

CONTINUING PROFESSIONAL DEVELOPMENT FOR VOCATIONAL TEACHERS AND PRINCIPALS IN SERBIA – 2018

Culture, teaching practices, professional duties,
working conditions, beliefs and professionalisation

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Further information relating to this research can be found in the annexes, which have been published separately: technical report, literature review, and research instruments.

EXECUTIVE SUMMARY

The purpose of the survey was to contribute to evidence-based policy discussion, inform thinking and action at many levels of decision making, and stimulate further enquiry and proposals. An earlier version of this survey was piloted in South East Europe and Turkey in 2015 and reports were published in 2016 by the ETF. Serbia was among these countries. The current survey consisted of desk research, interviews and online administration of quantitative questionnaires for principals and teachers in VET schools.

The desk research of relevant literature was based on policy documents, reports and previous research results, as well as academic papers exploring the continuing professional development (CPD) system in Serbia.

Interviews were carried out with eight respondents representing the following stakeholder groups: Ministry of Education, Science and Technological Development (MoESTD); Institute for the Improvement of Education (IIE) (Centre for Professional Development of Employees in Education (CPDEE), Centre for Vocational Education and Adult Education (VET Centre)); Institute for Education Quality and Evaluation (IEQE); Council for VET and Adult Education (VET Council); and VET schools.

Two questionnaires were used, one for vocational teachers and one for principals of vocational schools. The target population comprised all upper secondary schools providing vocational education and training (VET) at International Standard Classification of Education (ISCED) levels 3 and/or 4.

The Serbian authorities supported the survey by identifying appropriate agencies and organisations that worked together with the ETF, and in collaboration with national experts, to confirm the design of the questionnaires and the methodology.

The sampling frame was the comprehensive list of 317 VET schools in Serbia, provided from the OpenData section of the MoESTD website; these schools are distributed in 30 administrative districts, are under the supervision of 18 regional school authorities, and include 20 622 teachers. In the first step, 18 administrative districts (strata) were chosen through random sampling. In the second step, within each stratum, probability proportional to size sampling was carried out. The planned sample was 110 schools out of 209 schools from 18 districts. Using this approach, 110 schools were sampled from 18 districts, with a total of 8 324 teachers as potential respondents. The survey was voluntary, and total of 1 769 teachers and 78 principals responded.

The survey found that most vocational teachers who responded are qualified graduates and 85% have more than 5 years of teaching experience. Around 34% are aged 50 or above; 85% have full-time contracts. However, 20% of them did not benefit from pedagogical training, while 22% had no practical classroom practice as part of their initial training.

In most vocational schools in the survey, external stakeholders and other school staff are represented on the school board. Most principals report that their staff and students participate in management groups within the school; they believe that decision making is shared and that the culture of their schools is collaborative. Principals see themselves as being engaged in all aspects of school governance and interacting directly with all actors and stakeholders. According to school principals, schools are constrained by lack of information technology (IT) resources, lack of competences to support students with difficulties, and lack of instructional materials. Principals say that they are held

back by lack of financial resources, by government regulation and policy, and by the burden of the responsibilities they exercise.

Vocational teachers are pleased to be teachers and say they like teaching; they rate themselves as effective. They do not report experiencing significant problems with respect to student behaviour or motivation. The majority of vocational teachers make regular use of IT to prepare materials, and regularly use modern pedagogical approaches, to some degree.

However, many vocational teachers say they have only limited contact with the workplace and do not organise very much learning that directly connects to the workplace. Consequently, fewer vocational teachers judge themselves effective in relating VET to the workplace and to the needs of employers than in achieving goals internal to their schools. Modern pedagogical approaches, such as group work and differentiation, are only partially adopted and the take-up of digital tools and resources by students is limited.

In general, teachers believe they are not valued socially. Teachers and principals are dissatisfied with the current state of career-based progression.

CPD policy for teachers is articulated in several documents and is an integral part of the Serbian education policy, which is also confirmed in the strategy for this policy area. There is a clear regulation for teachers to undertake CPD (100 points in 5 years) in order to retain their licences. Local self-governments allocate finances to schools for teachers' CPD. Teachers' CPD has its place in school documents, such as the school development plan. Teachers make their own CPD portfolio and should plan their own CPD according to the self-evaluation of their teaching competences.

Despite this legal framework, there have been difficulties with implementation. Teachers have sometimes not been able to obtain CPD according to their real needs, owing to insufficient or overly expensive VET CPD programmes. The gap between the initial university education of most VET teachers and the requirement of a master's degree and 30+6 European Credit Transfer and Accumulation System (ECTS) in psychological, pedagogical and methodical disciplines remains difficult for new teachers to close. Furthermore, in practice the licence is not revoked if a teacher does not achieve 100 points. More importantly, the licence requirement is a relatively blunt tool for incentivisation.

VET teachers differ in the extent of their connections with workplaces in the areas they teach, but this development need is not well served by CPD. VET teachers are not recognised as a category of teachers with specific CPD needs and this trend is continued in the Strategy 2020+, which focuses mainly on teachers of general education subjects and teachers in primary schools.

Separate regulations for teaching licences for VET teachers are required. The issue of their initial education is addressed with an obligatory master's programme or CPD programme consisting of a package addressing five or six pedagogical, psychological and methodical competences (understanding the processes of learning and motivation, child development, planning, assessment, evaluation, interactive teaching, etc.), which should bring 30+6 ECTS as required by law. Such programmes should be offered in flexible, more accessible and diverse modalities, such as part time, online, or as a tailored programme according to the needs of each particular teacher. CPD connected with workplaces and vocational areas could also be prescribed by setting a minimum number of hours of CPD in the workplace within the 100-hour requirement.

The MoESTD is the main policy-making body, although it consults with the National Education Council (NEC) and the VET Council. The CPDEE and the VET Centre act as both providers of CPD and

regulators of other CPD providers. The VET Centre is the agency that has a particular responsibility for CPD for VET teachers, but it is relatively small and it does not provide a large number of specialised CPD programmes. With the new legal amendments, there is less contribution in the form of independent opinions from social and institutional partners in CPD policy making.

Participation in CPD for VET teachers grew between 2015 and 2018. The proportion reporting participation in training out of school rose from 66% to 81%, while the proportion saying they had participated in school-based training rose from 84% to 86%. Only 6% of vocational teachers report that they had not participated in CPD. The share of teachers who say they took part in training in an identified vocational specialism was up from 53% to 64%, and the proportion who report visiting other schools was up from 39% to 44%. However, the proportion reporting participation in CPD in businesses was down from 33% to 26%.

The use of modern forms of CPD appears to be increasing, with 69% of vocational teachers saying they have participated in online and video-based CPD – a remarkable figure. However, more than 50% of teachers report having had at best some participation in collaborative activities and around 25% say they have had no participation in web communities or CPD based on information and communication technology (ICT). Only around a third of teachers say they have participated in CPD involving mentoring, networks or research. Principals are better served: more of them say they participate in professional networks, mentoring or research activities than do teachers.

There is a mix of CPD provision that should help Serbia to provide nationally urgent CPD to all who need it and to encourage the development of high-quality independent provision of specialist CPD. However, uncertainty and constraints in funding discourage universities and businesses from making a commitment to develop provision. The accreditation process operates on a three-year cycle that deters independent providers from responding quickly to new training opportunities.

The research indicates that vocational teachers have training needs with respect to both vocational and pedagogical issues. Although teachers rate the impact of most of the CPD that they undertake relatively highly, there is a significant training gap in particular topics.

There is also evidence that the process of matching teachers to the CPD offer is not very efficient: there is not a good match between the priority needs of individual teachers and the training provided. Different teachers have different training needs, and where training resources and time are scarce, it makes sense to target training well.

Of course, national and school development needs are important, as are individual teacher needs. However, there is scope to improve the needs identification process and the matching process in schools. In some areas there may not be enough relevant training, for example with respect to new technologies in the workplace, updating professional knowledge and skills in relation to current practice in the workplace, approaches to developing cross-occupational competences for future work, ICT, and student career guidance and counselling.

There are currently inadequate incentive measures in place when it comes to teachers' participation in CPD. The licensing requirement sets a minimum, but it does not reward participation and it does not reward teachers who make use of new competences to give better or enhanced performance. A better connection between CPD and the career structure of vocational teachers could also help to ensure that CPD feeds into improved teaching and leadership. For example, a teacher who has a particular

responsibility for mentoring, for subject leadership or for liaison with business could be prepared for that responsibility through dedicated CPD.

1. RATIONALE

Professional development for teachers and trainers is widely recognised as vital for introducing changes, educational reform, and quality in education overall. Research demonstrates that professional development can improve the quality of teaching and learning in a sustainable manner, increasing the effectiveness of education and training and adding value for learners, teachers and employers.

However, improving the quality and quantity of CPD is not without its difficulties. It is vital that policy making, implementation and impact are continuously reviewed and understood to ensure feedback and policy learning that will assist policy makers. In support of this objective, this study presents:

- an overview of current policy objectives with respect to improving CPD for VET teachers and trainers;
- a description of the provision of CPD for VET teachers and trainers in Serbia and the way in which teachers' needs are assessed and particular programmes are assigned to teachers;
- an explanation of how the arrangements for CPD fit with other parts of the VET system;
- an evaluation of how well current arrangements are working;
- recommendations on how current policies can be implemented and how the provision and allocation of CPD can be improved.

This study aims to contribute to evidence-based policy discussion, inform thinking and action at many levels of decision making, and stimulate further enquiry and proposals.

2. METHODOLOGY

An earlier version of this survey was piloted in South East Europe and Turkey in 2015 and reports were published by ETF in 2016. Serbia was among these countries (ETF/Maksimovic, 2016).

Literature review

The desk research of relevant literature was based on policy documents, reports and previous research results, as well as academic papers exploring the CPD system in Serbia. The focus was on vocational education and VET teachers, although papers and reports presenting data and studies on CPD issues for all categories of teachers were also considered. The research papers that cover teachers' CPD were retrieved from leading Serbian scientific journals in the field of education, from 2010 until 2018.

Interviews

Interviews were carried out with eight respondents representing the following stakeholder groups: MoESTD; IIE (CPDEE, VET Centre); IEQE; VET Council; and VET schools. The interviews took place between 1 June and 7 July 2018.

Two surveys

Two questionnaires were used, one for vocational teachers and one for principals of vocational schools. The target population comprised all upper secondary schools providing VET at ISCED levels 3 and/or 4. The principals of all selected schools were asked to take part in the survey. The questionnaire and the samples were prepared from January to April and the survey was carried out from May to July using an online tool (Survey Gizmo platform). The survey was conducted in the Serbian language. The ETF conducted the analysis of data and two national experts were employed to coordinate the survey and to produce a national report that interpreted the data. Face-to-face or online dissemination workshops were planned for November 2018. The national experts also collected contextual data to inform the interpretation of the data.

The Serbian authorities supported the survey by identifying appropriate agencies and organisations that worked together with the ETF, and in collaboration with national experts, to confirm the design of the questionnaires and the methodology.

Sample

Systematic random sampling was used, with probability proportional to size within explicit strata. The sampling frame was the comprehensive list of 317 VET schools in Serbia, provided from the OpenData section of the MoESTD website; these schools are distributed in 30 administrative districts, are under the supervision of 18 regional school authorities, and include 20 622 teachers. In the first step, 18 administrative districts (strata) were chosen through random sampling. In the second step, within each stratum, probability proportional to size sampling was carried out. The planned sample was 110 schools out of 209 schools from 18 districts. Using this approach, 110 schools were sampled from 18 districts, with a total of 8 324 teachers as potential respondents. The list of sampled schools is given in the Annex (published separately).

Metadata

TABLE 2.1 TEACHER SAMPLE AND RESPONSE RATE

Total VET schools (and mixed if relevant)	310* (+40 art + 49 mixed)
Total VET teachers	24 241**
Schools in sample	110
Teachers and instructors in schools targeted	8 324
Number of responses	1 769
Response rate (%)	21

* At the beginning of 2017/18; only VET schools; source: Statistical Office of the Republic of Serbia
<http://data.stat.gov.rs/Home/Result/11030104?languageCode=sr-Cyrl>

** At the beginning of 2016/17 – latest available data; source: Statistical Office of the Republic of Serbia

TABLE 2.2 PRINCIPAL SAMPLE AND RESPONSE RATE

Total VET schools (and mixed if relevant)	310* (+40 art + 49 mixed)
Total principals	310
Schools in sample	110
Principals targeted	110
Number of responses	82
Response rate (%)	75

* At the beginning of 2017/18; only VET schools; source: Statistical Office of the Republic of Serbia
<http://data.stat.gov.rs/Home/Result/11030104?languageCode=sr-Cyrl>

PART 1. THE CONTEXT: WORKFORCE, MANAGEMENT AND TEACHING IN SCHOOLS

This first part of the report describes the characteristics of vocational teachers in Serbia and gives a picture of the way they plan and teach and the way in which they are managed in schools¹.

3. WORKFORCE

Age of teachers

The majority of teachers in Serbian VET schools (60%) who participated in our survey are between 30 and 49 years of age; only 6% are younger than 29, while 29% are aged 50–59 and 5% are older than 60.

Length of teaching experience

Around 42% of teachers have 6–15 years of experience and 30% have 16–25 years of experience; 15% have less than 5 years, while 13% have more than 25 years.

Experience in current school

Almost 40% of teachers have had 6–15 years of teaching experience in their current school, while about 25% have had less than 6 years. Some 35% have been teaching in their current school for 16 years or more.

Work experience in the trade, profession or industry of the vocational branch taught

Almost 40% of teachers say that they do not have any experience in the trade, profession or industry corresponding to the profession that they teach. However, this might be because 598 teachers of general subjects were also included in the sample and responded to this question. It is encouraging that more than 48% of teachers say they have more than 3 years of experience in the vocational branch, and almost 15% report that they have 1–3 years of such experience.

Gender

As in the school system in general, in Serbian VET schools there are considerably more female than male teachers. According to the Statistical Office of the Republic of Serbia, at the beginning of the 2016/17 school year there were 15 430 (64%) female and 8 811 (36%) male teachers in VET and mixed schools. In our survey, there were 1 187 female (71%) and 480 (29%) male respondents, which is a somewhat smaller percentage of male participants than in the population of teachers in VET and mixed schools.

¹ Data presented is based on the results of the online survey. Data is unweighted and excludes missing values (i.e. refusals and 'do not know' answers).

Role in the school

The survey was conducted in vocational schools; 66% of respondents identify as VET teachers 34% as general teachers.

TABLE 3.1 WHICH OF THE FOLLOWING TERMS BEST DESCRIBES YOUR ROLE IN SCHOOL? (N=1 764)

Role	%
Teacher	92.0
Coordinator of practice or instructor or organiser of practical education	5.0
Head teacher or principal	0.2
Pedagogical adviser	0.6
Teaching assistant or associate	0.2
Other	2.0
Total	100.0

Vocational sector or specialism

TABLE 3.2 WHICH OF THE FOLLOWING BROAD VOCATIONAL SECTORS DOES YOUR MAIN TEACHING SPECIALISM RELATE TO? (N=1 769)

Vocational sector	%
Agriculture, veterinary, forestry	6.0
Mining, metallurgy	0.1
Construction	2.0
Engineering (electrical, mechanical, etc.)	18.0
Manufacturing, production, processing	7.0
Hospitality, tourism, catering, travel	10.0
Business, retail, law, economy, management	12.0
Information technology	5.0
Logistics, traffic, transportation	3.0
Health related	10.0
Beauty, hair, cosmetics	0.6
Craftwork, fashion, art, design, film	3.0
General subjects	34.0
Other	3.0

Table 3.2 shows the distribution of teachers between vocational profiles. The teachers could choose more than one answer: 13% of teachers teach more than one subject area.

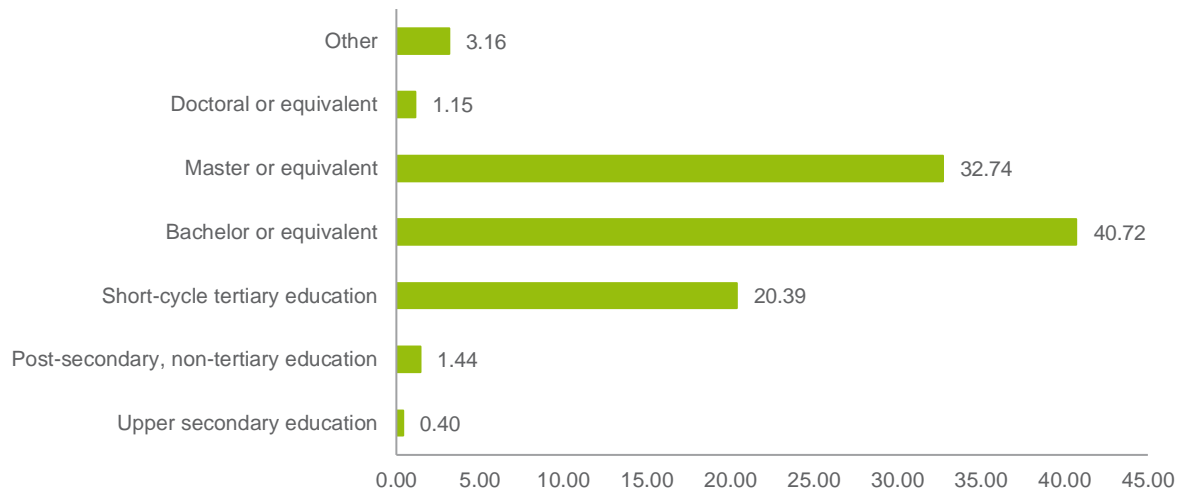
Initial training

Some 50% of vocational teachers say they completed pedagogical training as part of their degree studies, 30% completed separate pedagogical training that was not part of a degree programme, while 20% did not complete initial pedagogical training before they started teaching.

As expected, the majority of teachers say they had been formally educated and trained in the subject content they teach (over 86% in all subjects they teach and further 12% for some of the subjects they

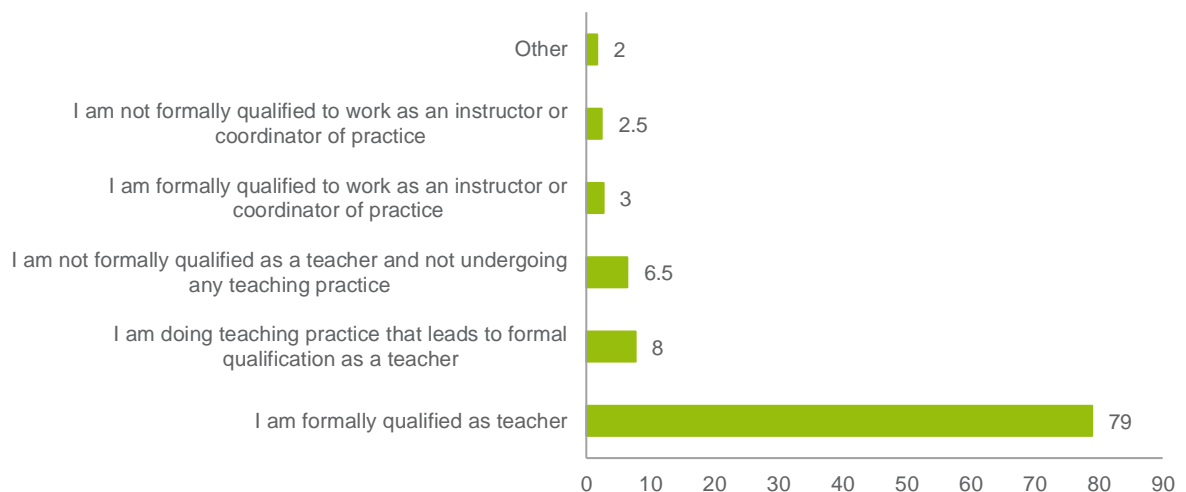
teach). However, 33% say they have not been formally educated in pedagogy or didactics for the subject they teach. Around 16% report having carried out classroom practice in only some of their teaching subjects, while 22% of vocational teachers had undertaken no classroom practice at all.

FIGURE 3.1 WHAT IS THE HIGHEST LEVEL OF FORMAL EDUCATION YOU HAVE COMPLETED? (% , N=1 741)



Around 41% of teachers had completed a bachelor's degree and over 32% a master's degree or equivalent level qualifications. A significant proportion (over 20%) had completed short-cycle tertiary education.

FIGURE 3.2 ARE YOU FORMALLY QUALIFIED AS A TEACHER OR AS AN INSTRUCTOR OR COORDINATOR OF PRACTICE? (% , N=1 712)



Over three-quarters of teachers in the sample hold formal qualifications as teachers, and a further 8% are undergoing teaching practice that leads to formal qualification. Nevertheless, there are 110 teachers (over 6%) who are neither formally qualified nor undergoing any teaching practice, and 42 (2.5%) non-qualified instructors or coordinators of practice.

Employment status

Around 85% of vocational teachers in the sample are employed full time, around 10% are employed part time at 50–90% of full-time hours, and 5% are employed part time at less than 50% of full-time hours. The majority of teachers (78%) have permanent employment (an ongoing contract with no fixed end-point before the age of retirement) in their current school, while almost 13% have a fixed-term contract for a period of more than one school year; 9% of survey participants have a fixed-term contract for a period of one school year or less.

Membership of trade unions and professional associations

Just over half (51%) of teachers in the survey are members of a trade union, while 37% are members of a professional association for teachers.

Working hours

FIGURE 3.3 (AVERAGE) SHARE OF WORKING TIME SPENT ON SPECIFIC TASKS (% , N=1 133)

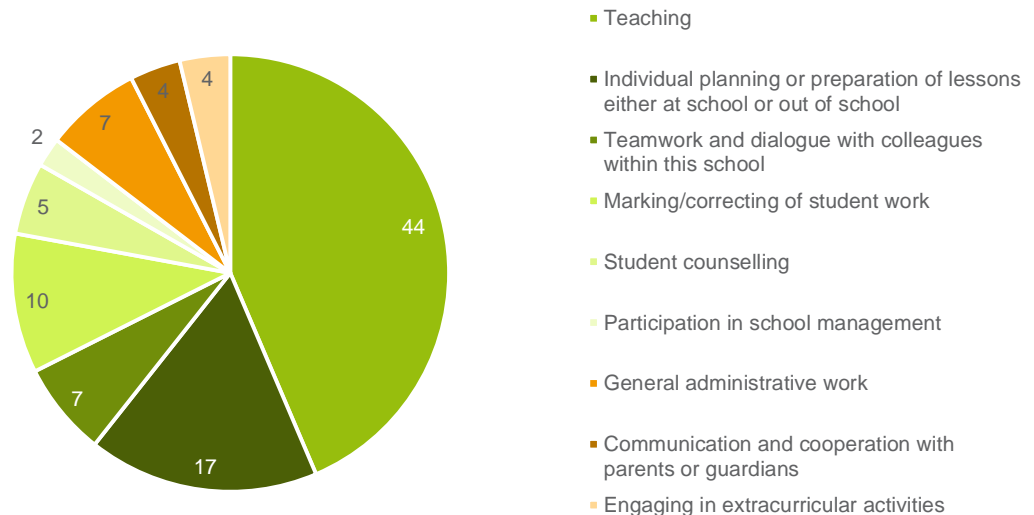


Figure 3.3 shows that teachers spend 44% of their working time on teaching and 56% on other tasks related to their jobs, including individual planning or preparation of lessons (17%), marking/correcting students' work (10%), participation in teamwork and dialogue with colleagues in the school (7%) and general administrative work (7%).

4. SCHOOL GOVERNANCE

Involvement in school governance

School governance is vested in school boards, which consist of nine members (including the president). Three are employee, parent and local self-government representatives. In addition, the law requires that three representatives from social partners relevant to the school's vocational specialism should be appointed to the board of each vocational school. The school principal is responsible for the successful performance of the institution's activities. The principal is accountable for their work to the school board and the minister².

Besides the school board, schools form different management and task teams. According to the principals' survey results, members of school management teams include principals (100%), vice or deputy principals (67%), the financial manager (80%), department heads (94%), teachers (76%), other representatives of the school (96%), parents or guardians (85%) and students (81%). These figures suggest that the management of schools is quite dispersed between different stakeholders and actors.

Principals feel that they have significant responsibility for hiring and suspending teachers, functions that are partly also the responsibility of the school boards. When it comes to salary increases, the responsibility is mostly at national level, although 19 principals report that they can also decide about the salaries of the staff. School boards and principals are mainly responsible for deciding the budget allocation for the school. Responsibility for disciplining students is divided between the principal, other members of the school management teams, teachers and the school board. Students' assessment and grading is mainly the responsibility of the teachers according to nationally prescribed criteria, but 22 principals say that they also feel responsible for the assessment criteria. Students' admission to the school is mainly the responsibility of the principals. Choosing learning materials is mainly the teachers' responsibility, while determining the course content is mainly at the national level (national curriculum); however, 24 principals think that teachers should be responsible for this as well. Deciding on which courses are offered in the school is regarded by 37 principals as a decision taken by 'municipality, regional, state, national or federal authority', but also influenced by other members of the managing team (presumably deputy principals for particular vocational areas) and teachers. Schools can create new profiles and courses that can be accredited by the ministry.

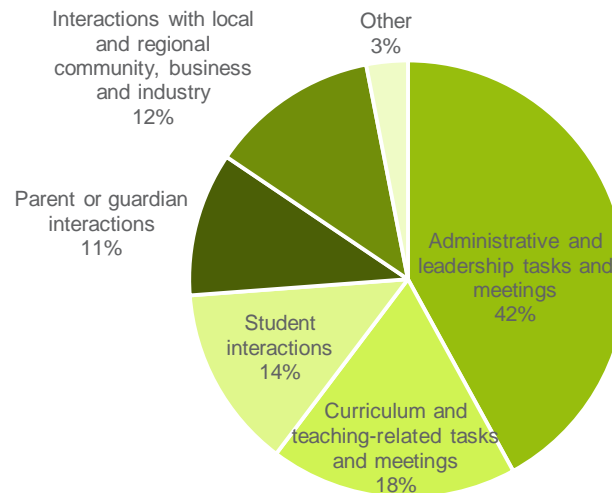
Role of principals

Principals say that on average throughout the school year they spent most of their time (Figure 4.1) on administrative and leadership tasks and meetings (including human resource/personnel issues, regulations, reports, the school budget, preparing timetables and class composition, strategic planning, leadership and management activities, responding to requests from district, regional, state, or national education officials). Other tasks, such as curriculum- and teaching-related tasks, student interactions, and interaction with parents and the local and regional community, consume the rest of their time. The vast majority of the principals surveyed (98%) have worked on a professional development plan for their school and 84% have used student performance and student evaluation

² Law on the Foundations of the Education System, *Official Gazette of the Republic of Serbia*, No 88/2017

results (including national/international assessments) to develop the school's educational goals and programmes.

FIGURE 4.1 ON AVERAGE THROUGHOUT THE SCHOOL YEAR, WHAT PERCENTAGE OF TIME IN YOUR ROLE AS A PRINCIPAL DO YOU SPEND ON THE FOLLOWING TASKS IN THIS SCHOOL? (AVERAGE %, N=62)



However, most principals report that they engaged with teaching interventions often or very often. Over 70% of principals collaborated often or very often with teachers to solve classroom discipline problems, took action to support cooperation among teachers to develop new teaching practices, or took action to ensure that teachers feel responsible for their students' learning outcomes. They also say they often or very often engaged in checking for mistakes and errors in school administrative procedures and reports (reported by 71% of principals), involved in resolving problems with the lesson timetable in the school (63%), and took action to support cooperation among teachers to develop new teaching practices (71%). Around 61% of principals say that they often or very often engaged in communication with parents and 61% in observation of the instruction in the classroom. Some 90% of principals report that they often or very often collaborated with principals from other schools.

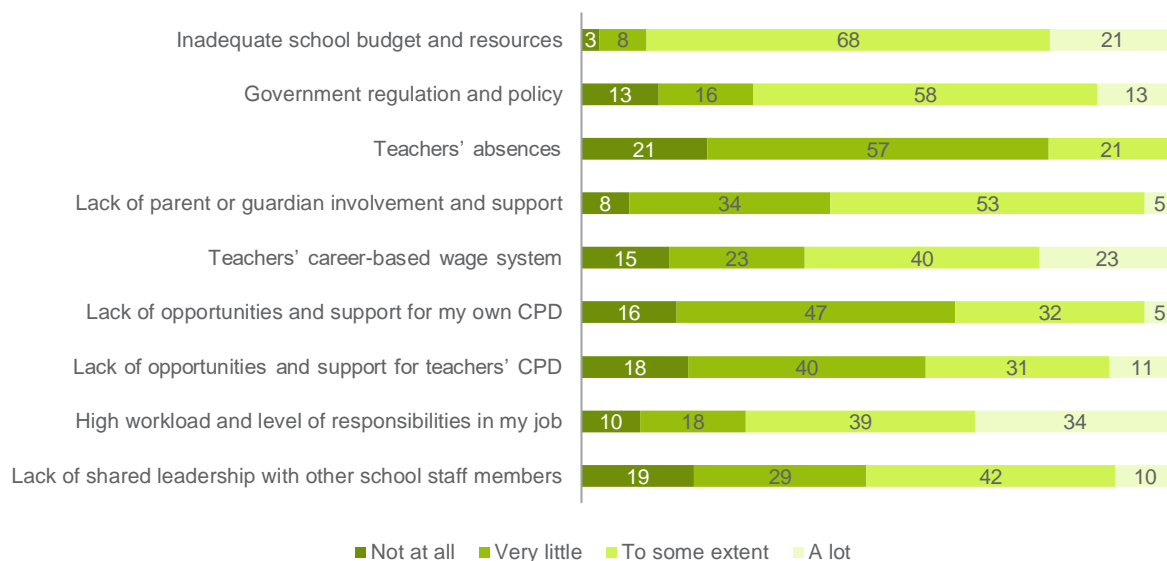
Engagement of other stakeholders

The majority of principals think that their schools provide staff, parents or guardians and students with opportunities to actively participate in school decisions. Around 53% of principals deny that they themselves make the important decisions on their own (37% agree and only 10% strongly agree). All the principals in the survey agree or strongly agree that there is a collaborative culture in their school that is characterised by mutual support. This suggests that the principals see themselves as democratic leaders who share decision making with their most important stakeholders (teachers, parents, students) and as supporters of a collaborative school culture. According to principals, teachers and parents are represented on every school board (as prescribed by the law). Other stakeholders enjoy significant representation on boards: enterprises (69% of schools), trade unions (49%), local community organisations (66%) and students (61%).

What constrains the effectiveness of management?

According to principals, the main barriers to effective management (Figure 4.2) are high workload and level of responsibilities in their own job (73% of responses ‘to some extent’ and ‘a lot’); teachers’ career-based wage system³ (63% of responses), government regulation and policy (71%) and, above all, inadequate school budgets and resources (89%).

FIGURE 4.2 TO WHAT EXTENT DO THE FOLLOWING LIMIT YOUR EFFECTIVENESS AS A PRINCIPAL IN THIS SCHOOL? (% , N=62)

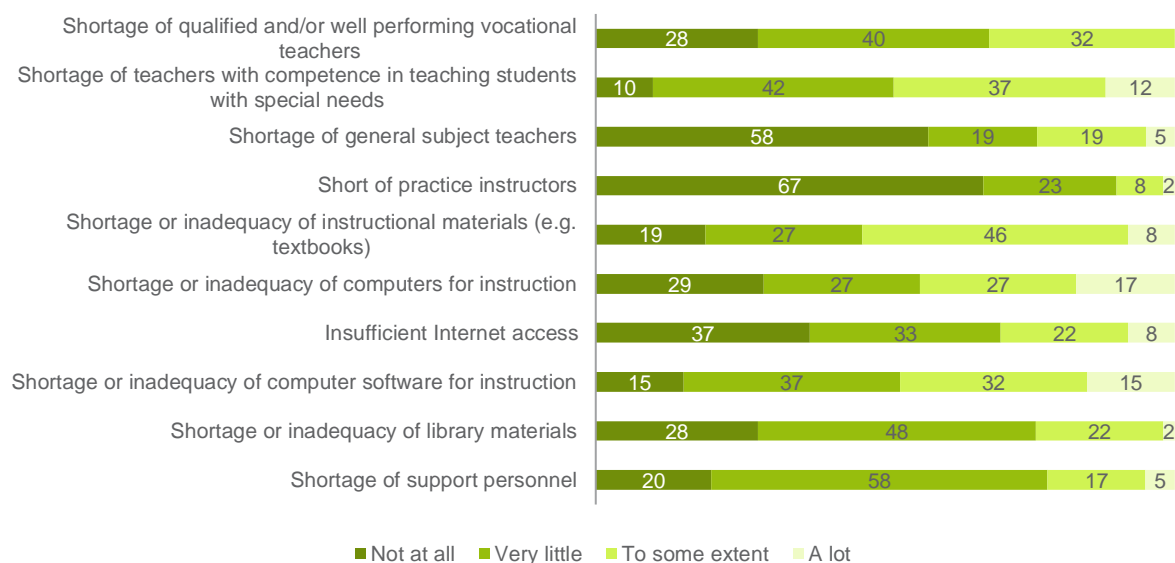


As the main constraints to effective teaching, the principals identified the following (Figure 4.3): shortage or inadequacy of computer software and computers for instruction, shortage of competences in teaching students with special needs, and shortage or inadequacy of instructional materials (e.g. textbooks). Meanwhile, principals say they are quite satisfied with support personnel, library materials, general subject teachers and qualified teachers.

Principals were invited to evaluate the behaviour of students and teachers in their schools. The most widespread issues are daily student lateness (according to 47% of principals) and daily or weekly absenteeism (62%). Cheating, vandalism and theft are issues, though to a lesser degree. Intimidation or verbal abuse among students (or other forms of non-physical bullying) is very rare, according to the principals. However, other research among Serbian students that found that over 25% of secondary school students were exposed to verbal abuse in school (Zotović-Kostić and Beara, 2016). Physical injury caused by violence among students is also rare, according to the principals, as is intimidation or verbal abuse of teachers or staff. The most frequent unacceptable behaviour by teachers is arriving late at school, although this happens less frequently (13% of principals say ‘weekly’ and 7% ‘daily’) than among students. Other forms of problems (absenteeism, discrimination) are very rare, according to principals.

³ Career-based pay has not yet been implemented in Serbia: all teachers receive almost the same wage, regardless of the quality of performance and CPD. Principals may be signalling the need for some kind of career-based pay.

FIGURE 4.3 IS THIS SCHOOL'S CAPACITY TO PROVIDE QUALITY INSTRUCTION CURRENTLY HINDERED BY ANY OF THE FOLLOWING ISSUES? (%)



Appraisal of teachers

According to principals, teacher appraisal is performed mostly by school principals (49%), assigned mentors (42%) or school management (35%). In relation to some areas, such as the analysis of students' test scores, teachers also receive feedback from other teachers. However, if a teacher is found to be a poor performer following appraisal, there are very few consequences. The most frequent follow-up actions are discussion with the teacher on how to address weaknesses in their teaching (89%), a development or training plan for the teacher concerned (57% most of the time and 18% always), and appointment of a mentor for the teacher (56% sometimes, 18% most of the time and 13% always). Financial sanctions, such as reduced annual pay, or change in salary or bonus, are rare.

School culture

The principals in the survey give a very positive assessment of the school culture: they think that the school staff share a common set of beliefs about schooling and learning (87% agree or strongly agree), and that there is a high level of cooperation between the school and local community (37% agree and 50% strongly agree). Around 95% of principals agree or strongly agree that their school staff have open discussions about difficulties and a very similar proportion that there is a level of cooperation between the school and local businesses and good relationships between teachers and students. In contrast, teachers admit that they do not have close relations with the local businesses; it seems that the principals have a somewhat more positive picture about the school culture than their teachers do.

Conclusions

In most vocational schools in the survey, external stakeholders and other school staff are represented on the school board. Most principals report that their staff and students participate in management groups within the school; they believe that decision making is shared and that the culture of their schools is collaborative. Principals see themselves as engaged in all aspects of school governance and interacting directly with all actors and stakeholders.

Main issues and recommendations

Main issues	Recommendations
Performance is constrained by lack of IT resources, of specialist special needs competences and of instructional materials.	Priority needs should inform spending decisions at school, local and national levels.
Management is constrained by lack of financial resources, by government regulation and policy and by the burden of the responsibilities they exercise.	There is a need to explore whether management responsibilities can be more effectively shared.
Student attendance and punctuality are a challenge.	Support and advice are required to enable schools to act on this issue.

5. APPROACHES TO TEACHING AND LINKS TO THE WORKPLACE

This section offers a description of how vocational teachers are carrying out their responsibilities.

Teaching

According to the survey (Table 5.1), more teachers in VET schools in Serbia use ICT for preparing lessons and finding instructional material (77% do so frequently or in almost every lesson) than students (only 48% frequently or in almost every lesson). Around 13% of teachers report that their students almost never use ICT for learning. Letting students practice similar tasks until every student has understood the subject matter and presenting a summary of recently learnt content is the teaching approach that is most commonly used among the teachers (80% and 79% of teachers say this is used frequently or in almost every lesson). Almost 77% of teachers in the sample say they use differentiation frequently or in almost every lesson.

TABLE 5.1 INDICATE HOW FREQUENTLY YOU USE THE FOLLOWING DIFFERENT TEACHING METHODS

	Never or almost never (%)	Occasionally (%)	Frequently (%)	In all or nearly all lessons (%)	N
I present a summary of recently learnt content	3	19	45	34	1 369
Students work in small groups to come up with a joint solution to a problem or task	3	38	47	12	1 372
I give different work to the students who have difficulties learning and/or to those who can advance	1	22	54	23	1 367
I refer to a problem from work to show how knowledge or skills can be applied	2	22	48	28	1 371
I let students practise similar tasks until I know that every student has understood the subject matter	1	18	58	22	1 368
I check my students' exercise books or homework	5	22	45	29	1 375
Students use ICT for projects or class work	13	39	33	15	1 367
I demonstrate practical tasks to students who then carry out the same practical tasks	6	24	42	29	1 364
Students learn theory and also use that knowledge to solve practical problems within one lesson	4	19	50	27	1 368
I plan lessons so that when students learn new theory or knowledge they also apply that theory or knowledge to work-like tasks (work practice)	6	17	45	31	1 356
I use digital technology to prepare or find instructional material	5	19	44	32	1 364
I use video in my teaching	21	39	29	12	1 367

Links to the workplace

According to teachers, lessons are frequently planned so that when students learn new theory or knowledge they also apply that theory or knowledge to work-like tasks (work practice) (76% of teachers do this frequently or almost in every lesson). A majority of teachers (77%) say that learning theory and using that knowledge to solve practical problems within one lesson takes place frequently or in almost every lesson.

TABLE 5.2 TO WHAT EXTENT DO TEACHERS EXPECT STUDENTS TO LINK THEORY TO PRACTICE IN THEIR CLASSES?

	Never or almost never (%)		Occasionally (%)		Frequently (%)		In all or nearly all lessons (%)		N	
	Whole sample	VET subjects teachers	Whole sample	VET subjects teachers	Whole sample	VET subjects teachers	Whole sample	VET subjects teachers	Whole sample	VET subjects teachers
Students in my classes carry out a task which strongly resembles a real work task	7	3	27	22	44	47	23	28	1 365	867
Students in my classes visit real workplaces to see real practical work	45	34	29	33	16	20	9	13	1 354	861
Students in my classes interact with real employers or employees, e.g. local employers or skilled workers come into school to talk to learners	64	54	22	28	9	11	5	7	1 354	861
Students learn about enterprise skills in my classes, for example about setting up and running a company	57	48	25	29	13	16	5	7	1 348	858
I visit local workplaces, for example in order to observe students on placement or to find out about employers' needs or new technologies	61	50	19	23	12	15	8	12	1 345	853
Employers ask me for advice when they want to recruit young workers	58	48	23	28	13	16	5	8	1 347	856

Strong links are made between theory and practice within the school itself: 66% of teachers say they frequently or almost always give their students opportunities to carry out a task that strongly resembles a real work task. Only 18% of teachers say they frequently or almost always prompt their students to learn about enterprise skills in classes, compared with 57% who never do that.

When general subject teachers working in VET schools are excluded, we find similar yet somewhat more encouraging results. More vocational specialists are involved in contact with employers: 27% of them say they visit local workplaces frequently or in all or nearly all lessons, compared with 20% of teachers in the whole sample.

The survey suggests that teachers in VET schools do not have enough direct contact with employers and workplaces. Around 50% of teachers of vocational subjects say they never or almost never visit

local workplaces and 48% of VET teachers admit that they are never asked for advice by employers when they are recruiting young workers.

Work-based learning

Development of work-based learning is a policy priority in Serbia. The survey asked teachers what proportion of students currently have significant experience of learning in the workplace. Around 47% of teachers in the sample say that most students have placements in workplaces lasting at least 10% of the time of their entire programme, while 21% of teachers say that most students have placements lasting less than 10% of the time. Some 32% of teachers report that only some of the students have placements in the workplace.

Behaviour and motivation of students

The survey explored the extent to which teachers face challenges in terms of student motivation or poor behaviour.

TABLE 5.3 HOW WELL DO THE FOLLOWING STATEMENTS DESCRIBE YOUR TEACHING EXPERIENCE?

	None of my classes (%)	Some of my classes (%)	Most of my classes (%)	All or almost all of my classes (%)	N
When the lesson begins, I have to wait quite a long time for students to quieten down	47	49	3	1	1 370
Most of the students in the class are well motivated	2	20	65	13	1 366
I lose quite a lot of time because of students interrupting the lesson	48	49	3	1	1 370
I enjoy teaching my students	1	6	36	57	1 369

According to the results, most teachers do not have major challenges in motivating their students or dealing with poor behaviour. Around 78% of teachers consider their students well motivated in most or almost all of their classes (Table 5.3).

Curriculum

The vast majority of teachers (almost 75%) report that they are always or nearly always guided by the national curriculum, 49% that they are always guided by what they know will be assessed, and only 37% that they always or nearly always focus on the skills and knowledge that are required by employers. This is related to the fact that 50% of VET teachers never or almost never visit local workplaces in their vocational field, and thus do not have direct knowledge of what employers want. Teachers focus on preparing students for assessment. Almost 50% say they do not prepare detailed lesson plans, which perhaps suggests they are not updating either content or pedagogy. This gives an insight into the gap between what is taught and what is required by employers (Table 5.4).

TABLE 5.4 HOW FREQUENTLY IS YOUR TEACHING GUIDED IN THE DIFFERENT WAYS LISTED BELOW?

	Never or almost never (%)	Occasionally (%)	Frequently (%)	Always or nearly always (%)	N
My teaching and planning are guided by the published national curriculum or qualification standard for my subject	1	4	20	74	1 354
I prepare a plan for how I will teach different topics and outcomes over the school year	0	4	23	72	1 352
I prepare a detailed lesson plan for my lessons	1	12	35	53	1 349
I experiment with different methods of teaching and learning in order to see which works best	0	14	50	36	1 350
I focus particularly on topics that students will be assessed on in tests and exams	1	9	40	49	1 349
I focus on skills and knowledge that I know are required by employers	4	17	42	37	1 335

Educational resources

Teachers were asked about the extent to which their students have access to appropriate resources for learning, such as textbooks, tools and equipment, consumable materials, computer hardware and software, the internet, and other learning materials and sources. The results show that students usually have access to textbooks; however, more than 40% of teachers say that their students' access to appropriate equipment and consumables, and access to digital learning resources such as software, the internet and especially digital learning environments is still not very frequent.

TABLE 5.5 HOW OFTEN DO THE FOLLOWING STATEMENTS APPLY TO YOUR CLASSES?

	Never or almost never (%)	Occasionally (%)	Frequently (%)	In all or nearly all lessons (%)	N
Students have access to appropriate, good-quality instructional materials, e.g. textbooks	5	17	38	40	1 340
Students have access to appropriate and up-to-date tools and equipment in order to learn practical skills	13	29	35	23	1 336
Students have access to sufficient and appropriate consumables so that they can develop practical skills	16	28	35	21	1 321
Students have access to reliable and appropriate computer hardware and software to let them use digital technology in my subject	25	33	26	16	1 329
Students have adequate access to the internet to enable them to support learning in my subject	23	29	29	20	1 332
Students use a digital learning environment, such as Moodle or Sakai	59	25	12	4	1 316

Assessment

Teachers say they mostly develop and administer their own assessment instruments and techniques and use observation and immediate feedback when working on particular task. Peer learning and assessment (student to student) is still not used very often, according to 61% of teachers. Giving particular learning tasks for further learning is used occasionally (34% of teachers) and frequently (45%). Around 41% of teachers say they seldom provide written feedback. The consistent take-up of such practices is limited.

TABLE 5.6 HOW OFTEN DO YOU USE EACH OF THE FOLLOWING METHODS TO ASSESS WHAT STUDENTS HAVE LEARNT?

	Never or almost never (%)	Occasionally (%)	Frequently (%)	In all or nearly all lessons (%)	N
I develop and administer my own assessment of student work	1	14	52	33	1 338
I administer a standardised test	15	31	43	11	1 332
I have individual students answer questions in front of the class	7	35	43	16	1 326
I provide written feedback on student work in addition to a mark or score	15	26	37	22	1 329
I observe students when working on particular tasks and provide immediate feedback	1	9	46	44	1 330
I organise students so that they can give feedback to one another in pairs or small groups	31	30	30	9	1 293
I set some students particular learning tasks because their assessment shows that they need further learning	4	34	45	17	1 321

Teacher self-efficacy

Research by the Organisation for Economic Cooperation and Development (OECD) has revealed a link between teachers' perceptions of their own efficacy and the actual level of achievement of students. This section explores a number of indicators of efficacy – that is, the extent to which teachers believe they are successful in their work.

Teachers in the survey believe that they are able to achieve most of the goals expected of vocational teachers. However, they rate their own efficacy less highly with respect to understanding real work, developing relevant skills and obtaining relevant up-to-date relevant knowledge than in terms of goals that can be achieved within schools.

TABLE 5.7 IN YOUR TEACHING, TO WHAT EXTENT ARE YOU ABLE TO ACHIEVE EACH OF THE FOLLOWING RESULTS?

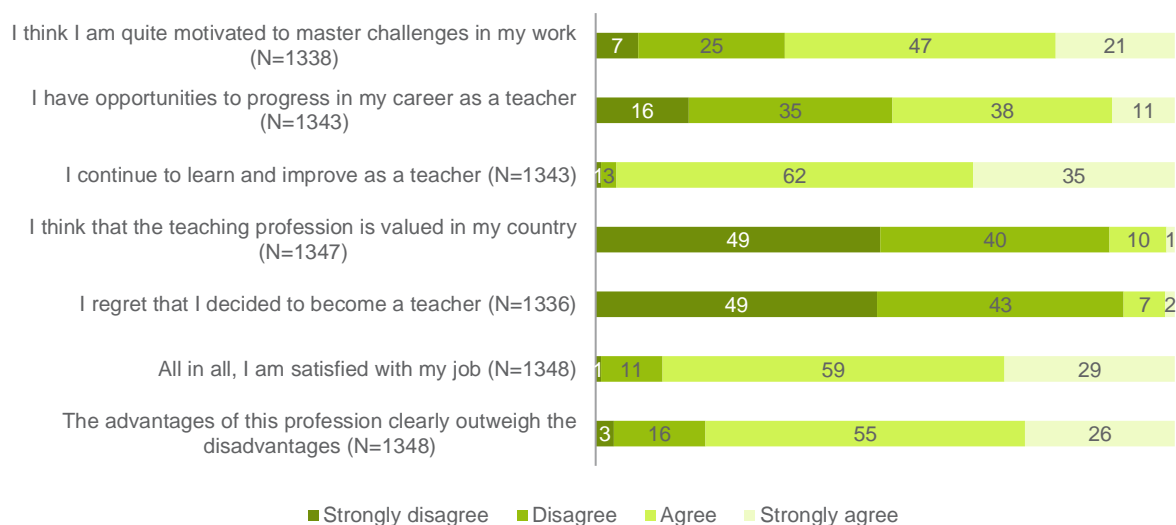
	Not at all (%)	To some extent (%)	Quite a bit (%)	A lot (%)	N
Get my students to believe they can do well in school work	0	3	40	57	1 378
Help my students value learning	0	4	40	55	1 373
Prepare good questions for my students	0	6	53	41	1 370
Control disruptive behaviour in the classroom	0	3	43	53	1 371
Motivate students who show low interest in school work	1	8	55	37	1 373
Help my students understand real work in my vocational branch	1	12	44	43	1 363
Get students to follow classroom rules	0	2	32	66	1 365
Help students to develop a commitment to work in my vocational branch	1	7	46	47	1 363
Provide an alternative explanation if, for example, students are confused	0	2	37	61	1 359
Give my students the practical skills they will need in the workplace	2	11	41	45	1 359
Give my students up-to-date knowledge relevant to my vocational branch	3	16	45	36	1 350

Career and job satisfaction

Around 67% of teachers say they are motivated to master challenges in their work. Almost all teachers (96%) say that they will continue to learn and improve. However, opportunities for progression in their careers are lacking: 51% of teachers do not agree that such opportunities are available. Some 89% of teachers disagree or strongly disagree that the teaching profession is valued in Serbia, but that does not damage their satisfaction with the job (almost 90% are satisfied). Furthermore, the vast majority of them would choose the teaching profession again – only 9% regret becoming teachers. Most (81%) also think that the advantages of the teaching profession clearly outweigh the disadvantages. These results indicate that teachers perceive a gap between their own judgement of teaching and their social status.

As for principals, the general impression from the survey results is that they are quite satisfied with their work and their particular school, even though many agree that the teaching profession is not valued in society. Some 85% of principals think that the advantages of their profession clearly outweigh the disadvantages and 79% would still choose the position of principal if they could decide again. Only 14% regret their decision to become principals. They are very satisfied with their schools: almost none of them would like to change their current school and 95% would recommend their school to others as a good place to work. Almost all are satisfied with their performance in their schools and 93% express overall satisfaction with the job.

FIGURE 5.1 TEACHERS' SATISFACTION WITH THEIR JOB (%)



Conclusions

Vocational teachers in the survey are pleased to be teachers and enjoy teaching; they rate themselves as effective. They do not experience significant problems with respect to student behaviour or motivation. The majority of vocational teachers make regular use of IT to prepare materials and use modern pedagogical approaches regularly – to some degree.

Main issues and recommendations

Main issues	Recommendations
Direct contact and learning from the workplace are weaker than other parts of pedagogy and vocational teachers are less likely to judge themselves effective in this respect.	Mechanisms should be introduced to improve links between schools and the workplace.
Teachers and principals are dissatisfied with the current state of career-based progression.	There is a need to provide a career ladder based on CPD which will be followed by salary increases.
Teachers believe they are not valued socially.	Campaigns to promote good teachers, teaching and schools should be organised.
Take-up of digital tools and resources by students is limited.	Better digital equipment is required for VET schools.
Modern pedagogical approaches, e.g. group work and differentiation, are only partially adopted.	VET teachers should have access to free CPD on modern pedagogical approaches.

PART 2. PROFESSIONAL DEVELOPMENT OF VOCATIONAL TEACHERS

This part of the report focuses on professional development at both national and institutional levels.

6. POLICY AND IMPLEMENTATION

Legislative framework of CPD for vocational teachers

CPD of teachers is a legal obligation that is prescribed by the Law on the Foundations of the Education System (2017 and 2009). The law defines, among other things, the competences related to the professional development of teachers and the process of quality assessment. In addition to the rights and obligations of teachers regarding their CPD, this law also defines teachers' advancement through title acquisition. The law defines teacher traineeship and mentorship. Furthermore, it states that the funds for CPD are defined within the budget of the Republic of Serbia and within the budget of local self-government units, while the exact amount for each school is calculated based on the Professional Instruction for Class Formation and Mode of Financing in Primary and Secondary Schools (CENUS). This law introduces the teaching licence and defines how it is granted, suspended and revoked. The main legal document for the field of secondary education is the Law on Secondary Education, which, however, only mentions teachers' CPD as a part of the schools' development plans.

Professional development is regulated in detail by the new Regulation on the Continuing Professional Development and Title Acquisition of Teachers, Preschool Teachers and Professional Associates (2017). In this document, professional development, identified as an integral and mandatory part of teachers' development, is defined as the acquisition of new and the further development of existing competences. CPD is planned in accordance with the needs and priorities of education, with the priority areas identified by the Minister of Education, and on the basis of an overview of the developmental levels of all the competences required in the teaching profession. Moreover, the document defines the forms of professional development, the process of creating and developing teachers' personal development plans, and the volume and types of teachers' duties regarding their CPD.

The Regulation on the Type of Professional Qualifications of Teachers, Professional Associates and Instructors in Vocational Schools (2011) determines the type of professional qualifications of teachers in two-year educational programmes and in three- and four-year secondary education in vocational schools. The required professional qualifications are defined for each teaching subject.

The Rulebook on the Programme of All Forms of Work of Professional Associates⁴, defines the forms of professional development of associates and their duties in terms of providing support to the professional development of teachers within the school. The associates include pedagogue, psychologist, pedagogue for art, music and physical education, speech therapist, school librarian, school, andragogue, social worker and disability specialist.

⁴ Official Gazette of the Republic of Serbia, No 5/2012

The Competence Standards for the Teaching Profession and Teachers' Professional Development (2011), intended for all teachers, defines teachers' competences, divided into four categories: competences for teaching area, subject and didactics; competences for teaching and learning; competences for supporting students' personal development; and competences for communication and cooperation. The CPD programmes accredited by the IIE are classified according to these competences in the relevant programme catalogue (each programme needs to develop one of the listed competence groups). This document is intended to serve as a guideline for teachers' self-assessment, for the creation of CPD plans at the school level, and for the improvement of the teachers' CPD practice. The stakeholders interviewed for the current report pointed out several problems regarding the implementation of these standards in practice and in the design of CPD programmes; these which will be further discussed in Chapter 11.

In addition, a number of strategic documents mention teachers' training and professional development. The most recent of these is the Strategy for the Development of Education in Serbia 2020+ (2012), with the accompanying Action Plan (2015). It predicts that before 2020, all participants in the education system at all levels will be taught by quality teachers with modern training and preparation, and that the teaching profession's qualifications will be included in the National Qualifications Framework. It also anticipates that teachers' CPD will be carried out on the basis of accredited high-quality programmes, while professional advancement will be based on the results of inclusive and systematic control of the quality of teachers' professional work. The strategy makes the case for a full professionalisation of the teaching profession in all stages of teachers' professional life, through good initial education for all teachers and through continued development of their professional competences, quality scientific and professional research in the field of didactics, and the establishment of interdisciplinary university centres. This implies a national system of professional development for teachers at all levels, with the establishment (or improvement) of a developed system for evaluating teaching quality, which should provide clear indicators for recognising a quality teacher.

Article 140 of the Law on the Foundations of the Education System (2017, but also in previous versions of the law) prescribes that the teacher, preschool teacher and professional associate (psychologist, pedagogue, etc.) is a person who has acquired appropriate higher education, at master's level (from 10 September 2005) or bachelor's level (before 10 September 2005). The law also requires at least 30 credits from higher education psychological, pedagogical and methodical disciplines, of which at least 6 points are acquired in each of the psychological, pedagogical and methodical disciplines, and 6 credits of practice are gained in the institution, in accordance with the ECTS. Teachers of vocational subjects, many of whom have a university degree in engineering or similar subject, may lack a master's degree or/and these credits. This is the gap that has been addressed through master's programmes with pedagogical, psychological and methodical courses for teachers of vocational subjects, and by CPD programmes of similar content at university level. Nevertheless, the gap remains.

The current priority in the development of VET is the introduction of dual education in vocational schools in Serbia. The Law on Dual Education (2017) regulates the content and the process of achieving dual education, mutual rights and obligations of pupils, parents, schools and employers, and the material and financial security of students. The provisions of this law applied from the school year 2019/20, to the part of secondary vocational education and education for educational profiles of three or four years' specialised education, in accordance with the law.

Policy statements relating to teachers' CPD

The Action Plan for the Implementation of the Strategy 2020+ includes a segment relating to teachers' education, without any special mention of VET teachers. One of the elements of this plan is the advancement of the system of teachers' development, including the establishment of the CPD system, the establishment of sustainable models of financing CPD, the introduction of training for developing key competences, and the analysis of the effects of CPD. The document also provides for the implementation of these activities by May 2020. The stakeholders interviewed confirmed that CPD of VET teachers is not distinguished from CPD for other teachers in terms of policy. The situation is more complicated when individuals with no higher education come into VET schools with some work experience, which means that they have no previous didactic-methodical education (they are also referred to as teachers of practical teaching).

According to stakeholders interviewed, there are plans to amend and improve the regulations on CPD and teacher advancement. The process of developing the catalogue of jobs and salary classes in which teachers are included is ongoing. Regulation of salary classes should improve the salaries of teachers, according to the IIE representative interviewed⁵.

Conclusions

The policy on teachers' CPD is articulated in several documents and is an integral part of the Serbian education policy, which is also confirmed in the strategy for this policy area. There is a clear regulation for teachers to undertake CPD (100 points in 5 years) in order to retain their licence. Local self-governments allocate finances to schools for teachers' CPD, and teachers' CPD is included in school documents, such as the school development plan. The teachers make their own portfolio of CPD and should plan their own CPD according to the self-evaluation of teaching competences.

Despite this legal framework, difficulties are apparent in implementation. The gap between the initial university education of most VET teachers in their professional vocation fields and the requirement of a master's degree and 30+6 ECTS in psychological, pedagogical and methodical disciplines remains difficult for new teachers to close. In practice, teachers do not lose their licence in the event that they do not achieve 100 points.

It is noticeable that VET teachers differ in the extent of their connections with workplaces in the areas they teach, because this area of their CPD is not regulated at all. In general, VET teachers are not recognised as a category of teachers with specific CPD needs, and this trend is continued in the Strategy 2020+, which places the focus mainly on teachers of general education subjects and teachers in primary schools.

Separate regulations for teaching licences for VET teachers are evidently required. The issue of their initial education is addressed by several universities in Serbia with a master's programme or CPD programme consisting of a package addressing five or six pedagogical, psychological and methodical competences (understanding the processes of learning and motivation, child development, planning, assessment, evaluation, interactive teaching, etc.). Such programmes should be flexible and be offered in diverse modalities (e.g. part time, online), and that is not always the case in the universities.

⁵ During the time of writing this report, the proposal on the salary classes was heavily criticised by teachers' unions because they were not satisfied with the class that the teachers were put into (8th class). The unions called for teachers to be assigned to the 9th class.

CPD connected with workplaces and vocational areas could also be prescribed by setting a minimum number of hours of teachers' CPD in the workplace within the 100-hour requirement.

Main issues and recommendations

Main issues	Recommendations
There is a lack of capacities and resources for policy implementation.	Issues relating to licensing and the career system should be clarified and resolved.
Initial education of VET teachers is inadequate (lack of pedagogical competences and formal prerequisites for licensing).	There is a need to develop a flexible and accessible programme for initial or CPD education of VET teachers covering psychological, pedagogical and methodical disciplines, with a focus on teaching and supportive competences.
Professional development of VET teachers is not adequately regulated.	Separate regulations should be established for the licensing of VET teachers.
Links between vocational subject teachers and workplaces are left to the good will of the teachers. Teachers do not keep up to date with workplace innovations and employers' requirements.	There is a need to establish CPD activities for vocational teachers that have to be carried out in the workplace.

7. ORGANISATIONS AND INSTITUTIONS SUPPORTING CPD IN SERBIA

At a national level, the MoESTD is involved in all the key roles and functions. Among other things, the MoESTD is responsible for planning and monitoring the development of education; it coordinates the work of national institutions and other bodies in the formulation and development of education sector policies, including on CPD. The MoESTD ensures participatory processes in policy making but remains the main decision maker. At the regional level, regional school authorities are the organisational units of the ministry. Among other things, they monitor and provide external evaluation of the work of schools (including VET schools), monitor the CPD of all educational staff in schools, and formulate proposals for such CPD. Municipal and local governments' role is limited to a specific part of the mobilisation of financial resources.

The NEC and the VET Council are national consultative bodies appointed by the government. The NEC deals with general education (including providing an opinion on the secondary VET curricula and adult education for general education subjects), while the VET Council is involved in all aspects within its VET jurisdiction (monitors, analyses, provides opinions, coordinates the needs and interests of social partners, etc.). The umbrella law⁶ ensures that social partners are represented in bodies such as the VET Council. The council has 17 members, consisting of representatives from the Chamber of Commerce, craftspeople, representatives of employers' associations, experts in the fields of vocational and adult education, economy, employment, work sector, social and youth policy, teachers from schools' associations and representatives of teachers' trade unions. The VET Council participates in consultation processes and all the key functions except the management of VET providers and the evaluation and review of policy. According to the changes to the umbrella law, from 2017 the VET Council does not have the role as the authorised proposer, but rather as the body providing opinions (i.e. regarding qualification standards for VET, draft laws, etc.) and putting forward proposals and suggestions (i.e. on educational profiles list, etc.) The council should also participate in the preparation of developmental strategies for VET, adult education and similar.

With the adoption of the Law on Dual Education (coming into force from the school year 2019/20), the Serbian Chamber of Commerce was given an important role as a key social partner in the process of introducing dual education into the education system of Serbia. The Chamber of Commerce established the Centre for Dual Learning to fulfil the role assigned by law: to assess the suitability of employers' premises for workplace learning; train and license instructors in companies; monitor contractual relations on the school–company–student relationship and the school–company–ministry, etc.

Two institutions have been established in Serbia's education system to monitor, ensure and enhance the quality and the development of the education system: the IIE and the IEQE. With their respective centres, they are both engaged in the implementation of development, advisory, research and other activities in preschool, primary and secondary education.

The IIE, within the framework of the CPDEE, is seen as the body responsible for the enhancement and development of the CPD system for all those employed in education. Among other things, the CPDEE is in charge of approving CPD programmes, preparing and developing standards for teachers'

⁶ Law on the Foundations of the Education System, *Official Gazette of the Republic of Serbia*, No 88/2017

competences, preparing induction programmes and introducing them into the teaching profession, preparing programmes for mentors, preparing programmes for taking examinations and gaining a licence to work for teachers, headmasters and other educators, etc. The VET Centre (part of the IIE) carries out all the key tasks relating to the development, monitoring and quality assurance of the secondary vocational education and adult education systems. Among other things, the VET Centre is responsible for preparing training programmes and examinations for instructors (employees of the company) who are in charge of students' workplace learning, as a part of (to be introduced) dual education.

The IEQE is the reference institution that deals with the evaluation of education and ensuring the quality of education. Within the framework of its Centre for Quality Assurance of Educational Institutions, the IEQE is developing quality standards for the work of institutions, developing educational standards (i.e. students' standards of achievement for general education) that also apply to secondary vocational education, and organising training to strengthen the capacity of teachers to implement the standards. Standards are universal and apply to all schools. The IEQE has developed additional standards for secondary vocational education, and these have been published as part of the Manual for Peer Monitoring (2013)⁷. A training programme was developed based on this material, and during 2017 the role of counsellor-external associate was introduced. There are currently 270 external associates, 55 of whom come from secondary vocational education. Their function is to help schools to improve the quality of work. As well as the MoESTD, the institutes and their centres, the research identified a long list of bodies and organisations that support CPD for VET teachers in Serbia: companies, faculties, professional societies, VET schools, civil societies, citizens' associations, regional centres for CPD⁸, and international donors such as GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), the Austrian Chamber of Commerce, KulturKontakt and the EU's Instrument for Pre-accession Assistance.

Conclusions

The MoESTD is the main policy-making body, although it consults with the National Education and VET Councils. The CPDEE and the VET Centre act as both providers of CPD and regulators of other CPD providers. The IEQE has developed quality standards and educational standards, and also serves as a training provider if required. The VET Centre is the agency that has particular responsibility for CPD for VET teachers, but it is relatively small and does not provide a large number of specialised CPD programmes. With the new legal amendments, there is less contribution to CPD policy making in the form of independent opinion from social and institutional partners.

⁷ The process is that a group of invited external consultants (colleagues who are equal in terms of education and position) evaluate the quality of work of partner institutions in VET and give constructive feedback, on the basis of which the institutions evaluated can take measures to improve the quality of their work. References and materials are available on the evaluation site: <http://vrednovanje.ceo.edu.rs/prirucnik-i-prateci-materijali>

⁸ Regional centres for CPD provide activities such as organising accredited professional development programmes as well as other forms of professional training, professional meetings with topics relating to education, presentations on reputable lessons, presentations of research, and study visits. They also examine the professional development needs of employees in education, monitor the implementation of programmes and present results at national and international meetings, provide support to schools in planning professional development, provide support to authors and implementers of accredited programmes, create new professional development programmes, cooperate with relevant institutions at local, regional and national level, etc.

8. CPD DESIGN, QUALITY ASSURANCE AND FUNDING

The MoESTD defines the priority areas listed in the catalogue. CPD programmes may then be designed and provided in one of the following ways:

- Independent providers, such as universities, submit programmes, which must be accredited and which can then be offered to teachers through the catalogue.
- National agencies, such as the CPDEE or the VET Centre, are asked by the MoESTD to design and deliver CPD.
- International or national non-governmental organisations (NGOs) design and deliver CPD, independently or in partnership with national agencies, which can be accredited by the MoESTD.
- Schools design and deliver CPD.
- Regional centres for CPD design and deliver programmes.

The accreditation of programmes is carried out by the IIE and the Pedagogical Institute of Vojvodina (for the national minorities).

Providers must submit their CPD programmes to the IIE for accreditation. They have to provide references for each CPD programme, and if conditions are fulfilled with regard to the provider, the authors and the implementers (trainers) of the training programme, a programme can be accredited by the commission and offered in the catalogue, which is revised every three years. Providers who submit their programmes for the catalogue must be registered as training providers. The cost of training per participant is shown in the catalogue in the description of the training programme.

At the local level, schools are obliged to provide 44 hours of internal CPD at the school level (such as internal transfer of knowledge acquired through external CPD, peer learning, reputable and experimental classes, participation in projects and surveys, etc.). Schools must plan their own CPD based on the self-assessment of teachers. Teachers are expected to create a personal developmental plan in line with the teachers' professional standards. Monitoring of this is carried out by the school CPD team. CPD at the school level is managed by the team, teachers' councils and management; it is included in the school planning and is provided according to the priorities and resources available. However, these plans do not shape the provision of CPD. Training provision is not influenced by VET schools' assemblies, although these are strong associations with an awareness of what is needed for teachers' CPD in their respective vocational area. There is no transparent method whereby the value of CPD and its impact on teaching is evaluated and feeds back into decisions about provision.

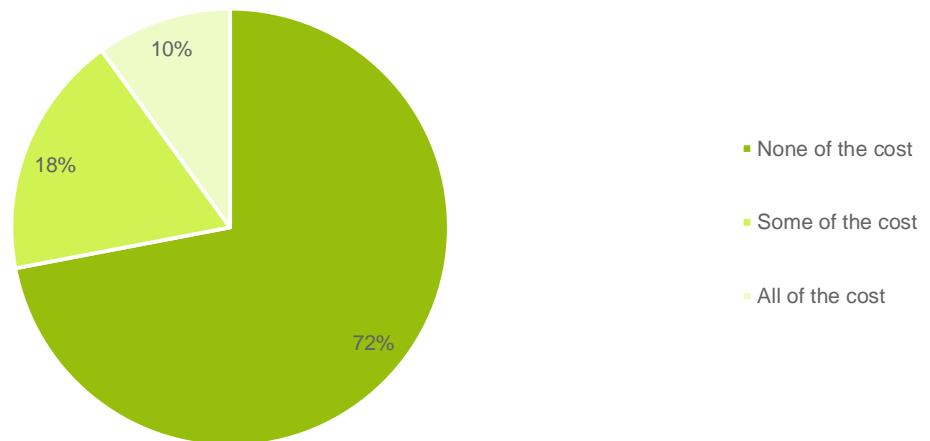
Teachers are obliged by the umbrella law, bylaws and rulebooks to acquire 100 points by participating in CPD activities over a period of 5 years. The rulebook recognises educational programmes that are provided in the catalogue, but also includes professional gatherings, conferences, roundtables and international conferences. These points are taken into account for the professional advancement of teachers on a four-grade scale. The umbrella law systematically regulates the licensing of teachers, as well as mentoring and the examination for pedagogical-psychological-methodical skills and competences for existing and future teachers as a condition for obtaining a licence. According to the opinion of one stakeholder interviewed, the benefits of advancement are not clear, as the Law on Salaries of Civil Servants is still under consideration.

National funding

The law specifies that CPD costs must be covered by local self-government budgets. Each local self-government is obliged, when adopting its budget, to calculate funds for every educational institution in its jurisdiction on the basis of each institution's financial plans. These funds are used by schools to buy training from independent providers. In practice, local self-governments may not be able to supply sufficient funds to meet the training plans of schools. Some training programmes are accredited and free of charge; these are provided mostly by international donors and the national institutes as part of reform efforts. This research has not identified what proportion of CPD is funded through local government and what proportion is provided freely by national institutes or by donors.

Contribution of teachers

FIGURE 8.1 FOR THE PROFESSIONAL DEVELOPMENT IN WHICH YOU PARTICIPATED IN THE LAST 12 MONTHS, HOW MUCH DID YOU PERSONALLY HAVE TO PAY FOR? (% , N=1 403)



Only 28% of teachers contributed (partially or totally) to the costs of their training. It follows that most training was paid in full either by the school (from the local self-government funds) or by other donors (international and national projects, etc).

Conclusions

The mix of approaches should help Serbia to provide nationally urgent CPD universally and to encourage the development of high-quality independent provision of specialist CPD. However, uncertainty and constraints in funding discourage universities and businesses from commitment to develop such specialist CPD. The accreditation process operates on a three-year cycle, which deters independent providers from responding quickly to new training opportunities. Schools develop training plans, but there is no clear mechanism by which these plans can be implemented because they have little influence on design or supply.

Main issues and recommendations

Main issues	Recommendations
Funding constrains CPD at all levels.	<ul style="list-style-type: none"> ■ Analysis should be undertaken to understand how existing CPD is funded (composition, control, unit cost) and how finance is affecting provision.
The catalogue is revised every three years.	<ul style="list-style-type: none"> ■ Improved application procedures are needed for providers of vocational teachers' training (e.g. applications may be submitted twice a year and evaluated within three months).
The design of CPD is not always effectively linked to needs analysis.	<ul style="list-style-type: none"> ■ Mechanisms to analyse needs should be developed in order to inform design. ■ There is a need to establish an institution in charge of VET teachers' CPD to coordinate CPD programmes provided by VET training providers (faculties, companies).
Feedback and evaluation of training providers' services are not analysed or published.	<ul style="list-style-type: none"> ■ Transparent ranking of training provision is required according to evaluation by participants and impact in schools.

9. VOLUME, MODE AND CHARACTER OF CPD PROVISION BY PROVIDERS OTHER THAN VET SCHOOLS

Evidence of provision from the perspective of providers

Vocational subjects in secondary vocational education is one of the 16 areas listed in the IIE's Catalogue of CPD Programmes for Teachers, Preschool Teachers and Professional Associates. The catalogue for the school years 2016/17 and 2017/18 (which expired on 31 August 2018) offered almost 1 000 programmes, 57 of which were for vocational secondary education (vocational subjects). Among the providers, the most numerous were universities/faculties (31), associations and NGOs (7), secondary schools (5), and CPD centres (5). Programmes were of 1–3 days' duration, for which teachers could acquire 8–24 points. Private companies play little part in the provision of CPD for VET teachers in Serbia.

Almost all the stakeholders interviewed share the opinion that the number of programmes for VET teachers is underrepresented in the catalogue. VET CPD is relatively expensive to provide and the market is smaller than for general CPD programmes. In addition, schools can reduce their expenses by booking groups of teachers on to the same programme. Training for vocational teachers, especially in the recent period of preparations for dual education, has been funded by international donors, in particular GIZ. However, such project funding is not sustainable and is more likely to be linked to national reforms than to internal development needs.

National priorities change, and some argue that while vocational teachers have been prioritised in the past, the focus has now moved to general teachers. However, the current national CPD training priority (curriculum and teaching based on learning outcomes) is addressed at both vocational and general teachers. This priority, supported through sector budget support, targets 20 000 teachers per annum and will absorb much of Serbia's CPD capacity in 2018-19. this year

In recent years, online and blended CPD activities have been introduced, both funded by donors and offered in the catalogue, and they had been well received by teachers. This form of training may in the future help to address the issue of costs, although this mode of CPD is not yet extensively evaluated.

The IIE is responsible for keeping records of the total number of training events provided and of the number of participants. It also receives reports from providers and feedback and evaluation of the training activities held. The data are not published.

Main issues and recommendations

Main issues	Recommendations
Only a small amount of training is available for VET teachers, and it is expensive.	<ul style="list-style-type: none"> ■ There is a need for greater participation of companies in CPD provision. ■ Accredited in-company training should be available for vocational teachers in dual education. ■ Online courses should be provided.
No aggregate data has been published on the number of teachers trained.	<ul style="list-style-type: none"> ■ Transparent aggregated records of teachers trained should be published and analysed.

Evidence of provision from the perspective of teachers (survey)

Participation

As in the 2015 survey, only 6% of vocational teachers report that they had not participated in CPD either within or outside their schools in the previous 12 months. The proportion reporting participation in training out of school rose from 66% to 81%, while the proportion saying they had participated in school-based training rose from 84% to 86%. The share of teachers who say they took part in training in an identified vocational specialism was up from 53% to 64%, and the proportion who report visiting other schools was up from 39% to 44%. However, the proportion reporting participation in CPD in businesses was down from 33% to 26%. Around 69% of vocational teachers say they had participated in online and video-based CPD – a remarkable figure.

FIGURE 9.1 PERCENTAGE OF TEACHERS WHO RECEIVED DIFFERENT TYPES OF CPD OVER THE PAST 12 MONTHS (%)

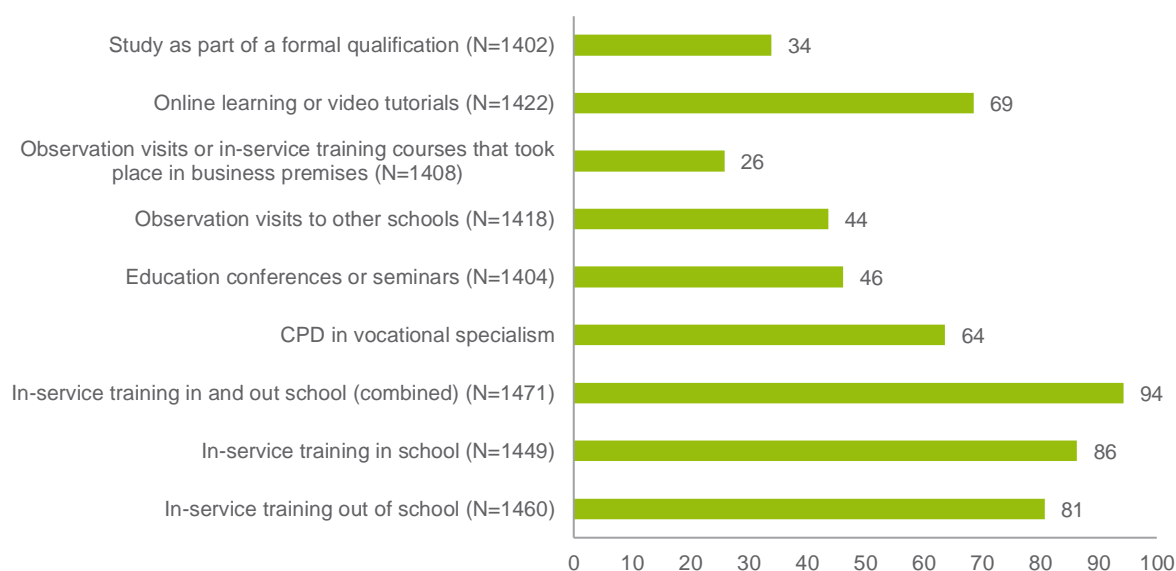


Table 9.1 provides an indication of the volume of CPD of different kinds obtained by VET teachers. Some 59% of VET teachers say they received more than 30 hours of CPD in the past 12 months (up from 55% in 2015). It seems that the average number of hours of participating teachers is the same as the number achieved in 2015 (44 hours), although the proportion of teachers participating is higher.

Volume of CPD

Around 59% of vocational teachers say they obtained more than 30 hours of CPD over the past 12 months. Online and video CPD and CPD that forms part of a formal qualification are significant.

TABLE 9.1 HOURS OF THE FOLLOWING KINDS OF CPD (IN-SERVICE TRAINING) RECEIVED OVER THE PAST 12 MONTHS

	Average number of hours	% of respondents with 30 hours or more	N
In-service training in and out school (combined)	44	59	1 351
CPD in vocational specialism	21	18	899
Education conferences or seminars	12	8	649
Observation visits to other schools	12	9	619
Observation visits or in-service training courses that took place at business premises	17	5	364
Online learning or video tutorials	35	29	975
Study as part of a formal qualification	32	23	476

Note: Values calculated only for those who participated in the specific training.

It is clear that out-of-school CPD (visits to other schools and especially to business premises) are relatively unimportant.

Distribution of CPD – age

TABLE 9.2 PARTICIPATION IN IN-SERVICE TRAINING (AT LEAST 30 HOURS) EITHER INSIDE OR OUTSIDE OF SCHOOL, BY AGE GROUP

Participation in in-service training in and out of school	Age group				
	0–29	30–49	50–59	60	Total
No participation in training	11	42	19	9	81
%	13	5	5	13	6
Participation in training	76	810	385	63	1 334
%	87	95	95	88	94
Total	87	852	404	72	1 415
%	100	100	100	100	100

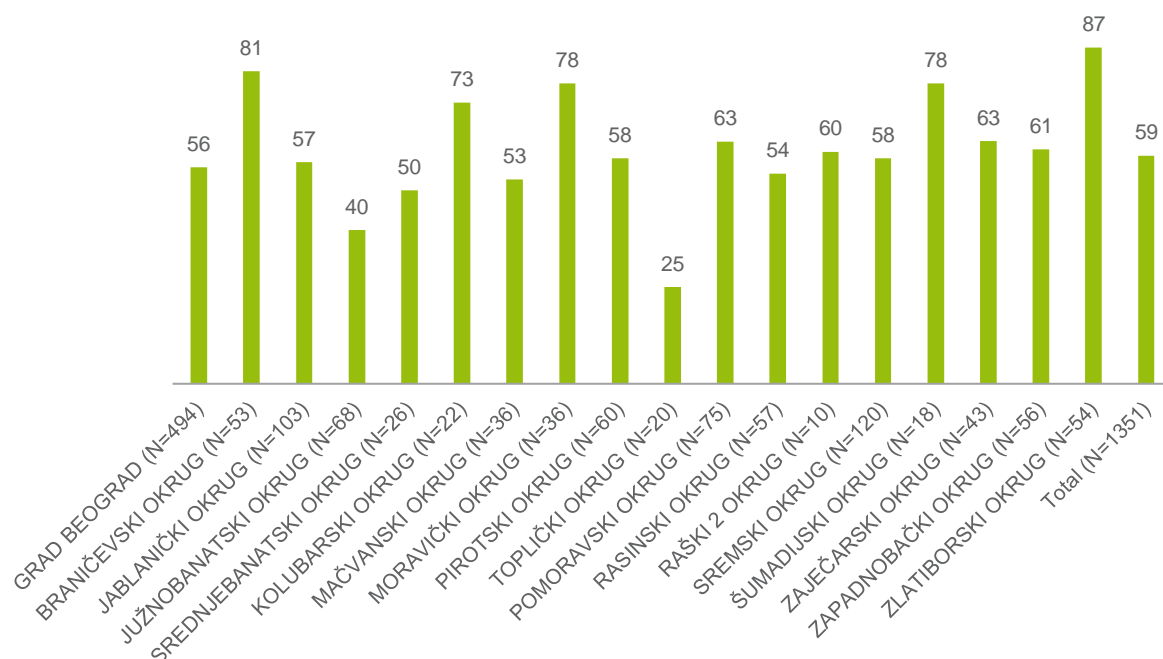
Almost 60% of teachers who participated in in-service training, both in and out of school, say they had training of at least 30 hours. Analysis by age shows that the youngest and oldest teachers report slightly less participation in training, though the trend is weak.

Distribution – region

Another survey question examined was whether CPD provision varies significantly between regions. Figure 9.2 shows the percentage of teachers who received at least 30 hours of in-service training for every region sampled. The average percentage for the whole sample is 59%. The regions in which more than 60% of teachers say they have received at least 30 hours of CPD are Braničevski, Kolubarski, Moravički, Pomoravski, Šumadijski, Zaječarski, and especially Zlatiborski, where 87% of the teachers surveyed report having had at least 30 hours of CPD. In contrast, the regions in which the proportion is rather less than the average are Grad Beograd, Jablanički, Južnbanatski, Srednjobanatski, Mačvanski, Rasinski, and especially in Toplički region, where only 25% of the teachers say they had at least

30 hours of CPD. This should be interpreted cautiously, given the very different number of respondents per region (from only 10 in Raški 2 region, to 493 in Grad Beograd region).

FIGURE 9.2 SHARE OF TEACHERS WITH IN-SERVICE TRAINING (INSIDE AND/OR OUTSIDE THE SCHOOL) OF AT LEAST 30 HOURS, BY REGION (%)



Distribution – teaching experience

TABLE 9.3 PARTICIPATION IN ALL KINDS OF CPD, BY TEACHING EXPERIENCE

Participation in in-service training in and out of school	Years of teaching experience				Total
	0–5 years	6–15 years	16–25 years	More than 25 years	
No participation in training	27	22	17	16	82
%	12	4	4	8	6
Participation in training	193	577	437	174	1 389
%	88	96	96	92	94
Total	220	599	454	190	1 471
%	100	100	100	100	100

Surprisingly, those teachers with the least teaching experience were least likely to report that they had participated in any kind of CPD: 12% say they had not participated.

TABLE 9.4 PARTICIPATION IN IN-SERVICE TRAINING EITHER INSIDE OR OUTSIDE OF SCHOOL, BY TEACHING EXPERIENCE

Hours of training in in-service training in and out of school over the past 12 months	Years of teaching experience				Total
	0–5 years	6–15 years	16–25 years	More than 25 years	
Less than 30 hours	95	232	148	75	550
%	51	41	35	45	41
30–49 hours	43	158	113	43	357
%	23	28	27	26	27
50–59 hours	7	47	39	9	102
%	4	8	9	5	8
60 hours or more	44	125	125	40	334
%	23	22	29	24	25
Total	189	562	425	167	1 343
%	100	100	100	100	100

Similarly, more teachers with up to 5 years of teaching experience say they have less than 30 hours of training than other groups, and more of those who have 16–25 years of experience report having participated in more than 30 hours of in-service training.

Character of CPD

The survey examined the methods employed to make CPD modern and relevant. Table 9.5 shows that while many Serbian VET teachers say they did participate in modern modes of CPD, more than 50% report no or only some exposure to these methods. CPD with colleagues from the same school was widespread. However, 25% or more teachers say collaborative learning activities, new technologies and web-based communities were absent from CPD.

TABLE 9.5 TO WHAT EXTENT HAVE THE PROFESSIONAL DEVELOPMENT ACTIVITIES YOU TOOK PART IN DURING THE PAST 12 MONTHS INCLUDED THE FOLLOWING?

	Not in any activities	Yes, in some activities	Yes, in most activities	Yes, in all activities	Total
A group of colleagues from my school	131	628	463	181	1 403
%	9	45	33	13	100
Opportunities for active learning methods (not only listening to a lecturer)	255	602	414	108	1 379
%	18	44	30	8	100
Collaborative learning activities or research with other teachers	471	598	246	52	1 367
%	34	44	18	4	100
New technologies, including IT	336	595	348	104	1 383
%	24	43	25	8	100
Using a web-based community or social media to share practice or materials	338	603	313	125	1 379
%	25	44	23	9	100

TABLE 9.6 DURING THE PAST 12 MONTHS, DID YOU PARTICIPATE IN THE FOLLOWING FORMS OF PROFESSIONAL DEVELOPMENT? (%)

	Participated
A network of teachers formed to support the professional development of teachers (N=1 419)	32
Individual or collaborative research on a topic of interest to you professionally (N=1 408)	33
Mentoring and/or peer observation and/or coaching, as part of a formal school arrangement (N=1 401)	29

Most Serbian VET teachers in the survey have experienced VET in the form of seminars. Only a minority participate in other kinds of CPD. About a third of teachers say they had participated in some sort of network for professional development or in research; a similar percentage participated in mentoring and/or peer observation. There is potential to spread participation in forms of CPD that can be particularly effective for professionalisation.

CPD for principals

Around 67% of principals report that they spent on average 31 days (1 day = 6 hours) during the past 12 months in a professional network, mentoring or research activity and 84% that they spent on average 20 days in courses, conferences or observational visits. This shows that principals also take part in modern forms of CPD during a school year.

TABLE 9.7 DURING THE PAST 12 MONTHS, FOR HOW MANY HOURS DID YOU PARTICIPATE IN ANY OF THE FOLLOWING PROFESSIONAL DEVELOPMENT ACTIVITIES AIMED AT YOU AS A PRINCIPAL?

	% of respondents having participated	Hours (average)
In a professional network, mentoring or research activity (N=54)	67	189
In courses, conferences or observational visits (N=62)	84	121
Total (N=54)	83	283

Conclusions

The proportion of teachers reporting participation in training out of school rose from 66% to 81% between the 2015 and 2018 surveys, while the proportion saying they had participated in school-based training rose from 84% to 86%. Only 6% of vocational teachers report that they had not participated in CPD. The share of teachers who say they took part in training in an identified vocational specialism was up from 53% to 64%, and those who report visiting other schools was up from 39% to 44%. However, the proportion reporting participation in CPD in businesses was down from 33% to 26%.

The use of modern forms of CPD appears to be increasing, with 69% of vocational teachers saying they have participated in online and video-based CPD – a remarkable figure. However, more than 50% of teachers say they had, at best, some participation in collaborative activities and around 25% say they had no participation in web communities or ICT-based CPD. Only around a third of teachers report participating in CPD involving mentoring, networks or research. Principals are better served:

more of them they say they participate in professional networks, mentoring or research activities than do teachers.

Main issues and recommendations

Issues	Recommendations
Types of CPD that take place in business premises are rarely organised.	<ul style="list-style-type: none"> ■ Ways of engaging business in the design and provision of CPD for VET teachers should be developed. ■ In-house training that is organised for employees in companies should be offered to vocational teachers.
Modern forms of CPD – peer learning, networking, research – are underdeveloped.	<ul style="list-style-type: none"> ■ CPD providers should be encouraged to diversify the modes of CPD offered.

10. SCHOOL-BASED PROFESSIONAL DEVELOPMENT

This section is concerned with the functions of the school in planning and delivering CPD, and particularly CPD that is especially organised for one school.

Responsibilities of the school

School-based CPD can be classified into two main categories: teachers' induction programmes (traineeship) and mentorship; and CPD training and programmes conducted by internal and external providers in the school. Traineeship and mentorship are regulated by law, in a way that the stakeholders interviewed describe as clear and precise, and consequently there are no particular problems in practice. According to the interviewees, the CPD that poses major difficulties is teachers' initial education.

Mentoring and induction

The Law on the Foundations of the Education System requires that the school selects a mentor for the teacher-trainee. During the first three months, the trainee works under the direct supervision of a mentor. After completing the induction programme and one year of teaching, the trainee acquires the right to take the licence examination. The majority of the survey respondents say they had participated in an induction programme when they were first employed as teachers (63%).

The Regulation on the Licence for Work of Teachers, Preschool Teachers and Professional Associates (2017) provides more details on the induction programme and the licensing process. A mentor can be a notable teacher or professional associate who possesses the licence, one of the prescribed titles or at least five years of work experience in the field of education. The mentor is selected by the principal, by means of an official document, and on the basis of the opinion of a professional body: in the case of teachers, that is the council for the subject area. If the school does not employ a suitable individual, a mentor from a different institution can be assigned. A mentor introduces their trainee to work by: (1) helping in the preparation and execution of teaching; (2) assisting in classes for at least 12 hours during the traineeship; (3) analysing the educational-pedagogic work in order to monitor progress; and (4) helping in the preparations for the examination. After a year of traineeship, the mentor submits a report to the principal. During the traineeship, both the trainee and the mentor keep records of their work.

The examination of whether the trainee has mastered the programme requires the trainee to organise and conduct one lesson in school. A trainee who has fully mastered the programme has the right to take the licence examination. This consists of a written part (lesson preparation) and an oral part (examination of knowledge, skills and abilities for independent teaching, of the ability to resolve concrete situations in pedagogical practice, and of the knowledge of regulations in the field of education). The expenses for the first examination are covered by the school at which the trainee is employed, and the expenses for any repeated examinations are the candidate's own responsibility.

TABLE 10.1 IN YOUR FIRST REGULAR EMPLOYMENT AS A TEACHER, DID YOU TAKE PART IN ANY INDUCTION PROGRAMME?

	Yes	No	Total
I took/take part in an induction programme	914	535	1 449
%	63	37	100
I took/take part in informal induction activities not part of an induction programme	584	653	1 237
%	47	53	100
I took/take part in a general and/or administrative introduction to the school	622	616	1 238
%	50	50	100

The majority of teachers (63%) say they took part in an induction programme, leaving 37% who did not take part. Informal induction activities are reported by 47% of teachers. Half of the teachers say they did not participate in a general and/or administrative introduction to the school (Table 10.1).

In the 2015 survey, a somewhat larger percentage of teachers report taking part in an induction programme (72%). During the period 2013–15, there were organised efforts to improve induction and mentoring (project ‘Razvionica’), so the slightly higher percentage of inductees could be the result of these efforts.

Around 88% of the principals confirm that there is an induction programme for new teachers in their school; 86% say that there are informal induction activities for new teachers not part of an induction programme; and 97% of principals agree that there is a general and/or administrative introduction to the school for new teachers. An induction programme is most commonly offered to all teachers who are new to the particular school (60% of principals report this), and not only to teachers who are new to teaching (40%).

Mentoring

Mentoring can be an effective way of improving a teacher’s practice. It can be adapted to the individual and directed at their daily work practice.

In the 2015 survey, 13% of teachers report that they had received training to support their work as a mentor of teachers, 37% say they had served as an assigned mentor for one month or longer, and 12% had an assigned mentor to support them at the time of the survey.

TABLE 10.2 WHAT IS YOUR EXPERIENCE OF MENTORING?

	Yes	No	Total
I presently have an assigned mentor to support me	177	1 020	1 197
%	15	85	100
I have served as an assigned mentor of teachers for one month or longer	576	750	1 326
%	43	57	100
I have received training to support my work as a mentor of teachers	182	1 000	1 182
%	15	85	100

In the 2018 survey, more teachers (43%) say they have served as assigned mentors than the proportion for 2015, but still only a very small percentage (only 15%) say they were trained to work as a mentor. Around 15% of the teachers surveyed presently have an assigned mentor to support them. Nevertheless, the situation in comparison to 2015 is slightly improved.

Around 83% of principals report that teachers do have access to a mentoring system, but only teachers who are new to teaching, i.e. in their first job as teachers. A further 15% of principals report that all teachers who are new to the school have access to mentoring. In almost all cases reported by principals, the mentors are from the same main subject field(s) as the teacher being mentored. Only one principal says that there is no access to a mentoring system for teachers in their school at present.

Feedback

Feedback to teachers in relation to their teaching can help them to develop professionally. It may also be linked to other kinds of CPD, such as mentoring.

TABLE 10.3 IN THIS SCHOOL, WHO USES THE FOLLOWING METHODS TO PROVIDE FEEDBACK TO YOU? (%)

	External individuals or bodies	School principal or school managers	Assigned mentor	Other teachers
Feedback following direct observation of your classroom teaching (N=1 769)	23	65	9	23
Feedback following an analysis of your students' test scores (N=1 769)	6	38	6	25

Teachers report that for the most part it is their school principal or school managers who provide feedback on their teaching. It is likely that teachers are including here the school pedagogue or the school psychologist. Both have direct observation of classroom teaching as part of their role, especially the pedagogue. External evaluators are also providers of feedback, though for only 23% of teachers – the same proportion who report having feedback from other teachers (peer evaluation and learning).

Collaboration and peer learning

Collaboration can function as a type of CPD. As with mentoring, the advantage of this kind of training is that it can be focused directly on teaching practice and it can be extended over time. The survey revealed that informal discussions are the most common form of teachers' collaboration – 90% of teachers say they had participated in them in the past month, compared with 60% who had participated in planned discussions with managers or pedagogic advisers.

TABLE 10.4 DURING THE PAST MONTH, DID YOU PARTICIPATE IN THE FOLLOWING FORMS OF IN-SCHOOL PROFESSIONAL DEVELOPMENT?

	Yes	No	Total
Planned discussions with other teachers relating to your teaching	1 101	336	1 437
%	77	23	100
Planned discussions with managers or with pedagogic advisers relating to your teaching	839	550	1 389
%	60	40	100
Informal discussions with other teachers or with managers or pedagogic advisers relating to your teaching	1 276	149	1 425
%	90	10	100

Conclusions

The research suggests that existing procedures for the induction of new teachers, mentorship and licensing are being implemented. The challenges are the lack of training for mentors, the workload and the lack of formal status or compensation (e.g. through career recognition or working hours).

The survey indicates that a proportion (28%) of the teachers have not participated in an organised induction programme, which is a matter requiring further investigation. Nevertheless, it seems that informal support and peer learning between teachers can serve as compensation for the lack of organised induction and mentorship.

As in the previous section, the cooperation and collaboration of teachers within one school largely depends on the support provided by the school management and pedagogue and on the overall culture and attitude to this kind of activity.

Main issues and recommendations

Issues	Recommendations
<ul style="list-style-type: none"> ■ Mentorship represents a significant additional workload for teacher-mentors. ■ There is no special compensation or career recognition for mentors. ■ There are no regular training programmes for mentors. 	<ul style="list-style-type: none"> ■ The status, compensation, training and recognition offered to mentors should be reviewed. ■ Consideration should be given to how mentorship might be used more generally as a form of CPD for VET teachers.

11. RELEVANCE AND IMPACT OF CPD

Matching teachers to programmes

The IIE has published the Handbook for Planning Professional Development and Advancement (2009), which offers various guidelines, including the following elements for planning professional development to schools:

1. analysis of the state of CPD in the school;
2. identification of the potential, capacities, resources and deficits, both of individuals and of the school as a whole;
3. identification of the needs of individuals and the school;
4. creation of yearly personal CPD plans for all employees;
5. creation of a yearly teachers' CPD plan at the school level;
6. regularly informing the employees regarding CPD;
7. continuous reporting to the employees;
8. reporting on the implementation of the plan for CPD and advancement at the school level.

The development of teachers' yearly personal CPD plans should include an analysis of an individual's work biography, a self-assessment of competences, needs and interests, and of the school's developmental directions and priorities, and the possibilities of achievement. This plan should be an integral part of the school's plan. The questionnaire to enable teachers to self-assess their competences, which was created by the IIE, also offers help in this process. The handbook states that the school's yearly CPD plan is proposed by the principal, who is also responsible for its implementation, while the school management should adopt the plan. The principal may then create a team (comprising the principal, professional associates and heads of the subject teachers' group) to operationalise the plan. The plan should include (1) themes and forms of CPD; (2) name of the employee who will attend or lead the given CPD activity; (3) distribution of different forms of CPD in accordance with the planned time frame; and (4) level at which the CPD is realised in the school.

The principals describe how this functions in their schools. According to the interviewees, this is based on self-evaluation: the teacher decides what kind of training he/she needs, and the school CPD team or the principal makes the decision about the types of CPD that are organised. The work of the vocational councils and the decisions of the principal are of an administrative nature only.

Alternatively, a seminar offered in the IIE catalogue is selected based on its alignment with the goals set out in the school's development plan; a blank list is then generated and offered to teachers to add their names and thus express their interest in participating. Teachers usually sign because they need CPD points, and less frequently because they really need the knowledge and skills. Another practice is to choose those seminars that will yield most points for least money, or to send more teachers on general skills training, instead of one VET teacher on a (frequently more expensive) vocational CPD course for the same amount of money.

How relevant is the CPD offer?

Table 11.1 provides an analysis of participation in CPD by topic. Participation was lowest for teaching in a multicultural setting (37%), addressing the issues of learners at risk of early dropout (40%), and using professional knowledge and skills in relation to current practice in the workplace (44%).

TABLE 11.1 SHARE OF RESPONDENTS WHO PARTICIPATED IN PROFESSIONAL DEVELOPMENT ACTIVITIES ON DIFFERENT TOPICS DURING THE PAST 12 MONTHS (%)

	%	N
Knowledge and understanding of my subject field(s)	67	1 408
Pedagogical competences in teaching my subject field(s), including giving feedback to learners	77	1 400
Knowledge of the curriculum	62	1 390
Student evaluation and assessment practices	76	1 392
ICT skills for teaching	69	1 387
Student behaviour and classroom management	64	1 387
Approaches to individualised learning	61	1 377
Teaching students with special needs	64	1 380
Teaching in a multicultural or multilingual setting	37	1 367
Teaching cross-curricular skills	63	1 378
Approaches to developing cross-occupational competences for future work	53	1 374
New technologies in the workplace	57	1 383
Student career guidance and counselling	46	1 365
Updating my professional knowledge and skills in relation to current practice in the workplace	44	1 364
Addressing the issues of learners at risk of early leaving and learner dropout	40	1 373

Participation was relatively high in CPD that addresses pedagogical competences (77%) and student assessment (76%). The reasons for this should be further investigated: was it a result of choosing the programmes that were most available (provider-driven), or were the programmes chosen because the teachers needed these topics the most (needs-driven)?

Table 11.2 shows the training gap, that is, the percentage of teachers who express a high or moderate need for some type of CPD but have not accessed that training during the past 12 months. While teachers express low or no need in a number of areas of CPD (curriculum, subject knowledge, assessment, multiculturalism), there were 10 kinds of CPD for which more than 40% of teachers express a high or moderate need but have not obtained that CPD during the past year. New technologies in the workplace, special educational needs and individualised learning needs showed particularly high gaps. That said, these gaps are, in most cases, smaller than they were in the previous survey (2015), while new technologies (from 65% down to 55%) and special needs (from 59% down to 57%) continue to show the widest gaps.

TABLE 11.2 RESPONDENTS WHO HAVE NOT PARTICIPATED IN SPECIFIC TRAINING, BY LEVEL OF NEED FOR SUCH TRAINING (%)

	<i>Moderate/ high need (%)</i>	<i>No/low need (%)</i>	<i>N</i>
Knowledge and understanding of my subject field(s)	25	75	453
Pedagogical competences in teaching my subject field(s), including giving feedback to learners	36	64	315
Knowledge of the curriculum	12	88	524
Student evaluation and assessment practices	32	68	334
ICT skills for teaching	48	52	420
Student behaviour and classroom management	46	54	485
Approaches to individualised learning	53	47	525
Teaching students with special needs	57	43	481
Teaching in a multicultural or multilingual setting	28	72	839
Teaching cross-curricular skills	46	54	500
Approaches to developing cross-occupational competences for future work	45	55	629
New technologies in the workplace	55	45	576
Student career guidance and counselling	42	58	719
Updating my professional knowledge and skills in relation to current practice in the workplace	47	53	743
Addressing the issues of learners at risk of early leaving and learner dropout	41	59	807

What impact did training have?

The survey provides some evidence on how effective teachers judged CPD to be.

It seems that in general, teachers assess the impact of CPD activities in which they have participated in the past 12 months as reasonably high (range of affirmative responses from 53% to 80%, with the best impact given to subject topics). The least impact is perceived in CPD activities dealing with teaching in a multicultural setting, addressing learner dropout and student career guidance and counselling.

TABLE 11.3 IMPACT OF PROFESSIONAL DEVELOPMENT ACTIVITIES ON TEACHING BY THE FOLLOWING TOPICS (%)

	No/limited impact (%)	Moderate/major impact (%)	Do not know (%)	N
Knowledge and understanding of my subject field(s)	16	80	4	946
Pedagogical competences in teaching my subject field(s), including giving feedback to learners	20	75	4	1 082
Knowledge of the curriculum	22	74	5	860
Student evaluation and assessment practices	20	77	3	1 052
ICT skills for teaching	22	75	3	958
Student behaviour and classroom management	25	72	4	893
Approaches to individualised learning	27	68	5	840
Teaching students with special needs	27	69	4	888
Teaching in a multicultural or multilingual setting	33	53	14	509
Teaching cross-curricular skills	25	71	4	866
Approaches to developing cross-occupational competences for future work	27	68	5	731
New technologies in the workplace	24	72	4	791
Student career guidance and counselling	29	64	7	625
Updating my professional knowledge and skills in relation to current practice in the workplace	27	66	7	601
Addressing the issues of learners at risk of early leaving and learner dropout	31	59	10	543

Note: Values refer only to those who have participated in the specific training.

Professional standards

Professional standards in Serbia are defined for teachers in general, with no specific standards for VET teachers. The Competence Standards for the Teaching Profession and Teachers' Professional Development (2011) defines four categories of competences, and these are also used for the classification of CPD programmes in the IIE catalogue. They are competences for:

- teaching area, subject and didactics;
- teaching and learning;
- supporting students' personal development;
- communication and cooperation.

The purpose of the standards is to offer guidelines for teachers' self-assessment in the process of professional development planning at the school level.

In the case of the IIE catalogue, this leads to problems. Each programme is supposed to correspond to one of these four categories of competences, but this is difficult to achieve in practice, given that programmes usually develop multiple competences, and not just one in isolation.

Another challenge is the requirement for teachers to develop all four competences during one year, regardless of the degree to which they already possess them and regardless of their possible need to focus only on certain competences. Thus, teachers may use up scarce CPD funds on training in competences that they already possess at a high level.

Conclusions

Vocational teachers express needs with respect to both vocational and pedagogical issues. Although teachers rate the impact of most of the CPD that they accessed relatively highly, there is a significant training gap in particular topics.

There is also evidence that the process of matching teachers to the CPD offer is not very efficient: there is not a good match between the priority needs and the training provided. Different teachers have different training needs, and where training resources and time are scarce, it makes sense to target training well.

Of course, national and school development needs are important, as are the needs of individual teachers. However, there is scope to improve how the needs identification process and the matching process in schools are integrated. In some areas there may not be enough relevant training, for example new technologies in the workplace, updating professional knowledge and skills in relation to current practice in the workplace, approaches to developing cross-occupational competences for future work, ICT, and student career guidance and counselling.

Main issues and recommendations

Issues	Recommendations
<ul style="list-style-type: none"> ■ The match between needs and CPD is not optimised. 	<ul style="list-style-type: none"> ■ Help should be given to teachers and schools to obtain CPD that meets their current needs by providing more accurate assessment of the needs of individuals, schools and employers. ■ There is a need to increase opportunities and establish support mechanisms for the professional development of teachers, especially in partnership with the business sector in relevant vocational areas.
<ul style="list-style-type: none"> ■ The school staff in charge of planning teachers' CPD often lack knowledge of didactics of vocational subjects. ■ Teachers and school management are poorly trained in self-assessment skills. ■ School management is often poorly informed and lacks up-to-date knowledge about the professions taught. 	<ul style="list-style-type: none"> ■ The quality of CPD should be improved and support mechanisms for the planning and allocation of CPD promoted. ■ Consideration should be given to how school planning for CPD can coordinate school-based and external provision of CPD. ■ There is a need to motivate companies to provide opportunities to VET teachers to update their knowledge and skills in the workplace.

12. RECOGNITION AND INCENTIVISATION

How is CPD recorded?

CPD is a legal requirement and teachers are obliged to keep track of their CPD and update their portfolio. CPD cannot be rewarded financially. Principals can, as they state themselves in our interviews, choose to reward teachers' effort and dedication, although the only permitted reward is advancement to a higher professional title; however, this has not so far been coordinated with advancement through pay levels. Therefore, many teachers do not view this type of advancement as a real incentive and there are few who apply for this process.

Career ladder

The legal regulation of salaries for public sector workers is currently under review. It is not yet clear how salaries may change and how this will impact on teachers' careers.

Some teachers are motivated to enrol in formal CPD in order to gain an academic degree, which they could then use as their 'entrance ticket' to teaching in a university. However, there are very few positions available for this, and the number of teachers who do secure a university career is very limited. In principle, the career system should provide a way of recognising teachers and encouraging them to increase their competences, improve their performance and extend their professional responsibilities. CPD should be seen as a key way to achieve this. However, this mechanism is not currently working effectively.

Of course, many teachers are intrinsically motivated to learn and improve and they want to pursue CPD opportunities for these reasons. However, it makes sense to try to design a system that will engage all teachers in professional development.

Barriers to the take-up of CPD

In the 2015 survey, the main barriers identified by teachers were that there were no incentives for participating in CPD activities (48% agree or strongly agree) and no relevant professional development programmes offered (62%), and that CPD was too expensive (57%).

In the 2018 survey (Table 12.1), it seems that little has changed: the perceived barriers are still that there is a lack of incentives (47%), that no relevant professional development is offered (57%) and that CPD programmes are too expensive (47%), although the percentages of teachers for each of these are slightly lower than in 2015.

TABLE 12.1 HOW STRONGLY DO YOU AGREE OR DISAGREE THAT THE FOLLOWING PRESENT BARRIERS TO YOUR PARTICIPATION IN PROFESSIONAL DEVELOPMENT?

	Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)	N
I do not have the prerequisites (e.g. qualifications, experience, seniority)	66	25	6	2	1 383
Professional development is too expensive or unaffordable	21	32	35	12	1 396
There is a lack of support from my employer (school)	37	45	13	5	1 386
Professional development conflicts with my work schedule	36	44	16	4	1 386
I do not have time because of family or personal responsibilities	33	47	18	3	1 386
There is no relevant professional development offered	13	30	39	19	1 391
There are no incentives for participating in such activities	17	36	34	14	1 386
I am not interested in any professional development	56	38	4	2	1 389

Principals do not perceive many serious barriers to their CPD. The main barriers, in principals' opinion, are: no incentive for participating in such professional development activities (38% agree, 62% disagree), professional development programmes are too expensive or unaffordable (36% agree, 64% disagree) and no relevant CPD is offered (34% agree, 66% disagree). It is likely that principals have more control over the kind of CPD that they can access and are therefore able to better match their own needs.

Conclusions

There are currently inadequate incentive measures in place when it comes to teachers' participation in CPD. The licensing requirement sets a minimum, but it does not reward participation and it does not reward teachers who make use of new competences to give better or extended performance. A better connection between CPD and the career structure of vocational teachers could also help to ensure that CPD feeds into improved contributions. For example, a teacher who has a particular responsibility for mentoring, for subject leadership or for liaison with business could be prepared for that responsibility through CPD.

Main issues and recommendations

Main issues	Recommendations
There are no monetary rewards for participating in CPD, which for many equates to a lack of real incentive.	Advancement through job title needs to be aligned with advancement through pay levels.
For many teachers, the main incentive for CPD is the formal obligation to participate rather than the expectation that CPD will improve their teaching and advance their careers.	Teachers should be encouraged to view CPD as a means of developing their competences so that they can enhance and extend their professional responsibilities and performance.

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

The survey found that most vocational teachers who responded are qualified graduates and 85% have more than 5 years of teaching experience. Around 34% are aged 50 or above; 85% have full-time contracts. However, 20% of them have not benefited from pedagogical training, while 22% had no practical classroom practice as part of their initial training.

In most vocational schools in the survey, external stakeholders and other school staff are represented on the school board. Most principals report that their staff and students participate in management groups within the school; they believe that decision making is shared and that the culture of their schools is collaborative. Principals see themselves as being engaged in all aspects of school governance and interacting directly with all actors and stakeholders. According to school principals, schools are constrained by lack of IT resources, lack of competences to support students with difficulties, and lack of instructional materials. Principals say that they are held back by lack of financial resources, by government regulation and policy, and by the burden of the responsibilities they exercise.

Vocational teachers are pleased to be teachers and say they like teaching; they rate themselves as effective. They do not report experiencing significant problems with respect to student behaviour or motivation. The majority of vocational teachers make regular use of IT to prepare materials, and regularly use modern pedagogical approaches, to some degree.

However, many vocational teachers say they have only limited contact with the workplace and do not organise very much learning that directly connects to the workplace. Consequently, fewer vocational teachers judge themselves effective in relating VET to the workplace and to the needs of employers than in achieving goals internal to their schools. Modern pedagogical approaches, such as group work and differentiation, are only partially adopted and the take-up of digital tools and resources by students is limited.

More generally, teachers believe they are not valued socially. Teachers and principals are dissatisfied with the current state of career-based progression.

CPD policy for teachers is articulated in several documents and is an integral part of the Serbian education policy, which is also confirmed in the strategy for this policy area. There is a clear regulation for the teachers to undertake CPD (100 points in 5 years) in order to retain their licences. Local self-governments allocate finances to the schools for teachers' CPD. Teachers' CPD has its place in school documents, such as the school development plan. Teachers make their own CPD portfolio and should plan their own CPD according to the self-evaluation of their teaching competences.

Despite this legal framework, there have been difficulties with implementation. The gap between the initial university education of most VET teachers and the requirement of a master's degree and 30+6 ECTS in psychological, pedagogical and methodical disciplines remains difficult for new teachers to close. Furthermore, in practice the licence is not revoked if a teacher does not achieve 100 points. More importantly, the licence requirement is a relatively blunt tool for incentivisation.

VET teachers differ in the extent of their connections with workplaces in the areas they teach, but this critical factor is not well served by CPD. VET teachers are not recognised as a category of teachers

with specific CPD needs and this trend is continued in the Strategy 2020+, which focuses mainly on teachers of general education subjects and teachers in primary schools.

Separate regulations for teaching licences for VET teachers are required. The issue of their initial education is addressed with an obligatory master's programme or CPD programme consisting of a package addressing five or six pedagogical, psychological and methodical competences (understanding the processes of learning and motivation, child development, planning, assessment, evaluation, interactive teaching, etc.), which should bring 30+6 ECTS as required by law. Such programmes should be offered in flexible, more accessible and diverse modalities, such as part time, online, or as a tailored programme according to the needs of each particular teacher. CPD connected with workplaces and vocational areas could also be prescribed by setting a minimum number of hours of CPD in the workplace within the 100-hour requirement.

The MoESTD is the main policy-making body, although it consults with the NEC and VET Council. The CPDEE and the VET Centre act as both providers of CPD and regulators of other CPD providers. The VET Centre is the agency with a particular responsibility for CPD for VET teachers, but it is relatively small and it does not provide a large number of specialised CPD programmes. With the new legal amendments, there is less contribution in the form of independent opinions from social and institutional partners in CPD policy making.

Participation in CPD for VET teachers grew between 2015 and 2018. The proportion reporting participation in training out of school rose from 66% to 81%, while the proportion saying they had participated in school-based training rose from 84% to 86%. Only 6% of vocational teachers report that they had not participated in CPD. The share of teachers who say they took part in training in an identified vocational specialism was up from 53% to 64%, and the proportion who report visiting other schools was up from 39% to 44%. However, the proportion reporting participation in CPD in businesses was down from 33% to 26%.

The use of modern forms of CPD appear to be increasing, with 69% of vocational teachers saying they have participated in online and video-based CPD – a remarkable figure. However, more than 50% of teachers report having had at best some participation in collaborative activities and around 25% say they have had no participation in web communities or ICT-based CPD. Only around a third of teachers report participating in CPD involving mentoring, networks or research. Principals are better served: more of them say they participate in professional networks, mentoring or research activities than do teachers.

There is a mix of CPD provision that should help Serbia to provide nationally urgent CPD universally and to encourage the development of high-quality independent provision of specialist CPD. However, uncertainty and constraints in funding discourage universities and businesses from making a commitment to develop provision. The accreditation process operates on a three-year cycle that deters independent providers from responding quickly to new training opportunities.

The research indicates that vocational teachers have training needs with respect to both vocational and pedagogical issues. Although teachers rate the impact of most of the CPD that they undertake relative highly, there is a significant training gap in particular topics.

There is also evidence that the process of matching teachers to the CPD offer is not very efficient: there is not a good match between the priority needs of individual teachers and the training provided.

Different teachers have different training needs, and where training resources and time are scarce, it makes sense to target training well.

Of course, national and school development needs are important, as are individual teacher needs. However, there is scope to improve the needs identification process and the matching process in schools. In some areas there may not be enough relevant training, for example with regard to new technologies in the workplace, updating professional knowledge and skills in relation to current practice in the workplace, approaches to developing cross-occupational competences for future work, ICT, and student career guidance and counselling.

There are currently inadequate incentive measures in place when it comes to teachers' participation in CPD. The licensing requirement sets a minimum, but it does not reward participation and it does not reward teachers who make use of new competences to give better or enhanced performance. A better connection between CPD and the career structure of vocational teachers could also help to ensure that CPD feeds into improved teaching and leadership. For example, a teacher who has a particular responsibility for mentoring, for subject leadership or for liaison with business could be prepared for that responsibility through dedicated CPD.

LIST OF ACRONYMS

CPD	Continuing professional development
CPDEE	Centre for Professional Development of Employees in Education (IIE)
ECTS	European Credit Transfer and Accumulation System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICT	Information and communication technology
IEQE	Institute for Evaluation of Quality in Education
IIE	Institute for the Improvement of Education
ISCED	International Standard Classification of Education
MoESTD	Ministry of Education, Science and Technological Development
NEC	National Education Council
NGO	Non-governmental organisation
OECD	Organisation for Economic Cooperation and Development
VET	Vocational education and training

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Where to find out more

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