

"The lifelong learning approach applied to teachers' professional development is essential to compensate for shortcomings in initial teacher training, to continue to improve the quality of teachers' work and to retain effective staff in educational organizations. This is because the new generations of students, the wider integration of students with special needs in mainstream schools and classrooms, the increasing use of information and communication technologies in teaching, as well as the changing role of the teacher in the classroom, require teachers to constantly upgrade their skills "(OECD, 2019).

The professional development of teachers can be related to a number of goals, including: updating the individual knowledge of the subject they teach; further development of individual skills and approaches to teaching; developing and applying new practices and approaches in teaching; exchange of information and experience with teachers and other external experts (OECD, 2020).

### The new role of modern teachers

Despite the widespread application of traditional models and forms of teacher qualifications defined (short-term and long-term top-down courses) in education systems, they are not always effective enough. Research shows that only 25% of training programs significantly improve an organization's performance, and 75% of corporate training strategies are either ineffective or the outcome of their implementation cannot be measured (Simpson, 2020). That is why modern forms of training and development of human resources enter modern organizations, including educational ones, such as:

- The transfer of good practices (benchmarking meetings) as a means of exchanging experience between organizations;
- "Learning in action" is a technique in which pedagogical professionals work and study together;
- Individualized coaching for professional development (OECD, 2019);
- Personalized learning, personal commitment and support for teachers' creativity and innovation (Kampen, 2019).

With the implementation of these new tools for professional development, the model of continuing qualification based on the "deficit approach", which recognizes that teachers do not have sufficient skills and knowledge and needs to be trained by experts to build up missing competences, is gradually losing its leading position. This is because this qualification model is designed "top-down" regardless of the teaching context and therefore risks teaching being too abstract and detached from school practice and thus proving useless to teachers "(Bergmark, 2020). There is an increasing argument and imposition of a "pragmatic model of professional development", based on purposeful professional learning in the organization, related to the sharing of good practices and aimed at improving student performance.

As a result of the development of these processes in a number of educational systems, **competence frameworks** (professional standards) for teachers have been introduced in a number of legislative documents. They are used to identify the specific knowledge, skills and attitudes required of teachers in the context of their initial training and in some countries are also applied to the continuing professional development and / or career development of teachers at all stages of their career. On the other hand, various elements of **Education 4.0** (see Annex 1), related to the development of the information society and the technological revolution 4.0, are being introduced more and more successfully in modern educational systems. In the last two years marked by a pandemic resulting from the spread of Covid 19, this process has accelerated in the context of the physical closure of schools and the widespread use of various forms of learning in the digital environment. These changed conditions in the educational environment determine and require a serious change in the role and functions of the teacher in the classroom.

The modern teacher working in the conditions of digital transformation takes a new position in the learning process, in which he is not so much a source of information, but rather a *facilitator, mediator, activator, motivator* of his students. In this sense, he is increasingly taking on the role of *leader and coach*.

**The student is at the center of learning**, when available:

- personalization of the training / taking into account strengths and needs, dreams and problems, the necessary support and possible activities /;
- direct learning from the student;
- creating conditions for the student to study anywhere and at any time;
- clear criteria for success.

The teacher has the leadership responsibility for involving each child in school activities, in the implementation of learning tasks and in distance learning projects in an electronic environment according to his abilities. Every true teacher must be able to recognize and know about children's differences. According to Tuisk (2012), some of the teacher's roles depend on the school culture and include: the teacher as the creator of a supportive psycho-climate in the school community; the teacher as supporting the development of students' creative and independent thinking; the teacher as a creator of ways to support the development of responsibility.

Another role position of the teacher is that of a **scientist-researcher**. This role need arises both due to the high awareness of students and parents in the modern information society, and due to the modernization of the educational process and the introduction of innovative methods and techniques. It is possible for a teacher not to make scientific discoveries or to become a scientist in the academic sense of the word, but it is also necessary to teach science. As a scientist, the teacher should have the competences to measure, to structure the design of the research, to process the results, to analyze the results obtained and to apply in practice the results and their analysis.

In the context of the COVID-19 pandemic, the education sector and teachers face new challenges, namely to adapt quickly to distance learning in an electronic environment. Teachers are beginning to shape the new normality of crisis education through a number of new roles:

- an innovator of change, because innovation is now a daily routine for every teacher and for every school. Every teacher and every school create innovations in the education of their students because they have a mission to change destinies for a better future;
- team player who collaborates with individual members of the school community - principals, teachers, students, non-teaching staff, parents, etc .;
- motivator of their students for learning and socialization. Each teacher realizes informal and formal communication with his students and their parents, supports the work with an electronic platform and learning resources, as well as their educational process and their well-being;
- mentor their students. Teachers, as mentors of their students, train them by adapting their teaching methods according to the possibilities of electronic technologies, their own teaching styles and the learning styles of the students. They bring insurmountable challenges according to the potential of the students and inspire learning and school and life achievements.

Each of the mentioned roles of the modern teacher is realized both individually by the individual teacher and in team activity with the other teachers, students, parents, as well as in co-teaching.

**Co-teaching** of two or more teachers at the same time and under the same conditions is an innovative model of teaching for the purposes of inclusive education of different children /

students and for all children / students in the classroom. This model of teaching is inclusive for all children / students, although a superficial understanding applies it to children / students with special educational needs. In co-teaching, higher levels of learning content are expected. (Murawski & Swanson, 2001).

### The new dimensions of pedagogical qualification

The structural, technological and pedagogical changes in the educational organizations require a rethinking of the overall concept and practice of the system for continuing education of the current teachers. The qualification of pedagogical specialists should be aimed at the acquisition and development of key pedagogical specialists' competences related to **the skills of the 21st century**, such as:

- creativity skills; skills for critical thinking; to work in collaboration with other people, incl. networking; communication skills or communication skills, incl. virtually;
- skills related to information retrieval and use, various media and technologies; life and career skills - among which are the skills for problem solving, adapt to change, teamwork, etc. (Gyurova, V., Gyoreva, 2019);
- professional and pedagogical skills necessary for modern teachers such as: organizing situations in training; managing training progress; involving students in their education; participation in the management of the school; informing and involving parents; use of new technologies; managing one's own continuous improvement (Gospodinov, 2005).

In the conditions of closed school buildings and the implementation of "crisis training" from a distance, a change in the form of realization of the continuing qualification of the acting teachers is required - the trainings from "face to face" classes pass into electronic synchronous and / or asynchronous environment. Online learning is "an effective way for teachers to achieve academic or other motivational goals such as obtaining certificates. The use of electronic tools in such online courses can be an effective means of facilitating co-teaching and sharing professional experience within a small group, as team members can process information, increase their knowledge and lead discussions about their own or foreign innovative teaching practice (Kim & Kim, 2008).

The possibilities and advantages of the distance, electronic form of education, applied for the realization of the continuing qualification of the teachers, consist mainly in the following:

- wide access for training of pedagogical specialists from different groups;

- training directly from the workplace or from home, without detachment from the basic duties;
- flexible training schedule - training at a convenient time and without geographical restrictions;
- intensity and duration of learning according to the individual needs and commitments of the trainees;
- competitive price and low total training costs;
- simplified and effective use of electronic tools and increasing the digital literacy of pedagogical specialists.

Along with its obvious advantages, the implementation of distance learning in the qualification of teachers is associated with certain risks and disadvantages such as:

- possible technical problems (computer malfunction, poor quality of the internet connection);
- problems with the identification of the trainees;
- insufficient level of ICT culture and digital skills of learners and trainers;
- problem with the protection of teaching materials and copyrights of the compilers;
- difficulties with the adaptation of the curricula to the individual interests of each learner;
- limited application of different pedagogical approaches;
- problems with personal discipline, self-control, organization and responsibility;
- loss of verbal communication skills;
- accumulation of visual and general fatigue from working with electronic tools (Shishmanova, 2014).

### The structure of the competences of the teacher in the hybrid school

The education systems around the world are already operating in a hybrid learning model. The hybrid school requires from the pedagogical professionals to conduct synchronous and asynchronous learning, even sometimes simultaneously. In this model of operation of the hybrid school, other, new competences are needed for the teacher, which will be defined in the following paragraphs.

#### Digital competences for teaching in a hybrid educational environment

The main factor for the successful use of digital technologies in the educational process are the digital competences. They are related to the main “expectations to the knowledge, skills

and attitudes of the teacher to organize the learning process in an electronic environment, the implementation of teaching and learning support, achieving successful results in mastering the learning content, as well as readiness to activate the independent work of the students through the use of information and communication technologies”(Ordinance for amendment and supplement of the Ordinance on the state requirements for acquiring the professional qualification“ teacher”, Bulgaria, 2021).

According to the European Digital Competence Framework for Citizens, also known as DigComp (Eurydice, 2019), the competences that all citizens need in the fast-growing information society are 21, structured in five main areas: information literacy; communication and cooperation; creation of digital content; safety in a digital environment; problem solving (The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, 2017).

In addition to the areas of competence listed in this way, teachers need additional specific digital competences to enable them to use technology effectively in the classroom and to implement successful distance learning in an electronic environment. That is why the professional digital competences of teachers and the related teaching and learning practices are considered and defined in a separate common European framework for the digital competence of teachers, known as DigCompEdu. Although of a recommendatory and guiding nature, this competency framework can be adapted to the development of national policies and the implementation of training and continuing education programs for teachers at all levels of the education system, from pre-school to higher education.



The frame [DigCompEdu](#) defines the digital competence of the teacher as a system of 22 parameters, divided into 6 areas (European Framework for the Digital Competence of Educators: DigCompEdu, 2017):

- Area 1 is aimed at mastering digital skills in a broader professional environment - *working with technologies related to the professional interactions of teachers with colleagues, students, parents.*

- Area 2 examines the competences needed to *make effective and responsible teacher choices for creating, modifying and managing digital educational resources*. The pedagogical specialist must arrange, change, create and further develop digital resources to be used, including in teaching distance learning in an electronic environment. The development of this competence includes the protection of personal data in accordance with national and European regulations and compliance with copyright laws in the preparation and publication of digital resources.
- Area 3 is related to planning, designing and organizing the use of digital technologies in teaching. This digital competence of the teacher consists in the effective integration of digital resources and their application in the various stages of the process; in using methods to promote collaborative and self-regulated learning processes. *The competences in this area are related to the expressed readiness of the teacher to transform the learning process from a process organized and led exclusively by him into a process oriented to the student, his activity and creativity*. Thus, the role of a digitally competent pedagogical specialist changes and he becomes a motivator and mentor for students in their independent activities.
- Area 4 examines *the use of digital technologies to improve existing evaluation strategies in order to increase the diversity and effectiveness of the forms and approaches used to formulate evaluation*. When the pedagogical specialist successfully integrates digital technologies in teaching, the feedback during the educational process will be facilitated and improved. In this way, the teacher will be able to monitor students' progress much more successfully and will be able to evaluate and adapt their teaching strategies.
- Area 5 focuses on the potential of digital technologies to introduce forms of teaching and learning strategies *aimed at increasing cognitive activity and student participation in the learning process*. Educators can increase the personal commitment of learners, e.g., when researching a topic, experimenting with different options and solutions, discovering dependencies, creative solutions, etc through digital technologies. Knowing the appropriate technologies, teachers can use a personalized approach in the classroom, consistent with the level of competence, interests and needs of individual learners. At the same time, they must prevent possible exacerbations of existing differences (for example in access to digital technologies or digital skills) and ensure equal access for all students, including these with special needs.



- Area 6 includes the needed skills of the pedagogical specialists *to build the digital competence of students*. It is one of the horizontal competences that trainers must pass on to their learners. This includes *information and media literacy, communication and cooperation in the digital environment, creation of digital content, responsible use of digital resources, solving technical problems*.

#### Competences for creating learning resources and learning content

Competences for creating learning resources and learning content are one of the main professional skills that effective teachers working in a hybrid school must have.

Area 2 of the European DigCompEdu framework, mentioned above, addresses the specific competences needed for teachers to create, modify and manage digital educational resources.

Two types of competences can be summarized:

- **for creating learning resources** - the same type of resources (only texts, only tables as structures, only images, only graphic forms) or composed as a combination of text and non-text objects (different combinations between text, table, image, graphic form).
- **for modification of educational resources** - options for modification of educational resources are: turning an educational text resource into a task for supplementing missing words, concepts; from a table for visualization of educational content in a task for students to fill in missing elements in it; from a diagram to visualize a process or appearance in a task for students to add missing elements, links, text.

The competences for creating and modifying learning resources are interrelated, because they reflect the essence of the learning content from two different points of view - as an illustration and as tasks to be performed by students (Trifonova, 2018).

The development of teachers' competences for the development of e-learning resources leads to the improvement of the learning process, including distance learning in an electronic environment, because the digital materials created by the teacher:

- captivate with content attractiveness;
- provoke cognitive, emotional and social engagement of students;
- provoke initiative and active participation;
- motivate students to learn and succeed;
- diversify the forms of presentation of the study material;
- create conditions for adapted assessment, including self-assessment of students;

- are a prerequisite for innovative behavior of future teachers in solving problems by using the opportunities of the digital environment;
- are a prerequisite for overcoming the observed negative trends resulting from the multiplication of ready-made learning resources, freely distributed in the network digital space.

### Competences for stimulating the active learning of the students and formation of their key competences

In Area 3 of DigCompEdu part of the competences are related to the expressed readiness of the teacher to transform the learning process from a process organized and led exclusively by him in a process oriented to the student, his activity and creativity. Thus, the role of a digitally competent pedagogical specialist changes and he becomes a motivator and mentor for students in their independent activities.

One of the focuses of Area 5 is aimed at increasing the cognitive activity and participation of students in the learning process, personal commitment of students, **personalized approach in the classroom**, consistent with the level of competence, interests and needs of individual learners, and providing equal access for all students, including those with special educational needs.

Area 6 sets out a focus for building students' digital competence as one of the horizontal competences that trainers must pass on to their learners. Includes information and media literacy, communication and cooperation in the digital environment, creation of digital content, responsible use of digital resources, solving technical problems.

The teachers have the exclusive responsibility to support and provoke students to active learning so that students can develop their full intellectual, cognitive and creative potential and strengths. In this context, teachers need to be recognized and recognized and identified as effective leaders in education.

As noted by Caena (2017):

"Teachers are called to be activators of meaningful learning, not just facilitators, being creative in choosing from a wide range of strategies that are blended and adapted to the context and the learner."

There are three types of competences:

- to form and enrich one's own teacher's multidimensional role profile. In digital and in the present environment, the performance of the individual roles by the teacher allows the creation of their own design of a multidimensional role profile as this design is constantly in a position of re-design in communication with students;
- to stimulate active learning among students - application of various methods for active learning; for conducting personalized and profiled training; to motivate students to learn, achievements in science, art and sports; for self-development and self-effectiveness of students; to create and maintain a positive classroom climate; to report on each student's progress; for open-mindedness towards expected and real achievements of the students depending on their socio-economic and socio-cultural origin - ethnic and religious affiliation, nationality, race, etc .;
- to form the teacher's own horizontal digital competence and its transfer to the students - the digital competence of the teacher provides opportunities for transfer of digital knowledge and skills, positive and responsible attitudes towards digital resources and digital content of students, and digital competence of students provokes increase of the digital competence of the teacher.

Extended content of the described areas can be presented in the form of a self-assessment list as follows:

| Elements of competence  | ✓ |
|---|---|
| classroom management as a learning and developing community   |   |
| adaptive expertise by teachers in response to different learning needs of students  |   |
| positive acceptance of students' differences as a resource for an effective educational environment   |   |
| recognizing the strengths of each student and stimulating the expression of one's abilities   |   |
| recognizing the individual needs of each student in the process of different interactions   |   |
| attitude to building strategies for teaching students with differences in their manifested qualities and abilities  |   |
| a positive attitude towards peer learning as a resource for the teacher as a classroom leader   |   |
| realization of partnership relations with the students based on the joint elaboration of rules and the outlining of personal trajectories for learning, achievements and personal development   |   |
| affirming in students' confidence in their own abilities and creating conditions for their participation in decision making   |   |
| readiness for active application of the possibilities of information and communication technologies in synchronous learning in electronic distance environment and in combined form of learning |   |
| readiness for active involvement in training activities of interest   |   |
| readiness to stimulate the relationship between students in the direction of mutual   |   |

|  |  |
|--|--|
| support and shared understanding, including in an electronic environment   |  |
| readiness and positive attitude for effective realization of interdisciplinary connections and integrity in the learning process |  |
| use of reflective practices and reflective technologies in and through the learning process                                      |  |
| teaching with synergy of theory, practice and critical reflection on good and best practices                                     |  |
| the use of Internet tools to create digital learning resources   |  |
| work with digital platforms with prepared electronic learning resources  |  |
| realization of a real self-assessment and active attitude to their professional self-improvement as adaptive professionals       |  |
| maintaining interest in innovation, integrated knowledge, integrative lessons and cooperation between students                   |  |

### Competences for objective assessment of students in learning in a hybrid educational environment

The activities related to the assessment of students' knowledge and skills are an important component of the learning process and its main role is to establish and measure the achieved learning outcomes, as well as to monitor the individual progress of students.

The results of the assessment provide teachers and students with information on the effectiveness of the learning process and identify areas for improvement to be covered in follow-up learning activities.

In this sense, the competences of teachers related to the application of adequate approaches, forms and methods of assessing student achievement are particularly important for the quality of the learning process. Competent teachers show "adequacy and fairness in assessing student achievement, have an attitude to apply the stimulating function of assessment in order to

achieve progress in the development of students" (Ordinance amending the Ordinance on state requirements for acquiring professional qualifications " teacher ", 2021).

In general, teachers use traditional assessment in hybrid learning. That is why in different qualification trainings it is important to develop the skills of the pedagogical specialists related to different forms and tools of assessment such as:

- synchronous and asynchronous assessment online, in real time or for a period of time (assignment with a deadline);
- evaluation according to the number of participants: group or individual (the individual can be in front of a group or only for the tested);
- assessment with online test: construction of a test with closed questions, construction of a test with closed-ended and open-ended questions, with (without) automatic sending of correct answers and result after filling in;
- assessment with written work (text document), written examination by filling in online forms;
- assessment by oral examination;
- assessment of the final product presented by the students - individual written work for assessment, group written work for assessment, individual test result, record of work on a "board", record of opinion / answer to a question.

Area 4 of DigCompEdu examines the need for teachers to use digital technologies to improve existing assessment strategies in order to increase the diversity and effectiveness of the forms and approaches used to formulate assessment. In this sense, it is necessary in the process of continuing qualification to develop the competences of pedagogical specialists in terms of assessment and new approaches and principles related to **formative assessment**. Formative assessment is an ongoing process that allows "information to be gathered about the strengths and weaknesses of learning, focusing on what children can do, rather than on their weaknesses and mistakes.

Assessment is formative when the information received from it is actually used as a factor for adapting training in the direction of realization of certain educational goals (Garov, K., K. Tsarev, 2017). Thus, the use of this type of assessment gives students peace of mind and confidence and increases the effectiveness of their learning. In this sense, formative assessment should be formed as a key professional skill of the teacher. In particular, these are skills and attitudes related to:

- providing positive and constructive feedback as a key tool for outlining ways to improve student achievement;
- constant collection of information in three directions: goals of training; evidence of the current condition of the student; ways to bridge the gap between the two;
- identifying the strengths and weaknesses in the student's learning activities;
- use of tools and valid evaluation criteria such as: self-assessment, peer assessment and performance assessment;
- assessment through a portfolio as a set of teaching materials that are collected through interaction between students and teachers and are an indicator of the educational development of students;
- evaluation of electronic and online products of students' learning activities such as blogs, websites, electronic materials.

#### Competences for involving the family community as a partner in learning in a hybrid environment

Effective partnership between the school and family communities is a complex process based on mutual trust, understanding, patience and sharing a common solidarity goal, participation and action. Partnership in the educational process with the family community is important in many dimensions and spaces, and extremely important in distance learning in an electronic environment. According to UNICEF (2012), parental cooperation has potential benefits for all parties. Among them are:

- improving relationships and interactions with children. Parents become more responsive and sensitive to their needs and more confident in their parenting skills.
- improving the understanding of pedagogical professionals about the culture and diversity of their students' families. Teachers are more comfortable at work and this improves their morale.
- improving the reputation of the school as a whole by involving parents more actively.

A good **partnership between family and the school** is critical to increase the school performance, the social and emotional competence, and students' well-being.

The development of competences for the inclusion of the family community as a partner in the distance learning in an electronic environment is associated with participation in

qualification activities, including in a hybrid environment, leading to the formation of these competences in teachers. In particular, these are skills and attitudes related to:

- recognition and respect of the strengths and individual educational decisions of the family community regarding issues such as the use of specific electronic devices, time for their use, the presence or not of parental control over the work with the device and the network;
- recognizing the main characteristics of the family environment, influencing the development and upbringing of the student;
- determining the influence of specific types of families on the development and upbringing of their children, both in real and electronic environment;
- establishing and using certain models for electronic communication (through the electronic platform of the school, e-mail, social networks, telephone, etc.);
- interaction with the family community to prevent the risk of dropping out of the education system;
- motivating the family community for its active involvement in activities of interest organized by the school, including virtual activities and events;
- use of reflective practices in interactions with the family community;
- advising representatives of the family community to support the process of learning from home in an electronic environment.

#### Competences for design and redesign of the training process

Significant for the qualification of pedagogical specialists are the models of supplementing and expanding the traditional subjects with the so-called "Four C's": critical thinking, communication, creativity and collaboration related to life, media and career skills, and the use of technology (according to Kilvert, 2001).

The competences that should be developed by the pedagogical specialists can be summarized in the following list:

- application of the competence approach in training;
- knowledge of the individual profile of each student - learning styles, sensory preferences; interests and potential;



- readiness to adapt methods, tools, approaches to individual needs, abilities, interests of students so that each of them can increase their results and achieve success in their learning activities;
- use of flexibility in the teaching styles;
- responsibility to organize the full use of school time for the benefit of the development of each student in the classroom;
- introduction of reflection on the activity performed in the classroom, the successes and failures in the work, self-analysis and self-criticism;
- readiness for self-development;
- ability to develop critical thinking, communication, creativity and cooperation both in their own professional development and in students;
- raising professional awareness of good and best practices both in terms of teaching certain learning content and in terms of team interactions between students in the classroom and creating interdisciplinary interactions between students and other professionals;
- readiness for active application of the possibilities of information and communication technologies in synchronous learning in electronic distance and in a combined form of learning.

#### Competences for team work and joint teaching in a hybrid educational environment

The pedagogical teams in the modern educational systems reflect various forms of cooperation between teachers and other pedagogical specialists in a given educational institution on various topics related to planning, organizing and conducting the educational process. For today's educational organizations, effective teams are an invariable prerequisite for quality results. Thus, one of the main factors for the successful course of the modern learning process is the development of the competences for team work of teachers. These competences are related to a positive attitude towards the need for joint work with all pedagogical specialists (Ordinance amending and supplementing the Ordinance on the state requirements for acquiring the professional qualification "teacher", Bulgaria, 2021).

In particular, these are competences related to:

- conducting joint pedagogical situations / lessons;
- discussing and planning specific measures for the progress of children / students;

- willingness to share key information with the team, despite the fact that through it someone else can perform better;
- constructive conflict resolution;
- reflection on individual growth and contribution to the team;
- effective listening;
- elaboration of common goals for team activity;
- elaboration of effective procedures for the functioning of the team;
- making common decisions.

The competences for team work of pedagogical specialists are realized to the greatest extent in the so-called "co-teaching" of two or more teachers at the same time and under the same conditions - in a common classroom or in electronic environment (synchronous or asynchronous). In co-teaching, a higher intensity of teaching is achieved and therefore higher levels of learning content would be expected (Murawski, Swanson, 2001).

#### Competences related to inclusive education in school

The European Agency for Special Educational Needs and Inclusive Education formulated in 2012 a profile of the inclusive teacher (EASNIE, 2012). The developed profile states that the attitude with which teachers approach children and the very understanding of the problem require certain knowledge and level of understanding. Four core values have been refined as fundamental to teachers' competences in inclusive education. These include:

- ability to assess the different opportunities of students - acceptance of student differences as a resource and a valuable advantage for learning. The areas of competence configured for this value are: understanding the concept of inclusive education; the teacher's point of view on students' differences;
- support for all students - teachers to have high expectations for the achievements of all students. The areas of competence configured for this value are: promoting the academic, practical, social and emotional learning of all students; effective approaches to teaching in a classroom where all children learn together;
- teamwork - collaboration and teamwork are basic approaches for all teachers. The areas of competence configured for this value are: work with parents and families; joint work with other specialists in the field of education;

- personal professional development - teaching is also learning for teachers. The areas of competence configured for this value are: teachers as reflective practitioners; the educational degree is only the basis on which professional skills are upgraded.

## A framework for monitoring the quality of teaching in a physical, digital or hybrid educational environment

The review of the listed competences allows proposing a framework of criteria to be used to assess the quality of teaching in different educational environments. The framework includes areas of observation, indicators and criteria and can be used as a tool for self-assessment by pedagogical professionals and as a basis for a professional development program based on the mentoring relationship presented in Chapter 2 of this methodology.

Each indicator presents 4 levels of performance (criteria), which are marked with quantitative (1 - the given indicator is most fully covered, 4 - the given indicator is not covered) and qualitative values.

The comprehensiveness of a framework can make it difficult to use it as a monitoring tool in just one lesson. It is recommended that when specifying the observation process between the teacher-mentor and the observed teacher, a specific focus / topic for observations be specified (example: area of observation - Formulation of adequate goals and structuring and presentation of learning content).

The framework is an adapted and updated version of the Teacher Observation Map, developed by the British Council in Bulgaria in partnership with the National Institute for Principal Training (NIOKSO) and the National Institute for School Leadership and Children's Services in the United Kingdom.

## Framework of indicators and criteria for monitoring a lesson

| Area of competence for monitoring  | Indicator                                    | Level | Criterion   | ✓ |
|--|--|-------|---|---|
| 1. Formulation of adequate goals and structuring and presentation of educational content | 1.1. Formulation of goals                    | 1     | Clearly and precisely formulated goals that are highly adequate to the capabilities and needs of students.  |   |
|  |  | 2     | Formulating goals that correspond to the curriculum and are adequate to the capabilities of students.   |   |
|  |  | 3     | Vaguely or incompletely formulated goals that do not correspond to the curriculum and / or are inadequate to the students' abilities.   |   |
|  |  | 4     | It does not formulate goals.  |   |
|  | 1.2. Presentation of the educational content | 1     | Highly understandable and accessible, adequate to the objectives of the lesson and in accordance with the abilities of the students. At each stage of the lesson summarizes the opinions of students, provides feedback from them. Involves students in presenting new content. |   |
|  |  | 2     | The presentation sufficiently meets the objectives of the lesson and the possibilities of the students. Summarizes the opinions of students. Looking for feedback. It partially involves students in the presentation of the new content.                                       |   |
|  |  | 3     | The presentation is vague and insufficiently tailored to the abilities of the students. Mainly presented as a monologue by the teacher. Rarely seeking feedback from students and they do not participate in the transmission of the new lesson.                                |   |
|  |  | 4     | The presentation does not meet the objectives of the lesson and / or the abilities of the students. There is no feedback from students and they do not participate effectively in the learning process.   |   |
|  | 1.3. Teaching pace                           | 1     | Maintains an optimal pace of work, the connections between the components of the lesson are clear and logical. Leads the class flexibly, following the final goal and, if necessary, changes the stages of work.  |   |
|  |  | 2     | The time for the individual components of the lesson is enough to achieve the goals planned for the lesson.   |   |

|  |  |                       |  |  |
|--|--|-----------------------|--|--|
|  |  |                       | Strictly adheres to the planned activities during the stages of the lesson.  |  |
|  |  | 3                     | The pace of work allows to partially realize the objectives of the lesson. There are no logical connections between the individual components, the conducted activities do not correspond to the topic of the lesson.                      |  |
|  |  | 4                     | It does not fit within the class, there is no logical connection between the components of the lesson, the activities are chaotic and self-serving.  |  |
|  | 1.4. Cross-curricular links  | 1                     | Accomplish intecurricular and cross-curricular connections with different academic disciplines.  |  |
|  |  | 2                     | Implemented intecurricular and cross-curricular links within an educational field (example: foreign languages).  |  |
|  |  | 3                     | Accomplish only intecurricular links.  |  |
|  |  | 4                     | No accomplishment of intecurricular and cross-curricular links.  |  |
|  | 2. Use of various methods, approaches and technologies in teaching | 2.1. Teaching methods | 1  | Applies highly diverse and interactive teaching methods at all stages of the lesson, specific to the physical, digital and hybrid environment. |
| 2  |  |                       | Partially applies diverse and interactive teaching methods.  |  |
| 3  |  |                       | Applies traditional teaching methods.  |  |
| 4  |  |                       | Does not apply a variety of teaching methods.  |  |
| 2.2. Use of ICT and other didactic tools |  | 1                     | Uses a variety of didactic tools to illustrate the learning content, which are appropriately selected and consistent with the objectives of the lesson. Skilfully and timely apply a variety of synchronous and asynchronous forms of ICT. |  |
|  |  | 2                     | Partially uses didactic tools to illustrate the learning content, which correspond to the objectives of the lesson. Apply ICT.   |  |
|  |  | 3                     | Uses outdated teaching aids that do not meet the objectives and content of the lesson.   |  |

|                     |                            |   |   |  |
|---------------------|----------------------------|---|---|--|
|                     |                            | 4 | Does not use didactic tools.  |  |
|                     | 2.3. Presentation          | 1 | The teacher's explanations and statement are accessible and logical, clear and understandable. Before moving on to a new part, the teacher makes sure that everything is well understood. When presenting the curriculum, the teacher is able to engage students' attention and form an interest in the subject.                              |  |
|                     |                            | 2 | The teacher's explanations and presentation are clear and understandable. When presenting the curriculum, the teacher is able to engage the students' attention.  |  |
|                     |                            | 3 | The teacher's explanations and presentation are not clear and understandable enough. Engages students' attention in presenting the curriculum, but for a short time.  |  |
|                     |                            | 4 | The teacher's explanations and presentation are not accessible and logical, clear and understandable. Engages students' attention in presenting the curriculum, but for a short time.   |  |
|                     | 2.4. Personalized approach | 1 | Creating of a supportive environment for SEN students and motivates them to participate in the educational process, as well as for children from other ethnic groups who have educational difficulties by receiving teaching and educational materials in appropriate form.<br>At the same time, supporting and working with gifted children. |  |
|                     |                            | 2 | Applies an individual and differentiated approach with children and students who have learning difficulties (SEN children and students, those who are from another ethnic group, etc.), receiving educational and training materials.<br>Supports and works with gifted children.   |  |
|                     |                            | 3 | Applies an individual and differentiated approach partly with some children and students with SEN and of other ethnic origin.<br>Gifted children are not subject to additional work.  |  |
|                     |                            | 4 | Does not apply an individual approach; children with SEN, as well as children of other ethnic backgrounds are isolated and do not participate in the learning process.<br>Gifted children are not subject to additional work.   |  |
| 3. Interaction with | 3.1. Communication         | 1 | Possess high level of techniques for formulating accessible and understandable questions, which require in-   |  |

|          |                                  |   |   |  |
|----------|----------------------------------|---|---|--|
| students | skills                           |   | depth answers and application of what has been learned, through maximum creative activity. The teacher is able to listen to the students, encourage and support the expression of different opinions, further developing what is said. Stimulates students to be active, to make suggestions to ask.<br><br>The contact between the teacher and the students is mutual and two-way. Works with the whole class, not just specific students. Using relieving tensions communication when needed. |  |
|          |                                  | 2 | Formulates accessible and understandable questions that require in-depth answers and application of what has been learned. Able to listen to students, gives the opportunity to express different opinions.<br><br>The contact between the teacher and the students is mutual and two-way. Inspires positive emotion. Works with almost all students in the class, not just certain students.   |  |
|          |                                  | 3 | The questions asked by the teacher are not well formulated and do not require in-depth answers. He is able to listen to the students but does not give them the opportunity to express and defend a personal opinion.<br><br>The contact between the teacher and the students is imposed and one-way. Works only with certain students.   |  |
|          |                                  | 4 | Formulates incomprehensible questions that often require one-syllable and short answers. Does not know how to listen to the students interrupts them and imposes his opinion. The contact between the teacher and the students is imposed and one-way. There is no atmosphere of dialogue and cooperation.  |  |
|          | 3.2. Student results in class    | 1 | Students are able to cope quickly with all tasks, independently perform additional and offer options to change the line of the lesson, as needed. Students with special educational needs are in a supportive environment.  |  |
|          |                                  | 2 | Students manage to cope with the main tasks, perform additional tasks as directed and express opinions on proposed options for changing the line of the lesson, as needed. Students with special educational needs work at their own pace.  |  |
|          |                                  | 3 | Students cope with some of the tasks given.   |  |
|          |                                  | 4 | Students do not cope with the tasks. Successful and lagging behind students work at the same volume and pace, without considering their individual needs.   |  |
|          | 3.3. Education and socialization | 1 | Carries out a high-level universal values educational activity, as well as humanism and democracy in the process of the lesson. Establishes an atmosphere of trust and tolerance. Any unsatisfactory behavior is corrected effectively. Gives a personal example with a good appearance and balance of behavioral and emotional expressions, which inspires respect and esteem.   |  |



|                                  |  |   |   |  |
|----------------------------------|--|---|---|--|
|                                  |  | 2 | Carries out universal values educational activities, as well as humanism and democracy in the process of the lesson. Establishes an atmosphere of trust and tolerance. Strives to correct any unsatisfactory behavior. Sets a personal example with a good appearance and a balance of behavioral and emotional expressions, which inspires respect.  |  |
|                                  |  | 3 | Implements elements of universal values educational, as well as humanism and democracy in the process of the lesson. Tries to create an atmosphere of trust and tolerance.<br>Strives to correct any unsatisfactory behavior. Has a relatively good appearance, but he is not sufficiently balanced in terms of behavioral and emotional expressions. |  |
|                                  |  | 4 | Does not carry out educational activities. There is no atmosphere of trust and tolerance.<br>Is not correcting the unsatisfactory behavior of the students. There is a lack of balance of behavioral and emotional expressions. He/she cannot serve as an example in terms of his appearance.   |  |
|                                  |  | 1 | When setting tasks for teamwork, students are organized quickly and their work is highly efficient, giving the opportunity to show their abilities.   |  |
|                                  | 3.4. Teamwork                                  | 2 | When setting tasks for teamwork, they are organized quickly and their work is effective, with the majority of students showing their abilities.   |  |
|                                  |  | 3 | When setting a task for teamwork, they are organized slowly, the work is not effective and only part of the students who show their abilities work.   |  |
|                                  |  | 4 | Students do not have teamwork skills. Teamwork is not used in class.  |  |
|                                  |  | 1 | Uses a wide variety of methods of assessment and self-assessment by students. There are clearly formulated expected results from the teacher. The teacher's assessments are objective and very well-reasoned.   |  |
| 4. Assessing student achievement | 4.1. Methods of assessing knowledge and skills | 2 | Uses a variety of assessment methods. Students are aware of the expected results from the teacher. His/her assessments are objective and reasoned.  |  |
|                                  |  | 3 | Uses traditional evaluation methods. Students are not aware of the expected results in the subject. The grades given by the teacher are unsubstantiated, often biased.  |  |

|   |  |   |  |  |
|---|--|---|--|--|
|   |  | 4 | Uses traditional evaluation methods. Students are not aware of the expected results in the subject. The grades given by the teacher are unsubstantiated and biased.  |  |
| 5. Planning of learning activities, selection and creation of learning resources, including digital | 5.1. Students' planned tasks for the class | 1 | An appropriate selection and arrangement of the planned tasks for the class has been made in advance. They are precisely planned and prepared. The time spent on each of them, including asynchronous tasks in an electronic environment, is very well measured and sufficient for their implementation. It has full compliance with the topic / activity and involves analysis, transfer of new knowledge to new situations, as well as the application of what has been learned through maximum creative activity. |  |
|   |  | 2 | The scheduled tasks for the class are carefully planned and prepared, including the asynchronous in an electronic environment. The time allotted for each of them is enough for their implementation. It is consistent with the topic / activity and involves the transfer of new knowledge to new situations, as well as the application of what is learned through transfer to an unknown situation.   |  |
|   |  | 3 | The scheduled tasks for the class are not well enough selected and prepared; the time spent on each of them is not well measured for their implementation. They do not relate sufficiently to what is being studied. There is no practical applicability of the knowledge in their implementation. There is no creative activity.  |  |
|   |  | 4 | The planned tasks for the class are inappropriately selected. The time spent on each of them is not well measured for their implementation. They have no relation to the studied topic and have no practical applicability of the knowledge in their implementation. There is a lack of analysis and creative activity.  |  |
|   | 5.2.Homework                               | 1 | Pre-set homework is used effectively to achieve the objectives of the learning activity, including asynchronous learning activities in an electronic environment. It is appropriate to plan the homework for the next class, including one based on teamwork of students in a real and online environment.   |  |
|   |  | 2 | The pre-set homework is used to achieve the goals of the learning activity and an appropriate one is planned for the next class.   |  |
|   |  | 3 | Inappropriate and insufficiently effective use of homework.  |  |
|   |  | 4 | Does not check homework and / or does not give it.   |  |
|   | 5.3.Prepared materials for the class       | 1 | The prepared training and educational materials for the class are precisely prepared and fully correspond to the topic / activity. There is a variety of materials in relation to the different needs of students and their contribution to student development.   |  |

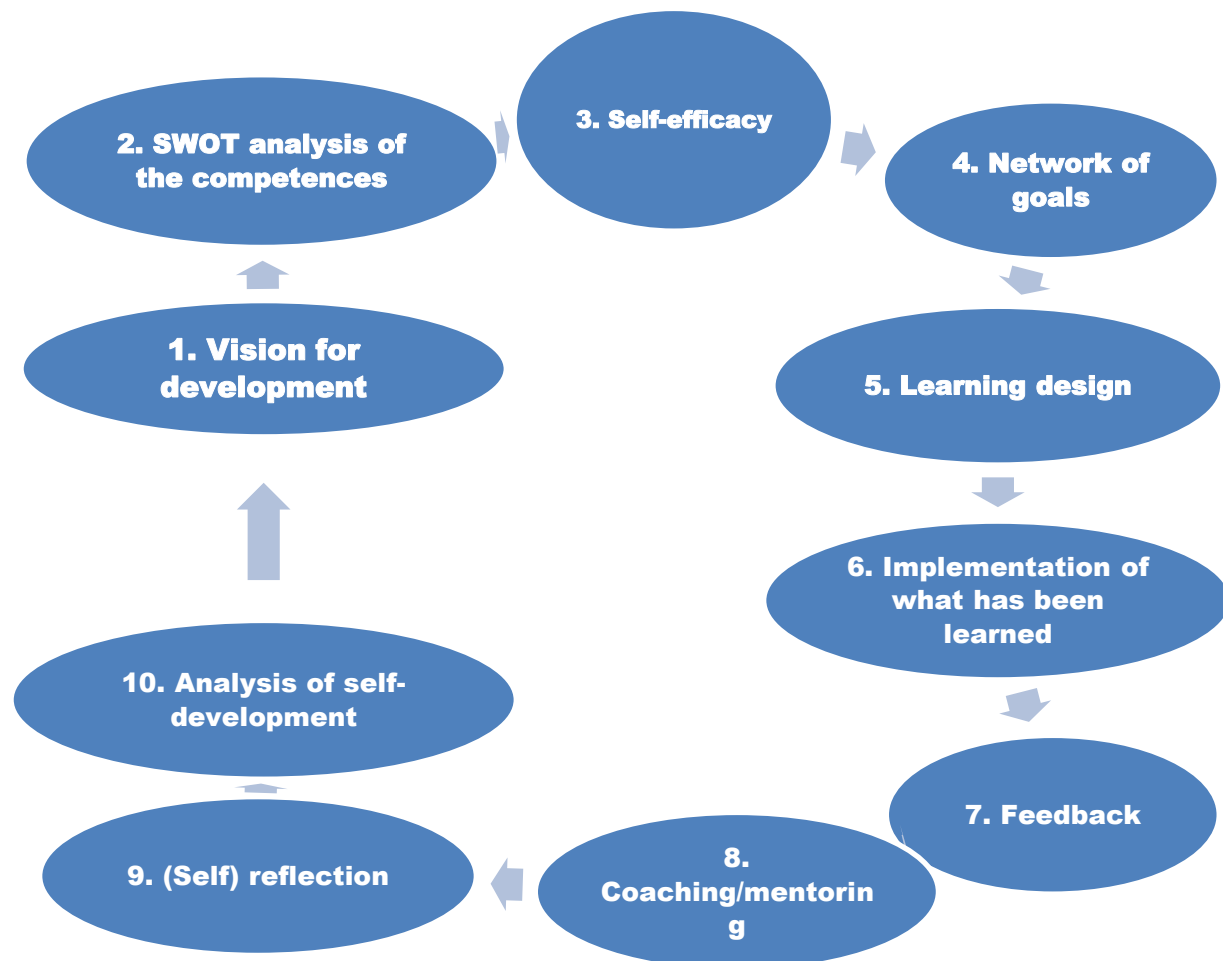
|  |   |   |  |  |
|--|---|---|--|--|
|  |   | 2 | The prepared training and educational materials for the class are prepared in advance and correspond to the topic / activity. There is a variety of materials in relation to the different needs of the students and they contribute to the development of the students. |  |
|  |   | 3 | The prepared training and educational materials for the class do not fully correspond to the topic / activity. There is no differentiation related to the different needs of the students and they have nothing to do with the student development.                      |  |
|  |   | 4 | There are no prepared materials.   |  |
|  | 5.4.Prepared teaching and technical means | 1 | It is planned to use various teaching and technical means, as each of them has been tested in advance and its use during the lesson is precisely defined and corresponds to the topic / activity for which it is provided.   |  |
|  |   | 2 | Teaching and technical means are used, which have been pre-tested. There is a correspondence between the topic / activity and the type of tools chosen by the teacher  |  |
|  |   | 3 | The teaching and technical means are used on their own, which insufficiently corresponds to the topic / activity.  |  |
|  |   | 4 | There is no use of educational and technical means.  |  |

Chapter 2 - Model of personalized professional development of pedagogical specialists

The review of the practice and the theory in the field of personal and professional development of pedagogical specialists provides an opportunity to offer a structured model that outlines an algorithm of basic steps for professional development.

The model can be represented graphically as follows:

*Graph 1 - Model of professional development of pedagogical specialists*



The professional development begins with the process of its planning. SWOT analysis of the competences from the position of the specific moment can be used as a starting point for this planning and defining the vision for development. Among the key issues that can be used in this analysis are the following:

- What do I want to learn?
- What do I want to be better at?
- What do I want to change in my work?
- How can I find the most appropriate and best qualifications?
- How can I implement independent learning for professional development?
- How do I structure an action plan to enhance my professional competences?
- How can I measure my own progress?

As a next step in the model the pedagogical specialist assesses their own self-effectiveness. The teacher's self-efficacy refers to the teacher's belief in his / her ability to cope successfully with tasks, responsibilities and challenges related to his / her professional role (e.g., didactic tasks, managing problems with classroom discipline, etc.) (Caprara et al., 2006). As Barni et al (2019) notes, "teachers' personal values are important predictors of teachers' self-efficacy. In particular, the protection of values is positively related to the self-efficacy of teachers, both for these teachers, guided by controlled motives in their work, and for these teachers, guided by autonomous motivations. ...compliance with norms and maintaining stability in the field of education (where teachers must feel responsible for passing the knowledge and "caring" for students) makes teachers feel confident in planning, organizing, and implementing activities needed to achieve educational goals.

At the next stage, the pedagogical specialist forms a network of goals, which includes the necessary qualifications for improving their own competences, identifying learning paths (including self-learning and self-development). At this stage, it may be beneficial to consult the network of goals with the school principal or other responsible representatives of the leadership team in the educational organization.

The formulation of goals presupposes the next phase in the design of one's own path for learning and development, related to separate steps for improvement of specific competences.

In the implementation of the drawn-up development plan, the pedagogical specialist is included in the selected qualification forms for learning and mastering more effective ways and methods of teaching. When teachers master new teaching strategies in qualification courses, they return to school and make changes in their own teaching styles. At this stage the teacher is implementing

the mastered good practices from participation in qualifications and / or from own learning in his/her own work, in the teaching and assessment of students' achievements.

An important stage after the implementation of what has been learned is the collection of feedback from students, colleagues - teachers, school management, parents and other stakeholders. This feedback provides a guide for the usefulness of the innovations made and the future direction for the development of professional competences by the pedagogical specialist.

The individual phases of the presented model can be supported by various forms of professional support to encourage the pedagogical specialist to develop. One of these forms is mentoring with elements of coaching, discussed in detail in the next chapter of this publication (see Chapter 3).

Mentoring and coaching help the pedagogical specialist to develop and apply the skill of reflection in his professional development. Reflection means developing professional thinking and discourse based on situational pedagogical questions and experience (Bastian & Helsper, 2000). Reflection is a process aimed at self-knowledge of one's cognitive activity and one's personality, through mental dialogue with the other, in which one realizes the impact on the communication partner and self-controls the activity (Todorova & Garov, 2011). Through reflection, the teacher can change their positions in the learning process, to reach the ability to change their views according to the strengths and potential of students and thus achieve greater efficiency in the learning process in presence and distance learning in electronic environment and undoubtedly a better unity of mind and responsibility for the learning process and behavior.

The last step of the presented model for professional development includes an analysis of the achieved goals, which provide a starting point for the next cycle of professional development and repeating the outlined steps.

### Chapter 3 - Guidelines for the development and application of mentoring in the professional development of pedagogical specialists in the school environment

These guidelines offer a structure and basic elements of a program for professional development of pedagogical specialists, which is based on already established practices in the field of mentoring and internal forms of professional qualification. The proposed guidelines introduce new elements related to:

- expanding the scope of mentoring, which is traditionally aimed at new pedagogical specialists;
- enriching the mentoring with principles and techniques from another related methodology "coaching", which focuses on building long-term motivation for development;
- introduction of a methodological framework for the implementation of a relationship for professional development between a mentor and a mentee.

The program is directly related to the framework of indicators and criteria for monitoring a lesson in a physical, online and / or hybrid educational environment set out in Chapter 1. The criteria set out in the framework are the main starting point formulating development goals, on which the mentor and the mentored pedagogical specialist will work together and are a reference framework for ongoing monitoring of progress and formulation of future directions for development.

The current guidelines are based on leading theoretical and practical achievements in the field of mentoring and coaching as forms of sustainable professional development of pedagogical specialists and in particular the research of the leading American researcher and practitioner in this field - Jim Knight.

#### Essence and principles of mentoring of pedagogical specialists

In 1996 at a specialized conference on inclusive education in the United States (Kansas), Jim Knight has formulated the idea of providing longer-term support to teachers in implementing pedagogical strategies and approaches and the need to explore various existing practices in this field (Knight, 2018 ). The topic of coaching in the professional development of teachers was raised in the 1980s by Joyce and Showers in the 1980s (Joyce and Showers, 1996), but Knight was one of the first researchers and practitioners to focus on a model of professional support for teachers with an emphasis on the quality of teaching. After more than 20 years of research and

testing of different approaches and methodologies, he summarizes his findings in a model known as the “Impact Cycle”.

Knight's model offers principles and specific guidelines for all professionals who work or are motivated to work with pedagogical specialists in the direction of improving their teaching. In the United States most of these professionals are instructional coaches.

In the framework of the European educational systems, pedagogical coaching is known, but there is no such level of integration as an element of the system of professional development of teachers. In this regard, the adaptation of Knight's model should identify a more recognizable group of professionals than in the American context, to apply the model in practice within the relevant regulatory educational framework. In most European countries and specifically in the countries that are the subject of this publication (Bulgaria, Serbia and Romania) it was found that the appropriate group of professionals are teachers - mentors in the school environment.

Their main task is related to the introduction and support of new teachers in order to effectively enter the teaching profession and develop motivation for development in the profession. In the Knight model, professional development support is available to all teachers who want to improve their teaching practices. The adaptation of the model presupposes the expansion of the traditional scope of mentoring in the considered countries and its transformation into a long-term professional development program, which is open to all interested pedagogical specialists.

Within this program, the mentor and the mentee (teacher) enter into a structured relationship, which goes through several main phases related to the formulation of development goals, acquisition of new competences and strategies for teaching and applying what is learned in real pedagogical practice.

*The main distinguishing feature of the Knight's model*, compared to traditional mentoring, is that it encourages the professional (mentor, coach, educational consultant, etc.) working with the teacher to shake off the top-down approach, which involves a main emphasis on giving advice and instructions, and to accept the role of a partner who, together with the teacher, builds and implements a vision for improvement.

The outlined profile is similar to the mentoring and coaching model popularized by the European Mentoring & Coaching Council, which assumes that the professional uses in an integrated way



the principles of coaching and mentoring (EMCC, 2021). The introduction of equality through partnership is one of the main prerequisites for maintaining the motivation for the development of the teacher participating in the professional development program.

Among other basic principles (Knight, 2011, Wilson, 2011; Whitmore, 2012; Rogers, 2007), which form the framework of a **successful mentoring relationship**, the following can be indicated:

- Equality: both participants in the process share and exchange ideas and make decisions together as equals. The mentor believes that the teacher himself contributes to the interaction.
- Choice: the teacher is the one who makes the decisions in the process (what are the goals, what pedagogical strategies will be developed, etc.). The mentor believes that the teacher is in the position of making the choice and creates the right atmosphere and environment for making a decision.
- Safety: conversations with the mentor should be open and in a spirit of trust. The teacher feels calm to express what he/she thinks and feels.
- Dialogue: when people are partners, their conversations take place in a dialogue in which ideas are shared by both parties. Teachers who promote an atmosphere of dialogue are balancing between asking questions that help the teacher reach higher levels of awareness of their current situation and future goals and offering solutions that are appropriate in the individual context. They do not give advice but share possible pedagogical strategies.
- Reflection: providing the opportunity and time for reflection of the teacher is the basis for maintaining a high level of commitment and quality of the formulated ideas.
- Orientation to the action: the interaction with the mentor encourages the undertaking of active steps and actions of the two participants in the process of moving towards the implementation of the planned goals.

Another important feature of the proposed model is that, unlike traditional mentoring and coaching practices, which place mentoring at the center of the process, in this model the *starting point is the student and what the teacher wants his students to achieve*.

### Profile of the mentor in a school environment

The review of the legal framework and the current mentoring practice place emphasis on the main tasks that the mentor performs. From the scope of these tasks and from the existing competence frameworks for accreditation of professionals working in the field of mentoring and coaching, we can deduce some characteristics of the mentor in the school environment that he / she should possess and develop in order to apply the current model of mentoring:

- pedagogical experience: the mentor should be a teacher or have had significant teaching experience in a school environment. Knowledge of the school environment and the dynamics in the classroom allows the mentor to quickly connect with the mentored teacher and provide a work process that is closely related to the concrete job specifics.
- knowledge of modern approaches and strategies of teaching: the mentor is constantly developing based on the modern achievements in the field of teaching in a school environment. The teacher is able to demonstrate these strategies in the classroom.
- Mentoring and coaching skills: include a wide range of skills that allow the mentor to create an atmosphere of trust and encourage mentoring to develop and apply what has been learned. Among the basic horizontal skills can be mentioned: active listening, asking strong questions, focused presence, feedback.
- data collection and analysis: the teacher should develop skills for collecting information about the educational process, analyze this information and draft conclusions. This is a starting point for the mentoring process, which gives an accurate assessment of the current situation / reality in which the mentee finds himself and subsequently for the current progress in achieving the goals. The mentor passes on his / her skills in this area to the mentee. Annex 2 of this methodology describes examples of data categories and guidelines for their collection that can be used by both the mentor and the mentee.

### Main phases of mentoring implementation

Based on Knight's model and other existing methodologies of conducting coaching and mentoring processes, four main phases can be outlined to shape the structure of a mentoring relationship: Prepare, Goals setting; Learn; Apply. In the following sections, each phase is discussed in more detail with specific steps for its implementation.

## Phase 1 - Preparation

The main factor for the success of a mentoring relationship is the degree of motivation for development with which teachers enter this relationship. Motivation, on the one hand, is determined by the current challenges that the pedagogue encounters in the classroom and, on the other hand, by the available information on how mentoring can be useful in solving these challenges.

In terms of awareness, the mentor has a number of action strategies that can be summarized as follows:

- Preparation and dissemination with the assistance of the school management among the team of the school of information materials about mentoring and the benefits of involvement in such a process.
- Presentation of the benefits of mentoring in group meetings with teachers. During these meetings, teachers can ask questions on the topic.
- Individual meetings with teachers to present opportunities for involvement in such a process. During these meetings, the mentor can conduct a demonstration session with the teacher to demonstrate the benefits of the process.
- Share stories of teachers who have already gone through a mentoring program.

With regard to the messages that the mentor sends during the communication with the teachers, it is advisable to emphasize that *mentoring is not a program only for new teachers, but for all those who feel motivated to improve their teaching practice.*

In case of interest from a pedagogical specialist to be included in a mentoring program, a first introductory meeting is held. This starting point of the relationship is key to the success of the mentoring process. The teacher has the opportunity to learn more about the specific parameters of what lies ahead. The mentor can emphasize the principles listed above that distinguish this relationship.

This is the moment to emphasize that this is an individualized process of professional development, not related to the assessment of the performance or attestation of the teacher. Another important point that should be emphasized is that the process is confidential and

information on various aspects of the relationship can be shared by the mentor only with the permission of the mentee.

During the familiarization meeting, the mentor encourages the teacher to share all his / her concerns and hesitations about the upcoming activities and provides additional information if necessary.

During the meeting the time frame of the relationship is specified and specifically the first meeting dedicated to establishing the individual development goals. If desired by the mentee, the mentor can conduct a short demonstration session with him/her (within 20 minutes) to demonstrate what can be expected from participating in the program. Examples from previous mentoring programs can be provided, convincing the teacher of the benefits of active involvement and participation.

It is important to specify the venue of the mentoring sessions, during the introductory meeting. It is recommended to choose a place where there are no distractions and which predisposes the teacher to openly share personal information. In case of choosing an online platform for meetings, it is advisable to choose one that provides a good audio and video connection, as participants on both sides are in quiet and home-like rooms during online sessions.

## Phase 2 - Identification of individual development goals

The mentoring starts with clarifying the picture of the reality of the teacher who is included in the program. Two main aspects are considered: *What is going well and in a quality way?* and *Where is there room for improvement?*

The mentor can suggest three main strategies for establishing the current reality of the teacher:

- Video recording of a part of a lesson presented by the mentee: gives the mentor and teacher a neutral perspective on what is happening in the classroom. The mentor who plans to use video recording as a method of gathering neutral information should keep in mind that the success of using this method depends on the level of trust that is built with the teacher. In this regard, it is important that the teacher owns the video. There are different forms and approaches to organize a video recording of a lesson. The teacher can record a short video himself with his own phone, he/she can ask the mentor himself to do this, he/she can ask one of his/her students or a fellow teacher. In any case, it is essential that the teacher is convinced

that the recording will be used solely for the purposes of professional development in the framework of the mentoring process.

- Student feedback: Student feedback is an important tool that is not fully used in most cases. Teachers can obtain information from their students through informal conversations, thematic interviews, and through written questions and answers and outbound feedback after the end of a lesson (exit tickets). Reviewing students work is also a way to get a clear picture of reality.
- Observation: although not the most objective way to get a clear picture of reality, observation can be useful when a teacher does not want to have a video recording and does not want students to be interviewed. An important factor for the success of this activity is the conduct of a preliminary preparatory conversation with the teacher in which to specify the basic parameters, rules to be followed during the observation by the mentor.

An example list of topics to be covered during the preliminary conversation in preparation for lesson observation is presented in the table.

*Table 1 - Checklist of topics for a preparatory meeting before observing a lesson*

| Topic:   | ✓ |
|--|---|
| Determine the desired form of giving feedback. Forms of feedback: positive affirmation, coaching, evaluation or other form.  |   |
| Determine the purpose of monitoring:<br>- to establish a clear picture of reality,<br>- to establish the entry level for goal setting,<br>- to see the current progress towards the target,<br>- or other purpose. |   |
| The mentor explains the different types of data that can be collected.   |   |
| Determine which types of data will be collected.   |   |

|  |  |
|--|--|
| Determine the place, date, time of observation.  |  |
| Determine whether or not it is desirable for the mentor to talk to the students during the lesson.                                     |  |
| The mentor is interested in whether he/she should know something specific about some specific students or about this class in general. |  |
| Determine where the mentor will sit during the observation and whether it is desirable to move around the classroom.                   |  |
| The mentor asks if something is missed and asks the teacher if he/she would like to ask him/her any additional questions.              |  |
| Determine how they will share and exchange data (in conversation, email, etc.).  |  |
| They determine when and where they will meet to discuss the data.  |  |

*When watching a video recording, observing a lesson and understanding the feedback from students, it is possible for the mentor to suggest sample frameworks with self-assessment criteria that make it easier for the teacher in the process. An example of such a framework is the framework of indicators and criteria for lesson observation presented in Chapter 1. The framework covers different areas, which can be considered separately depending on the focus of the relationship between the mentor and the pedagogical specialist.*

#### *Defining goals and choosing a strategy / teaching method*

In the mentoring literature and practice, there are different frameworks that support the phase of setting the goals or setting goals for professional development. One of the most common models is the SMART goals model. The SMART acronym outlines the main characteristics that a goal should have, namely to be: specific, measurable, achievable, relevant, and time bound.

As a result of his many years of research in the field of pedagogical coaching, Jim Knight offers enrichment and expansion of this acronym in terms of the specifics of the professional

development of pedagogical specialists. He suggests a new acronym known as PEERS (Knight, 2014).

The main elements of a PEERS goal are:

- powerful. Key question: Will achieving this goal lead to a significant change in students' lives?
- easy. Key question: Is the goal simple, clear and easy to understand?
- emotionally compelling. Key question: Does this goal really matter to the teacher?
- reachable. Key question: Has the teacher identified a measurable expected result and a strategy to achieve that result?
- student-focused. Key question: This goal is related to students' achievements, behavior and attitudes, rather than to the teacher or a given strategy?

Table 2 presents the so-called identify questions that the mentor can use in a session with the teacher to reach PEERS goals.

*Table 2 - 10 identify questions for reaching professional development goals*

| <b>Question:</b>  |
|---|
| On a scale of 1 to 10, 1 being the worst lesson you have had in your career, and 10 being the best, how do you rate the lesson we are discussing (based on the video recording, based on the feedback from students and / or observations of the lesson from the mentor)? |
| What do you like about the lesson?  |
| What needs to change to move the quality of the lesson closer to 10?  |
| What will your students do differently if the lesson has reached quality level 10?  |
| Tell me more, how do you imagine this development?  |
| How can we measure this change?   |
| Do you want this to be your goal?   |

|   |
|---|
| If you can achieve this goal, will it really matter to you?         |
| What teaching strategy and method can you use to achieve your goal? |
| What are your next steps?   |

As a result of using these questions, the mentor and mentee have the opportunity to formulate motivating goals and to identify an appropriate strategy / method of teaching that will be the focus of the next work phase (Learning). Depending on the individual challenge of each teacher, goal setting can only mark different options for action (different strategies to try) and in a subsequent conversation to discuss and decide which strategy to apply.

### Phase 3 - Learning

In this phase, the mentee should master the chosen strategy. The process of learning the strategy can go through different formats:

- Self-organized or self-directed learning, in which the mentee alone seeks information and resources about the chosen strategy, discusses the results with the mentor, demonstrates the strategy and receives feedback from the mentor.
- Training by the mentor himself, in which the mentor provides information about the strategy, discusses with the mentee, organizes a demonstration on the implementation of the strategy. The demonstration is also known as a modelling process that shows how to implement the strategy.

There are several options for organization:

- The mentor demonstrates only to the teacher;
- The mentor makes a demonstration in the real classroom of the given teacher with the participation of students;
- The mentor makes a demonstration in the framework of co-teaching with the mentee;
- The mentor organizes for the mentee an attendance to an open lesson, which is conducted by another teacher with proven skills in implementing the chosen strategy;
- Watching a video demonstration.



The mentor should know different types of teaching strategies and methods. In preparation for the demonstration, a short description and checklist for the implementation of the given strategy can be prepared. This support material is discussed with the mentees and if they have a joint agreement on its content, it can be used as a starting point in the subsequent implementation of the strategy by the mentee.

Applying the Knight model in this phase emphasizes the benefits of preparing checklists, which in a synthesized form present the main elements for the implementation of the strategy in order to achieve the set in advance goal. The effective checklist (Knight, 2018) meets the following criteria:

- Short: contains between five and nine items;
- Focused: describes only the most important steps;
- Clear: accurate statement;
- Practical: easy to implement and on the point;
- Concise: fits on one page;
- Easy to read without distracting colors and fonts.

With regard to the various forms of demonstration (modelling) with the direct participation of the mentor and mentees, it is advisable to work with a pre-specified scenario and distribution of roles. Throughout the process it is important to keep in mind that the goal is the mentee to understand the strategy and be able to put it into practice. In this regard, it is recommended that when demonstrated by the mentor, this modelling does not cover a whole lesson, but is entirely focused on the given strategy. This will avoid the risk of a better presentation of the mentor in this process which can create a feeling in the mentored teacher of failure or some form of incompetence, which would demotivate future professional development.

#### Phase 4 - Application/Implementation

In the implementation phase, the mentee takes action to apply what has been learned in the previous phases. This is the most challenging part of the mentoring process, as it requires real action to improve teaching practice. At this point, the mentee is more in the comfort zone of talking to the mentor and watching a demonstration of a strategy. Now it's time to implement it in the classroom.

The main question that underlies the communication between mentor and mentee in this phase is "Has the initial goal been met?" (Knight, 2018). Table 3 summarizes possible follow-up questions (development scenarios) in the mentoring process depending on the answer to that question.

Table 3 - Key questions for determining the direction of improvement

| Has the initial goal been met?  |  |
|---|--|
| YES   | NO   |
| <p><i>Do you want to:</i></p> <ul style="list-style-type: none"> <li>• continue in the direction of improving your practice in terms of using the strategy or maintaining the result of the goal?</li> <li>• choose a new goal?</li> <li>• take a break from our relationship?</li> </ul> | <p><i>Do you want to:</i></p> <ul style="list-style-type: none"> <li>• change the goal?</li> <li>• change the way you measure the progress to the goal?</li> <li>• continue to implement the strategy as it is?</li> <li>• review the way you use the strategy?</li> <li>• choose a new strategy?</li> </ul> |

The mentor can use four main steps as a framework for organizing the sessions in this phase:

- The first step confirms *the direction of development*. The mentors use questions to find out that the conversation is focused on what is really important to the teacher. Sample questions: What do you want us to focus on today? What is most important to you at this moment and to be the main point of our conversation?
- The second step *reviews what has been achieved*. The mentor reviews the data collected and asks questions to help the teacher determine how close he or she is to achieving the goal. Sample questions: What went well? What did you learn? What surprised you? What obstacles do you have in front of you?
- The third step focuses *on formulating improvements*. In partnership, the mentor and mentee identify what needs to be changed (if necessary) to achieve the goal. Sample questions: Do

you want to continue using this strategy in its current form? Do you want us to reconsider the way you use this strategy? Do you want to choose another strategy? Do you want us to change the way you measure your progress towards the goal? Do you want us to change the goal?

- In the fourth phase, the *next steps are planned*, such as when the next meeting will be, what actions the mentee will take until the next meeting, when these activities will take place, etc. Sample questions: When will we meet? What tasks should be performed before we meet? When will these tasks be completed? Who will fulfil them? On a scale of 1 to 5, how committed are you to achieving that goal now?

These sample questions are presented as a guide. Each mentor should focus the work process to the specific pedagogical specialist and the individual challenges and goals.

## Chapter 4 - Application of mentoring in the professional development of pedagogical specialists from Bulgaria, Romania and Serbia

### Current state of systems for professional development of pedagogical specialists in Bulgaria, Romania and Serbia

#### Bulgaria

The Bulgarian educational system has a normatively defined streamlined system for continuing qualification of pedagogical specialists, career development and successful realisation through periodic updating of knowledge, skills and competencies:

- per curricula for the respective subject or program systems;
- per professional profile of the pedagogical specialist;
- for development of teaching skills in key competencies;
- for knowledge and application of innovative approaches in the educational process;
- for career guidance and counselling of students;
- for organizational and consulting skills;
- to manage the institution and work with stakeholders;
- for participation in research and creative activities;
- to acquire a higher professional qualification degree;
- for acquiring a new or additional professional qualification or specialization (Ordinance 15, 2019).

Organizational forms for raising the qualification of the teachers are:

- for continuing qualification:
  - a) courses, seminars, trainings, schools, workshops, lectures, webinars ;
  - b) specializations related to the methodological, pedagogical, psychological training of pedagogical specialists, with a specific subject area or with education management;
  - c) professional-pedagogical specialization under Art. 60, para. 1, item 2;

d) master class as an interactive form of training of innovative teachers by presenting their pedagogical achievements, sharing positive professional experience, discussing current trends and applying innovative technologies and practices;

e) forums (scientific-practical conferences, plenaries, round tables) for presentation of research results, research and creative activity, for professional expression and presentation of good, innovative practices or achievements;

- for the internal institutional qualification:

a) lectures, in-house discussion forums;

b) open lessons, methodological support, presentations of creative projects;

c) results and analyzes of conducted pedagogical research and achievements;

d) sharing innovative practices.

In the Roadmap for Teacher Policies presented by the World Bank in 2021, recommendations are made to review the current approach to continuing education. Among the main recommendations is the application of an integrated approach, which systematically applies the existing forms and methods of professional development, including mentoring.

Mentoring is seen as an element of the induction of beginning teachers, which includes follow-up monitoring related to the educational process in the classroom. The lack of a common framework for mentoring has led to different field practices. The impact of applied mentoring approaches can be enhanced by adopting a common framework of criteria and implementation phases ( World Bank, 2021).

## Romania

The initial teacher training for all teaching positions in Romania is based both on a concurrent model – meaning that the education and training in the specialization of studies is combined with the education and training for the teaching career within the same educational sequence and also on the consecutive model - meaning that education and training for the teaching career is realized after the education and training in the specialty (Eurydice, 2022). However, for certain teaching positions a supplementary professional training is required that may be considered as part of the initial training but is actually finalized after the graduation of the required education level (e.g.,

specific training for teaching positions in special education, graduation of doctoral studies for lecturer, associate professor and professor in higher education etc.).

For teachers in school education, the initial training provided within formal education is completed with an induction year, carried out in a school unit, usually under the coordination of a mentor for induction with a duration of at least 1 year. During the insertion period debutant teachers are employed based on labour contracts identical with the ones for the fully-flagged teachers, containing the same responsibilities, rights and obligations (including teaching norm, salary, etc.). The induction period comprises an important supportive and supervising dimension as well as a final formal evaluation – the on-the-job confirmation exam. Only after passing the on-the-job confirmation exam teachers' entry their professional life as fully-flagged teachers. Persons that do not pass the exam in the conditions set by the law cannot work anymore as qualified teachers.

Following the on-the-job-confirmation, further professional development of the teachers in Pre-university education is a 2-stage process. Each stage is accomplished through specific evaluations and leads to certification of a higher professional-degree. The professional-degrees that can be obtained by teachers working are, in this order: the didactic level II and the didactic level I. Professional-degrees are rewarded with higher salaries for the same teaching position, level of the initial training and seniority, and entitle the holder to compete for management or guiding and control positions (Eurydice, 2022).

In-service training is a right of the teachers. Educational institutions have to ensure all the necessary conditions for the teachers to participate to in-service training programmes. At the same time, the legislation states that that the teaching staff, as well as the management, guidance and control staff in pre-university education are required to participate periodically in continuing education programs, so as to accumulate, every 5 years, considered from the date of passing on-the-job confirmation exam, a minimum of 90 transferable professional credits.

For teaching, management, guidance and control staff, the continuing training is a right and an obligation. Continuing professional development of teachers, management, guidance and control staff and professional retraining are based on professional standards for the teaching profession, quality standards and professional competences (Eurydice, 2022).

Continuous professional development of teachers is achieved according to the development in the field of education and professional training, including in terms of the national curriculum, and according to the personal interests and needs for development. Career evolution is done through the 2nd teaching degree and the 1st teaching degree, and through certification exams for different levels of competence.

The examination topics, the bibliography and the procedure for organizing and conducting the examinations for obtaining the teaching degrees are regulated by a methodology developed by the Ministry of Education. According to the Methodology regarding the continuous professional development of teachers in the pre-university education (ART. 4), the continuous training is carried out mainly through:

- programs and activities for the improvement of scientific, psycho-pedagogical and pedagogical training;
- training programs in the fields of management, guidance and evaluation of education;
- training courses and taking the examinations for obtaining the didactic degrees II and I;
- professional conversion programs studies corresponding to a specialization in another field of license.

Continuous training of teachers is based on the paradigm of approaching through competences and on the concept of cumulative development of competence level of teaching staff. The level of competence covered by the programs and continuing training/development activities is evaluated according to:

- the teacher's ability to mobilize, combine and use autonomously the knowledge capabilities, the skills and general and professional competences in line with the diverse requirements of a specific context, situation or issue;
- the teacher's ability to cope with change, complex and unpredictable situations.

Mentoring in professional development of teachers is provided in the Education Law but is sporadically implemented in some schools. Recently, the Ministry of Education participated in the public policy program of the European Union with a pilot mentoring program addressed to beginning teachers. It is carried out in consortium in collaboration with 16 partner organizations from 6 EU Member States and is part of the international project NEST - Support and Training

for Beginner Teachers, funded by Erasmus +, sub-priority 3 - "Support for public policy reform". NEST contributes to the establishment of new adaptive mentoring practices for beginning teachers. The purpose of NEST is to implement a mentor training system, respectively to evaluate the effects of this type of training on mentors and beginner teachers working in disadvantaged schools in Romania (NEST Project, 2022).

Another initiative launched in 2016 by the University of Bucharest (Faculty of Psychology and Educational Sciences) is the master's program "Mentoring in education" which is an opportunity to continue the process of professionalization in the teaching career of those who have made or intend to make a profession of it. The master's degree aims to train teachers with a thorough scientific training coupled with a very good psycho-pedagogical, methodological, and managerial training. The master's program "Mentoring in education" aims to contribute to the process of developing and consolidating the national training system for the following categories of mentors: early career mentors, internship mentors, professional/ pedagogical practice mentors (University of Bucharest, 2021).

## Serbia

The most common forms of continuous professional development of teachers (CPD) in Serbia are seminars organized by different providers, accredited for three years by Institute for Development of Education. All seminars are divided by areas, with announced areas of priorities and competences they intend to develop. Every teacher and associate have the obligation to prepare personal portfolio and to take care of personal professional development. Every headmaster also has the obligation to allow teacher to realize its plan, as well to offer the forms of CPD inside of school.

According to a recent Eurydice study, teachers and preschool teachers in Serbia who work full time are required to complete 68 hours of different kinds of CPD each year and these hours are counted as paid work hours. Within this number of hours, 24 hours are to be dedicated to the completion of approved CPD programmes outside the school. The rest is spent on CPD programmes organised by the institution (Eurydice Serbia, 2022).

The process of evaluation performance of teachers in the classroom in the school is organized by school team – school head master or deputy, psychologist, pedagogue. They announce they



participation classes and monitor the performance by teacher. After that they discuss about different aspects of the lesson and make the suggestions. This activity is realized at least once in school year. Several aspects are analyzed – from the main goal of lesson, used methods, activity of students and motivation of students. This is something usual in the school and brings possible great contribution for improvement the quality of teaching.

The Strategy for the development of education in the Republic of Serbia until 2030 highlights the need for improving both initial and continuous professional development of teachers. The role of the mentor is highlighted as key in the training process of future teachers (Education Strategy Serbia, 2021).

## Analysis of the results from introducing a theoretical and practical model for professional development of pedagogical specialists

### Research methodology

Within the implementation of the project "Pro Teach" a piloting of the proposed model for the development of pedagogical professionals is applied in a real work environment. The research conducted aims to map the effects from introducing a mentoring model, targeting both beginning teachers and teachers with extensive experience.

The study includes the following key phases:

- Training of a pilot group of 12 teachers-mentors from Bulgaria, Serbia and Romania in the application of the model (January 2022 - March 2022). The training follows a single framework, including the use of a mentor's manual, which is a synthesized version of the detailed theoretical and practical model in this publication. The handbook is designed to reflect the need for a practical and clear guide for the mentor in future mentoring sessions with pedagogical specialists (Appendix 3).
- Conducting mentoring sessions with pedagogical specialists from Bulgaria, Serbia and Romania (March 2022 - May 2022). According to the initial plan, the trained teacher-mentors should conduct a mentoring process with 20 teachers from each country (total: 60). At the end of the process, the mentor teachers provide a general template (Appendix 4).
- Evaluation of the results of the piloting. Research team from Bulgaria side analyzes the reports provided by mentors from all countries.

### Research findings

The reports presented by mentors in Bulgaria, Serbia and Romania provide an opportunity to make observations on the effects of the model on both groups of participants (mentors and teachers - participants in the mentoring process). It should be noted that the information was provided by the mentors themselves, which implies subjectivity of the data provided. Despite the risk of socially acceptable answers and descriptions, the cumulative picture of all reports presenting experiences from three educational systems allows to make conclusions of the impact of the applied model.

## **Research sample**

The piloting of the proposed theoretical and practical model for professional development includes 20 pedagogical specialists and mentors from Bulgaria, 24 from Serbia and 20 from Romania (64 in total).

### **Bulgaria**

Geographically, the participants from Bulgaria are mainly from small settlements (cities with a population of less than 50 thousand inhabitants and villages). 60% of the pedagogical specialists and their mentors teach at junior high school and high school stage. In terms of subject areas, there is diversity (from primary school teachers to teachers of Russian, Bulgarian language and literature, history, German, philosophy). It is noteworthy that the participants are mostly representatives of humanities studies. The women's-men's ratio shows prevalence of women participants (70:30).

The pedagogical specialists who use the services of a mentor are mostly professionals at the beginning of their pedagogical experience. Most participants declare pedagogical experience from 1 to 5 years, the most numerous being the group of teachers who are in the first year of their career as teachers.

The mentors have a long pedagogical experience, ranging from 12 to 33 years. It is noteworthy that in the group of mentors there is a colleague who has only few years of experience in the profession but managed to work with the largest number of pedagogical specialists. Regarding previous experience with mentoring in both groups (pedagogical specialists and mentors) there is a lack of such experience. Only one participant stated having practiced mentoring.

### **Serbia**

Geographically, the participants from Serbia represent different settlements (capital, city of over 50 thousand inhabitants, small settlements). There is a balanced presentation of all educational stages, with a slight predominance of high school. Regarding the subject areas, there is diversity and, unlike the profile of the participants in Bulgaria, among the covered Serbian pedagogical specialists there are also teachers of exact sciences, including business and economics. Only three male professionals are involved in the piloting.

Regarding the age structure of the participants, there is a colourful picture compared to the pilot phase in Bulgaria. Mentoring is applied to both colleagues with few years of pedagogical experience and experienced colleagues.

The mentors have a long pedagogical experience, as well as previous experience in providing various forms of professional support to pedagogical specialists.

## **Romania**

Geographically, the participants from Romania are mainly from educational organizations in the capital city of Bucharest. The pedagogical specialists who use the services of a mentor are mostly professionals at the beginning of their pedagogical experience - in the first year of their professional practice or at most in the second year of their first appointment at an educational organization.

Mentors represent primary and secondary school stages in a balanced manner. Regarding the subject areas at high school stage, Romanian language and history are covered. It is noteworthy that, like the profile of the participants in Bulgaria, there are mostly representatives of the humanities and women professionals prevail.

The mentors have many years of pedagogical experience (from 11 to 23 years in the profession) and the presence of additional characteristics that are regulated in the legislation. They are current teachers who hold a first didactic degree (the highest qualification equivalent to a doctorate in higher education), have passed at least one refresher course in the last five years and have a "very good" qualification mark for the last five years. .

## Thematic focus of the mentoring process

### Bulgaria

Bulgarian teachers raise various topics during the mentoring process. In summary, the main thematic areas considered during the mentoring sessions can be presented as follows:

- Motivation for future professional and personal development;
- Lesson planning and annual distribution;
- Assessment of student achievements;
- Preparation of additional training materials (including tests and worksheets);
- Application of new teaching methods in accordance with the age characteristics of the students (to limit the interruptions during the lesson; to limit the time of the teacher's talk and to increase the students' speaking time accordingly; to increase the students' engagement; to increase teaching time by reducing non-teaching time; increase the index of real learning);
- Gathering feedback from students (what students do differently if the lesson has reached a high level of quality; how change is measured, whether the goal of the lesson has been achieved and what methods and strategies are used to achieve this goal);
- Work with children with special educational needs.

### Serbia

In the process of mentoring with pedagogical specialists from Serbia, a variety of topics are observed, which are put before the mentor. For some teachers, the focus is on specific goals and educational outcomes they want to achieve for their students. For others, the focus is on specific methods of learning or interacting with other colleagues. Among the recurring themes are:

- Development of creativity and communication skills of students, including critical thinking;
- Applying an individualized approach to teaching;
- Introduction of an interdisciplinary approach to work (interdisciplinary cooperation);

- Development of teacher self-reflection;
- Use of digital technologies in teaching.

### **Romania**

In the process of mentoring with pedagogical specialists from Romania, a variety of topics are observed. The topics were formulated during an initial informational meeting with the mentors and subsequent monitoring of lessons by the mentors. Among the main highlighted topics are:

- Implementation of modern educational strategies (replacement of lectures with active learning; self-study; group learning through situations of cooperation, etc.);
- Applying an individualized approach to teaching;
- Ongoing assessment of student progress;
- Use of digital technologies in teaching.

### **Results and satisfaction of pedagogical specialists and mentors**

#### **Bulgaria**

All participants in the pilot phase express their satisfaction with the process. For pedagogical specialists, the usefulness of the interaction with the mentor is multifaceted and in general can be described as contributing to their increased professional self-confidence and motivation for self-improvement.

The majority of participants share that even in the short period of mentoring, the effect on the students is noticeable and is mainly related to the improvement of their engagement. Teachers are encouraged to enrich their teaching methods and seek additional resources to develop their practice. With regard to one of the horizontal topics related to lesson planning, it is realized that good planning creates confidence, but also allows the flexibility required in the individualized approach to teaching.

The satisfaction of the Bulgarian mentors is high. All mentors declare that what motivates them to work for the professional development of their colleagues is the opportunity to share their experience and see continuity. At the same time, mentoring provides an opportunity for their own career growth and development.

Mentors are satisfied with the steps proposed in the current theoretical and practical model of professional development. The model provides a good orientation about the organization of work and the steps to be taken to establish both an atmosphere of mutual trust between mentor and mentee, and a sequence of steps to be followed in the process of mastering the teaching profession by the young teacher.

### **Serbia**

Despite the short mentoring period (up to 2 months) in which the teachers from the pilot group participated, the results according to the collected feedback are positive. Pedagogical specialists express their high satisfaction with the process. This is also the feedback from the mentors themselves.

Among the views expressed on the mentoring process was the awareness that mentoring is very encouraging for teachers to develop their reflection practices on their ability to work for the success of their students. Teachers have the opportunity to identify their areas for improvement and take steps for development.

Some participants started the process with scepticism whether it was possible to achieve results in such a short period, but at the end of the process they said they were satisfied with the interaction with their mentor.

Teachers say the mentoring process has supported them in achieving their goals. In cases where implementation is partial, they state that the process has strengthened their motivation to improve and seek long-term forms of cooperation with colleagues.

The mentoring process encourages teachers to accept mentoring as cooperation and development opportunity. As a next step, it creates conditions for pedagogical specialists to accept the idea of joint review and self-assessment of their activities.

For their part, the mentors in the process also expressed high satisfaction with the opportunity to support the professional development of colleagues by jointly identifying the needs for development and conducting professional exchange on the identified topics.

## Romania

Teachers involved in the mentoring process express their satisfaction with the interaction with mentor. Among the main benefits outlined are the provision of practical advice and support from mentors in finding "solutions" to the problems they encounter in their teaching. Mentoring provides them with access to resources and the opportunity to discuss various issues that are unclear to beginning teachers.

As a result of their participation in the mentoring process, teachers increase their self-confidence, improve their communication and pedagogical skills.

Mentors also express their satisfaction with their participation in mentoring with pedagogical specialists. Among the main results and benefits for the mentor are the following:

- Development of coaching skills, counselling skills, listening skills;
- Creating own style as a mentor;
- Development and practice of individual leadership style;
- Strengthening self-confidence, self-realization and development of soft skills through participation in the mentoring process;
- Exchange of information, teaching techniques and feedback provision.



## Recommendations for the development of the model

### Bulgaria

Participants in the pilot phase offer different ideas for further development of the model. Among the main recommendations are the following:

- Each school should have an active mentor to apply the model, and this mentor should have at least 5 years of experience as a teacher.
- To develop group forms of mentoring in which the mentor conducts group sessions with teachers involved.
- The mentor's manual should provide additional resources related to the specifics of the different subjects and age groups.
- The model should be used not only for new teachers, but also for teachers who have difficulties in their work, despite their longer experience.
- School leaders should build an adaptive system of internal school cooperation for mutual assistance and mentoring.
- The implementation of a model should be supported by the development of video demonstrations of its implementation to better guide future mentors.
- The model should be promoted to the wider professional community through various forums for sharing good practices and experiences.
- The model needs to be applied for a longer period than the pilot phase / 1-2 years /.

### Serbia

The participants in the pilot phase from Serbia confirm some of the recommendations made by Bulgarian teachers, such as the need for a longer mentoring process of one year. Other recommendations include:

- Mentoring should be introduced as a formal form of professional development (qualification).
- Specific time should be provided for inclusion in this form during the working week.

- Organizing courses for teachers who want to work as mentors.
- With regard to the mentoring process itself, it is important for mentors to adhere as much as possible to a strength-oriented approach of the colleagues they work with.

## **Romania**

Romanian educators agree with the recommendation for more than one year of mentoring, based on a professional development plan synchronized with the school's management. Also, the need for allocating/planning mentoring time within the daily activities of teachers and principals.

With regard to mentoring forms, Romanian colleagues offer a combined approach between individual and group sessions, which allows for the consideration of different professional topics as well as the sharing of experiences.

### Research conclusions

The observations from the pilot phase of the model in Bulgaria, Serbia and Romania allow to conclude that the mentoring model proposed by the European project "ProTeach" can be applied in school and lead to positive results in the professional development of pedagogical specialists.

Achieving more sustainable results requires the implementation of the model as an official form of internal qualification, for which there are regulated time and resources within the official school working hours. In the implementation of the model further experiments can be implemented with different forms of individual and group work, focused on higher achievements of students.

Ensuring high quality mentoring requires the introduction of specialized training courses in mentoring, supported by relevant training materials (mentor's manual, video demonstrations of individual and group forms of mentoring, subject-specific resources).

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## Annex 1 - Main characteristics of Education 4.0

Education 4.0 includes:

- Flexible curriculum and integrative curricula - "phenomenon-based" learning.
- Personalized training - individual profiling and e-learning.
- Blended learning and the effective use of ICT in education, building a "school in the cloud" (Pengelley, 2017).
- Wide application of the competence approach - priority focused on goals related to the motivation and development of the student's individuality.
- Interdisciplinarity in learning - the integration of knowledge, skills and attitudes from one subject area to another.
- Emphasis on the practical value and usefulness of knowledge - learning by doing, expanding practical training.
- Stimulating creativity, creativity and innovation in the educational process.
- Problem-based learning - transfer to solve problems in various non-standard situations.
- Use of interactive teaching methods - project-based learning.
- Meaningful use of technology in education - widespread introduction of the 1:1 model and cloud technologies in distance learning in an electronic environment.
- Collaborative training and teamwork of students.
- Development of an inclusive school environment.
- Constant search for new forms and types of training (mobile devices, Internet of Things, artificial intelligence).
- Positive education - development of strengths of character and well-being and happiness of the student (Norrish, Williams, O'Connor, Robinson, 2015).
- Changing the system for organization of training - changing the classroom system with a system of group / team / training, learning anywhere at any time, self-organized training.

- Change in assessment - wider application of formative and authentic assessment, student portfolio.
- Z-generation or Net-generation students are "breastfed" and raised with information technology - this generation thinks, seeks information and learns differently than previous generations of students.
- Students are formed in three dimensions - as making contacts (connectors), creators and constructivists - using, but also creating knowledge and their own information.



## Annex 2 - Approaches and methods for collecting data on the educational process

Data collection is a key element in mentoring. Mentors collect data to help teachers get a clearer picture of reality, support the goal-setting process, and the process of reviewing progress toward goals. The data is a kind of starting and ending point of each mentoring process. The most effective data is often the data collected because of video recordings of lessons.

To improve their practices, teachers may want to increase the level of engagement of their students, reduce the time for non-pedagogical questions in the classroom, change the ratio of corrective and positive comments during class, and their mentors need to know how to explain the process of collecting different types of data that will support teachers in finding a solution.

This appendix summarizes the categories of data according to the Knight model (Knight, 2018) cited above, which the mentor can collect in his work with teacher.

### **Student engagement**

Commitment is a complex and multi-component concept. In a very simple and workable version, it can be considered in relation to the level of attention of students during a lesson. Three levels of engagement can be considered: authentic, strategic and zero.

In authentic engagement, students are genuinely interested and fulfil the tasks set by the teacher because they find them meaningful or enjoyable.

Students who are strategically engaged do things because they have to, not because they want to. They want to finish the tasks as quickly as possible in order to spend more time on activities that they find more engaging.

Students with zero commitment do not complete the tasks assigned to them. They can engage in side-by-side conversations, do assignments for another class, read materials that are not related to the class, or just look out the window.

The starting point for establishing the involvement of students is to conduct rapid, ongoing measurements during class of the so-called time on task. At a selected time, the teacher reviews the students' engagement by counting how many of them are currently working on the task. This observation can be done at regular intervals (example: every ten minutes). This approach

provides specific information on the percentage of engagements but does not provide information on the type of engagement (authentic / strategic).

### **Time for teaching and time for non-pedagogical work**

During a lesson, students will be involved in activities that promote learning (teaching) and activities of another nature (placement, arranging teaching materials, checking for attendance, preparing to go out at the end of the class). The more time is devoted to teaching activities, the more students will learn.

Measuring the ratio of teaching time to time for other activities provides useful information to the teacher, how much real time is spent on teaching and leads to thinking about how to increase this time.

### **Index of true learning**

This indicator is used by multiplying the percentage of students who complete the task by the percentage of teaching time. The maximum score is 100% or 1.00.

Example: if in a given class 80% (0.80) of the time is for teaching and 60% (0.60) of the students are engaged in a given task, then the index of real learning is 48% ( $0.60 \times 0.80$ ). The result shows that almost half of the available learning potential is not used.

This index has its limitations, but allows for reflection, especially in cases of very low results.

### **Time for the teacher to speak and time for the student to speak**

Knight's research practice with teachers watching recordings of their lessons shows their surprise at how long they are in the role of speakers and how little time they leave for their students to talk about what they are learning.

The correct ratio for the speaking time of the teacher and the students depends on the type of learning that is conducted and the subject that is being studied. Each teacher should judge for himself what is the desired state of the student speaking indicator.

### **Ratio of interaction**

The teacher's attention is a key motivator for students. Teachers can learn a great deal about how they direct learning by observing how often they praise their students for appropriate behavior and how often they correct their students for inappropriate behavior.

The ratio of the moments that teachers show students that they see them when they do what they have to do to the moments that teachers correct their students is called the ratio of interaction (Reinke, Herman, & Sprick, 2011; Sprick, 2010, quoted from Knight 2018).

The easiest way to establish this ratio is to use a classroom map that shows which student is sitting where (seating chart). Using the chart, the teacher can mark with plus the positive comments or gestures he/she makes to the student and with minus the moments when he/she makes corrective comments. At the bottom of the chart, the teacher can mark the positive and corrective comments he/she makes to the whole class. In cases where the lesson is recorded, observers can review it and check that the data recorded on the chart is correct.

This ratio shows how and on what the teacher focuses one's attention. When this indicator is observed, the mentor examines how and to what extent teachers pay attention to students and how they express this attention. The best strategy to change the ratio is to increase positive attention (increase the number of praises). This does not mean excluding corrective comments, but emphasizing on the positive aspects of student behavior and performance.

If teachers increase positive attention but fail to adequately correct students, it is likely that students will not behave in the way that teachers hope. Creating a culture of learning in the interest of students requires the teacher to correct students in a consistent manner. When teachers are inconsistent (for example, they allow one day to have side conversations and prevent them from taking place another day), students become confused about what is expected of them and as a result complain about injustice.

### **Behavior of students**

The teacher mainly monitors for behavior that disrupts the learning process and this can be presented under a general category - interruptions. Interruption measurement includes any time a student interrupts another student's learning or the teacher's teaching work. This type of data is collected through video recording of a lesson or direct observation of the work of a class. Here again, the above-mentioned chart of the places in the class can be used, and under each student

the number of realized interruptions can be noted. Next to the interruptions can be added the so-called disrespectful acts, such as shouting, use of disrespectful language, which can also be noted on the chart.

### **Teacher questions**

One of the easiest and most powerful steps teachers can take in their teaching is to rethink the type of questions they ask.

Questions can be open or closed. There may also be questions that require opinion or seek some correct answer.

Questions requiring an opinion do not have the right answer. The opinion is personal and individual, so the person who answers this type of question answers this question correctly only when presenting the opinion. Example: What do you think about book X?

Teachers usually ask questions related to the correct answer when they want to confirm how much students have mastered the knowledge and how much they can demonstrate the skills they have learned.

In various educational systems around the world, teachers use Bloom's taxonomy of learning objectives, sorting questions into six levels - knowledge, understanding, application, analysis, synthesis and evaluation. Others use taxonomies such as those of Marzano, Eriksen, Costa and others.

In order to facilitate the process of observation and measurement according to Knight (Knight, 2018), the questions can be divided into three categories: knowledge (knowledge), skills (skill), big ideas (big ideas).

Knowledge questions provoke students to demonstrate their ability to memorize information.

Skill questions provoke students to explain how they will do something.

Big idea questions encourage students to talk about topics, concepts, and content structures that are repeated throughout the course of study.

In most cases, in direct teaching, teachers usually ask more closed-ended, specific questions to confirm that students understand the knowledge presented and to ensure their commitment.

Mentors and teachers can also collect data on how students answer questions. In particular, how often students answer questions, which students answer questions and how often students answer questions correctly.

## Annex 3 - Teacher mentor's manual

Dear fellow mentors,

Within the next three months you have the opportunity to test with your colleagues (min. 5 pedagogical specialists) the mentoring model proposed by the European project "ProTeach". In this document we have tried to offer a sample plan of steps to follow in working with your colleagues in individual or group format.

At the end of the pilot we hope you send us a short report with the results of the process, which will include the profile and number of participants, results achieved, feedback from participants on the usefulness of mentoring, and your observations and conclusions as mentors.

### **Contents of current manual:**

Step 1 - Preparation

Step 2 - Conducting the first introductory / introductory meeting (30 min)

Step 3 – Meeting for identifying current state of development (60 min)

Step 4 - Meeting for setting development goals (60 min)

Step 5 – Learning

Step 6 – Application

Step 7 - Evaluation meeting and follow-up (60 min)

Annex 1 – Self-assessment frameworks

Annex 2 - Approaches and methods for collecting data on the educational process

## Step 1 - Preparation

In this step you inform your colleagues about the possibility to provide them with a mentoring service aimed at improving their teaching in different educational environments (in-person, online and / or hybrid). Depending on your approach, you can provide them with brief information that the mentoring process includes several main elements:

- A series of meetings (mentoring sessions) in which you set goals you want to achieve, identify areas for improvement, outline steps for action, discuss specific teaching approaches and techniques, and monitor progress in their implementation.
- Gathering information about their approach to teaching through:
  - Personal observation - the teacher collects information from various sources about the level of one's teaching (student results, video of a selected moment of teaching, feedback from students and colleagues).
  - Observation by the mentor - this can be done in person or through a video provided by the teacher.
- Demonstrations related to teaching methods by the mentor.
- Self-education, participation in trainings and other forms of mastering new approaches to teaching or improving the current ones by the given teacher.

The mentoring process is recommended to last at least one school year, so that there is time to arrange all activities in the teacher's schedule in a way that does not create additional stress and at the same time leads to sustainable development of competencies.

In the specific case of the current pilot phase, this duration is 3 months and implies flexibility in the choice of the above elements.

## Step 2 - Conducting the first introductory / introductory meeting (30 min)

It is recommended that before embarking on a real mentoring process, a short meeting be held with the teacher who is interested in the program with the following emphases:

- The teacher has the opportunity to learn more about the specific parameters of what lies ahead.
- The mentor has the opportunity to emphasize the principles of the mentoring relationship. This is the moment when it is emphasized that this is an *individualized process of professional development, not related to the evaluation of the performance or attestation of the teacher*. The process is confidential and information on various aspects of the relationship can be shared by the mentor only with the permission of the mentee. During this first meeting you have the opportunity to clarify the **main principles** that the mentor follows in the mentoring process:

- Equality: both participants in the process share and exchange ideas and make decisions together as equals. The mentor believes that the teacher himself contributes to the interaction.
- Choice: the teacher is the one who makes the decisions in the process (what are the goals, what pedagogical strategies will be developed, etc.). The mentor believes that the teacher is in the position of making the choice and creates the right atmosphere and environment for making a decision.
- Safety: conversations with the mentor should be open and in a spirit of trust. The teacher feels calm to express what he/she thinks and feels.
- Dialogue: when people are partners, their conversations take place in a dialogue in which ideas are shared by both parties. Teachers who promote an atmosphere of dialogue are balancing between asking questions that help the teacher reach higher levels of awareness of their current situation and future goals and offering solutions that are appropriate in the particular individual context. They do not give advice, but share possible pedagogical strategies.
- Reflection: providing the opportunity and time for reflection of the teacher is the basis for maintaining a high level of commitment and quality of the formulated ideas.
- Orientation to the action: the interaction with the mentor encourages the undertaking of active steps and actions of the two participants in the process of moving towards the implementation of the planned goals.



- Another important feature of the proposed model is that, unlike traditional mentoring and coaching practices, which place mentoring at the center of the process, in this model the starting point is the student and what the teacher wants his students to achieve.

During the familiarization meeting, the mentor encourages the teacher to share all his / her concerns and hesitations about the upcoming activities and provides additional information if necessary.

During the meeting the time frame of the relationship is specified and specifically the first meeting dedicated to establishing the individual development goals. If desired by the mentee, the mentor can conduct a short demonstration session with him/her (within 20 minutes) to demonstrate what can be expected from participating in the program. Examples from previous mentoring programs can be provided, convincing the teacher of the benefits of active involvement and participation.

It is important to specify the venue of the mentoring sessions, during the introductory meeting. It is recommended to choose a place where there are no distractions and which predisposes the teacher to openly share personal information. In case of choosing an online platform for meetings, it is advisable to choose one that provides a good audio and video connection, as participants on both sides are in quiet and home-like rooms during online sessions.

### Step 3 – Meeting for identifying current state of development (60 min)

During this meeting the focus is on discussing main questions such as:

- What do you want to achieve for your students? What would you like to be their achievements?
- What is going well and in a quality way?
- Where is there room for improvement?

If you feel the need, you can provide sample frameworks for self-assessment of competencies to support the colleague in identifying areas for improvement. Plan a time for the colleague to review the relevant frameworks and allow for reflection based on the above questions (see Annex 1 below – Self-Assessment Frameworks). The frameworks are recommended, but it is more important to create conditions within the conversation for the mentor to formulate his / her areas for improvement. They can also be sent to the teacher in advance as a preparation for the meeting.

In case the colleague demonstrates high awareness of what he/she wants to achieve, you can move on to the next step related to formulating goals.

If the colleague demonstrates a desire to gather more information about the answers to the questions asked, you can encourage him / her to explore some of the following ways of gathering information:

- Video recording of a part of a lesson presented by the mentee: gives the mentor and teacher a neutral perspective on what is happening in the classroom. The mentor who plans to use video recording as a method of gathering neutral information should keep in mind that the success of using this method depends on the level of trust that is built with the teacher. In this regard, it is important that the teacher owns the video. There are different forms and approaches to organize a video recording of a lesson. The teacher can record a short video himself with his own phone, he/she can ask the mentor himself to do this, he/she can ask one of his/her students or a fellow teacher. In any case, it is essential that the teacher is convinced that the recording will be used solely for the purposes of professional development in the framework of the mentoring process.

- Student feedback: Student feedback is an important tool that is not fully used in most cases. Teachers can obtain information from their students through informal conversations, thematic interviews, and through written questions and answers and outbound feedback after the end of a lesson (exit tickets). Reviewing students work is also a way to get a clear picture of reality.
- Observation: although not the most objective way to get a clear picture of reality, observation can be useful when a teacher does not want to have a video recording and does not want students to be interviewed. An important factor for the success of this activity is the conduct of a preliminary preparatory conversation with the teacher in which to specify the basic parameters, rules to be followed during the observation by the mentor.

**Step 4 - Meeting for setting development goals (60 min)**

The meeting defines the specific development goals that the colleague sets and identifies the main activities to achieve these goals (example: a specific teaching technique or approach that will be studied and mastered; a specific element of teaching that will be changed ).

To make it easier for a colleague to formulate a goal, you can use the following support questions:

|   |
|---|
| <b>Question:</b>  |
| On a scale of 1 to 10, 1 being the worst lesson you have had in your career, and 10 being the best, how do you rate the lesson we are discussing (based on the video recording, based on the feedback from students and / or observations of the lesson from the mentor)? |
| What do you like about the lesson?  |
| What needs to change to move the quality of the lesson closer to 10?  |
| What will your students do differently if the lesson has reached quality level 10?  |
| Tell me more, how do you imagine this development?  |
| How can we measure this change?   |

|   |
|---|
| Do you want this to be your goal?                                   |
| If you can achieve this goal, will it really matter to you?         |
| What teaching strategy and method can you use to achieve your goal? |
| What are your next steps?   |

After formulating goal (s) based on the above questions, you can invite them to check that it meets the following characteristics of good goals:

- powerful. Key question: Will achieving this goal lead to a significant change in students' lives?
- easy. Key question: Is the goal simple, clear and easy to understand?
- emotionally compelling. Key question: Does this goal really matter to the teacher?
- reachable. Key question: Has the teacher identified a measurable expected result and a strategy to achieve that result?
- student-focused. Key question: This goal is related to students' achievements, behavior and attitudes, rather than to the teacher or a given strategy?

As a result of using these questions, you have the opportunity to formulate motivational goals with the colleague and to identify an appropriate strategy / method of teaching that will be the focus of the next step or phase (Learning).

Depending on the individual challenge of each teacher, goal setting can only highlight different options for action (different strategies to try) and in a subsequent conversation to discuss and decide which strategy to implement.

### Step 5 – Learning

In this phase, the mentee should master the chosen strategy. The process of learning the strategy can go through different formats:

- Self-organized or self-directed learning, in which the mentee alone seeks information and resources about the chosen strategy, discusses the results with the mentor, demonstrates the strategy and receives feedback from the mentor.
- Training by the mentor himself, in which the mentor provides information about the strategy, discusses with the mentee, organizes a demonstration on the implementation of the strategy. The demonstration is also known as a modelling process that shows how to implement the strategy.

There are several options for organization:

- The mentor demonstrates only to the teacher;
- The mentor makes a demonstration in the real classroom of the given teacher with the participation of students;
- The mentor makes a demonstration in the framework of co-teaching with the mentee;
- The mentor organizes for the mentee an attendance to an open lesson, which is conducted by another teacher with proven skills in implementing the chosen strategy;
- Watching a video demonstration.

### Step 6 – Application

In the implementation phase, the mentee takes action to apply what has been learned in the previous phases. This is the most challenging part of the mentoring process, as it requires real action to improve teaching practice. At this point, the mentee is more in the comfort zone of talking to the mentor and watching a demonstration of a strategy. Now it's time to implement it in the classroom.

The main question that underlies the communication between mentor and mentee in this phase is "Has the initial goal been met?" (Knight, 2018). Table 3 summarizes possible follow-up questions (development scenarios) in the mentoring process depending on the answer to that question.

*Table 3 - Key questions for determining the direction of improvement*

| <b>Has the initial goal been met?</b>   |  |
|---|--|
| <b>YES</b>  | <b>NO</b>  |
| <p><i>Do you want to:</i></p> <ul style="list-style-type: none"> <li>• continue in the direction of improving your practice in terms of using the strategy or maintaining the result of the goal?</li> <li>• choose a new goal?</li> <li>• take a break from our relationship?</li> </ul> | <p><i>Do you want to:</i></p> <ul style="list-style-type: none"> <li>• change the goal?</li> <li>• change the way you measure the progress to the goal?</li> <li>• continue to implement the strategy as it is?</li> <li>• review the way you use the strategy?</li> <li>• choose a new strategy?</li> </ul> |

The mentor can use four main steps as a framework for organizing the sessions in this phase:

- The first step confirms *the direction of development*. The mentors use questions to find out that the conversation is focused on what is really important to the teacher. Sample questions: What do you want us to focus on today? What is most important to you at this moment and to be the main point of our conversation?

- The second step *reviews what has been achieved*. The mentor reviews the data collected and asks questions to help the teacher determine how close he or she is to achieving the goal. Sample questions: What went well? What did you learn? What surprised you? What obstacles do you have in front of you?
- The third step focuses *on formulating improvements*. In partnership, the mentor and mentee identify what needs to be changed (if necessary) to achieve the goal. Sample questions: Do you want to continue using this strategy in its current form? Do you want us to reconsider the way you use this strategy? Do you want to choose another strategy? Do you want us to change the way you measure your progress towards the goal? Do you want us to change the goal?
- In the fourth phase, the *next steps are planned*, such as when the next meeting will be, what actions the mentee will take until the next meeting, when these activities will take place, etc. Sample questions: When will we meet? What tasks should be performed before we meet? When will these tasks be completed? Who will fulfil them? On a scale of 1 to 5, how committed are you to achieving that goal now?

These sample questions are presented as a guide. Each mentor should focus the work process to the specific pedagogical specialist and the individual challenges and goals.

### **Step 7 - Evaluation meeting and follow-up (60 min)**

This is the final or concluding meeting, which marks the end of the mentoring process and encourages the colleague to continue his / her professional development on his / her own.

During this meeting, the mentor invites the colleague to outline the main benefits for themselves from the process, as well as the specific results. In this sense, this meeting may be part of the previous implementation phase, depending on its outcome.

The mentor invites the colleague to give feedback about the mentor and recommendations for improving the mentoring process.

During the meeting you encourage the colleague to share what he has learned to use and apply and how he will organize his / her professional development process in the coming months / years.

**Annex 1 – Self-assessment frameworks**

| Elements of competence   | ✓ |
|--|---|
| classroom management as a learning and developing community  |   |
| adaptive expertise by teachers in response to different learning needs of students   |   |
| positive acceptance of students' differences as a resource for an effective educational environment  |   |
| recognizing the strengths of each student and stimulating the expression of one's abilities  |   |
| recognizing the individual needs of each student in the process of different interactions  |   |
| attitude to building strategies for teaching students with differences in their manifested qualities and abilities   |   |
| a positive attitude towards peer learning as a resource for the teacher as a classroom leader  |   |
| realization of partnership relations with the students on the basis of the joint elaboration of rules and the outlining of personal trajectories for learning, achievements and personal development |   |
| affirming in students confidence in their own abilities and creating conditions for their participation in decision making   |   |
| readiness for active application of the possibilities of information and communication technologies in synchronous learning in electronic distance environment and in combined form of learning      |   |
| readiness for active involvement in training activities of interest  |   |



|  |  |
|--|--|
| readiness to stimulate the relationship between students in the direction of mutual support and shared understanding, including in an electronic environment |  |
| readiness and positive attitude for effective realization of interdisciplinary connections and integrity in the learning process                             |  |
| use of reflective practices and reflective technologies in and through the learning process  |  |
| teaching with synergy of theory, practice and critical reflection on good and best practices   |  |
| the use of Internet tools to create digital learning resources   |  |
| work with digital platforms with prepared electronic learning resources  |  |
| realization of a real self-assessment and active attitude to their professional self-improvement as adaptive professionals                                   |  |
| maintaining interest in innovation, integrated knowledge, integrative lessons and cooperation between students   |  |

| <b>Framework of indicators and criteria for monitoring a lesson</b>                      |                           |              |  |          |
|--|---------------------------|--------------|--|----------|
| <b>Area of competence for monitoring</b>   | <b>Indicator</b>          | <b>Level</b> | <b>Criterion</b>   | <b>✓</b> |
| 1. Formulation of adequate goals and structuring and presentation of educational content | 1.1. Formulation of goals | 1            | Clearly and precisely formulated goals that are highly adequate to the capabilities and needs of students.   |          |
|  |                           | 2            | Formulating goals that correspond to the curriculum and are adequate to the capabilities of students.        |          |
|  |                           | 3            | Vaguely or incompletely formulated goals that do not correspond to the curriculum and / or are inadequate to |          |

|  |  |   |   |  |
|--|--|---|---|--|
|  |  |   | the students' abilities.  |  |
|  |  | 4 | It does not formulate goals.  |  |
| 1.2. Presentation of the educational content |  | 1 | Highly understandable and accessible, adequate to the objectives of the lesson and in accordance with the abilities of the students. At each stage of the lesson summarizes the opinions of students, provides feedback from them. Involves students in presenting new content. |  |
|  |  | 2 | The presentation sufficiently meets the objectives of the lesson and the possibilities of the students. Summarizes the opinions of students. Looking for feedback. It partially involves students in the presentation of the new content.                                       |  |
|  |  | 3 | The presentation is vague and insufficiently tailored to the abilities of the students. Mainly presented as a monologue by the teacher. Rarely seeking feedback from students and they do not participate in the transmission of the new lesson.                                |  |
|  |  | 4 | The presentation does not meet the objectives of the lesson and / or the abilities of the students. There is no feedback from students and they do not participate effectively in the learning process.   |  |
| 1.3. Teaching pace                           |  | 1 | Maintains an optimal pace of work, the connections between the components of the lesson are clear and logical. Leads the class flexibly, following the final goal and, if necessary, changes the stages of work.  |  |
|  |  | 2 | The time for the individual components of the lesson is enough to achieve the goals planned for the lesson. Strictly adheres to the planned activities during the stages of the lesson.   |  |
|  |  | 3 | The pace of work allows to partially realize the objectives of the lesson.  |  |

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|  |  |                       | There are no logical connections between the individual components, the conducted activities do not correspond to the topic of the lesson.   |  |  |
|  |  | 4                     | It does not fit within the class, there is no logical connection between the components of the lesson, the activities are chaotic and self-serving.  |  |  |
|  | 1.4. Cross-curricular links  | 1                     | Accomplish intecurricular and cross-curricular connections with different academic disciplines.  |  |  |
|  |  | 2                     | Implemented intecurricular and cross-curricular links within an educational field (example: foreign languages).  |  |  |
|  |  | 3                     | Accomplish only intecurricular links.  |  |  |
|  |  | 4                     | No accomplishment of intecurricular and cross-curricular links.  |  |  |
|  | 2. Use of various methods, approaches and technologies in teaching | 2.1. Teaching methods | 1  | Applies highly diverse and interactive teaching methods at all stages of the lesson, specific to the physical, digital and hybrid environment. |  |
|  |  |                       | 2  | Partially applies diverse and interactive teaching methods.  |  |
| 3  |  |                       | Applies traditional teaching methods.  |  |  |
| 4  |  |                       | Does not apply a variety of teaching methods.  |  |  |
| 2.2. Use of ICT and other didactic tools |  | 1                     | Uses a variety of didactic tools to illustrate the learning content, which are appropriately selected and consistent with the objectives of the lesson. Skilfully and timely apply a variety of synchronous and asynchronous forms of ICT. |  |  |
|  |  | 2                     | Partially uses didactic tools to illustrate the learning content, which correspond to the objectives of the lesson. Apply ICT.   |  |  |

|  |                            |   |   |  |
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|  |                            | 3 | Uses outdated teaching aids that do not meet the objectives and content of the lesson.  |  |
|  |                            | 4 | Does not use didactic tools.  |  |
|  | 2.3. Presentation          | 1 | The teacher's explanations and statement are accessible and logical, clear and understandable. Before moving on to a new part, the teacher makes sure that everything is well understood. When presenting the curriculum, the teacher is able to engage students' attention and form an interest in the subject.                                  |  |
|  |                            | 2 | The teacher's explanations and presentation are clear and understandable. When presenting the curriculum, the teacher is able to engage the students' attention.  |  |
|  |                            | 3 | The teacher's explanations and presentation are not clear and understandable enough. Engages students' attention in presenting the curriculum, but for a short time.  |  |
|  |                            | 4 | The teacher's explanations and presentation are not accessible and logical, clear and understandable. Engages students' attention in presenting the curriculum, but for a short time.   |  |
|  | 2.4. Personalized approach | 1 | Creating of a supportive environment for SEN students and motivates them to participate in the educational process, as well as for children from other ethnic groups who have educational difficulties by receiving teaching and educational materials in appropriate form.<br><br>At the same time, supporting and working with gifted children. |  |
|  |                            | 2 | Applies an individual and differentiated approach with children and students who have learning difficulties (SEN children and students, those who are from another ethnic group, etc.), receiving educational and training materials.   |  |

|                                       |                           |   |  |  |
|---------------------------------------|---------------------------|---|--|--|
|                                       |                           |   | Supports and works with gifted children.   |  |
|                                       |                           | 3 | Applies an individual and differentiated approach partly with some children and students with SEN and of other ethnic origin.<br><br>Gifted children are not subject to additional work.   |  |
|                                       |                           | 4 | Does not apply an individual approach; children with SEN, as well as children of other ethnic backgrounds are isolated and do not participate in the learning process.<br><br>Gifted children are not subject to additional work.  |  |
| 3.<br>Interaction<br>with<br>students | 3.1. Communication skills | 1 | Possesses high level of techniques for formulating accessible and understandable questions, which require in-depth answers and application of what has been learned, through maximum creative activity. The teacher is able to listen to the students, encourage and support the expression of different opinions, further developing what is said. Stimulates students to be active, to make suggestions to ask.<br><br>The contact between the teacher and the students is mutual and two-way. Works with the whole class, not just specific students. Using relieving tensions communication when needed. |  |
|                                       |                           | 2 | Formulates accessible and understandable questions that require in-depth answers and application of what has been learned. Able to listen to students, gives the opportunity to express different opinions.<br><br>The contact between the teacher and the students is mutual and two-way. Inspires positive emotion. Works with almost all students in the class, not just certain students.  |  |
|                                       |                           | 3 | The questions asked by the teacher are not well formulated and do not require in-depth answers. He is able   |  |

|  |                                  |   |  |  |
|--|----------------------------------|---|--|--|
|  |                                  |   | <p>to listen to the students, but does not give them the opportunity to express and defend a personal opinion.</p> <p>The contact between the teacher and the students is imposed and one-way. Works only with certain students.</p>   |  |
|  |                                  | 4 | <p>Formulates incomprehensible questions that often require one-syllable and short answers. Does not know how to listen to the students interrupts them and imposes his opinion. The contact between the teacher and the students is imposed and one-way. There is no atmosphere of dialogue and cooperation.</p>                      |  |
|  | 3.2. Student results in class    | 1 | <p>Students are able to cope quickly with all tasks, independently perform additional and offer options to change the line of the lesson, as needed. Students with special educational needs are in a supportive environment.</p>  |  |
|  |                                  | 2 | <p>Students manage to cope with the main tasks, perform additional tasks as directed and express opinions on proposed options for changing the line of the lesson, as needed. Students with special educational needs work at their own pace.</p>  |  |
|  |                                  | 3 | <p>Students cope with some of the tasks given.</p>   |  |
|  |                                  | 4 | <p>Students do not cope with the tasks. Successful and lagging behind students work at the same volume and pace, without taking into account their individual needs.</p>   |  |
|  | 3.3. Education and socialization | 1 | <p>Carries out a high-level universal values educational activity, as well as humanism and democracy in the process of the lesson. Establishes an atmosphere of trust and tolerance. Any unsatisfactory behavior is corrected effectively. Gives a personal example with a good appearance and balance of behavioral and emotional</p> |  |

|  |               |   |  |  |
|--|---------------|---|--|--|
|  |               |   | expressions, which inspires respect and esteem.  |  |
|  |               | 2 | Carries out universal values educational activities, as well as humanism and democracy in the process of the lesson. Establishes an atmosphere of trust and tolerance. Strives to correct any unsatisfactory behavior. Sets a personal example with a good appearance and a balance of behavioral and emotional expressions, which inspires respect. |  |
|  |               | 3 | Implements elements of universal values educational, as well as humanism and democracy in the process of the lesson. Tries to create an atmosphere of trust and tolerance. Strives to correct any unsatisfactory behavior. Has a relatively good appearance, but he is not sufficiently balanced in terms of behavioral and emotional expressions.   |  |
|  |               | 4 | Does not carry out educational activities. There is no atmosphere of trust and tolerance. Is not correcting the unsatisfactory behavior of the students. There is a lack of balance of behavioral and emotional expressions. He/she cannot serve as an example in terms of his appearance.   |  |
|  | 3.4. Teamwork | 1 | When setting tasks for teamwork, students are organized quickly and their work is highly efficient, giving the opportunity to show their abilities.  |  |
|  |               | 2 | When setting tasks for teamwork, they are organized quickly and their work is effective, with the majority of students showing their abilities.  |  |
|  |               | 3 | When setting a task for teamwork, they are organized slowly, the work is not effective and only part of the students who show their abilities work.  |  |

|   |  |   |  |  |
|---|--|---|--|--|
|   |  | 4 | Students do not have teamwork skills. Teamwork is not used in class.   |  |
| 4. Assessing student achievement  | 4.1. Methods of assessing knowledge and skills | 1 | Uses a wide variety of methods of assessment and self-assessment by students. There are clearly formulated expected results from the teacher. The teacher's assessments are objective and very well-reasoned.  |  |
|   |  | 2 | Uses a variety of assessment methods. Students are aware of the expected results from the teacher. His/her assessments are objective and reasoned.   |  |
|   |  | 3 | Uses traditional evaluation methods. Students are not aware of the expected results in the subject. The grades given by the teacher are unsubstantiated, often biased.   |  |
|   |  | 4 | Uses traditional evaluation methods. Students are not aware of the expected results in the subject. The grades given by the teacher are unsubstantiated and biased.  |  |
| 5. Planning of learning activities, selection and creation of learning resources, including digital | 5.1. Students' planned tasks for the class     | 1 | An appropriate selection and arrangement of the planned tasks for the class has been made in advance. They are precisely planned and prepared. The time spent on each of them, including asynchronous tasks in an electronic environment, is very well measured and sufficient for their implementation. It has full compliance with the topic / activity and involves analysis, transfer of new knowledge to new situations, as well as the application of what has been learned through maximum creative activity. |  |
|   |  | 2 | The scheduled tasks for the class are carefully planned and prepared, including the asynchronous in an electronic environment. The time allotted for each of them is enough for their implementation. It is consistent with the topic / activity and involves the transfer of new  |  |



|  |                                      |   |   |  |
|--|--------------------------------------|---|---|--|
|  |                                      |   | knowledge to new situations, as well as the application of what is learned through transfer to an unknown situation.  |  |
|  |                                      | 3 | The scheduled tasks for the class are not well enough selected and prepared; the time spent on each of them is not well measured for their implementation. They do not relate sufficiently to what is being studied. There is no practical applicability of the knowledge in their implementation. There is no creative activity. |  |
|  |                                      | 4 | The planned tasks for the class are inappropriately selected. The time spent on each of them is not well measured for their implementation. They have no relation to the studied topic and have no practical applicability of the knowledge in their implementation. There is a lack of analysis and creative activity.           |  |
|  | 5.2.Homework                         | 1 | Pre-set homework is used effectively to achieve the objectives of the learning activity, including asynchronous learning activities in an electronic environment. It is appropriate to plan the homework for the next class, including one based on teamwork of students in a real and online environment.                        |  |
|  |                                      | 2 | The pre-set homework is used to achieve the goals of the learning activity and an appropriate one is planned for the next class.  |  |
|  |                                      | 3 | Inappropriate and insufficiently effective use of homework.   |  |
|  |                                      | 4 | Does not check homework and / or does not give it.  |  |
|  | 5.3.Prepared materials for the class | 1 | The prepared training and educational materials for the class are precisely prepared and fully correspond to the topic / activity. There is a variety of materials in relation to the different needs of students and their contribution to   |  |

|  |   |   |  |  |
|--|---|---|--|--|
|  |   |   | student development.   |  |
|  |   | 2 | The prepared training and educational materials for the class are prepared in advance and correspond to the topic / activity. There is a variety of materials in relation to the different needs of the students and they contribute to the development of the students. |  |
|  |   | 3 | The prepared training and educational materials for the class do not fully correspond to the topic / activity. There is no differentiation related to the different needs of the students and they have nothing to do with the student development.                      |  |
|  |   | 4 | There are no prepared materials.   |  |
|  | 5.4.Prepared teaching and technical means | 1 | It is planned to use various teaching and technical means, as each of them has been tested in advance and its use in the course of the lesson is precisely defined and corresponds to the topic / activity for which it is provided.                                     |  |
|  |   | 2 | Teaching and technical means are used, which have been pre-tested. There is a correspondence between the topic / activity and the type of tools chosen by the teacher  |  |
|  |   | 3 | The teaching and technical means are used on their own, which insufficiently corresponds to the topic / activity.  |  |
|  |   | 4 | There is no use of educational and technical means.  |  |

## Annex 4 - Teacher mentor's report (template)

### **Piloting a new model of mentoring under the ProTeach project**

# Report

From

... (names of the mentor)

Date:

#### Information for and from the teachers with whom the model was applied:

- Number of teachers with whom the model is applied:
- Geographical region (locality) in which the model is applied:
- Profile of the teachers covered (educational stage in which they teach; position held; years of teaching experience):
- Topics covered in the mentoring process:
- Areas of improvement identified during mentoring:
- Improvement steps taken as a result of mentoring:
- Satisfaction with working with a mentor (feedback from participants on the work process):
- Degree of achievement of the set goals and results in mentoring (feedback from the participants on the results of mentoring):
- Recommendations on the development of the mentoring model and its effective implementation in the school environment:

Information and questions for the mentor:

- Please briefly present your professional experience and in particular the relationship with mentoring.
- What did you like about working as a mentor?
- What do you think are the benefits of using the mentoring model proposed by the ProTeach project?
- What made it difficult for you to apply the mentoring model?
- How do you think the model can be successfully disseminated in the education system?
- What recommendations do you have regarding its improvement and further development?
- Any additional comments and proposals

Annexes:

If the participating teachers agree, you can send photos or other related materials to the mentoring process.