



BRIEF ASSESSMENT OF BASIC EDUCATION IN BOSNIA AND HERZEGOVINA —THE FOLLOW-ON

Final Report

December, 2018

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MONITORING AND EVALUATION SUPPORT ACTIVITY (MEASURE-BIH)

BRIEF ASSESSMENT OF BASIC EDUCATION IN BOSNIA AND HERZEGOVINA — THE FOLLOW-ON

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In 2018, the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) commissioned the Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct a brief assessment of government and international community interventions intended to enhance the quality of basic education in BiH since 2016. The main objectives of this assessment are to update the Brief Assessment of Basic Education in Bosnia and Herzegovina conducted in 2016 by identifying potential new developments and challenges in basic education in BiH and providing recommendations for the design and implementation of a possible new USAID/BiH Activity in the basic education field.

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ACRONYMS

APOSO	Agency for Preschool, Primary and Secondary Education
BD	Brcko District
BiH	Bosnia and Herzegovina
CCC	Common Core Curriculum
CPD	Continuing Professional Development
CSOs	Civil Society Organizations
DO	Development Objective
DC	Digital Competences
EC	European Commission
ECTS	European Credit Transfer and Accumulation System
EL	Entrepreneurial Learning
ENABLE-BiH	USAID/BiH's Enhancing and Advancing Basic Learning and Education Activity
EPs	Education Practitioners
ETF	European Training Foundation
EQF	European Qualifications Framework
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
GDP	Gross Domestic Product
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HEA	Agency for Development of Higher Education and Quality Assurance
IP	Implementing Partner
IT/ICT	Information (and Communication) Technology
JEI	Judicial Effectiveness Index
JICA	Japanese International Cooperation Agency
KI	Key Informant
KIIs	Key Informant Interviews
KKA	KulturKontakt Austria
LC	Linguistic and Communication Area
LLL	Lifelong Learning
MEASURE	USAID/BiH's Monitoring and Evaluation Support Activity
MEL	Monitoring, evaluation and learning
MoCA	Ministry of Civil Affairs
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
NSCP	National Survey of Citizens' Perceptions
NYS	National Youth Survey
OECD	Organization for Economic Co-operation and Development
QF	Qualifications Framework
OS	Standards of Occupations
OSCE	Organization for Security and Cooperation in Europe
PH	Physical and Health Area
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PPDM	Pedagogy, Psychology, Didactics and Methods
QA	Quality Assurance
QF LLL	Qualifications Framework for Lifelong Learning
QS	Standards of Qualification
RS	Republic of Srpska

SC	Social and Civic Area
SDG	Sustainable Development Goals
SoW	Statement of Work
STEM	Science, Technology, Engineering, Mathematics
TIMSS	Trends in International Mathematics and Science Study
TO	Task Order
ToT	Training of Trainers
TVET	Technical and Vocational Education and Training
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNSA	University of Sarajevo
USAID	United States Agency for International Development
USG	United States Government
VET	Vocational Education and Training

EXECUTIVE SUMMARY

PURPOSE AND ASSESSMENT QUESTIONS

In 2016, the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) commissioned the Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct a brief assessment of government and international community interventions intended to enhance the quality of basic education in BiH. The *Brief Assessment of Basic Education in BiH: Follow-on* explores the current interventions and reforms in basic education that USAID/BiH could build on in a potential new intervention. The study assessed differences in reform approaches and implementation across BiH and innovative practices in teaching.

ASSESSMENT METHODS

The assessment team used a mixed-method approach to data collection. Data collection methods included a desk review of documents and existing data, semi-structured key informant interviews (KIs), and a mini-survey of education practitioners (EPs). In addition, the team used available survey and statistical data.

The assessment team conducted 44 KIs with 71 interviewees, collected data from about 3,000 respondents to the National Survey of Citizens' Perceptions¹ (NSCP-BiH) and from 3,000 respondents to the National Youth Survey² (NYS-BiH). An online mini-survey of EPs was conducted in November and December 2018 with 492 respondents. The survey link was distributed to schools either by education ministries or by the assessment team upon the ministries' approval. Participation was anonymous and voluntary. In addition, the assessment team used statistical data published by the BiH Agency for Statistics.

BRIEF ASSESSMENT OF BASIC EDUCATION IN BiH: FOLLOW-ON

USAID broadly defines basic education activities as “all program efforts aimed at improving primary education, secondary education, literacy training for adults or out-of-school adolescents, early childhood development, or training for teachers at any of these levels.”³ In this report, basic education refers to preschool, primary, and secondary education. The assessment team explored four broad areas of basic education in BiH:

- Quality of basic education;
- Pre-service and in-service teacher training;

¹ NSCP-BiH is an annual survey conducted by MEASURE-BiH since 2015. The main purpose of the survey is to collect data for the calculation of USAID/BiH's project-level indicators and the Judicial Effectiveness Index (JEI), but also to serve scholars or other interested parties in their research and analyses. The survey is conducted on a random probability sample of about 3,000 BiH citizens. More information and reports are available at: <http://measurebih.com/national-survey-of-citizens-perceptions>

² The National Youth Survey in BiH is a survey conducted by MEASURE-BiH with 3,002 randomly selected persons from 15 to 30 years of age.

³ <https://www.usaid.gov/sites/default/files/documents/1865/200mad.pdf>

- Education system reforms, including standardization, policy reforms, improved information and data systems, and monitoring and evaluation; and
- Issues surrounding education financing and the upcoming reduction of schools.

Quality of Basic Education

To date, evidence-based data about the quality of basic education in BiH has been limited. However, in 2018, BiH participated in the Program for International Student Achievement (PISA) for the first time and is preparing for the Trends in International Mathematics and Science Study (TIMSS) in 2019 and the Progress in International Reading Literacy Study (PIRLS) in 2021. These international assessments of student achievement will provide more detailed data about the quality of education in BiH.

In the 2018 round of NSCP-BiH, about 40 percent of BiH citizens said they are not satisfied with preschool education. Participation in and access to preschool education remain major concerns. Moreover, based on KIs preschool programs are not based on learning outcomes, and compulsory preschool programs have been implemented differently across BiH. The major advance since 2016 has been the development of the Common Core of the Integral Developmental Programs for Preschool Education Defined on Learning Outcomes by the Agency for Preschool, Primary, and Secondary Education (APOS0) with the support of Save the Children. In addition, the Platform for the Development of Preschool Education in BiH 2017-2022 was adopted by the Council of Ministers in late 2017.

Based on the KIs and the perceptions data, it became clear that primary and general secondary education needed improvement in the areas of skills development, practice, and instructional curricula. Since 2016, APOS0 has developed CCC based on learning outcomes for all curricular areas. Implementation of CCC based on learning outcomes has begun for four curricular areas through several donor-driven pilot projects. The US Embassy, the Organization for Security and Co-operation in Europe Mission to BiH (OSCE Mission to BiH), and Save the Children plan to support curricular revisions and their harmonization with CCC based on learning outcomes for all curricular areas.

According to key informants (KIs), the quality of vocational education and training (VET) has somewhat improved due to high donor interest in interventions focused on increasing employability. However, interviewees stated that donor interventions were of insufficient scope to improve VET in all parts of BiH. Hence, the interviewees believe that VET is largely outdated, content-based, and insufficiently connected to the labor market and employers. The Ministry of Civil Affairs (MoCA) has initiated the development of a new State-level VET strategy to replace the previous strategy, which expired in 2013.

According to KIs, there is a large gap in the education of gifted children in BiH. However, the Ministry of Education of Republika Srpska (RS) recognized the importance of these programs in its new Law on Primary Education and Upbringing. Also, APOS0 plans to develop guidelines for inclusive education that will cover both children with developmental difficulties and gifted children.

Pre-service and In-service Teacher Training

No reforms of pre-service teaching programs have been carried out in the past decade. The survey of EPs suggests that EPs are insufficiently aware of the shortcomings in pre-service teacher education and that donors have not been focused on this area. Also, the BiH Agency for Development of Higher Education and Quality Assurance (HEA) has not yet developed its regulatory framework for the accreditation of study programs. Consequently, the primary problems in pre-service teacher training are outdated, content-based curricula and insufficient hours dedicated to pedagogy, psychology, didactics, and teaching methods (PPDM) and practice, leaving young teachers unprepared for work. Since 2016, the University of Sarajevo has initiated curricular reform and will require 60 European Credit Transfer and Accumulation System (ECTS) points of PPDM in teaching faculties beginning in the next academic year. Moreover, occupational and qualifications standards for teaching preschool, primary, and secondary school were developed based on learning outcomes and harmonized with the European Qualifications Framework (but not implemented).

There is no systematic approach to teachers' professional development in BiH, and there are no quality assurance (QA) or accreditation mechanisms for in-service teacher training. Professional development programs organized by the ministries and/or pedagogical institutes are not continuous or tailored to meet individual teachers' needs. Almost all donor interventions in basic education include their own teacher training for the interventions they are implementing. The European Training Foundation (ETF) has developed a policy document aimed at improving teachers' professional development, but only for VET teachers.

Education System Reforms

Education system reforms are being implemented differently across BiH. Some administrative units have not yet adopted laws harmonized with the framework laws, and some State-level strategies are outdated. The implementation of the Qualifications Framework (QF) has been initiated, but mainly through project-based activities. The Platform for the Development of Preschool Education in BiH 2017-2022 was adopted by the Council of Ministers, and RS adopted the Education Strategy 2016-2021. Also, Sarajevo Canton initiated a comprehensive education reform, and West Herzegovina developed two action plans aimed at improving the quality of education.

Information and communications technology (ICT) infrastructure differs from school to school, between and within cantons. A low level of information and communication technology (ICT) competencies among teachers and other school staff hinder progress when it comes to informationalization of the school system. There is no unique or harmonized data system collecting data on education. At present, MoCA, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the BiH Agency for Statistics are working on the development of indicators for reporting on Sustainable Development Goal (SDG) 4 and the Incheon Declaration on Education 2030.

Finally, according to KIs, there is limited awareness about the importance and usefulness of monitoring, evaluation, and learning (MEL) and evidence-based decision-making among basic education stakeholders, as well as a general lack of capacity to conduct MEL. The assessment team did not find any improvements with regard to data system harmonization or MEL.

Basic Education Financing and Upcoming Reduction of Schools

Education financing in BiH is decentralized and fragmented, meaning that regulations differ between administrative units. Most budget funds in education are spent on salaries while investments in quality improvements are low. Moreover, budgets for salaries and fees are planned according to the number of classes and teachers instead of the number of students.

The number of students in preschool institutions has been slowly increasing since 2004. However, the number of students in primary and secondary schools has significantly decreased, especially in a few cantons close to the border with Croatia/European Union (EU). Education authorities are coping with this situation by combining classes, supporting the requalification of teachers, and making changes to pedagogical standards. In 2018, the World Bank and the European Commission (EC) initiated an in-depth analysis of education financing in BiH.

RECOMMENDATIONS

1. Consider supporting the comprehensive reform of teaching faculties corresponding to the reforms and modernization in basic education. The reform should be focused on the development of new study programs based on learning outcomes and key competencies.
2. Consider developing a systematic approach to continuous professional development for teachers.
3. Consider contributing to curricular reform based on CCC and learning outcomes by continuing the provision of support to implement a science, technology, engineering and mathematics (STEM) curriculum throughout BiH.

OTHER AREAS FOR IMPROVEMENT

Quality of Basic Education

- Raise awareness about the importance of quality assessments in basic education and their relationship to quality improvements.
- Support implementation of CCC based on learning outcomes for preschool education and the harmonization and standardization of compulsory preschool education.

- Support implementation of curricular reform based on CCC, learning outcomes, and key competencies for each of eight curricular areas, and supporting systematic development of transversal competencies.
- Support improvements in vocational education and training to include modern curricula, the development of learning outcomes, and an increase in hours of practice and work-based learning.
- Develop and implement gifted children programs in BiH.

Education System Reforms

- Establish and introduce external “matura.”
- Support ministries of education to pass laws harmonized with the framework laws. Support MoCA in the development of a new comprehensive education strategy.
- Develop a harmonized database system for the education sector at all administrative levels.
- Raise awareness about MEL and build it into government planning.

Basic Education Financing and Upcoming Reduction of Schools

- Develop a new financial model in basic education that would allow for budget savings.

BRIEF ASSESSMENT OF BASIC EDUCATION IN BOSNIA AND HERZEGOVINA

BRIEF ASSESSMENT PURPOSE, QUESTIONS, AND DESIGN

In 2016, the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) commissioned the Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct a brief assessment of government and international community interventions that were intended to enhance the quality of basic education in BiH. The main objectives of this assessment were to identify new developments and challenges in basic education in BiH since 2016, and provide recommendations for the design and implementation of a potential new USAID/BiH's Activity to improve basic education in the country.

USAID broadly defines basic education activities as “all program efforts aimed at improving primary education, secondary education, literacy training for adults or out-of-school adolescents, early childhood development, or training for teachers at any of these levels.”⁴ In this assessment, basic education refers to preschool, primary, and secondary education.

The assessment addressed the following questions and sub-questions:

Assessment Question 1: What have recent and on-going intervention and reform processes led by local and international actors accomplished that could serve as a basis for a USAID/BiH intervention?

Sub-question 1. How do efforts and advancements in education differ by canton and/or municipality? If USAID took a phased approach to education programming, which regions would be the best in which to begin programming?

Sub-question 2. Are there any excellent innovation practices in teaching that are being pursued by different players (individual schools, cantons, entities), institutional and others, and is there any way to build on those synergies?

Assessment Question 2. What is the most important challenge(s) and/or opportunity(ies) that could be the subject of a possible USAID/BiH \$7 million basic education intervention in 2020–2024, based on gaps identified from situational analyses and upcoming developments (PISA/lack of students–school reduction)?

Within the assessment, the team explored four broad areas of basic education:

- The quality of basic education;
- Pre-service and in-service teacher training;
- Education system reforms including standardization, policy reforms, improved information and data systems, and monitoring and evaluation; and
- Issues surrounding education financing and the upcoming reduction of schools.

⁴ <https://www.usaid.gov/sites/default/files/documents/1865/200mad.pdf>

The assessment team used a mixed-methods approach in the data collection and triangulation methods in the data analysis. The team used the following data sources for the assessment.

- **Desk review of relevant documentation and data.** The assessment team reviewed official documents on basic education including strategies, laws, standards, donor reports, and relevant research papers.
- **Key informant interviews.** The assessment team conducted semi-structured key informant interviews (KIIs) with local and international stakeholders in the education sector. KIIs were conducted with seven categories of stakeholders, as shown in Exhibit I. The assessment team held 44 interviews and spoke to 71 interviewees. Key informants (KIs) were selected from the 2016 Assessment list, which was expanded based on new findings about the stakeholders involved in basic education. These interviews were guided by the interview protocol included in Annex II. The full list of KIs is available in Annex III.

Exhibit I. Number of Interviews and Interviewees

	Number of Interviews	Number of Interviewees
USAID	1	4
USAID/BiH Implementing Partners	2	3
International Organizations/ Embassies	14	19
Government Institutions	12	20
Pedagogical Institutes	5	12
Local Non-government Organizations	5	8
Experts	5	5
TOTAL	44	71

- **Quantitative data from secondary and primary sources.** The assessment team used data from the following sources:
 - National Survey of Citizens' Perceptions in BiH (NSCP-BiH) 2015-2018
 - National Youth Survey in BiH (NYS-BiH) 2018
 - Online survey of education practitioners (EPs)

The assessment team used relevant NSCP-BiH data collected from 2015 to 2018. The information gathered included satisfaction with preschool, primary, and secondary education; development of learning outcomes in the BiH education system; teachers' characteristics; and the characteristics of subjects and teaching units. NSCP-BiH is an annual survey that has been conducted by MEASURE-BiH since 2015. The main purpose of the survey is to collect data

for the calculation of USAID/BiH's project-level indicators and the Judicial Effectiveness Index (JEI), and to provide scholars and other interested parties with data for their research and analyses. The survey is conducted using a random probability sample of about 3,000 BiH citizens.

Whenever relevant, the assessment team also used data collected through the NYS-BiH 2018 survey. NYS-BiH is a survey conducted by MEASURE-BiH in January and February 2018 with 3,002 randomly selected persons from 15 to 30 years of age. The NYS-BiH data used for this assessment include information on the development of learning outcomes in BiH's education system, teachers' characteristics, and the characteristics of subjects and teaching units. NYS-BiH data on these topics were obtained by asking questions identical to those in NSCP-BiH, but only of the youth who were still primary or secondary school students at the time of data collection (n=691).

For the purpose of this assessment, MEASURE-BiH also conducted an online mini-survey of education practitioners (EPs) to explore their views on the current status of basic education. The survey was conducted using the Survey Monkey platform. The survey link was distributed to preschool institutions and primary and secondary schools by education authorities and, in a few cantons, by the assessment team (upon approval of the education authorities). Participation in the survey was voluntary and anonymous. The online survey covered the four main domains explored by the assessment from the EPs' perspective. For more information about the data collection instrument, see Annex II. Overall, the online survey included 472 respondents from eight administrative units. Exhibit 2 presents the distribution of EPs by category. For more information about the online survey results, see Annex IV.

Exhibit 2. Distribution of Respondents in the Mini-survey of Education Practitioners by Respondent Category

Respondents in Mini-survey of Education Practitioners	
School Management	12%
Administrative Worker	2%
Social Worker	1%
Psychologist	15%
Highschool Teacher	28%
Primary School, Subject Teacher	23%
Primary School, General Education	14%
Preschool Teacher	2%
Other	3%

- **Official statistics on education.** MEASURE-BiH used the available statistical data on education published by the BiH Agency for Statistics.⁵ These data include information about the number of students, teachers, and education institutions; and information and communication technology (ICT) equipment in preschool, primary, and secondary schools.

KEY CHANGES IN BASIC EDUCATION SINCE 2016

As noted in the 2016 Assessment, education in Bosnia and Herzegovina reflects a fragmented and complex state structure. Republika Srpska, the 10 Federation of BiH (FBiH) cantons, and Brcko District each have full jurisdiction in the education sector. Attempts to coordinate and reform basic education have been impeded by these complexities.

Since 2016, some steps have been taken to establish the preconditions for quality improvements and for the development of a strategic framework in basic education. On the other hand, almost no progress has been made with regard to pre-service or in-service teacher training, or education financing.

A major achievement has been the completion of the Common Core Curriculum (CCC) based on learning outcomes for all curricular areas, including learning outcomes for preschool education. According to key informants, the implementation of CCC has begun for four curricular areas through donor interventions (pilot projects). In the future, the US Embassy, the OSCE Mission to BiH, and Save the Children plan to support curricular revisions and their harmonization with CCC for all curricular areas. In addition, in 2018, BiH participated in the Program for International Student Assessment (PISA) and initiated preparations for the Trends in International Mathematics and Science Study (TIMSS) 2019 and the Progress in International Reading Literacy Study (PIRLS) 2021.

No systematic reforms of pre-service teaching programs have been conducted since 2016. According to KIs, only the University of Sarajevo initiated curricular reform and will require 60 European Credit Transfer and Accumulation System (ECTS) points of pedagogy, psychology, didactics, and methods (PPDM) in teaching faculties starting next year. In addition, there were no major advancements in establishing a systematic approach to professional development for teachers. However, almost all donor interventions in basic education include teacher training components. Between 2015 and 2018, the European Training Foundation developed a policy document aimed at improving teachers' professional development for vocational education and training (VET) teachers.

With regard to the improvement of a strategic and legal framework for basic education, although some administrative units passed laws that are harmonized with the framework laws,⁶ there are still some that have not done so. Since 2016, MoCA has developed and

⁵ http://www.bhas.ba/index.php?option=com_publicacija&view=publicacija_pregled&ids=1&id=21&n=Education

⁶ Basic education in BiH is regulated through three framework laws developed by the Ministry of Civil Affairs: the Framework Law on Preschool Education and Upbringing (2007), the Framework Law on Primary and Secondary Education (2003), and the Framework Law on Vocational Education and Training (2008). All education

adopted three State-level strategies (Platform for the Development of Preschool Education in Bosnia and Herzegovina for the period 2017-2022; Action Plan for Development and Implementation of the Qualifications Framework in Bosnia and Herzegovina for the period 2016-2020; and Priorities for Development of Higher Education in Bosnia and Herzegovina for the period 2016-2026). MoCA is currently developing strategies on VET, entrepreneurial learning, and youth. Also, in 2016, RS adopted Education Strategy 2016-2021; Canton Sarajevo initiated a comprehensive educational reform; and West Herzegovina developed two action plans aimed at improving the quality of education.

There were no major improvements in information and data systems in education, nor in the monitoring and evaluation activities of educational initiatives. Similarly, no major changes have been made in education financing since 2016. The number of students has decreased due to emigration and negative population growth, and investments in improving the quality of education within schools are very low. Nevertheless, very little has been done to reform the financing system. An ongoing analysis conducted by the World Bank and the European Commission focusing on education financing in BiH may be a stepping stone toward new financial models and a higher level of investment in the quality of education.

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

ASSESSMENT QUESTION I

What have recent and on-going interventions and reform processes led by local and international actors accomplished that could serve as a basis USAID/BiH's intervention?

QUALITY OF BASIC EDUCATION

In fact, we do not know anything about the quality of our education. No research that can clearly, metrically indicate the quality of our education has been conducted in Bosnia and Herzegovina. Hence, we must wait for the PISA results to find out, not only how we are ranked on the list, but how many children are achieving below the minimum. That will be our first objective indicator.

—Expert, KII

According to a recent Organization for Economic Co-operation and Development (OECD) review of evaluation and assessment frameworks for improving school outcomes,⁷ countries should conduct student assessments, teacher evaluations, schools evaluations, and system

ministries (RS, cantonal, and BD) are obliged to harmonize or replace existing laws in accordance with the framework laws.

⁷ OECD, Evaluation and Assessment Frameworks for Improving School Outcomes: Common Policy Challenges. <https://www.oecd.org/education/school/46927511.pdf>

evaluations to measure whether schools are delivering good performance and to provide feedback that can be used to improve students' learning outcomes. BiH has performed poorly with respect to conducting such assessments and evaluations. For example, BiH does not have an established system for conducting national-level external examinations.⁸ As a result, the country lacks valid data about the quality of education.

In the last 20 years, Bosnia and Herzegovina participated in two international assessments of student achievement: TIMSS 2007⁹ and PISA 2018. TIMSS 2007 showed that BiH students scored below average in mathematics and sciences.^{10,11} More precisely, it revealed that only 10 percent of tested students were able to apply their mathematical skills to solve concrete problems, and only 14 percent were able to do the same in science. TIMSS 2007 produced the only valid data on the quality of basic education in Bosnia and Herzegovina. Since it was conducted only with fourth grade students, there are no data on the overall quality of primary education. Although the results and the secondary analyses^{12,13} of the TIMSS 2007 data implied that basic education in BiH needed urgent reforms in order to improve learning outcomes, the findings did not result in significant changes in the education system.

In 2018, BiH participated in PISA for the first time (see Box I for more details about PISA). PISA was organized by the BiH Agency for Preschool, Primary and Secondary Education (APOSO) and funded by the European Commission. The PISA results will be available in December 2019 and provide more information about the quality of education in BiH. According to KIs, the UNICEF, US Embassy, OSCE Mission to BiH, the Open Society Fund, and Save the Children are currently supporting APOSO in development of a comprehensive communication strategy for PISA to inform relevant stakeholders and the general public about the program and how the results can and should be used to shape future education reform. These organizations have also ensured funding for the in-depth secondary analysis of the PISA 2018 results, which will inform potential future reforms since the results are usually published as country rankings only. At present, the BiH education authorities are preparing to participate in TIMSS 2019 and in the Progress in International Reading Literacy Study (PIRLS) 2021.¹⁴ These assessments will also contribute to the knowledge about the quality of primary

⁸ Between 2014 and 2017, the European Union (EU) attempted to establish a national-level external examination system—external “matura”—through the development of a Qualifications Framework for General Education. The attempt to establish the examination center failed due to lack of political will. However, some administrative levels are implementing their own “external” exams after primary or secondary school, but they are of questionable quality and not comparable.

⁹ TIMSS is an international assessment in mathematics and science. Applying a quasi-longitudinal design, TIMSS is conducted once every four years at the fourth and eighth grade level, and the fourth-graders are assessed again in the eighth grade. In the assessment, teachers and school principals are also asked to complete questionnaires and provide information about school and classroom contexts where the learning occurs.

¹⁰ <http://www.cpu.org.ba/media/7811/Prednosti-uvo%C4%91enja-redovnog-Me%C4%91unarodnog-testiranja-trendova-u-matematici-i-prirodnim-naukama-TIMSS-u-bosanskohercegova%C4%8Dki-obrazovni-sistem.pdf>

¹¹ Average refers to the average results of all participating countries.

¹² https://cdn2.fpfis.tech.ec.europa.eu/epale/cdn/farfuture/jwtqlZD3lABt9t6tvz3Ulc-i4u3podHfCSHNei8Z2Oo/mtime:1435051356/sites/epale/files/sekundarna_analiza_timss_2007.pdf

¹³ <https://aposo.gov.ba/sadrzaj/uploads/Benchmarking%20CRO.pdf>

¹⁴ PIRLS has been conducted every five years since 2001 and captures reading achievement among fourth grade students. The test was developed by the International Association for the Evaluation of Educational

education in BiH. However, the quality of preschool and secondary education will remain unknown.

Box 1. About PISA

According to the OECD,¹⁵ PISA is an international assessment of student achievement that has been conducted by the OECD every three years since 2000. It was designed by education experts from around the world and examines whether students can apply their knowledge in concrete situations. PISA measures student achievement in science, reading, and mathematics, as well as collaborative problem solving. The assessment also examines students' innovativeness. PISA is implemented on a randomly selected sample of 15-year-old students. The test requires that students interpret texts, solve mathematical problems, and explain natural phenomena. Questionnaires are distributed to students, parents, principals, and teachers to obtain information about students' home situation, their learning styles, and learning environments. In each round of PISA, one core domain is tested in detail; hence, a detailed analysis for each core domain is presented once in nine years. PISA provides a baseline profile of students' knowledge and skills; information explaining how such skills vary depending on demographic, socio-economic, and educational variables; and information on changes in outcomes and on the relationships between student-level, school-level, and system-level variables and outcomes.

In many cases, PISA results motivated countries' education reforms. For example, in 2000, Germany scored low in student reading proficiency, and the results showed a large gap between rich and poor. This motivated policy makers to initiate reforms. The government introduced binding education standards and created assessments to measure students' progress against those standards. In addition, teachers were encouraged to invest more in their professional development. Consequently, Germany moved from a below average ranking to an above average ranking in 2015.

The image below illustrates an example of PISA questions.

Bird Migration

Question 1 / 3

Refer to "Bird Migration" on the right. Click on a choice to answer the question.

Most migratory birds gather in one area and then migrate in large groups rather than individually. This behaviour is a result of evolution. Which of the following is the best scientific explanation for the evolution of this behaviour in most migratory birds?

- ☐ Birds that migrated individually or in small groups were less likely to survive and have offspring.
- ☐ Birds that migrated individually or in small groups were more likely to find adequate food.
- ☐ Flying in large groups allowed other bird species to join the migration.
- ☐ Flying in large groups allowed each bird to have a better chance of finding a nesting site.

BIRD MIGRATION

Bird migration is a seasonal large-scale movement of birds to and from their breeding grounds. Every year volunteers count migrating birds at specific locations. Scientists capture some of the birds and tag their legs with a combination of coloured rings and flags. The scientists use sightings of tagged birds together with volunteers' counts to determine the migratory routes of birds.



Many KIs (26) assessed the quality of basic education as low. Both KIs and EPs identified poor infrastructure and equipment as the primary challenges that schools and teachers are facing

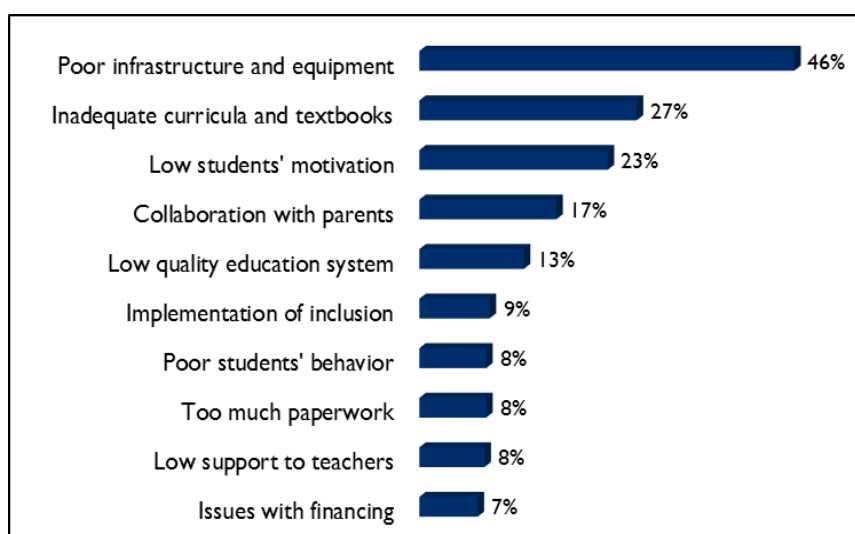
Achievement (IEA). Besides the questions assessing reading skills, it also collects data about participating country, school, and classroom learning environments.

¹⁵ <http://www.oecd.org/pisa/>

in their work. About one-quarter of the EPs surveyed mentioned as challenges inadequate curricula and textbooks and low student motivation to learn. Exhibit 3 ranks the challenges identified by the EPs.

Exhibit 3. Primary Challenges Facing EPs' Work

From your perspective, what are the primary challenges you are facing in your practice?



Source: MEASURE-BiH, *Mini-survey of Education Practitioners 2018*

Quality of Preschool Education

This section focuses on preschool education, particularly on access to and participation in preschool programs and their quality. Based on information in the Platform for the Development of Preschool Education in Bosnia and Herzegovina for the period 2017-2022,¹⁶ about 14 percent of the preschool-aged population is enrolled in preschool institutions, which is an increase compared to the 9 percent recorded in the 2016 Assessment. According to the Platform, participation in preschool programs varies depending on a family's financial situation, place of residence (urban/rural), majority/minority status, and the child's health status. Some areas in BiH have no preschool institutions, while institutions in other areas have insufficient capacity (e.g., long waiting lists). However, according to one KI, participation in preschool education in the year before primary school has increased from 31 percent of all 5- and 6-year-olds in 2011-2012 to 54 percent in 2017. This is owing not only to the fact that some education authorities passed and started implementing the Law on Preschool Education, but also to the engagement of donors.

No scientifically based information is available about the quality of preschool programs; however, preschool programs are not based on learning outcomes. In November 2018, APOSO and Save the Children, in cooperation with responsible education authorities, completed the Common Core of the Integral Developmental Programs for Preschool

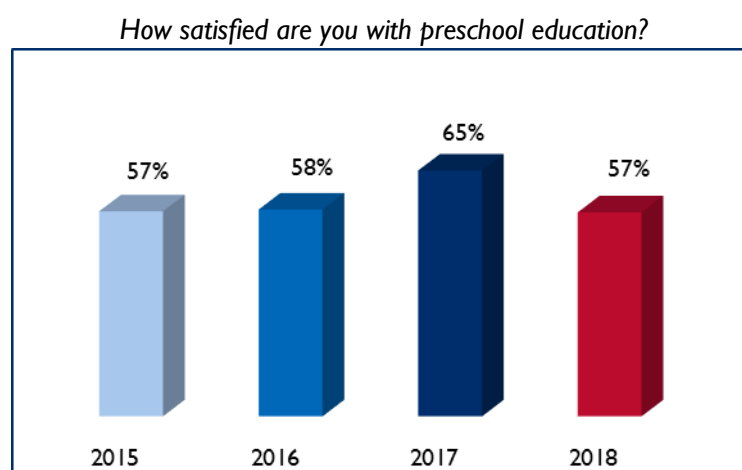
¹⁶ http://www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/dokumenti/strateski_doc/?id=9035

Education Defined on Learning Outcomes, which is yet to be implemented. According to some KIs, there is limited awareness about the importance of early childhood education among parents and education stakeholders, implying that preschool education is often regarded as child care rather than as an opportunity for education and development.

Compulsory preschool programs have either not been implemented or only partially implemented in Una-Sana, Herzegovina-Neretva, and West Herzegovina, according to KIs. In other administrative units, their duration varies from 150 (e.g., Brcko) to 300 hours a year (e.g., Canton 10). Moreover, in some parts of the country compulsory preschool programs are implemented over the whole year while in others they operate only for about three months. In some administrative units, such programs are implemented in schools. However, there is no evidence on the usefulness or effectiveness of any of these modalities. In countries such as Finland, which is often regarded as a good example of high-quality basic education, the duration of compulsory preschool education is 700 hours throughout the year, or about four hours per day.¹⁷

According to the NSCP-BiH 2018 results, about half of BiH citizens feel satisfied with preschool education (see Exhibit 4). The reported satisfaction level was the same as in 2015 but lower than in 2017, although the difference in magnitude is small.

Exhibit 4. Percentage of Citizens Satisfied with Preschool Education



Source: MEASURE-BiH, *National Survey of Citizens Perceptions 2015-2018*

MEASURE-BiH conducted a mini-survey of education practitioners for the purposes of this assessment. Although only about 10 preschool teachers participated, they identified the main problems in their practice as implementation of the inclusion of children with developmental difficulties in regular programs, large classes, and poor infrastructure and equipment.

UNICEF collaborated with MoCA and responsible education authorities in developing the new strategic document Platform for the Development of Preschool Education in Bosnia and

¹⁷ https://eacea.ec.europa.eu/national-policies/eurydice/content/organisation-pre-primary-education-l_tr

Herzegovina for the period 2017-2022, which is harmonized with current EU and UN trends and standards in this area. The Platform was adopted by the Council of Ministers in late 2017.

UNICEF is currently focused on advocacy initiatives among education stakeholders, including ministers of education and foreign embassies in BiH. It is organizing advocacy and dissemination events to emphasize the importance of early childhood education from the perspective of neuroscience and returns to investment in preschool education.

As mentioned before, Save the Children has been working with APOSO and the responsible education authorities on development of the Common Core of the Integral Developmental Programs for Preschool Education Defined on Learning Outcomes. Currently, the organization is looking for donor funds to begin implementation of the CCC, primarily through teacher trainings.

Caritas Switzerland is working on increasing access to preschool education for all children by financing work of additional groups in preschool institutions in Canton Sarajevo and Zenica-Doboj Canton. One of its goals is to promote preschool education as an important and integral part of the child's development and to assist in the inclusion of children from vulnerable groups in preschool programs.

Although World Vision is currently not engaged in preschool education, the organization plans to expand its interventions to the early childhood development area in the future.

The interventions described above have created preconditions for the improvement of preschool education in BiH. However, the results in terms of quality improvements will depend heavily on the quality of implementation.

Quality of Primary and General Secondary Education

This chapter explores issues relevant for the quality of primary and general secondary education, primarily in terms of curricula and learning outcomes.

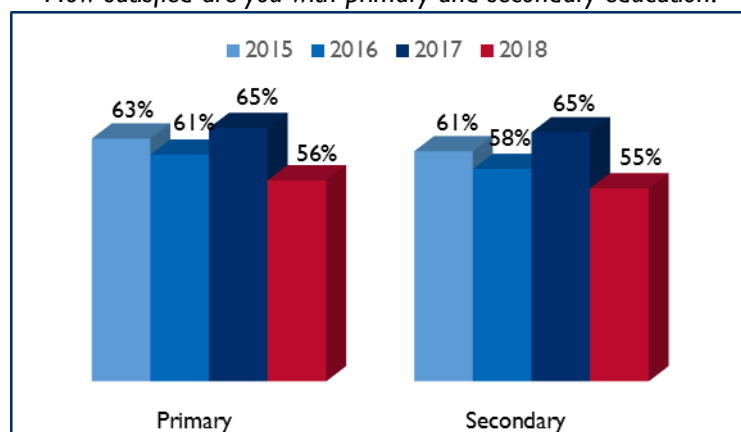
According to KIs, curricula in primary and general secondary education are still content-based, outdated, and overloaded. Moreover, schools have lost their role in the upbringing of children and are not teaching key competencies or universal values.

These findings are partially confirmed by survey data. According to the general population's perceptions recorded through NSCP-BiH 2018 (see Exhibit 5), a little more than half of BiH citizens expressed satisfaction with primary and secondary education while a large proportion said they were dissatisfied. Satisfaction levels are the lowest recorded by the survey since 2015. NSCP-BiH 2018 respondents ranked education as the fourth priority for BiH authorities to focus on (after economic affairs, health, and public order and safety), and only 3 percent of NYS-BiH 2018 respondents considered education their primary issue.

Exhibit 6 compares the attitudes about education outcomes between the general population (recorded through NSCP-BiH 2018) and youth still in basic education (obtained through NYS-BiH 2018). The chart shows that only about one-third of respondents believe students are fully, or to a large extent, taught to solve problems rather than to memorize the facts (statement presented in NSCP-BiH 2018 only) and that the BiH education system develops sufficient and structured writing and critical thinking skills. Attitudes expressed by youth were slightly more positive compared to the views of the general population.

Exhibit 5. Percentage of BiH Citizens Satisfied with Primary and Secondary Education

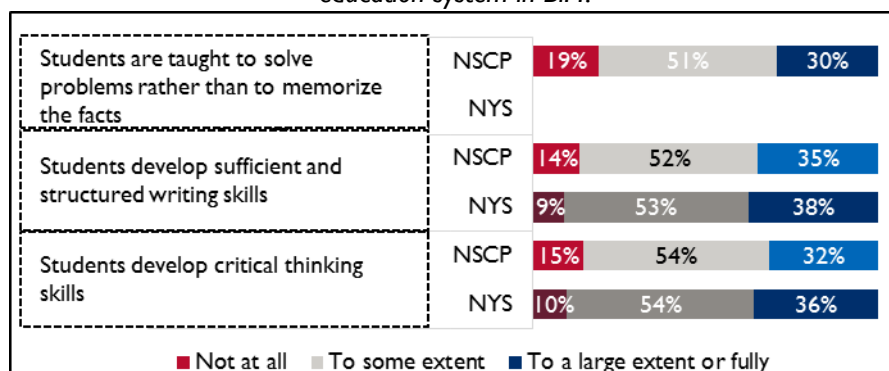
How satisfied are you with primary and secondary education?



Source: MEASURE-BiH, *National Survey of Citizens Perceptions 2015-2018*

Exhibit 6. Citizen and Youth Assessments of the BiH Education System Regarding Students' Skills Development

To what extent can you say that the following statements apply to the overall education system in BiH?



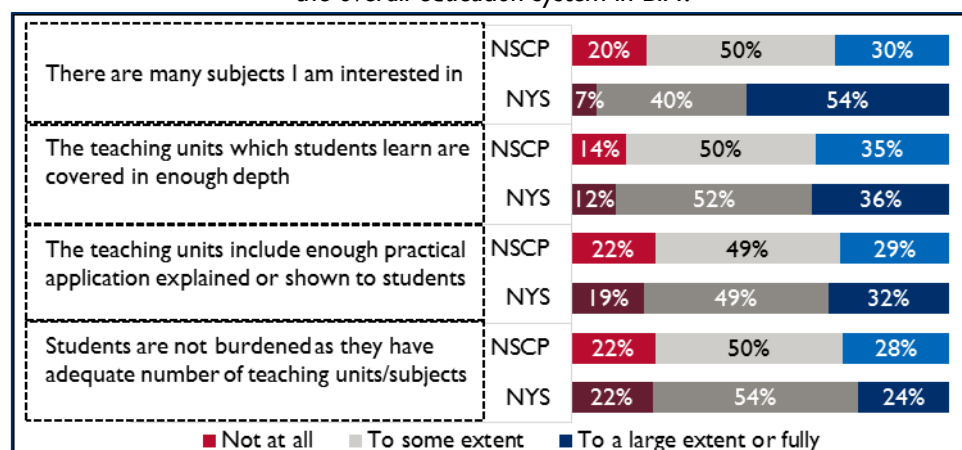
Sources: MEASURE-BiH, *National Survey of Citizens Perceptions 2015-2018* and *National Youth Survey 2018*

In addition, the general population and youth shared their views on school subjects and teaching units (see Exhibit 7). About half of the youth surveyed said there are many subjects of interest to students as compared to a considerably smaller share of the general population (30 percent). About one-third of both youth and the general population claimed that teaching units are covered in enough depth and include sufficient practice. Most youth and the general population said students are somewhat burdened with too many teaching units.

However, about 70 percent of the EPs who participated in MEASURE-BiH's online survey reported that the quality of education is high or very high, with primary school teachers sharing more positive views (76 percent) as compared to teachers in secondary schools (63 percent).

Exhibit 7. Citizen and Youth Assessments of the Quality of School Subjects and Teaching Units

To what extent can you say that the following statements apply to the overall education system in BiH?



Sources: MEASURE-BiH, *National Survey of Citizens Perceptions 2015-2018* and *National Youth Survey 2018*

About 55 percent of EPs responded that students in their schools acquire the skills and competencies they teach (82 percent), but only 37 percent say they are teaching students universal values, interpersonal skills, civic competencies, critical thinking skills, key competencies, and life skills (see Annex IV for more details).

As shown in Exhibit 8, poor school infrastructure and equipment, inadequate curricula and textbooks, and low student motivation represent the major problems primary and secondary school teachers face in their practice.

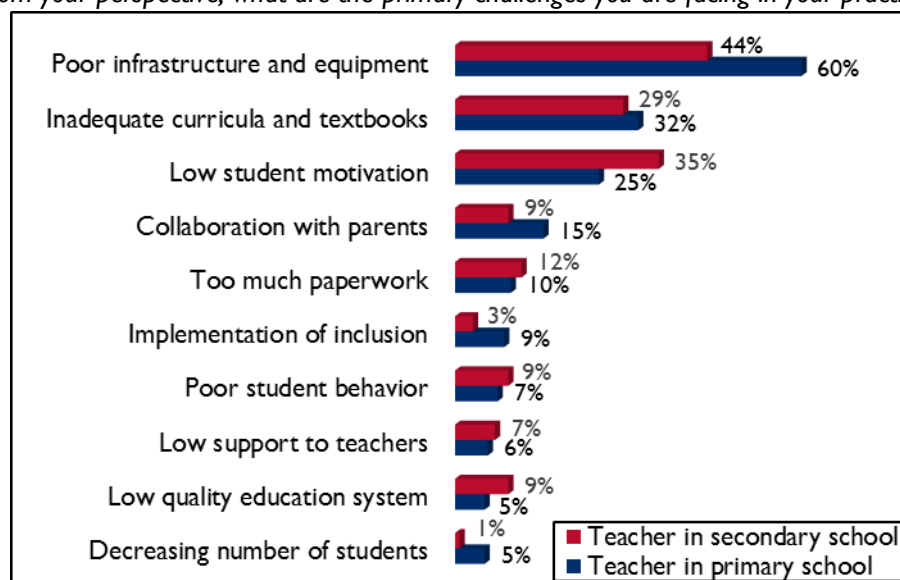
In March 2018, APOSO completed the CCC based on learning outcomes for all education areas by completing the CCC for the physical and health area. The US Embassy and the OSCE Mission to BiH are supporting curricular reform in primary and general secondary education by working on the development of framework curricula for each subject area, which will be available for governments in all administrative units to use in revising their curricula. So far, they have developed the CCC based on learning outcomes for social and civic competencies and piloted it in West Herzegovina Canton. Moreover, the OSCE Mission to BiH is supporting a comprehensive education reform in Canton Sarajevo.

Save the Children plans to join the US Embassy and the OSCE Mission to BiH in supporting responsible education authorities in the harmonization of curricula with CCC based on learning outcomes for all areas. The organization has already been working on CCC implementation for the linguistic and communication area in the native language. The intervention was piloted in Zenica-Doboj Canton at the preschool and primary school levels

and expanded to several other areas between 2016 and 2018 (Canton Sarajevo and Herzegovina-Neretva, Bosnian-Podrinje, Tuzla, Central Bosnia, Canton 10, Posavina, and West Herzegovina cantons).k

Exhibit 8. Primary Challenges Facing Primary and Secondary School Teachers in Their Work

From your perspective, what are the primary challenges you are facing in your practice?



Source: MEASURE-BiH, *Mini-survey of Education Practitioners 2018*

In addition, Save the Children is currently doing preparatory work for the implementation of the CCC for mathematics, which will require additional funds from governments and other donors. Also, it is currently preparing to pilot the CCC for STEM and cross-curricular areas through the Enhancing and Advancing Basic Learning and Education (ENABLE-BiH) Activity. The STEM methodology will be piloted in 12 schools in four administrative units in BiH (Canton Sarajevo, Herzegovina-Neretva Canton, Republika Srpska, and Brcko District). The participating schools are provided with training, mentorship, and equipment.

Since 2017 the British Council has implemented an intervention called “21st Century Schools,” which is directed at improving digital competencies and developing problem-solving and critical thinking skills among primary school students in the Western Balkans, including BiH. The activity is currently implemented in Canton Sarajevo (10 schools) and in RS (15 schools), but the British Council plans to expand its engagement across all schools in BiH.

World Vision is currently implementing Life Skills Curriculum, an intervention designed to include the most vulnerable children. The objective is to improve their access to quality education and teach them essential life skills. The program has two elements. It builds skills for primary school teachers to deliver the life skills curriculum. And the curriculum enhances students’ critical thinking; effective communication, emotional management, and interpersonal skills, and also community responsibility. Program implementation started in late 2017 and is being implemented in Republika Srpska and Tuzla, Zenica-Doboj, and Bosnian Podrinje cantons.

School at the Heart of Community is a three-year activity funded by USAID/BiH and implemented by Step by Step. It aims to develop and test a comprehensive framework for the prevention of violent extremism by teaching critical thinking and universal values. The main components of the activity include providing support to school management to reinforce values-based education, advancing teachers' competencies to develop critical thinking skills and universal values among students, promoting good practices for the prevention of violent extremism, and strengthening the role of communities in this regard. The activity has been implemented in 45 primary schools throughout the country.

Recently, MoCA and UNICEF initiated an activity aimed at including migrant children in formal education, starting in Una-Sana Canton. UNICEF is also working on improving and implementing ethical codes for schools. Moreover, the World Bank and UNESCO are planning to reengage in the education sector.

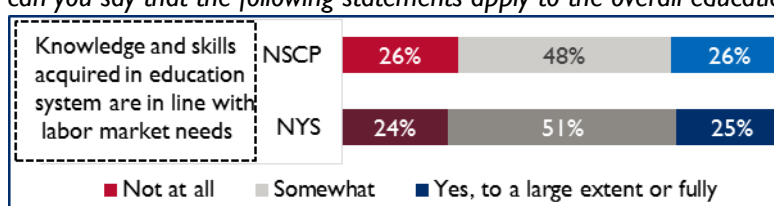
Overall, following the creation of CCC based on learning outcomes, several donors have initiated piloting through teacher trainings and/or revision of curricula. Other donors focused on skills development, including digital skills, critical thinking, and interpersonal and other skills.

Quality of Vocational Education and Training (VET)

VET education is also facing several issues related to quality. According to KIs, VET curricula are still outdated and content-based, and do not include sufficient work-based learning and practice. Further, VET is insufficiently connected to labor markets and employers. This finding is confirmed by the general population and youth surveyed in NSCP-BiH 2018 and NYS-BiH 2018: only about one-quarter of the respondents said the knowledge and skills acquired in the BiH education system are fully or to a large extent in line with labor market needs (see Exhibit 9). However, according to KIs, some progress has been made when it comes to the quality of VET because of high donor interest and interventions focused on employability.

Exhibit 9. Citizen and Youth Assessments about the Connectedness of the BiH Education System and the Labor Market

To what extent can you say that the following statements apply to the overall education system in BiH?



Sources: MEASURE-BiH, National Survey of Citizens Perceptions 2015-2018 and National Youth Survey 2018

The EU implemented four VET interventions between 1998 and 2013, in cooperation with the responsible education authorities and other relevant stakeholders in BiH. These interventions established the base for further VET interventions by developing the Classification of Occupations, the Strategy for Development of Vocational Education and Training in BiH for the period 2007-2013, the Framework Law on Secondary Vocational

Education and Training in Bosnia and Herzegovina, and the Baseline of the Qualifications Framework in Bosnia and Herzegovina. The new intervention dealing with VET and adult education reform, the Qualifications Framework for Lifelong Learning (QF LLL), was implemented from late 2015 to mid-2018.

The activity Technical and Vocational Education and Training (TVET) in Bosnia and Herzegovina (2017-2019), implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), is supporting TVET reforms in BiH. The activities include the development of occupational standards, competence- and practice-based and labor-market-oriented curricula, and regulations for conducting technical and vocational training in TVET schools and companies; professional training of TVET teachers; and improvement of the image of TVET in general. Six TVET schools are located in Bosnian-Podrinje, Herzegovina-Neretva, and Republika Srpska. This intervention has been the first ever to pilot a tracer study BiH, following the situation of students who completed TVET education in Bosnian-Podrinje Canton (how many are employed and not employed after a year, how many continued education, how many left the canton, etc.).

KulturKontakt Austria (KKA) has been implementing the activity Cooperation Between Vocational Schools and Businesses since 2016, with the goal of improving the quality of practical training for students in the tourism sector by promoting cooperation between the tourism industry and tourism and hospitality management schools. The focus is on the organization of high-quality company internships. The activity aims to develop an expanded profile of vocational coordinators to connect schools and businesses.

Caritas Switzerland and the Swiss Embassy implemented the activity Skills for Jobs from 2010 to 2018, which was aimed at improving and expanding the skills of students in vocational schools by creating links between education institutions and private companies in BiH. Thirty-eight curricula and standardized tests have been developed and introduced to make better connections between vocational school programs and labor market standards. The Swiss Embassy plans to continue the intervention in the future.

Although these interventions have contributed to the improvement of VET in BiH, their scope is insufficient to make significant changes in VET at the system level and in all parts of BiH.

Gifted Children Education

Gifted and talented children are neglected in the BiH education system. The BiH Framework Law on Preschool Upbringing and Education prescribes ensuring optimal and equal conditions for each child to develop his/her full potential and competencies.¹⁸ Similarly, the BiH Framework Law on Primary and Secondary Education prescribes ensuring the optimal development of each child, including children with special needs, in line with their age and

¹⁸ http://fmon.gov.ba/Upload/Dokumenti/5764ae23-c423-404b-b6d5-c723dea62cc9_Okvirni%20zakon%20o%20pred%C5%A1kolskom%20odgoju%20i%20obrazovanju%20u%20Bosni%20i%20Hercegovini.pdf

their mental and physical abilities.¹⁹ Although inclusion of children with developmental difficulties has been recognized as a necessity, and improvements have been made in this area (e.g., teacher trainings, inclusion in regular schools, teaching assistance), gifted children are still not recognized as children with special needs by the BiH education authorities. The Law on Primary Upbringing and Education in Republika Srpska prescribes equal opportunities for all children, including children with developmental difficulties and gifted children. However, the provision related to gifted children has not yet been implemented. APOSO plans to begin developing guidelines for inclusive education that will encompass both children with developmental difficulties and gifted children.

However, about 30 percent of EPs who participated in the online survey claim that their schools have some kind of gifted children program. Although many schools have additional classes and extracurricular activities for high-performing and interested students, some of whom are likely to be gifted, such programs are outdated and provide a structure similar to that of regular curricular activities, except that the tasks are somewhat more demanding.

Conclusions

At present, BiH does not have evidence-based information about the quality of its basic education system. PISA 2018 was the first assessment of the quality of basic education in BiH. Given the increased interest in international assessments of student achievement recently shown by the education authorities' support for participation in PISA 2018, TIMSS 2019 and PIRLS 2021, it is expected that the knowledge base about the quality of basic education will grow in the next decade.

The assessment team found the following:

- About 40 percent of the BiH general population surveyed stated they are not satisfied with preschool education.
- All children in BiH do not have equal opportunities to access preschool education.
- Preschool programs are not yet based on learning outcomes.
- Compulsory preschool programs are implemented differently across BiH and through different modalities, without an analysis of the usefulness or effectiveness of these modalities.

APOSO has completed the development of CCC based on learning outcomes for all curricular areas for preschool, primary, and secondary education. CCC based on learning outcomes is being implemented or piloted through different donor-driven pilot projects in a limited manner. The US Embassy, the OSCE Mission to BiH, and Save the Children plan to support

¹⁹ http://fmon.gov.ba/Upload/Dokumenti/7e1e8c33-c594-4784-817a-e46de79149fa_Okvirni%20zakon%20o%20osnovnom%20i%20srednjem%20obrazovanju%20u%20Bosni%20i%20Hercegovini.pdf

responsible education authorities in curricular revisions and their harmonization with CCC based on learning outcomes for all education areas.

The quality of VET has somewhat improved in terms of curricula and practice due to the high interest of certain donors that have focused their interventions on increasing employability. However, donor interventions have not been sufficient to make significant changes in VET at the system level and in all parts of BiH. Hence, VET is largely still outdated, content-based, and insufficiently connected to the labor market.

Although the framework laws suggest that gifted children should be provided education in line with their abilities, BiH education authorities have not recognized these children as having special needs. However, the RS Ministry of Education recently recognized their status in its new Law on Primary Upbringing and Education. Also, APOSO plans to develop guidelines for inclusive education that will involve both children with developmental difficulties and gifted children.

PRE-SERVICE AND IN-SERVICE TEACHER TRAINING

Pre-service Teacher Training

Pre-service teacher training needs to be reformed as well, starting from the learning outcomes and so forth. We do not know if what we are teaching is in line with international standards. We are hoping that learning outcomes will be the starting point.

—Interviewee from an international organization, KII

High-quality teachers are a precondition for high-quality education. According to BiH legislation, to become a teacher in BiH one must fulfill the following criteria:

1. **Complete a four-year secondary education.** Students who complete a four-year secondary school of any type (including technical and vocational schools) are eligible to enroll in teaching faculties.
2. **Obtain a university degree.** Future teachers must enroll in a teaching faculty or department and complete at least a bachelor's or master's degree (depending on the administrative unit).²⁰ Most teaching faculties educate and train students to become preschool and primary school teachers (classroom). In most cases, subject teachers are educated in the teaching departments in faculties of philosophy, faculties of natural science and mathematics, faculties of sports, and art academies. These faculties are not organized in the same way across BiH, so some offer bachelor's and master's studies organized as 4+1 years and some as 3+2 years. The faculties and departments providing pre-service

²⁰ At present, the minimum requirement to become a teacher at any level of basic education is set by the responsible education authorities and legislation across BiH at a minimum of 4 years of higher education or 240 ECTS, but in more and more administrative units it is either 4+1 or 3+2 years, equivalent to a master's degree.

teacher training do not require an entrance exam; rather, they rank candidates by their performance in secondary school. It is important to note that unlike teaching faculties that offer compulsory PPDM courses and teaching practice, teaching departments in other faculties offer some PPDM training and teaching practice only if a student has selected teaching as the direction/orientation in his/her study. KIs noted that, in BiH, the teaching profession does not offer significant incentives to draw high-performing students.

3. **If a university degree is obtained at a non-teaching faculty, candidates must enroll in a PPDM course and/or pass a PPDM exam.** These PPDM courses and programs are organized by pedagogical faculties and their duration, content, and learning outcomes vary in different administrative units. Some administrative units require teacher candidates from non-teaching faculties to enroll in and attend PPDM courses or programs and pass the PPDM exam. In other parts of BiH, candidates prepare for the exam themselves based on the recommended literature. Teacher candidates from teaching faculties and departments are not required to pass this exam since they are obligated to take PPDM subjects and pass PPDM exams during their pre-service teacher training.
4. **Complete an internship.** Internships vary across BiH and take from six months to a year to complete. During the internship, teacher candidates are assigned to mentors who monitor their work.
5. **Pass a professional exam.** After completing higher education and internship (and PPDM exam if higher education is obtained in non-teaching faculty or department), teacher candidates must hold 10 practical teaching lessons in a mentor's presence to qualify for the professional exam. Professional exam is mandatory in all administrative units. The exam is a verification of a candidate's competence to perform the teaching profession independently.

The reforms of basic education based on CCC and learning outcomes have not been accompanied by reforms in the programs of teaching faculties. In fact, no reforms of pre-service teaching programs were conducted in the last decade. Hence, as with basic education programs, pre-service teaching programs are outdated and content-based. Moreover, according to expert informants, the number of PPDM hours and the number of hours dedicated to practice in teaching faculties are insufficient. Additionally, the experts noted that pre-service teacher programs are not in line with the Standards of Occupations or the Standards of Qualifications for preschool, primary, and secondary school teachers, which have been developed on the basis of learning outcomes and harmonized with the European Qualifications Framework. Hence, young graduates from teaching faculties are insufficiently prepared to teach, prepare tests, and examine students based on CCC and learning outcomes. Moreover, as one expert reported, pre-service teacher trainings omit some topics of great importance for basic education, such as inclusive education, intercultural education, and strengthening partnerships between parents and schools.

However, as shown in Exhibit 10, findings from the KIIs and the team's survey of EPs are not fully in accord. About 60 percent of the EPs believe pre-service teacher training programs are

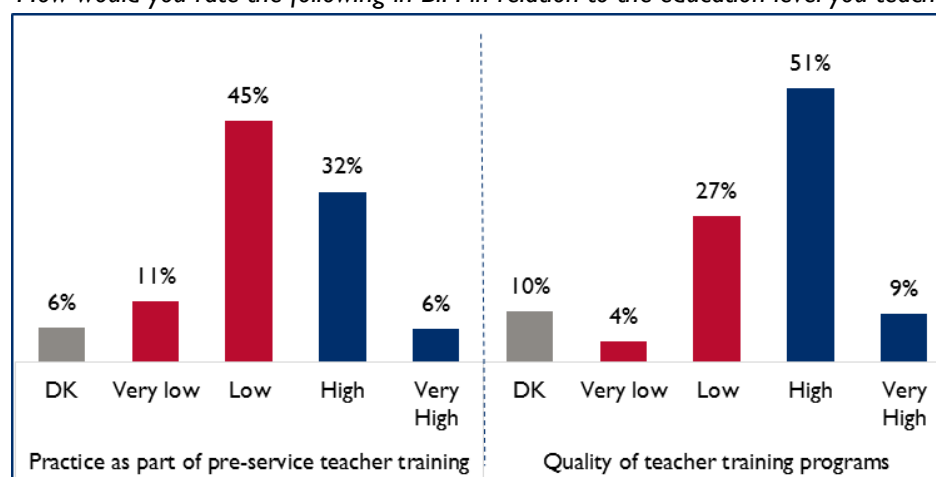
of high quality or very high quality, although only 38 percent reported that they include sufficient practice.

There are no mechanisms in BiH for the accreditation of teacher training programs or any other university programs. The Agency for Development of Higher Education and Quality Assurance was established in 2008. The agency's mandate in accreditation includes accreditation of higher education institutions and study programs based on learning outcomes, and establishment of a quality assurance methodology and quality assurance mechanisms and practices in higher education. Yet, the agency has not established a regulatory framework for the accreditation or quality assurance of study programs. KIs explained that for the past two years, all of the agency's activities have been blocked by the steering committee.

According to a KI, the University of Sarajevo has initiated reforms of study programs, including teacher training programs, by developing a new CCC based on learning outcomes. In addition, beginning with the next academic year, the University of Sarajevo will require 60 ECTS points in PPDM courses and 30 ECTS points in teaching practice. The University of Mostar already requires 60 ECTS points in PPDM courses in teaching faculties.

Exhibit 10. EPs' Perceptions about Pre-service Teacher Training in BiH

How would you rate the following in BiH in relation to the education level you teach?



Source: MEASURE-BiH, *Mini-survey of Education Practitioners 2018*

Another factor affecting the quality of pre-service teacher training is that there are no professional development programs for university teachers. According to an expert informant, university teachers are required to publish scientific articles to keep their academic titles, but there are no professional development trainings dedicated to PPDM for university teachers. Another expert noted that university teachers are insufficiently informed about opportunities for professional mobility or equipped with project-writing skills. Finally, BiH has a large number of private higher education institutions, some of which have teaching faculties of unknown quality.

Almost no donor-funded interventions have been implemented to support reforms in pre-service teacher training. One of the rare examples is USAID/BiH's ENABLE-BiH Activity, which is working with three teaching faculties (Faculties of Science and Mathematics in

Sarajevo, Mostar, and Banja Luka) to introduce joint STEM and PPDM standards for pre-service teacher training.

In-service Teacher Training

It is important that everyone realizes that the real learning begins only when we finish our studies.

—Expert, KII

In-service teacher training or continuous professional development (CPD) in BiH is prescribed as mandatory by relevant laws and bylaws (rulebooks) in all parts of BiH. According to KIIs, all decisions related to CPD programs are made by the ministries and pedagogical institutes.

KIIs noted that, where available, pedagogical institutes deliver the majority of CPD programs. However, the education ministries sometimes organize additional training programs, which are usually delivered by universities and non-governmental organizations (NGOs). In administrative units where there are no pedagogical institutes, CPD programs are organized and funded by the ministries and usually delivered by universities, NGOs, or schools. Representatives of an administrative unit stated that no professional development programs have been organized for their teachers due to lack of capacities.

Administrative units differ with regard to the establishment of pedagogical institutes. Some administrative units do not have any pedagogical institutes (Central Bosnia and Posavina), whereas Herzegovina-Neretva has two pedagogical institutes, one responsible for curricula in the Bosnian language and another for curricula in Croatian. In 2017, West Herzegovina and Canton 10 established a joint pedagogical institute. Also, in some areas, pedagogical institutes are established as independent institutions (e.g., in Una-Sana Canton and Brcko District), while others are formed as departments in education ministries (e.g., in Bosnian Podrinje and Zenica-Doboj cantons).

The capacities of pedagogical institutes vary in different administrative units. Based on the rationale that its pedagogical institute had insufficient capacities, Canton Sarajevo transferred all professional development trainings to universities. Also, due to a lack of internal capacities, the pedagogical institute in Brcko organizes CPD programs by publishing a public call, and all universities across BiH are eligible to apply.

According to KIIs, CPD programs organized by the ministries and/or pedagogical institutes in all administrative units are usually delivered one to three times a year, in most cases during the summer or winter break. Teachers are not obligated to participate in all CPD programs, and the number of hours teachers must dedicate to professional development activities in a given timeframe has not been prescribed in existing legislation. Moreover, there are no accreditation or quality assurance mechanisms for CPD programs.

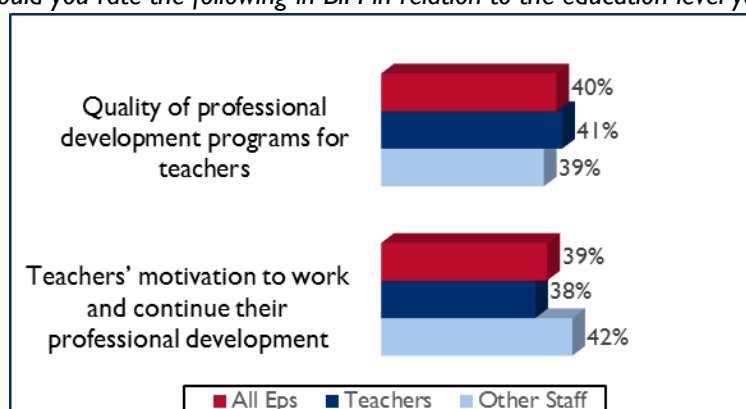
The effectiveness of CPD programs in building teachers' skills is not measured. Additionally, there are no program catalogues from which teachers can select the types of education they need; the programs are same for all teachers regardless of their competencies. Therefore,

teachers are not motivated to participate in such programs, stating they are more theoretical than practical, are irrelevant, and (sometimes) are delivered by incompetent trainers. Representatives of some ministries and pedagogical institutes reported that they lack funds to hire external experts who could deliver high quality professional development trainings, while others believe there are no competent experts in BiH to provide such trainings.

However, many EPs had a more favorable opinion about CPD programs. As presented in Exhibit 11, about 40 percent of EPs reported that CPD seminars for teachers are of high or very high quality, and about the same share believe that teachers' motivation to attend such events is satisfactory. In addition, about 63 percent of EPs said teachers acquire and use new skills as a result of the seminars even though the great majority (85 percent) described the professional development programs as theoretical rather than practical (see Exhibit 12).

Exhibit 11. Percentage of EPs Rating the Following Items as High or Very High

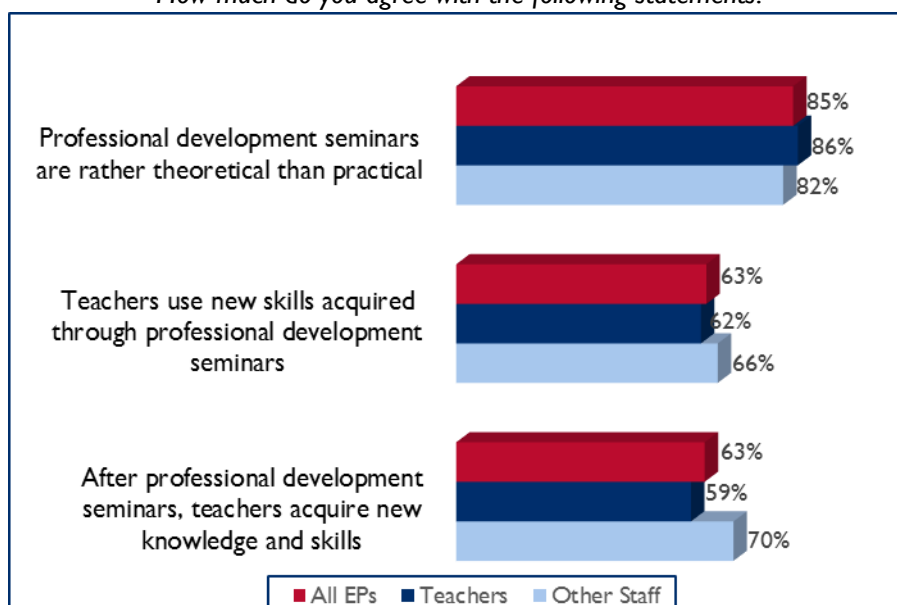
How would you rate the following in BiH in relation to the education level you teach?



Source: MEASURE-BiH, Mini-survey of Education Practitioners 2018

Exhibit 12. Percentage of EPs Agreeing with the Following Statements

How much do you agree with the following statements?



Source: MEASURE-BiH, Mini-survey of Education Practitioners 2018

In theory, all teachers are obligated to participate in some professional development programs. Yet, as reported by some KIs, some teachers avoid such programs without any consequences for their progression or promotion. This is confirmed by the EP survey: 13 percent of teachers stated they had not participated in any CPD programs in the past year. According to some KIs, the reason may be that performance appraisal systems are sometimes applied only pro forma. Specifically, teachers are sometimes promoted based on years of work experience without considering progress in their teaching competencies. However, all education authorities stated that participation in CPD is taken into account to some degree in teachers' promotion.

BiH does not have a licensing system for teachers. This type of system was introduced by the Republika Srpska Ministry of Education, but was abolished due to pressures from teachers' unions. The Center for Democracy and Human Rights Education CIVITAS has introduced a system of certification for civic education teachers. The certification is recognized and implemented in FBiH, while in RS it is implemented but not required.

Various professional development trainings have been delivered by donor organizations. All donor activities in education also provide teacher trainings. For example, every EU-funded intervention has a capacity building component that includes teacher training. Also, the work of Save the Children on CCC based on learning outcomes is mainly focused on training teachers to implement CCC. According to KIs, even though some teachers are highly motivated to participate in such programs and perceive them as an opportunity to expand their knowledge and skills, other teachers see them as additional work and tend to avoid them. In some parts of BiH, according to KIs, participation in such programs is not taken into account in teachers' performance appraisals.

Step by Step is implementing the activity "Teachers Are Important" to empower teachers to work on improving the status of the teaching profession. The goal of the initiative is to establish Step by Step's capacity to offer high-quality professional development programs and services based on research and analysis and to advocate for systematic changes in the field of professional development. Step by Step also offers 15 different professional development trainings for teachers. In addition, Inskola (www.inskola.com), a web platform for teachers developed in 2016 by teachers and experts, offers more than 200 lesson plans, manuals, and other resources for teachers.

Step by Step's Best Innovative Teacher Award is an initiative aimed at promoting innovative and high-quality preschool, primary, and secondary teaching in BiH, with a particular focus on practices that support the development of critical thinking skills and social responsibility. The awards are presented at an annual event, followed by stories and videos that aim to promote the teaching profession, raise awareness about the importance of investing in high-quality teachers and improve the image of teachers in society. All nominated teachers are involved in future advocacy activities and become members of teachers' networks for professional development.

Finally, from 2015 to 2018, the European Training Foundation developed a policy document to improve the quality of professional development for VET teachers. This document has not yet been endorsed by the Council of Ministers or implemented.

Conclusions

No reforms of pre-service teaching programs have been implemented in the last decade. Primary problems in this area include outdated, content-based curricula and insufficient hours dedicated to PPDM and practice. Young teachers, therefore, are not prepared to teach based on CCC and learning outcomes. The Agency for Development of Higher Education and Quality Assurance has not yet developed its regulatory framework for the accreditation of study programs. It appears that EPs do not perceive the shortcomings in pre-service teacher education, and donors are not focused on this area.

In-service teacher training in BiH is experiencing several problems. There are no systematic approaches to professional development, and there are no quality assurance or accreditation mechanisms. Professional development programs organized by the ministries and pedagogical institutes are not continuous or tailored for individual teachers, and are often described as theoretical. Although regular participation in such programs is mandatory, there are no serious consequences for not participating in these trainings. Most donor activities in basic education include teacher training for interventions they are implementing. Such programs are, in most cases, attended by “the usual suspects,” highly motivated teachers who see them as an opportunity for professional growth.

EDUCATION SYSTEM REFORMS

Work of the Agency (APOSO) and the Ministry of Civil affairs is not harmonized.... If we have something at the State level, a higher standard we are striving to, at lower levels it all depends on how the issue is positioned in the Ministry, how much people dedicate themselves to it, and how much the organizations involved are capable to take them toward it.

—Interviewee from an international organization, KII

Basic education in BiH is governed by three framework laws: the Framework Law on Preschool Upbringing and Education (2007), the Framework Law on Primary and Secondary Education (2003), and the Framework Law on Vocational Education and Training (2008). All administrative units in BiH are obligated to pass and implement laws harmonized with these framework laws. However, some cantons have not yet passed or implemented the law on preschool education. Moreover, some cantons have not yet adopted laws on VET that are harmonized with the framework laws.

With regard to the strategic framework in BiH, some strategies are outdated. For example, the BiH comprehensive education strategy expired in 2015. Similarly, the BiH Strategy on VET

expired in 2013. In the last four years, only a few BiH-level strategies related to basic education have been developed and adopted. These include:

- Action Plan for Development and Implementation of the Qualifications Framework in Bosnia and Herzegovina for the period 2016-2020 (2015)
- Priorities for Development of Higher Education in Bosnia and Herzegovina for the period 2016-2026 (2016)
- Platform for Development of Preschool Education in Bosnia and Herzegovina for the period 2017-2022 (2018)

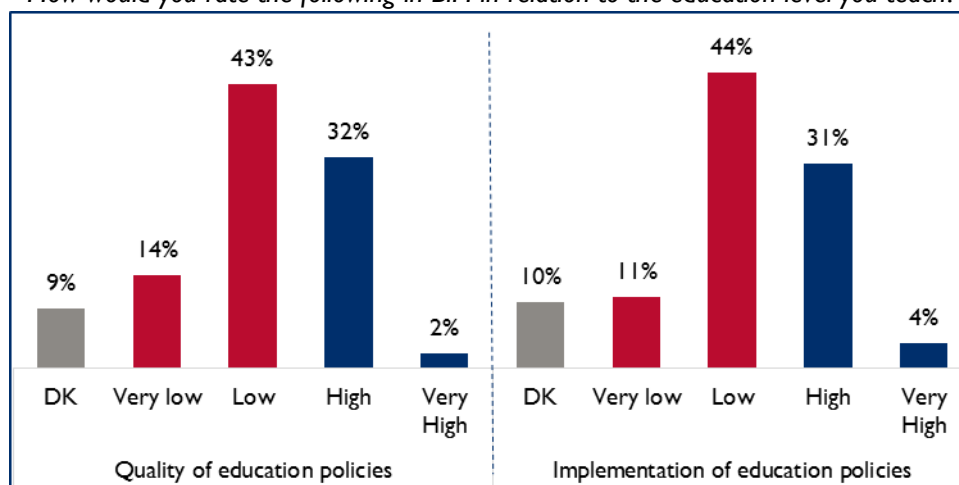
According to KIs, some education authorities are reluctant to recognize any strategic document coming from the State level. Entities and cantons are developing their own education strategies (e.g., RS and West Herzegovina), and others are implementing comprehensive education reforms on their own (e.g., Canton Sarajevo).

In addition, there are no mechanisms to ensure implementation of the State-level strategic documents. Although all education authorities report to MoCA about the stage of their implementation, there are no consequences for disregarding implementation.

As shown in Exhibit 13, only 34 percent of EPs believe that education strategies in BiH are of high quality, while 35 percent think the same about their implementation. The problems, according to KIs, include a lack of inspection and no clear timeline for the implementation of strategies. Other KIs reported that the strategies are developed and adopted only formally, often under the pressure of the international community, which does not later insist on their implementation. Some KIs noted that teachers should be included in policy making to ensure that new education policies are accepted and implemented.

Exhibit 13. EPs' Perceptions about the Quality and Implementation of Education Policies

How would you rate the following in BiH in relation to the education level you teach?



Source: MEASURE-BiH, Mini-survey of Education Practitioners 2018

At present, the EU is assisting BiH authorities in developing and implementing the comprehensive National Qualifications Framework, which is harmonized with the European

Qualifications Framework for Lifelong Learning and quality assurance mechanisms for basic (general and VET) and higher education. MoCA, together with all relevant stakeholders, has developed an Action Plan for the development and implementation of the Qualifications Framework in BiH, but implementation of its elements has not occurred in a systemic way.

The Qualifications Framework for Lifelong Learning was implemented from late 2015 to mid-2018 and is focused on VET. The goal is to enable easier mobility within and outside BiH for education and employment purposes. The main results included:

- Development of the methodology and the piloting of quality assurance mechanisms in VET, including self-evaluation and internal and external assessment;
- Extensive training of the relevant stakeholders (teachers, school managers, representatives of education ministries, representatives of pedagogical institutes, and employers);
- Development of 18 new occupational and qualifications standards based on learning outcomes for selected occupations;
- Development of manuals and trainings for relevant stakeholders to manage the development and assessment of the new occupations and qualifications standards in BiH in the future.

Standardization in basic education is also focused on VET and higher education for employment purposes. Occupational and qualifications standards for teachers have been developed within the Qualifications Framework but have not been implemented. In addition, APOSO has developed Quality Standards for Work of Preschool Teachers, Pedagogues and Principals in Preschool Education, and Recommendations for Improvements and Development of New Preschool Programs.

MoCA, together with its partners, is currently developing new education strategies and policies. These include strategies on VET, entrepreneurial learning, and youth.

Information and Data Systems

Every year we are calling schools to deliver data about number of students, equipment, and other [things], instead of making a centralized database in the Ministry or in the Pedagogical Institute, giving each school a computer – and this is not a large investment.... Two or three people on our staff are counting students, entering data into tables, so we waste a month or two on such a simple task.

—Interviewee from a pedagogical institute, KII

Overall, there is room for improvement of the information technology infrastructure and data systems in basic education in BiH. With regard to information technology infrastructure, although there are examples of fully equipped schools, there are also examples of schools struggling with old and outdated computers, which constrains their everyday work. Computer equipment varies within and between the administrative units. Even schools with a large number of computers often have equipment in poor condition. In BiH, there are no standards

for information technology equipment in schools. According to one KI, the consequences were noticed during preparations for PISA because the test was computer-based. Some of the problems included old and outdated computers, often containing illegal software and viruses.

As shown in Exhibit 14, secondary schools are better equipped with computers compared to primary schools. However, when divided by the number of teachers and students, both primary and secondary schools are poorly equipped. For example, on average, there is one computer per four teachers in primary schools, and one per three teachers in secondary schools. For students, there is one computer per 14 students in primary schools, and one per 12 students in secondary schools. These ratios are even higher for computers that have an internet connection.

Exhibit 14. Status of Informatics Equipment in Primary and Secondary Schools in BiH

	Primary	Secondary
Computer/school ratio	14	46
Computer with internet connection/school ratio	9	38
Teacher/computer ratio	4	3
Teacher/computer with internet connection ratio	5	4
Student/computer ratio	14	12
Student/computer with internet connection ratio	23	15

Source: BiH Agency for Statistics

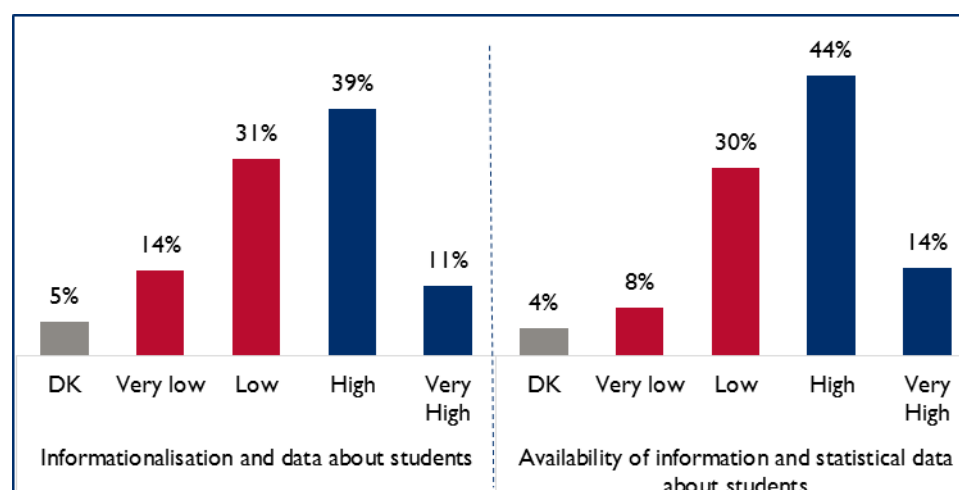
Even when available and operational, information technology equipment is often underused. One example mentioned by a KI is the introduction of smart boards, which have been installed in schools in one of the cantons but are rarely used by the teachers. Also, although in some parts of BiH, e-diary has been introduced, teachers are using both e-dairy and the traditional paper diary in parallel. Nevertheless, most stakeholders are aware of the need to improve their information technology infrastructure. Many administrative units are therefore considering introducing smart boards, e-diary, digital textbooks, and other digital content for students, teachers, and parents.

With regard to data systems, only RS and a few cantons (Sarajevo, West Herzegovina, and Tuzla) have electronic data systems. However, the systems are different and they collect different kinds of data using different methodologies. According to some KIs, even when data are collected, they are often low quality and insufficient to be used for in-depth analyses and decision making by education authorities. Also, some existing data systems do not collect any data about preschool students.

In many administrative units, data about education are still collected manually. However, 50 percent of the EPs surveyed stated their satisfaction with the information and data systems in place. Moreover, 58 percent were satisfied with the availability of information and statistical data about students (see Exhibit 15).

Exhibit 15. EPs' Perceptions about Information Technology Equipment and Data Systems in Education

How would you rate the following in BiH in relation to the education level you teach?



Source: MEASURE-BiH, Mini-survey of Education Practitioners 2018

MoCA, the Agency for Statistics of BiH, and UNESCO are currently working on defining relevant indicators and improving statistical data and reporting on education. These statistics will cover all formal schools, both public and private, by level of education. Underlying this initiative is the obligation that BiH has to implement SDG 4 and the Incheon Declaration on Education 2030: Towards Inclusive and Equitable Quality Education and Lifelong Learning for All.

Monitoring, Evaluation, and Learning (MEL)

All the time, we are developing quality strategies at the State level, and then we never have any feedback, or the feedback is given as a ten-pager summing what has been done, but we do not have any data on what has been really going on. Maybe this is where the most important recommendations should be coming from.

—Interviewee from an international organization, KI

Education authorities are not accustomed to systematically conducting monitoring or evaluation (M&E) to inform their decision-making. A majority of the KIs reported that MEL hardly exists in BiH basic education. Education stakeholders in BiH do not conduct or require MEL when planning or implementing education interventions. For example, the extension of primary school to nine years and compulsory preschool education have been introduced throughout the country, but their effects relative to the old system have never been evaluated.

Given the lack of MEL data, education authorities use other sources of information when making decisions. For example, as noted by a KI, one cantonal ministry reintroduced numerical school grades for second and third graders in primary schools based on teachers' feedback that students (and parents) did not take learning seriously when grades were given in the form of narrative description.

In BiH, MEL in education is mainly conducted as part of donor activities. However, according to KIs, the education authorities rarely require that they be informed about such analyses. Even when the analyses are shared, the education authorities rarely use such information in their strategic planning.

According to the online survey results, most EPs are aware of the importance of MEL. Although 90 percent of EPs said they think it is important to conduct MEL in education (see Exhibit 16), only 36 percent said education authorities were doing so. Additionally, only 31 percent of EPs believe that the results of evaluations of strategies, policies, and other interventions in education are used to improve the education system.

Box 2 describes the OECD framework on evaluation and assessment, including recommendations for using the results to improve student learning outcomes.

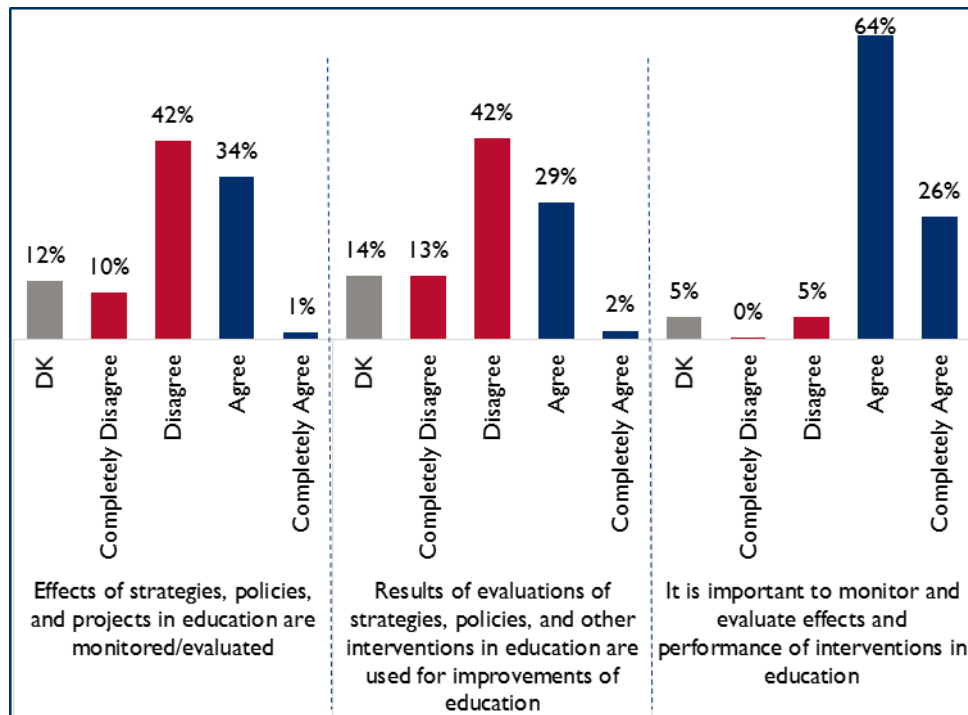
Box 2. OECD Evaluation and Assessment Framework for Improving School Outcomes²¹

The OECD review of evaluation and assessment frameworks for improving school outcomes explores how assessments and evaluations can be used to improve students' learning outcomes. According to the authors, countries must ensure that student assessments, teacher evaluations, school evaluations, and system evaluations reinforce each other, avoid duplication, and serve the same objectives. Those who design and implement evaluations and those who use their results must have adequate skills and competencies for such tasks. Evaluations and assessments must lead to improvements in classroom practices and learning outcomes; training in evaluation and research skills should therefore be included as part of teachers' pre-service training. Assessments and evaluations must be defined to verify the achievement of clearly defined standards. In the process, it is important to take into account that student assessments influence students' motivation and learning, along with teaching practices and teacher-student relationships. Also, external assessments, teacher-based assessments, and classroom-based formative assessments should be used together to assess competencies and learning outcomes. It is important to combine teacher evaluations for two reasons: to improve teachers' practices and to hold them accountable for their performance. Moreover, it is suggested that students' results should be used in teacher evaluation and that teachers should receive incentives (e.g., promotion, bonuses) based on their evaluation results. Schools should also undergo thorough internal and external evaluations; and when publicizing their evaluation results, transparency should be balanced with a broader context about students' performance. In the process, it is important to improve data collection, analysis, and interpretation skills of all education stakeholders. Moreover, indicators and measures of system performance should be established, monitored, and used to improve the education system.

²¹ <https://www.oecd.org/education/school/46927511.pdf>

Exhibit 16. EPs' Perceptions about Monitoring and Evaluation in Education

How much do you agree with the following statements?



Source: MEASURE-BiH, Mini-survey of Education Practitioners 2018

Conclusions

There is no systematic approach to education reform in BiH. Given that RS, BD BiH, and the cantons have full jurisdiction over education and some have no interest in harmonizing their policies across BiH, State-level reforms are hard to achieve. Some administrative units have not yet adopted laws that are harmonized with the framework laws on preschool and VET education and some State-level education strategies are outdated. Implementation of the Qualifications Framework has been initiated but mainly through project-based activities. Most EPs were doubtful about the quality of education strategies and their implementation.

The information infrastructure differs from school to school, between and within cantons. Even schools that are fully equipped with information and communication technology (ICT) resources sometimes face issues with the poor condition of the equipment. Low ICT competencies among teachers and other school staff also hinder progress when it comes informationalization of the school system. In addition, there is no unique or harmonized data system that collects data on education. However, it appears that the EPs surveyed are not concerned with or aware of shortcomings in information and data systems.

Finally, there is limited awareness about the importance and usefulness of MEL and evidence-based decision-making among representatives of education authorities, as well as a general

lack of capacities to conduct MEL. Hence, in the BiH education system MEL is mainly conducted by donors for their own purposes.

BASIC EDUCATION FINANCING AND UPCOMING REDUCTION OF SCHOOLS

“We are investing according to old statistical data, for example counting that one teacher has twenty students in the class. We have information that this number is rapidly decreasing, that some teachers have five to six students. In some cases they establish combined classes, but most of the time they are keeping teachers’ jobs and buying social peace”.

—Interviewee from an international organization, KII

Education in BiH is funded through RS, Brcko District, and cantonal budgets, and, to some degree, municipal budgets. The Federation Ministry of Education also covers some costs. This means that there are thirteen separate education budgets in BiH. In most cases, the education ministries only support primary and secondary schools while financial support for some secondary schools and preschool institutions is left to the municipalities.²² The percentage of gross domestic product (GDP) spent on education in BiH in 2017 was 4.23 percent²³.

According to MEASURE-BiH’s *Overview of Challenges in Primary and Secondary Education*²⁴ and confirmed by the KIIs, education financing in BiH is characterized by high spending due to high administrative costs. Most budgets’ funds are spent on wages; however, teachers’ wages are still low and unequal across the country. In some administrative units, teachers are paid the same amount regardless of their educational attainment, while in other areas higher educational attainment results in a higher wage.²⁵ As another example, RS does not pay for teachers’ transportation, while most cantons do. Only BD ensures that all students receive free books and transportation.

Due to insufficient transparency and unclear budget allocations, it is hard to draw conclusions about overall spending on education. Budgetary items differ across administrative units. Moreover, from budgets and statistical data published by the FBiH and RS statistical agencies, it is impossible to determine the relationship between the funds spent on salaries and fees on one side and quality improvements on the other. Also, some cantonal ministries of education have not published their budgets on their websites. According to an analysis by the Friedrich Ebert Stiftung (2018), budget shares spent on quality improvements (i.e., on instructional equipment) are less than 1 percent across BiH.²⁶

²² https://eacea.ec.europa.eu/national-policies/eurydice/bosna-i-hercegovina/early-childhood-and-school-education-funding_en

²³ http://www.bhas.ba/saopstenja/2018/NAC_02_2017_YI_0_BS.pdf

²⁴ <http://measurebih.com/uimages/Overview20of20Main20Challenges20in20Primary20and20Secondary20Education20in20BiH.pdf>

²⁵ http://eu-monitoring.ba/site/wp-content/uploads/2015/06/Obrazovanje_Lzvjestaj_Namir_Ibrahimovic.pdf

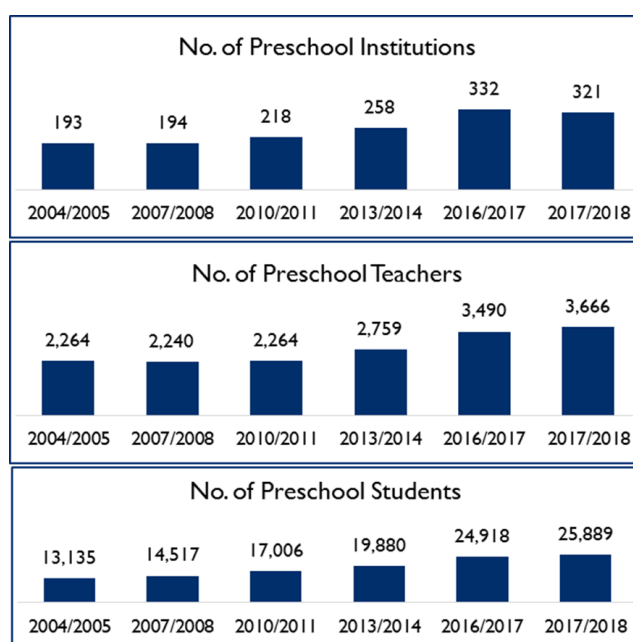
²⁶ <http://library.fes.de/pdf-files/bueros/sarajevo/14788.pdf>

The budgets for salaries and benefits are planned according to pedagogical standards, the number of classes, and the number of work hours. According to some KIs, funding per student should be the goal, but that is currently not the case for political and social reasons. Also, some representatives of education ministries reported that they had introduced changes to pedagogical standards, for example, decreasing the minimum number of children per class to maintain the existing number of classes (and funds) and hence retain teachers' jobs.

There has been a substantial decline in the number of children entering schools. According to KIs this is due to emigration and negative population growth, especially in Canton 10, Una-Sana Canton, and Posavina Canton.

The decline in the number of students, however, has not occurred in preschool institutions. According to the BiH Agency for Statistics, the number of preschool institutions, teachers, and students in BiH slightly increased in the period from 2004 to 2018, as shown in Exhibit 17.

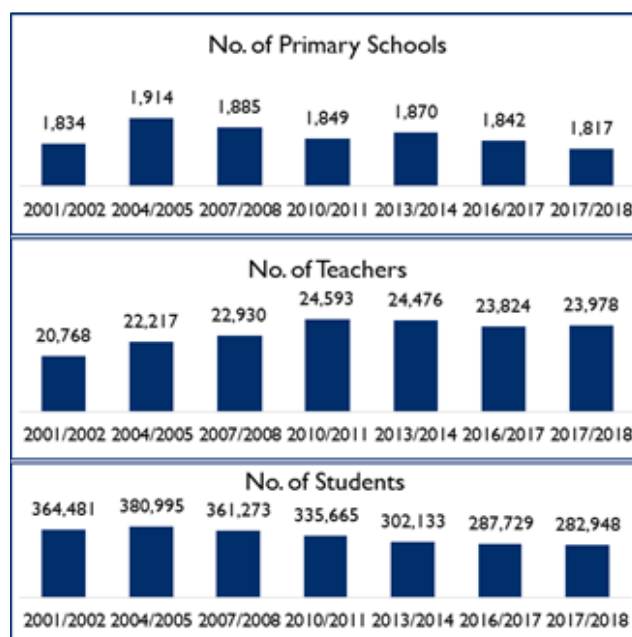
Exhibit 17. Number of Preschool Institutions, Teachers, and Students in BiH from 2004 to 2018



Source: BiH Agency for Statistics, *Education Statistics*

However, the number of students in primary schools has decreased by 81,533 since 2001/2002. In the same period, the number of teachers increased by 3,210 (see Exhibit 18). In 2017/2018, there were 12 students per teacher, on average, compared to 18 students per teacher in 2001/2002.

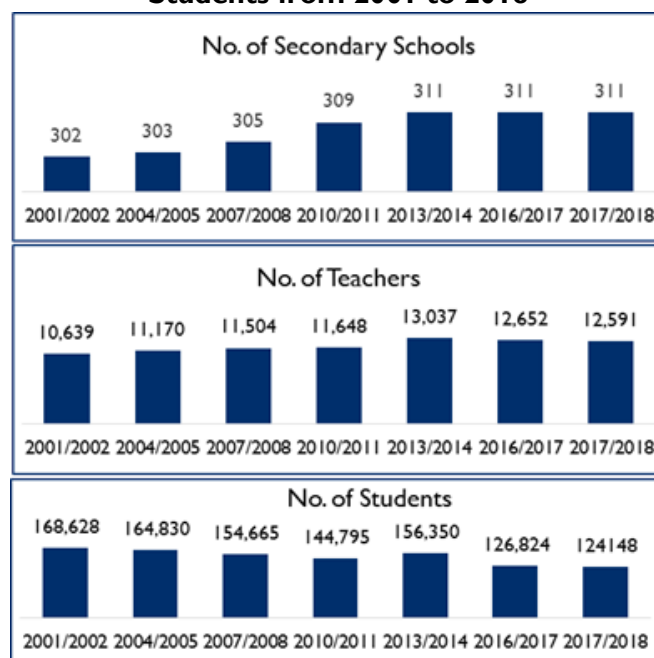
Exhibit 18. Number of Primary Schools, Teachers, and Students from 2001 to 2018



Source: BiH Agency for Statistics, *Education Statistics*

In the secondary schools, in the 2017/2018 school year, 124,148 pupils were enrolled in 311 schools in BiH, which is 44,480 fewer students than in 2001/2002. In the same period, however, the number of teachers increased by 1,952. On average, in 2017/2018, the secondary schools had 11 students per teacher compared with 16 in 2001/2002 (see Exhibit 19).

Exhibit 19. Number of Secondary Schools, Teachers, and Students from 2001 to 2018



Source: BiH Agency for Statistics, *Education Statistics*

One might expect that smaller classes would mean higher quality education since teachers have more time to devote to individual students. However, this is not necessarily the case in BiH because the curricula are largely outdated and content-based. Moreover, research has not been conducted to support this hypothesis.

According to KIs, there were attempts in some cantons to merge schools in communities with small populations, but due to tradition and the protests of parents these proposals have not been adopted. For this reason, according to the KIs, not many schools have been closed. Representatives of several education ministries mentioned they had formed combined classes as a means of coping with a reduction in the number of students; however, one raised concerns about the quality of teaching in these classes. One representative of a pedagogical institute supported the requalification of surplus teachers by providing them with opportunities to become preschool teachers, since these positions are in high demand. Representatives of some administrative units reported that they had introduced changes to pedagogical standards, reducing the required number of students per class so as to keep teachers' jobs. Some education authorities are planning to organize new school networks, as well as close branch schools and provide busing for children from distant areas. However, it remains to be seen whether these measures will be implemented and how the savings will be used.

The World Bank is currently reinitiating their engagement in the education sector by conducting a functional analysis of the sector. The analysis is being financed by the European Commission and focuses on financing and resource use in education as part of a wider public administration reform.

Conclusions

Education financing in BiH is decentralized and fragmented, meaning that regulations differ between administrative units. For example, in some parts of BiH, preschool education is financed by municipal funds and in others by both cantonal and municipal governments. Most education funds are spent on wages, and investments in quality improvements (e.g., equipment, teacher training) are low. Moreover, budgets for wages and fees are planned according to pedagogical standards, that is, the number of classes and teachers rather than the number of students. The number of students in preschool institutions has been slowly increasing since 2004. However, the number of students in primary and secondary schools has significantly decreased, especially in cantons close to the border with Croatia/EU. Education authorities are coping with this situation by forming combined classes, providing teachers with opportunities for requalification, and introducing changes in pedagogical standards.

ASSESSMENT SUB-QUESTION I

How do efforts and advancements in education differ by canton and/or municipality? If USAID took a phased approach to education programming, which regions would be the best to begin programming?

BASIC EDUCATION REFORMS: VARIATIONS WITHIN BiH

When thinking about geography in BiH, I am thinking about political will. Willingness to change something was only words without actions so many times that it is hard to judge at the moment. So, I think the most important thing is to make an in-depth assessment of whether there is a political will before starting with interventions in an entity or canton.

—Interviewee from an international organization, KII

Exhibit 20 presents the differences between BiH administrative units in the implementation of education system reforms. As mentioned earlier, not all administrative units have passed laws that are harmonized with the framework laws (see the items in red font in Exhibit 20). For example, Herzegovina-Neretva Canton has not harmonized its laws on preschool education or VET with the framework laws. Although RS has a law on preschool education, preschool enrollment in the year before school is not compulsory but only recommended.²⁷ Further, while Una-Sana Canton passed a law on preschool education in 2010, the implementation of compulsory preschool education is expected to commence only in February 2019.

With regard to curricular reform based on CCC and learning outcomes, the RS Ministry of Education claims that RS had developed curricula based on learning outcomes in 2014, before APOSO completed the CCC. Save the Children has been implementing CCC based on learning outcomes associated with the linguistic and communications area—mother tongue, and it has now spread to nine administrative units. The same organization recently initiated the piloting of STEM in four administrative units. The US Embassy and the OSCE Mission to BiH are supporting responsible education authorities in implementing comprehensive curricular reform in Canton Sarajevo and piloting a revised curriculum in the social and humanities education area in West Herzegovina Canton. Moreover, the Japanese International Cooperation Agency (JICA) is currently supporting curricular reform in the physical and health area in Herzegovina-Neretva Canton. The EU initiated the integration of entrepreneurial learning, digital competencies, and VET programs based on learning outcomes in all areas of BiH.

²⁷ However, the RS authorities are implementing preschool education for the year before enrollment in primary school.

Exhibit 20. Education Reforms by Administrative Unit in BiH

Administrative Unit	Legislative Framework	Initiated reform based on CCC	Introduced 60 ECTS points of PPDM	Electronic database system	Financing
RS	Preschool	STEM		✓	Combining classes New school networks
BD	✓	STEM			
UNA-SANA	Preschool				Requalification of teachers
POSAVINA	✓	LC			
TUZLA	✓	LC		✓	Combined classes
ZENICA-DOBOJ	✓	LC			Combined classes
BOSNIAN PODRINJE	✓	LC			
CENTRAL BOSNIA	VET	LC			
HERZEGOVINA NERETVA	Preschool, VET	LC, STEM, PH	University of Mostar		
WEST HERZEGOVINA	Preschool	LC, SC		✓	
SARAJEVO	✓	LC, STEM, DC	University of Sarajevo	✓	
CANTON 10	VET	LC			Combined classes, busing

Source: MEASURE-BiH, Kils

Notes: STEM = Science, Technology, Engineering, Mathematics; LC = Linguistic and Communications area, mother tongue; VET = Vocational Education and Training; PH = Physical and Health area; SC = Social and Civic area; DC = Digital Competencies.

Although there have been no interventions in pre-service teacher training besides ENABLE-BiH, two universities now require 60 ECTS credits from the PPDM subject group in the teaching faculties. This has already been implemented by the University of Mostar, and implementation by the University of Sarajevo will start in the next academic year.

With regard to data systems, only four administrative units have electronic systems for data collection: RS and Tuzla, West Herzegovina, and Sarajevo cantons.

Key informants from several administrative units reported that they used strategies such as combined classes and the requalification of teachers to cope with the decreasing number of students. Representatives of Canton 10 and RS stated they are considering closing down branch schools and transferring children to the main schools.

According to KIs, most donors are working in Sarajevo, Zenica-Doboj, and Tuzla cantons. Also, Bosnian Podrinje has participated in a number of VET programs financed by the EU and

various international organizations and foreign embassies (GiZ, Swiss Embassy, KKA). In the area of reforms in basic education, the lowest donor presence is in Una-Sana, Herzegovina-Neretva, and Central Bosnia cantons. However, Central Bosnia and Herzegovina-Neretva participate in donor interventions focused on “two schools under same roof” and reconciliation. Donors may have avoided Una-Sana, possibly due to its distance from the capital.

With regard to the cooperativeness of different education ministries, most KIs consider Tuzla, Zenica-Doboj, Brcko, and Bosnian Podrinje to be the most cooperative, that is, the most willing to initiate reforms and engage in implementation of donor interventions. Moreover, once the Ministry’s approval is obtained, donors face no problems implementing their interventions in RS. In contrast, West Herzegovina, Canton 10, Herzegovina-Neretva, and Central Bosnia cantons are considered least cooperative, along with Canton Sarajevo. With regard to human capacities, most KIs mentioned Tuzla and Zenica-Doboj cantons as the best equipped.

Conclusion

Education reforms have been implemented differently across administrative units of BiH. Curricular reform based on CCC and learning outcomes has been initiated through small-scale donor-funded pilot projects in most administrative units, but the scope varies. Some administrative units are using electronic data systems for data collection, while others still collect data manually. Additionally, there is variability between different parts of BiH in terms of responding to the decrease in the number of students.

Donors working in BiH seem to concentrate their efforts in certain areas and avoid others. Zenica-Doboj and Tuzla are considered both cooperative and better off in terms of human capacities; hence, they have a surplus of donor interventions. On the other hand, Una-Sana has been neglected, possibly due to its geographic position, while West Herzegovina, Canton 10, Herzegovina-Neretva, and Central Bosnia have been avoided by some donors because they are considered the least cooperative administrative units.

ASSESSMENT SUB-QUESTION 2

Are there any excellence in innovation practices in teaching that are being pursued by different players (individual schools, cantons, entities), institutional and others, and any way to build on those synergies?

INNOVATIONS IN TEACHING

Most KIs, especially representatives of government institutions, were unable to recall any innovative teaching practices employed in their schools. KIs noted that innovative teaching

practices exist, but they are used by individual enthusiastic teachers rather than being systemically implemented.

Several KIs mentioned the Center for Educational Initiatives Step by Step as an organization dedicated to encouraging and spreading innovative teaching practices. Since 2016, Step by Step has introduced the Innovative Teacher Award, which is given to the best preschool, primary, and secondary teachers and to expert associates. The website www.inskola.ba²⁸ offers resources for teachers such as full descriptions of innovative activities, including the activities of teachers who have received the Innovative Teacher Award. Some KIs noted that innovative teaching practices or the teachers using them are not always welcomed or supported by their communities.

Digitcoin and Palcici.ba represent two small-scale innovative teaching practices mentioned by KIs. DigitCoin is a currency introduced by a mathematics teacher from Sarajevo who has received the Best Innovative Teacher Award.²⁹ Students are awarded DigitCoins for various accomplishments such as solving mathematical problems (e.g., an award-winning problem, 40 medium-difficulty problems), participating actively in the class, doing homework on time five times in a row, finding a teacher's mistake, etc. The coins can be used to postpone an exam, buy a class, buy points on a test, buy a grade (on condition that the student has not scored an F), use a calculator or notebook during a test, etc. While doing their best to get DigitCoins, students eventually realize they need them less and less. Students who cheat on tests may lose the privilege to use coins, and as a result, cheating has been almost completely rooted out. DigitCoin use has expanded from mathematics to physics (QuarkCoin) and chemistry (AtomCoin) classes.

Palcici.ba³⁰ is another innovative teaching practice, which was developed by a primary school teacher. It is a system of service exchange through which students can ask for help or offer help to their classmates. In the beginning, students listed their names and areas in which they could use help, as well as areas in which they could offer help. In this way, they formed small learning groups with group leaders—mentors who were helping their classmates learn. As a result, there were improvements in students' grades, class participation, self-esteem, friendships, and support, as well as the overall atmosphere in the class.

The STEM curriculum implemented through USAID/BiH ENABLE-BiH was also described as innovative by some KIs, because this was the first time in the region that six disciplines were taught together: biology, chemistry, physics, geography, mathematics, and information technology.

KulturKontakt Austria has implemented ECO NET Training Firms, which is an example of an innovative teaching practice in VET. The main goal of Training Firms was the introduction of practical training in VET schools with the aim of promoting entrepreneurial skills. Training Firms is a web platform that simulates a company with appropriate organizational structures

²⁸ Currently, the website has 5,233 registered users.

²⁹ <https://skolegijum.ba/tekst/index/1599/monetarna-politika-zubotehnicke-skole>

³⁰ <https://inskola.com/upoznajmo-se-amira-idrizovic/>

(sales, procurement, marketing, accounting, etc.) managed by students. The training firm cooperates on the national and international market with other training firms through a service center. The goals of the training firms include an introduction to business problems and their solutions, the development of an entrepreneurial spirit, teamwork, and preparing students for independent work in real companies.

The gifted children's education program Eureka Junior is another example of innovative teaching. The program, developed by a psychology teacher from the University of Sarajevo, was aimed at developing giftedness among fourth grade students in Canton Sarajevo by encouraging the development of analytical/strategic, creative, and practical skills. Teachers were trained to recognize gifted students, and students were included in the program based on teachers' suggestions. The interventions implemented fall into two categories: games and science. Games included strategic games, problem-solving tasks (e.g., riddles, Sudoku), creative activities, and practical tasks. Science teaching involved exploring various topics in biology, physics, and chemistry through experiments and projects (e.g., an experiment with growing a cranberry tree), supported by university teachers and teaching assistants from the Faculty of Science in Sarajevo. The intervention was implemented for three years, but was discontinued due to a lack of funds.

The following two examples of innovative practices have not been implemented or fully developed. West Herzegovina Canton developed two action plans for quality improvements in education. The plans envisioned the establishment of centers of excellence in primary and general secondary schools and centers of competencies in vocational schools in the canton. These centers are imagined as teams within schools that would foster the development of key competencies among students in general education and practical skills among VET students.

In the second example, Open Europe Consulting, in Munich, designed an intervention called "Introduction of the Experiential Learning into the Formal Education in BiH," which aims to strengthen students' key competencies through experiential learning. Experiential learning focuses on learning by doing and moves away from the pure transfer of knowledge towards competency-based learning. The project team had a number of meetings with education ministries that were willing to support implementation of the program in their administrative units. The main focus of the intervention is on teacher training and the introduction of action-oriented teaching into primary schools. The beneficiaries will be pupils and teachers of 32 primary schools in BiH (20 in FBiH, 10 in RS, and 2 in BD). However, the project lost its main donor, Porticus, due to a change in the donor's strategy for the Western Balkans, and is currently looking for a new one.

Box 3 shows how teaching practices and textbooks could be improved based on scientific theories.

Box 3. Cognitive load theory

Cognitive load theory, developed by John Sweller in the late 1980s, suggests that learning can be facilitated by directing cognitive resources to activities relevant for learning. According to the theory, cognitive architecture is made up of a limited working memory and unlimited long-term memory. However, specific instructional designs can increase the capacity of the limited working memory. For instance, when learning content is presented in the form of a diagram followed by an explanation in the text, learners' cognitive resources are overloaded because students must integrate two different sources of information before they begin learning. The theory has broad implications for learning and schooling. Anthony R. Artino³¹ summarized the implications of the cognitive load theory for use by education practitioners:

- a. Provide problems with non-specific goals to reduce load due to a focus on the goal.
- b. Provide worked examples that must be carefully studied to reduce load caused by using a wrong method to problem solving.
- c. Provide partial solutions to problems and ask students to complete them to reduce the size of the problem
- d. Replace multiple sources of information (e.g., explanatory text and diagram) with a single source to reduce load needed to mentally integrate different sources.
- d. Replace problems presented as explanatory text and a diagram with spoken explanatory text and a visual source of information to reduce load due to using multiple modalities.
- e. Replace multiple sources of information that can be understood on their own with a single source to reduce load caused by unnecessary processing of duplicative information.

Conclusions

Representatives of government institutions are generally unaware of innovative practices in teaching employed in their administrative units, and these practices are not always welcomed by communities and schools. However, innovative teaching practices have been developed, employed, and shared by enthusiastic teachers and (sometimes) supported through donor interventions.

ASSESSMENT QUESTION 2

What is the most important challenge(s) and/or opportunity(ies) that could be the subject of a possible USAID/BiH \$7 million basic education interventions in 2020–2024, based on gaps identified from situational analyses and upcoming developments (PISA/lack of students-school reduction)?

RECOMMENDATIONS

- I. Comprehensive reform of public teacher-training faculties, corresponding to the overall reform and modernization of basic education, focused on the development of new study programs for pre-service teacher training based on learning outcomes and key competencies.**

The new activity should utilize the documents produced in the EU-funded interventions dealing with higher and general education reform and the development and implementation

³¹ Artino, A.R., Jr. (2008). Cognitive load theory and the role of learner experience: An abbreviated review for educational practitioners. *AACE Journal*, 16(4), 425-439.

https://www.learntechlib.org/index.cfm?CFID=8413377&CFTOKEN=84354072&fuseaction=Reader.ViewAbstract&paper_id=25229

of the Qualifications Framework in BiH. The occupational and qualifications standards for pre-service teacher training have been developed by all relevant stakeholders in BiH, with the technical assistance of international and domestic experts. Based on these standards for pre-service teacher training, modular study programs based on learning outcomes and key competencies for preschool, primary (for both classroom and subject teaching), and secondary school teachers should be developed. This should be done by relevant domestic stakeholders (teaching faculties, teachers from preschool, primary, and secondary education, pedagogical institutes and ministries of education, domestic experts, etc.) in cooperation with international experts. The intervention should significantly increase the number of hours of practice in schools for teacher candidates as well as the number of PPDM hours. This activity should not take longer than two years to develop, which would enable piloting, monitoring, and evaluation in the following two-year period.

The intervention could be designed to start gradually in selected areas, for example, at the three teaching faculties at the universities of Sarajevo, Banja Luka, and Mostar (Sveučilište); or one could opt to cover all of BiH at the same time, at all eight public universities.

According to key informants, this is a very high priority for all education authorities. This kind of activity, however, has been neglected thus far by most donors that support education reform in BiH. A few KIs cautioned that some resistance may be encountered from the faculties and universities, resulting possibly from their resistance to change in general, expectations to be paid for any extra work, perceptions that they would be overburdened, and their belief that their courses/study programs already offer everything that is required. Therefore it would be of the utmost importance to have a public call for academic staff to express their interest and volunteer to assist in the development of new study programs/curricula. The first step, however, is to inform and get faculty management on board.

On the other hand, universities have the great advantage of academic autonomy, which means that they do not need permission from the ministries to participate in donor interventions. Also, there already exists a highly motivated and well-trained group of 20 local trainers who have met very strict criteria prescribed by the experts of the European Higher Education Area for the development of occupational and qualifications standards, and defining learning outcomes. This was the result of one component in the EU-financed project "Development of Higher Education and Qualifications Standards" (2012-2015). University teachers who participated in that project could be contacted again, especially those who worked on the development of the qualifications standards for teachers.

2. Comprehensive reform and systematic approach to the continuous professional development of teachers.

In-service teacher trainings exist at all responsible ministries of education. Key informants often described them as mostly irrelevant and of poor quality, not reformed or modernized for a very long time, repetitive, etc. The most relevant in-service teacher training has been offered mainly as part of donors' funded interventions in education reform, which generally

have a capacity building and continuous professional development component for teachers and other relevant stakeholders. However, the main problem is that many of the same teachers have participated in a majority of the interventions.

The new intervention should include ministries of education, pedagogical institutes, and a selected number of teachers from universities, preschools, primary schools, and secondary schools. A catalogue of mandatory CPD modules for all teachers (refresher PPDM, development of the most relevant key competencies for teachers, how to implement learning outcomes and key competencies, how to implement inclusion in the classroom, etc.) should be developed, along with the catalogue of individually tailored training programs for teachers (elective CPD, i.e., advanced PPDM, writing project proposals, monitoring and evaluation in education, quality assurance, etc.). Other aspects that should be addressed are quality assurance and accreditation of the CPD programs, their relevance to the progression and promotion of teachers, and the certification/ accreditation and licensing of the CPD providers.

According to key informants, CPD is also a very high priority, but is considered much more complex to implement than the reform of pre-service teacher training, due to the numerous relevant stakeholders. No governmental or donors' interventions deal specifically with CPD improvement. USAID should note that such an intervention may result in resistance from various stakeholders, especially teachers. It might be advisable to start with a few administrative units based on their willingness and interest in participating, and eventually expand the activity across BiH.

3. Extension of the ENABLE-BiH Activity to cover all of BiH and all basic education

Although other areas of CCC implementation will be covered by other donors and international organizations (US Embassy, the OSCE Mission to BiH, Save the Children), the STEM curriculum is perceived as USAID's domain. The new activity should include all current ENABLE-BiH partners and be expanded to all areas of BiH that have not yet been included.

ENABLE-BiH developed and initiated the piloting of all relevant STEM and PPDM documents necessary for implementation, including the EU financed project, Draft Operational Teaching Curriculum (OTC) for STEM based on the CCC and learning outcomes; Operational Guidelines for Implementation of OTC for STEM; Teacher Training Manual; Standards and Operational Guidelines for PPDM; and Resource Manual for University Professors). Additionally, the activity has built the capacities of 73 STEM ToT (Training of Trainers) master trainers to serve as a resource for replication of the intervention.

The new activity could be designed to achieve results similar to those of ENABLE-BiH. The implementers could select a limited number of model schools in the six remaining cantons in which to initiate the rollout and establish groups of master trainers in the cantons. It is important to note that master trainers must be supervised and mentored to ensure high-quality delivery of ToTs. Human capacities built through ENABLE-BiH could be mobilized to

train teachers in other areas of BiH. Where available, teaching faculties and STEM companies should be involved as well. The activity design should take into account lessons learned through ENABLE-BiH and allow for sufficient flexibility to adapt based on the findings of ENABLE-BiH's impact evaluation once they are available.

Implementing such activity throughout the country and making it a part of the education system would require strong political negotiations with education authorities. In such negotiations, USAID/BiH could use the TIMSS 2007 results, the PISA 2019 results, the results of ENABLE-BiH's evaluation, and good practices from neighboring countries, or conduct additional research (e.g., experiments) to show its effects. However, there are no guarantees for country-wide rollout of any piloted intervention in basic education because there can be no work without the consent/authorization of the 12 responsible ministries of education. Even if the activity is negotiated upfront, due to changes of ministers and other policy makers, there is no guarantee that implementation will be smooth, successful, or sustainable. CIVITAS is the only sustainable activity that became part of the formal education system, yet it is facing challenges as well. For example, civic education has recently been replaced with the course that teaches the Turkish language in one part of Herzegovina-Neretva Canton (where the schools had been using curricula in the Bosnian language). Hence, political pressures might be necessary to ensure sustainability.

Moreover, based on ENABLE-BiH's experience, implementation of STEM throughout the country may encounter teacher resistance. For instance, some teachers in Canton Sarajevo perceived the implementation of STEM as additional work and insisted on being paid for it.

Geographically Phased Approach

- Consider starting implementation in a few administrative units and later expanding across BiH. Starting in Tuzla and Zenica-Doboj is recommended because they have good human capacities and are known to be cooperative. Also, consider working in Republika Srpska and Brcko District to cover each major administrative unit of BiH.

OTHER AREAS FOR IMPROVEMENT

Quality of Basic Education

- Raise awareness about the importance of the assessment of quality in basic education (including formative classroom assessments, national assessments, national examinations/external "matura," international assessments), and their relationships with quality improvements (including evidence-based policy and decision-making). Seek support from education stakeholders to conduct/fund such assessments on a regular basis.
- Raise awareness about the importance of early childhood education. Support implementation of CCC based on learning outcomes for preschool education, including the development of operational curricula and the provision of teacher

training. Harmonize and standardize compulsory preschool education according to EU recommendations and scientific evidence. Ensure that preschool education is available to vulnerable groups, for example, children from rural areas, minorities, and the poor.

- Support implementation of curricular reform based on CCC, learning outcomes, and key competencies for each of eight curricular areas in primary and general secondary schools across BiH. Support the systematic development of transversal competencies in students throughout basic education, for example, intercultural competence, learning how to learn, developing creative and productive competencies, and career management skills. Support implementation of the Qualifications Framework for General Education.
- Support improvements in VET education to include modern curricula, the development of learning outcomes, and an increase in the hours of practice and work-based learning across BiH.
- Develop and implement gifted children's programs in BiH. This type of intervention would require raising awareness about gifted children among education stakeholders. Educate stakeholders about why gifted children are considered children with special needs, and how such individuals can reinforce the country's economy or, on the other hand, become social problems if left unchallenged. The intervention could include capacity building of teachers to recognize giftedness and to implement programs that develop students' abilities to their full potential.

Education System Reforms

- Establish external "matura," i.e., an external evaluation at the end of general secondary education. An attempt to establish an external exit exam has already been made by the EU and MoCA through the intervention Qualifications Framework in General Education 2014-2017. This attempt failed due to a lack of political will to have a State-level exit exam. However, other approaches to establishing external matura should be explored and offered to education stakeholders, because this matter is of great importance for improving the quality of basic education. One of the possible modalities is to create a single center with three branch offices.
- Support ministries of education in passing laws harmonized with the framework laws. Support MoCA in the development of a new comprehensive education strategy.
- Develop a harmonized database for the education sector at all administrative levels. The intervention should include an in-depth analysis of variables that could be useful to education stakeholders for strategic planning, policy- and decision making, and international reporting (EUROSTAT). Infrastructure, procedures, and a data system should be built to capture these data. The intervention would also require capacity building among education stakeholders to conduct data analysis and begin making decisions based on evidence. Previous EU and World Bank interventions tried to

establish this type of database, but although it worked in certain regions, it has not been implemented across BiH for a number of reasons including limited staff and resources.

- Because quality assurance is a pre-requisite for quality, test and implement the standardized quality assurance models and methodology in basic education and thus ensure that the main features of education reforms (such as CCC based on learning outcomes and key competencies) are available in all curricula and to all pupils/ students across BiH.
- Raise awareness about MEL and build it into governments' strategic planning. Education stakeholders must become aware of the significance and usefulness of MEL. Also, their capacities to conduct MEL need to be built, along with capacities to analyze and use MEL information in strategic planning and policy making. MEL is a prerequisite for both quality and standardization in education.
- Develop a BiH-wide human resources strategy. This would be very useful for BiH, especially as part of the EU integration process, because it requires inter-sectorial cooperation and planning for human resource development (education and training, economy and trade, industries, employers, social policies, etc.).

Basic Education Financing and Upcoming Reduction of Schools

- Develop a new financial model in basic education to achieve budget savings to be used for quality improvements. Train school staff to write project proposals and solicit funds and thus increase investments in quality.

Innovations in Teaching

- Consider supporting innovative practices such as Digitcoin and Palcici.ba. Consider supporting Training Firms in VET, or education programs for gifted children such as Eureka Junior.

ANNEXES

ANNEX I: ASSESSMENT WORK PLAN

INTRODUCTION AND PURPOSE

In 2016, the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) commissioned the Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct a brief assessment of government and international community interventions that were intended to enhance the quality of basic education in BiH. The 2016 Assessment was used to design USAID/BiH's Enhancing and Advancing Basic Learning and Education program in Bosnia-Herzegovina (ENABLE-BiH). The main objectives of this assessment are to update the 2016 Assessment, identify potential new developments and challenges in basic education in BiH, and provide recommendations for the design and implementation of a possible new USAID/BiH's Activity in the basic education field.

BACKGROUND

According to USAID's definition,³² basic education implies: (a) measurable improvements in skills such as literacy, numeracy, and other basic skills that prepare learners to become productive society members; (b) workforce development, including vocational trainings and trainings in digital literacy connected to labor market needs and resulting in measurable improvements in employment outcomes; (c) interventions designed to improve early childhood, preprimary, primary, and secondary education, either through formal, non-formal, or out-of-school learning programs for youth and adults; and (d) capacity building for teachers, administrators, counselors, and youth workers that results in measurable improvements in learners' literacy, numeracy, or employment.

In Bosnia and Herzegovina, education is an overall reflection of a complex state structure defined by the BiH Constitution, entity and cantonal constitutions, and Brcko District Statute. Republika Srpska, ten FBiH cantons, and Brcko District have full jurisdiction in the education sector. Attempts to coordinate and reform the basic education have been impeded by these complexities. Three framework laws on basic education have been adopted at the State-level as a part of the education reform: 1. Framework Law on Preschool Care and Education in BiH, 2. Framework Law on Secondary Vocational Education and Training in BiH, and 3. Framework Law on Primary and Secondary Education in BiH.³³

The Agency for Preschool, Primary, and Secondary Education (APOSO) developed Common Core Curricula (CCC) based on learning outcomes, which is the first step toward the reform aiming at improving quality of basic education. Learning outcomes are broadly defined as knowledge, skills, and competencies that each student needs to understand and be able to apply at different milestone years of schooling, and also relative to ten key competencies:

1. Linguistic and communication competence in the mother tongue
2. Linguistic and communication competence in foreign languages
3. Mathematical literacy and competence in science and technology

³² <https://www.congress.gov/115/bills/hr601/BILLS-115hr601enr.pdf>

³³ http://www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/Osnovne_informacije/default.aspx?id=8580&langTag=en-US

4. Information technology literacy
5. Learning to learn
6. Social and civic competencies
7. Self-initiative and entrepreneurial competencies
8. Cultural awareness
9. Creative and productive competencies
10. Physical and health competencies

In 2016, MEASURE-BiH conducted a Brief Assessment of Basic Education in Bosnia and Herzegovina (further on: 2016 Assessment) and identified the status of basic education in BiH. The Assessment Report included an overview of each of the three basic education levels in BiH: preschool, primary, and secondary education. Moreover, in 2017 MEASURE-BiH conducted an Overview of Main Challenges in Primary and Secondary Education in BiH. The 2016 Assessment and the 2017 Overview identified various issues related to the four areas of interest for the follow-on assessment:

- Quality of basic education;
- Pre-service and in-service teacher training;
- Education system reforms including standardization, policy reforms, improved information and data systems, and monitoring and evaluation;
- Issues surrounding education financing and upcoming reduction of schools.

According to the 2016 Assessment, with regard to preschool education the law on preschool education was adopted both in FBiH and RS. However, the preschool education was regulated and implemented differently across BiH, and in the RS it was rather recommended than compulsory. Moreover, efficiency and effectiveness of preschool programs were unknown as they had not been subject to any evaluation. Additionally, the teacher training programs and professional development programs for preschool teachers were not harmonized across the country. Even though the quality standards for work of preschool teachers, pedagogues, and principals had been defined in 2011, by 2016 they were adopted only by the Teaching Faculty of the University of Sarajevo. Also, the Republika Srpska (RS) had developed a new preschool curriculum based on educational outcomes and was in the process of adopting a new Education Strategy for the period from 2016 through 2021, which envisaged improvements in enrollment rates, work conditions, and awareness raising activities related to preschool education. However, similar activities were not mentioned by any stakeholders interviewed in the Federation of Bosnia and Herzegovina (FBiH) at the time. The Ministry of Civil Affairs initiated development of a new Strategy for Preschool Education at the State level which envisaged that APOS0 would work on development of the Common Core Curriculum for preschool education, but the Strategy was not adopted by the Council of Ministers at the time when the assessment was conducted. Moreover, no activities related to the improvement of data collection systems in preschool education have been noted. According to the Platform for Development of Preschool Education in BiH for the period from 2017 to 2022,³⁴ financing of preschool institutions is the obligation of municipalities (except in Canton Sarajevo and Brcko District). Hence, some cantonal ministries of education do not include financing of these institutions in their budgets.

According to the 2016 Assessment results, the quality of teaching in primary schools was poor given that the initial education of primary teachers varied between different faculties; pedagogy, psychology, didactics, and methodology (PPDM) teaching methods were outdated; the number of European Credit Transfer and Accumulation System (ECTS) credits in PPDM were lower than recommended by the

³⁴ <http://mon.ks.gov.ba/node/9561>

EU; and continuing professional development (CPD) of teachers was poor. In addition, basic life skills needed in the labor market (e.g., critical thinking and communication skills) were poorly developed among primary students. Also, data collection, monitoring and evaluation systems in primary education were not well developed or sufficiently used. External exams were not used or harmonized across the country and lacked external validity. Furthermore, BiH did not participate in any international assessments of students' achievement except the 2007 Trends in International Mathematics and Science Study (TIMSS).³⁵ Finally, BiH's primary education system was found to be focused on content rather than learning outcomes. According to the 2017 Overview, the major reform in primary education was the introduction of obligatory nine-year primary education, which was implemented across the country.

Regarding secondary education, the 2016 Assessment found that initial education and professional development for secondary school teachers, particularly Vocational Education and Training (VET) teachers and instructors, were described as low quality. Specifically, teacher education programs were not standardized, curricula were outdated, and financial resources insufficient. Consequently, secondary education institutions were criticized for providing poor education, failing to develop the skills needed in the labor market, and focusing on content rather than on learning outcomes. However, occupational standards for VET were developed, the curricula were aligned with these standards, and BiH teachers were trained to implement the curricula. Although the baseline for the Qualifications Framework in BiH was adopted by the Council of Ministers of BiH in 2011, the implementation encountered problems due to political disagreements.

According to the 2017 Overview, there are several problems connected to the financing of primary and secondary education in BiH, including spending all funds on wages and insufficient funding for school infrastructure, and low and uneven teacher salaries which are not tied to teachers' performance. Overall, interventions in basic education in BiH were mainly funded by international donors (e.g., US Embassy, Norwegian Embassy, European Union Delegation), and implemented by inter-governmental agencies (e.g. OSCE Mission to BiH or UNICEF) or non-governmental organizations (NGOs) (e.g., Save the Children, Step by Step, World Vision).

The 2016 Assessment recommendations related to the four areas of interest were as follows:

1. Develop operational teaching curriculum in mathematics based on learning outcomes.
2. Expand the required number of course credits for teaching competencies in pedagogy, psychology, didactics, and teaching methods.
3. Revise the continuous professional development system for teachers.
4. Upgrade the education information systems.
5. Revise the system of education for non-teachers.
6. Provide technical assistance in developing strategic policy documents at the State level.
7. Establish VET Councils where not established.

The Assessment Team recognized that recommendations 1 and 2 were the most appropriate for the USAID/BiH intervention with limited financial resources and focusing on solving technical complexities essential for children's competencies and solving key issues rather than addressing the symptoms. Following these recommendations, USAID/BiH designed ENABLE-BiH, a cross-cutting program with the purpose to improve learning outcomes in primary and general secondary education in BiH and contribute to BiH students developing key competencies necessary for participation in workforce

³⁵ BiH participated in PISA Assessment in 2018; however, the results are not available yet.

through development of Draft Operational Teaching Curriculum (OTC) for STEM (Science, Technology, Engineering and Mathematics) based on CCC and Development of Standards and Operational Guidelines for PPDM education and training for teachers.

The follow-on assessment will build on the 2016 Assessment by identifying the current status in basic education in BiH, potential policy changes and new interventions, and relevance of the recommendations. Additionally, the follow-on assessment will pay particular attention to the financing of basic education institutions, upcoming reduction of schools, innovative approaches in basic education, and geographic areas that are most suitable for new interventions – the topics that were not covered by the 2016 Assessment.

ASSESSMENT QUESTIONS

The assessment team, consisting of 4 members, will undertake the work required to produce a report that includes recommendations that can inform USAID/BiH programming in basic education in BiH.

Through the analysis and recommendations, the assessment team will answer following assessment questions and sub-questions:

- I. What recent and on-going intervention and reform processes led by local and international actors have accomplished that could serve as basis USAID/BiH's intervention could be built on?
 - Ia. How do efforts and advancements in education differ by canton and/or municipality? If USAID took a phased approach to education programming, which regions would be the best to begin programming?
 - Ib. Are there any excellence in innovation practices in teaching that are being pursued by different players (individual schools, cantons, entities), institutional and others, and any way to build on those synergies?
2. What is the most important challenge(s) and/or opportunity(es) that could be the subject of a possible USAID/BiH \$7 million basic education interventions in 2020 – 2024, based on gaps identified from situational analyses and upcoming developments (PISA/lack of students-school reduction)?

The recommendations resulting from the assessment will serve as initial inputs for the development of the Program Description for the new USAID/BiH basic education intervention.

DESIGN, METHODOLOGY AND DATA SOURCES

The MEASURE-BiH team will use the assessment matrix, design and methodology as defined in the scope of work. The proposed methodology will ensure systematic and efficient collection of data and triangulation of information across different sources and methods.

The methods will include:

- desk research of relevant documentation and data
- semi-structured key informant interviews with the most important local and international stakeholders in the education sector
- statistical analysis of relevant survey data

Figure 1. Assessment Matrix

Assessment Question	Data Source	Methodology
1. What recent and on-going intervention and reform processes led by local and international actors have accomplished that could serve as basis USAID/BiH's intervention could be built on? Ia. Are there any excellence in innovation practices in teaching that are being pursued by different players (individual schools, cantons, entities), institutional and others, and any way to build on those synergies? Ib. Are there any excellence in innovation practices in teaching that are being pursued by different players (individual schools, cantons, entities), institutional and others, and any way to build on those synergies?	- Semi-structured key informant interviews (KIIs) with: USAID/BiH and other donors, relevant ministries and agencies, and other organizations working in the education sector. - Documents and secondary statistical data review - Survey data	Mixed Method Triangulation
2. What is the most important challenge(s) that could be a subject of a possible USAID/BiH \$7 million of basic education interventions in 2020 – 2024, based on gaps identified from situational analyses and gaps in ongoing interventions?	- Semi-structured key informant interviews (KIIs) with: USAID/BiH (possibly other US agencies) and other donors, relevant ministries and agencies at all government tiers, municipalities, banks, business associations and businesses, citizens, etc. - Documents and secondary statistical data review - Survey data	Mixed Method Triangulation

The MEASURE-BiH team will rely on triangulation methods in the data collection and analysis processes, combining different sources of information such as documents review, semi-structured Key Informant Interviews (KIIs), and relevant survey data.

Documents review

The MEASURE-BiH team will review documents relevant for assessment of BiH basic education in BiH and wider.

Key Informant Interviews (KIIs)

During the data collection, the assessment team will conduct semi-structured KIIs with the education stakeholders in the BiH, including government institutions, international donors, NGOs, and education experts.

The assessment team plans to conduct approximately 30 KIIs within these five groups:

- USAID/BiH and IPs of USAID's Activities in education – 3 interviews
- Government institutions – up to 10 interviews
- International donors – 5 to 10 interviews
- NGOs/CSOs – 5 to 10 interviews
- Education experts – up to 5 interviews

A detailed list of KIs and a tentative schedule of all planned KIIs is provided in Annex I.

All KIIs will be conducted with a minimum two team members present. Interviews will be structured according to defined interview protocols in order to ensure objectivity, focus, consistency and comparability of responses. The interviews will be conducted in the way to fit each of the assessment questions, including specific questions on recommendations for a possible USAID/BiH intervention, as well as to address important contextual aspects. The KII protocol is provided in Annex II.

Survey data

The team has identified two sources of survey data which will be used:

1. The National Survey of Citizens' Perceptions (NSCP) which is conducted from 2015 to 2017 (the 2018 round is being conducted at the moment) by MEASURE-BiH,
2. National Youth Survey in BiH conducted in 2018.

If possible, MEASURE-BiH will also conduct a mini-survey of education practitioners to obtain insights in challenges they are facing in their practice.

The survey data will be triangulated with KIIs and relevant documents in order to provide a holistic picture and thorough answers to the assessment questions.

ASSESSMENT LIMITATIONS

The main potential limitations of the assessment include:

1. **Response bias.** The majority of the key informants will have a certain interest in future basic education interventions and may shape their responses to suit their needs and interests. We will mitigate this to the extent possible by drawing on multiple sources of information and by carefully designing and implementing data collection. We will also ensure broad coverage of the education stakeholders in the KIIs.

2. **Recall bias.** KIs may have difficulties recalling specific information about past, ongoing or future interventions. We will offer them an opportunity to deliver necessary information after the meeting by email or phone.

DELIVERABLES AND SCHEDULE

The deliverables under this work plan will be:

1. Detailed evaluation work plan and data collection instrument(s)
2. Presentation of preliminary findings
3. Draft assessment report
4. Final assessment report

The deliverables specified here and their due dates are highlighted in the schedule of tasks provided in the table below.

The timetable of tasks and due dates for their completion is as follows:

Due date (2018)	Task
October 24	In-briefing with USAID/BiH
October 26	Submitting the Assessment Work Plan for USAID/BiH approval
October 22 – October 26	Scheduling of meetings, engagement of transcribers, and other logistic preparations
October 29 – November 14	Data collection Initiating data analysis
November 17 - November 23	Finalizing data analysis Preparation of presentation with preliminary findings Initiating preparation of the draft report
November 29	Presentation of preliminary findings to USAID/BiH
November 30 – December 17	Finalizing draft assessment report and editing
December 17	The draft assessment report submitted to USAID/BiH
Upon receiving USAID/BiH's comments	Finalizing the assessment report The final assessment report submitted to USAID/BiH

DISSEMINATION PLAN

Upon completion of data analysis, the team will deliver the Preliminary Presentation and prepare the Draft Assessment Report. Upon receiving USAID/BiH's comments, the team will prepare the Final Assessment Report.

The structure of the Report will be based on the standard USAID format. The report will include findings for each assessment question, conclusions drawn from these findings, the key lessons the team learned, and main recommendations.

TEAM COMPOSITION AND KEY QUALIFICATIONS

MEASURE-BiH formed a team composed of professionals who possess subject matter expertise in the BiH basic education and technical knowledge for conducting high quality assessments.

Position	Name / Key Qualifications
Assessment Co-Lead	<p>Daria Duilovic, Head of Department for Coordination of Education Policy at the Ministry of Civil Affairs of BiH</p> <p>Daria Duilović has 20 years of extensive experience in education and training reforms in Bosnia and Herzegovina, SEE and EU. She has worked as the Senior Education Advisor in the Office of the High Representative in BiH for 10 years before moving to her current position of the Head of Department for Coordination of Education Policy at the Ministry of Civil Affairs of BiH in 2010. In her current job she is focused on policy and strategy development and overall planning in the area of education and training, in line with EU standards and principles. She is leading development and implementation of the Qualification Framework for Lifelong Learning in BiH and is a BiH member of the EQF Advisory Group. Ms Duilović is also a member of the CoE network of Education Policy Advisors for Competences for Democratic Culture and QF EHEA. She holds BA in Literature and Philosophy from University of Sarajevo and MA in European Studies from University of Bologna and University of Sarajevo.</p>
Assessment Co-Lead	<p>Salminka Vizin, MEASURE-BiH Research Analyst</p> <p>Ms. Vizin has 8 years of experience in the field of social research, including project management, creation of data collection instruments, carrying out qualitative and quantitative analyses, and reporting. She is an experienced researcher in various topics, including education. As a member of MEASURE-BiH team she worked on the National Survey of Citizens Perceptions in Bosnia and Herzegovina 2016 and 2017, National Youth Survey in Bosnia and Herzegovina 2018, evaluation of the USAID PRO-Future Activity, assessment of the Countering Violent Extremism in Bosnia and Herzegovina, and Justice Activity Performance Evaluation and Brief Assessment. She holds an MA degree in Psychology from University of Sarajevo.</p>
Team Member	<p>Lamija Husic, Assistant Minister of Education, Science and Youth of Canton Sarajevo</p> <p>Lamija Husic has 24 years of experience in the field of education. She worked as a history teacher from 1994 to 2007. Since 2007 she has been employed in the Ministry for Education, Science and Youth of Canton Sarajevo, firstly as an Advisor for Preschool, Primary and Secondary Education and later as Chief of Department for Secondary Education and Adult Education. Since April 2, 2018 she has been working as Deputy Minister of Education, Science and Youth. She is an experienced researcher in various topics, such as: creating national curricula, creating laws in area of preschool, primary, secondary, and adult education, creating external exam for primary schools, online student enrollment in secondary schools, and improving preschool system. She was member of the national team for national qualification framework, member of national team for qualification framework for general education, and qualification framework for lifelong learning education. She has experience in the field of education research, creation of measures to improve education systems, etc. She holds university degree in History from University of Sarajevo.</p>
Team Member	Davorin Pavelic , MEASURE-BiH Chief of Party

Mr. Pavelic served as a member of the evaluation team on a meta-evaluation of assistance of the Norwegian government to the SEE region from 1991 to 2001. He was also Team Leader in a performance evaluation of the USAID BiH Excellence in Innovation intervention. He is a MEASURE-BiH Research Fellow and has earned a Certificate of Evaluation Practice through the Evaluator's Institute at Claremont Graduate University in 2017. He was evaluation lead for the 2010-2013 USAID BiH Development Grants Program, evaluation co-lead for performance evaluation of the USAID/Sweden Fostering Agricultural Markets Activity II, evaluation lead for the Whole-of Project Evaluation of USAD/BiH Project 2.2., Justice Activity Performance Evaluation and Brief Assessment, and M&E expert for a UNDP intervention to build municipal capacities for monitoring and evaluation of integrated development strategies in BiH. Mr. Pavelic has an undergraduate degree in mechanical engineering from the High Military Academy in Zagreb and an MBA from the University of Delaware. He is currently a PhD candidate at the Faculty of Economy and Management from Zagreb.

ANNEX II: DATA COLLECTION INSTRUMENTS

INTERVIEW PROTOCOL

ASSESSMENT INTERVIEW INSTRUCTIONS

The interview guides are intended to serve as semi-structured guides for conversations with key stakeholders. Do not read the questions or probes word for word. Instead, adapt the wording to match the phrasing used by the respondent and ask only those questions which have not been already addressed by the interviewees during earlier part of the interview. Take notes on key terms or phrases used by the respondents that may be helpful in coding the interview data. Ask for clarification and definitions as needed.

Familiarize yourself with the interview protocol guides in advance of your meeting. Skip questions that are not relevant given the interviewee specificities. Highlight the questions you will prioritize if the respondent's time is limited. Be respectful of the respondent's time and keep the interview to the agreed length of time. Follow up by phone or email for more information as needed.

In addition:

- Take notes during the discussion. To ensure the accurate report on what is discussed during the interview, record the session.
- As necessary, tailor all questions to fit the individual stakeholders.
- The Assessment Team will ensure that the information shared through these interviews remain strictly confidential.

INTRODUCTION

My name is <state your name>, and these are my colleagues <state the names of other team members present, if any>. We are the team of researchers working for the MEASURE-BiH.

First of all, we want to thank you for setting aside the time for this conversation. As you know, USAID/BiH has tasked MEASURE-BiH with conducting a follow-on assessment of basic education in BiH. Within the assessment, we will conduct semi-structured interviews with around 30 education stakeholders (including USAID/BiH, relevant ministries, international organizations and local NGOs, education experts) and a mini-survey. Therefore, your views and opinions are profoundly important for this assessment.

Through these KIIs, we are looking to gain the in-depth insights into the status of BiH basic education, past, ongoing and future interventions, lessons learned and recommendations for any possible future donor/government interventions in basic education in BiH. The information you provide will be used combined with information provided from other stakeholders. Your comments are confidential and you will not be identified by name in any report.

<NAME> will be taking notes while we talk. With your permission, we would also like to record this session. The reason why we are recording is that it is quite hard to actively participate in a conversation and take notes at the same time. Another reason is that we want to analyze the interviews using objective methods, and avoid any bias related to quality of notes and the capacity of interviewers' memory. Do we have your permission to begin recording?

Please do not hesitate to mention anything that you find important, and we miss to ask about it.

Do you have any questions before we start?

CHALLENGES IN BASIC EDUCATION

Whenever possible, ask about each level of basic education: preschool, primary, and secondary.

In your experience, what are the primary challenges facing the basic education in BiH? What are the primary challenges with regard to...?

- **Quality of basic education** (*Ask about:* quality of preschool, primary, and secondary education; obstacles to quality improvements and ways to overcome; status of the Common Core Curricula and OTCs; key competencies inclusion in OTCs and learning outcomes; practice and dual education in technical secondary schools)
- **Pre-service and in-service teacher training** (*Ask about:* pre-service training for preschool, primary, and secondary teachers; status of initial education for teachers and recent reforms; selection of students in teaching faculties; status and reforms of continuous professional training for teachers; qualifications standards for teachers; teachers' capacities; learning outcomes and key competencies in initial teacher education and capacities to develop such programs; status of PPDM and its importance for future teachers and students; preparedness of teachers for work after graduation)
- **Education system reforms including standardization, policy reform; information and data systems; monitoring and evaluation** (*Ask about:* preschool, primary and secondary education; educational reforms in the context of EU integration and achieving EU standards; new educational policies and/or strategies; qualification standards; vocational standards; external exams; international testing of students achievement: expectations and usefulness; existing data and information systems; practices in monitoring and internal/external evaluation)
- **Education financing and upcoming reduction of schools** (*Ask about:* financing and number of students in preschool, primary, and secondary education - status and opportunities for improvement; issue of decreased number of students and coping strategies; reduction of schools as a solution)

What is the nature of political interests in basic education in BiH? What are political obstacles to educational system reforms, and what strategies should be employed to address them?

NEW TRENDS

Ask about each level of basic education: preschool, primary, and secondary.

- What are the new developments in basic education?
- What are the most recent theories and scientific research findings that have implications for basic education in BiH?
- Are there any innovative practices in BiH or wider that should be adopted or reinforced in BiH?

INTERVENTIONS

Ask about each level of basic education: preschool, primary, and secondary.

Have you, in the last three years, implemented projects/activities related to preschool, primary and secondary education? If yes:

- Preschool, primary or secondary education
- Objectives
- Methodology
- Geographic coverage
- Partner(s)/funding
- Funds
- Project duration
- Results
- Sustainability
- Challenges and lessons learned
- Innovative teaching practices
- Future interventions

Do you know about any other institutions or organizations that are planning or implementing projects in basic education in BiH? If yes, who?

For government institutions: Tell us about your collaboration with NGOs/CSOs with regard to education. With which organization(s) does your institution have best relationship and collaboration?

PRIORITIES, GAPS, AND RECOMMENDATIONS FOR FUTURE INTERVENTIONS

Ask about each level of basic education: preschool, primary, and secondary.

In your opinion, which of the following should be considered priority for the reform of the basic education in BiH? What are the priorities in each preschool, primary, and secondary education? What are the priorities within each of these four areas?

- **Quality of basic education**
 - **Pre-service and in-service teacher training**
 - **Education system reforms including standardization, policy reform; information and data systems; monitoring and evaluation**
 - **Education financing and upcoming reduction of schools**
- What are the obstacles to overcoming these challenges?
 - Among those, are there any challenges that neither government nor international donor organizations are currently addressing?
 - Have the education institutions in this region received any support in addressing these challenges? Are there any regions (entity, canton, municipality) that have received substantial support in addressing these challenges? Are there any regions that were neglected? What geographic regions should be prioritized?
 - What are the capacities of education institutions in this region to implement a large-scale education system reform? Are there any differences in capacities between different geographic regions to implement basic education reform? Which geographic regions have best capacities? Which have worst capacities?

MINI-SURVEY OF EDUCATION PRACTITIONERS

Q1. Where are you employed?

1. Preschool Institution
2. Primary School
3. Secondary School
4. Vocational School

Q2. Are you:

1. Preschool teacher
2. Primary school teacher – general education
3. Primary school teacher – subject teacher
4. Secondary school teacher
5. Pedagogue
6. Psychologist
7. Social worker
8. Administrative worker
9. School management member
10. Other, please specify

Q3. For teachers: What subject do you teach?

Q4. From your perspective, what are the primary challenges you are facing in your practice?

a. First challenge	
b. Second challenge	
c. Third challenge	

Q5. How would you rate the following in BiH in relation to the education level you teach?

	Very low	Low	High	Very high	DK
a. Quality of education delivered to students	1	2	3	4	5
b. Quality of teacher training programs	1	2	3	4	5
c. Practice as part of pre-service teacher training	1	2	3	4	5
d. Quality of professional development programs for teachers	1	2	3	4	5

e. Teachers' autonomy to choose and use teaching methods by him/herself	1	2	3	4	5
f. Teachers' motivation to work and CPD	1	2	3	4	5
g. School management's support to teachers	1	2	3	4	5
h. Quality of education policies	1	2	3	4	5
i. Implementation of education policies	1	2	3	4	5
j. Informationalisation and data about students	1	2	3	4	5
k. Availability of information and statistical data about students	1	2	3	4	5
l. Distribution of finances in education	1	2	3	4	5

Q6. How much do you agree with the following statements?

	Completely disagree	Disagree	Agree	Completely agree	DK
a. Teachers who do quality work are adequately rewarded	1	2	3	4	5
b. Teachers who perform poorly are held accountable and face negative consequences	1	2	3	4	5
c. Teachers are appreciated community members	1	2	3	4	5
d. After professional development seminars, teachers acquire new knowledge and skills	1	2	3	4	5
e. Teachers use new skills acquired through professional development seminars	1	2	3	4	5
f. Professional development seminars are rather theoretical than practical	1	2	3	4	5

g. Most students in my class/school acquire the skills and competences I teach	1	2	3	4	5
h. Most students in my class/school are adequately prepared and mature for their level of education	1	2	3	4	5
i. The curriculum is not overburdened, so in my class/school we are teaching students universal values	1	2	3	4	5
j. The curriculum is not overburdened, so in my class/school we are teaching students interpersonal skills and civic competences	1	2	3	4	5
k. The curriculum is not overburdened, so in my class/school we are teaching students innovative and critical thinking skills	1	2	3	4	5
l. The curriculum is not overburdened, so in my class/school we are teaching students key competences and life skills	1	2	3	4	5
m. My school implements a special gifted children program	1	2	3	4	5
n. Teachers in my school are overwhelmed with work	1	2	3	4	5
o. Effects of strategies, policies and projects in education are monitored/evaluated	1	2	3	4	5
p. Results of evaluations of strategies, policies and other interventions in education are used	1	2	3	4	5

for improvements of education					
q. It is important to monitor and evaluate effects and performance of interventions in education	1	2	3	4	5

Q7. Did you participated in the implementation of some experimental teaching programs?

YES – In which?

NO

Q8. Example of my innovative work.

Q9. Which activities in the next three years do you consider as a priority in the education sector?

Q10. How many times have you participated in professional development and training activities/programs in the past year?

Q11. My recommendations for projects in education.

Q12. Other comments and remarks.

DEMOGRAPHIC VARIABLES

D1. Gender

D2. Age

D3. Public or private school

D4. Experience in teaching (in years)

D5. Level of education

D6. Entity

D7. Canton

D8. Municipality

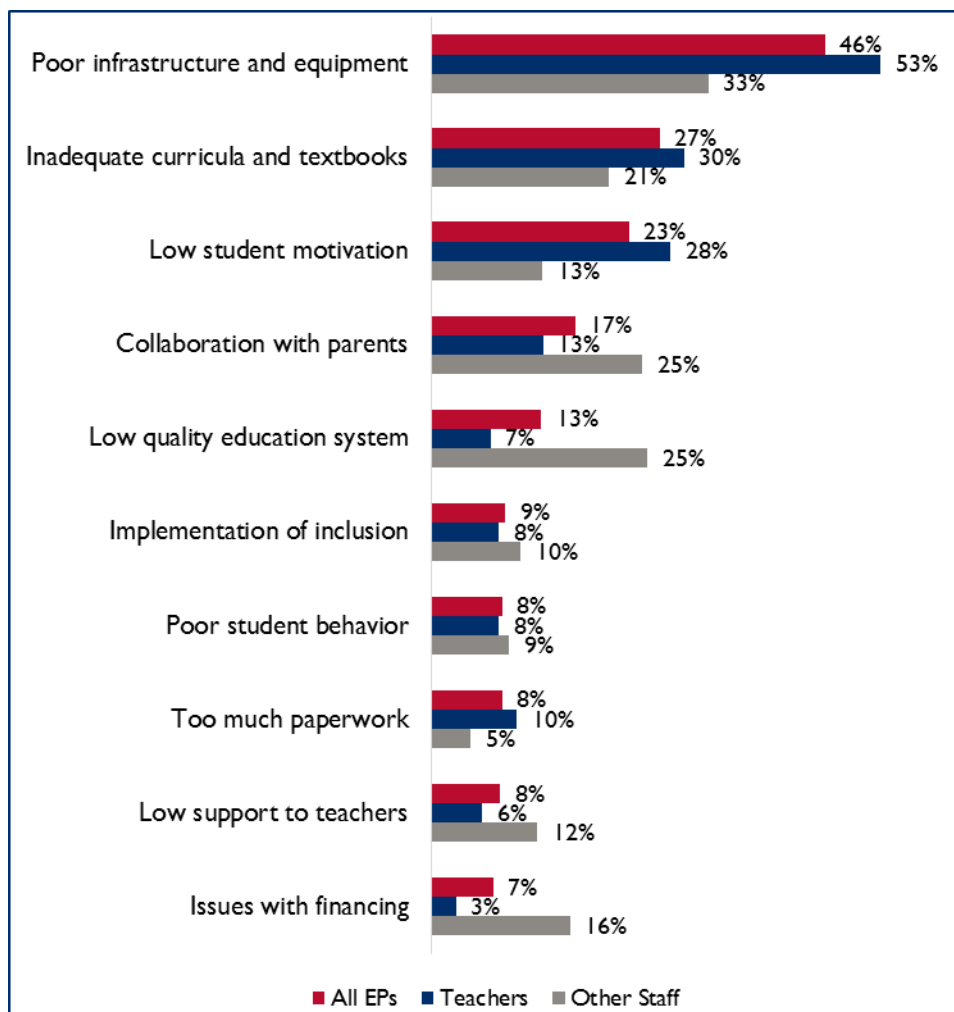
ANNEX III: LIST OF INTERVIEWEES

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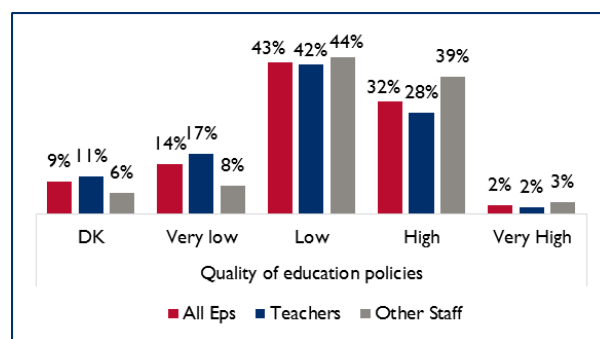
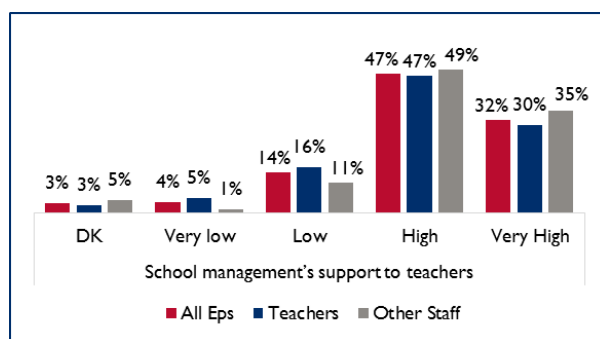
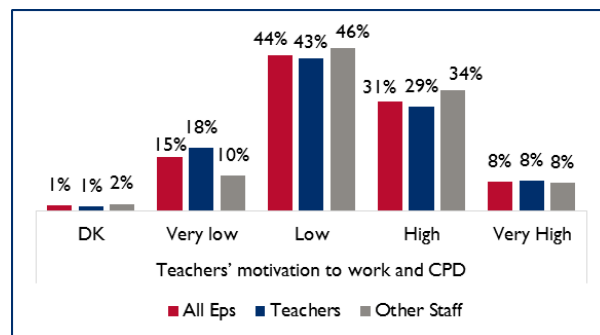
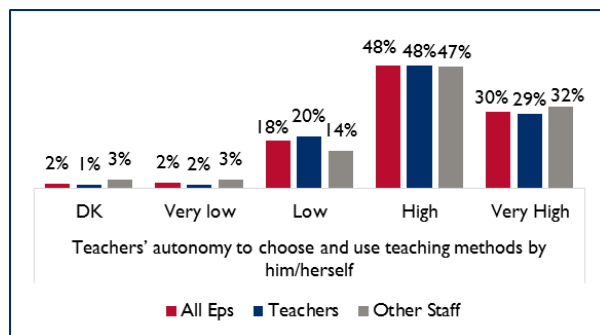
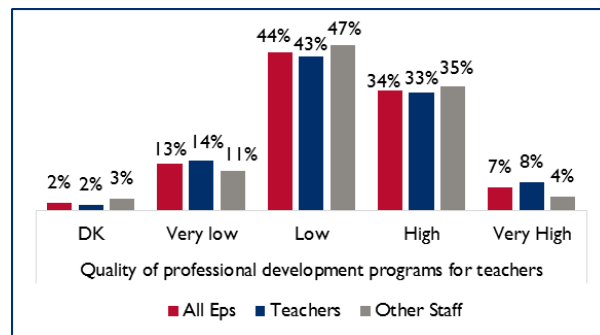
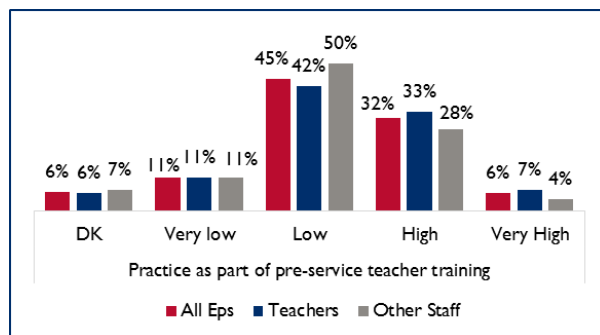
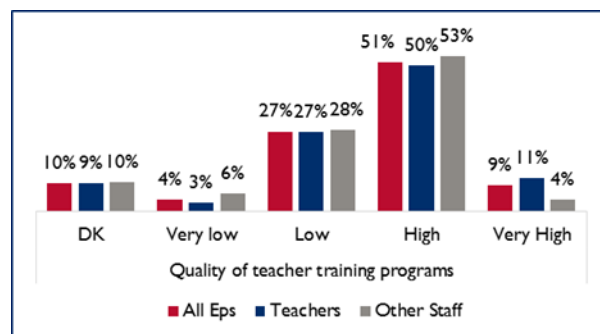
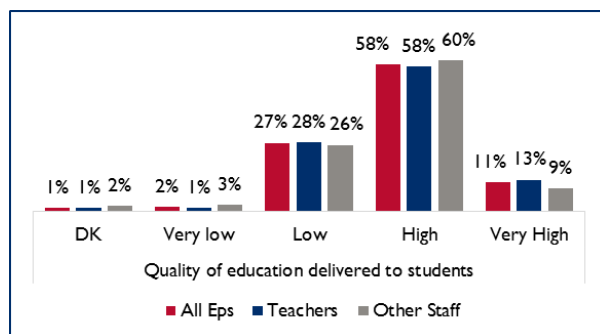
ANNEX IV: RESULTS OF MINI-SURVEY OF EDUCATION PRACTITIONERS

OVERALL NUMBER OF EDUCATION PRACTITIONERS N=472	
INSTITUTIONS	
Preschool Institutions	5%
Primary Schools	57%
Secondary Schools	24%
Vocational Schools	14%
CATEGORY OF RESPONDENT	
School Management	12%
Administrative Worker	2%
Social Worker	1%
Psychologist	15%
Highschool Teacher	28%
Primary School, Subject Teacher	23%
Primary School, General Education	14%
Preschool Teacher	2%
Other	3%
ABOUT RESPONDENTS	
Male	30%
Female	70%
Average Age	41
Experience in teaching	14 years
Participated in professional development in the last year (average)	3 times
Completed Secondary Education	0.50%
Completed Junior College	11%
Bachelor Degree	55%
Master's Degree	33%
PhD	1%

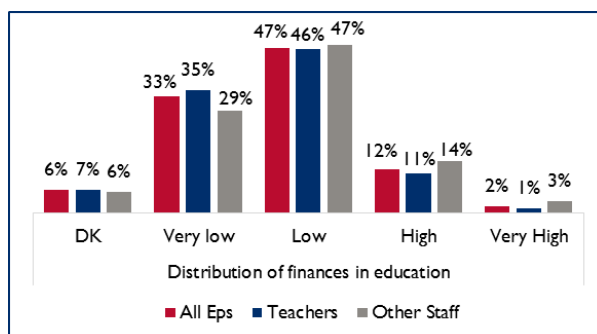
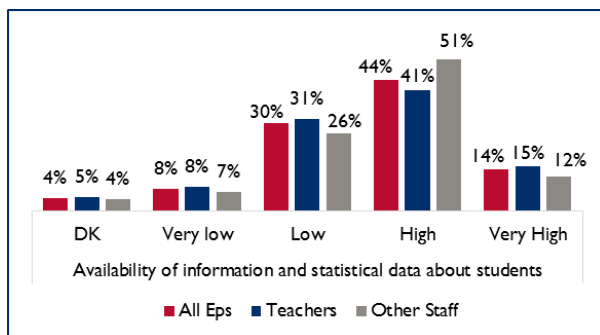
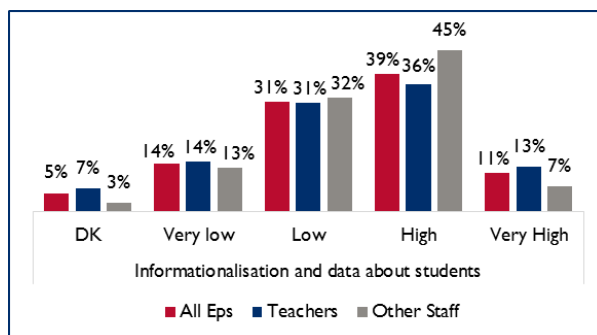
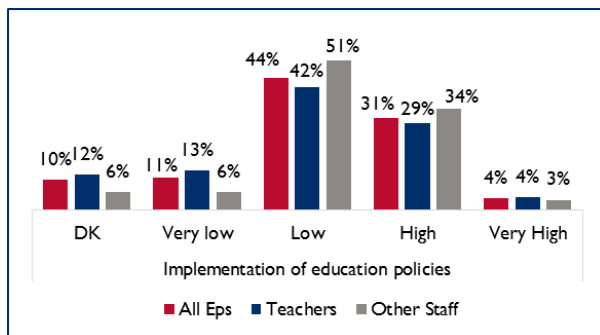
From your perspective, what are the primary challenges you are facing in your practice?



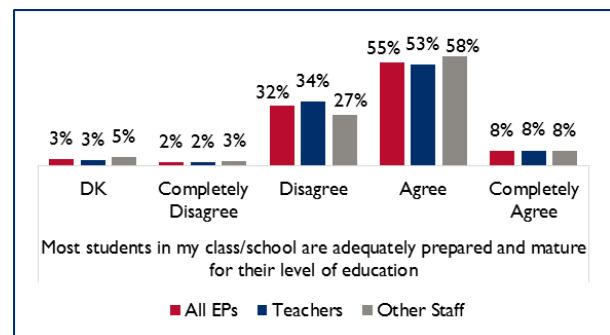
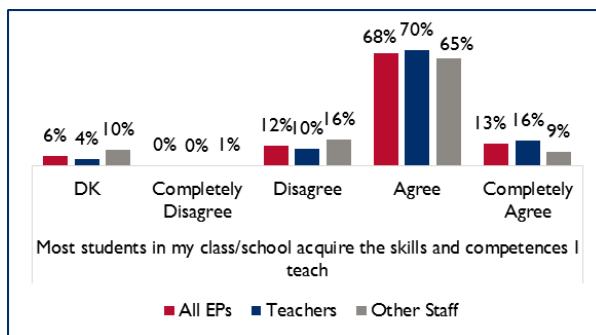
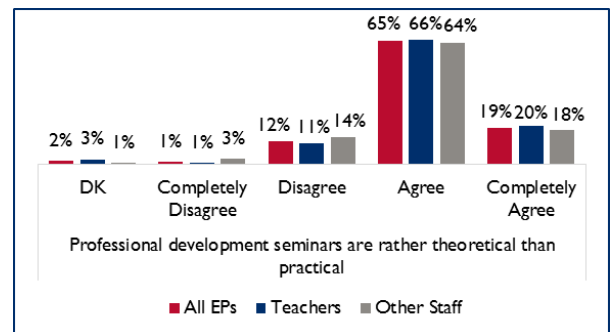
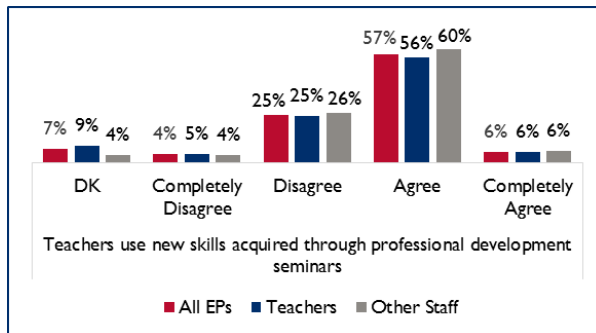
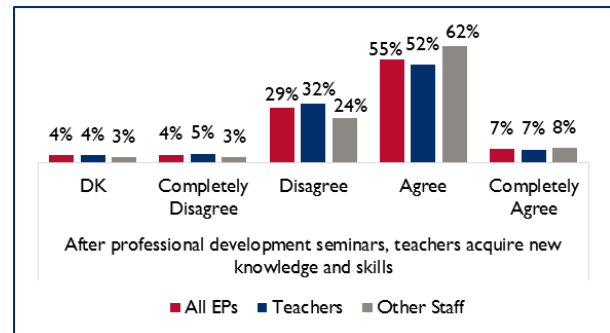
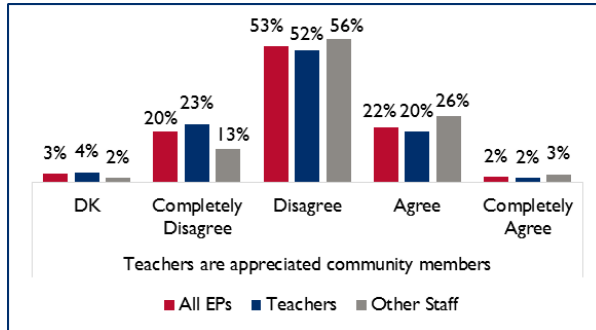
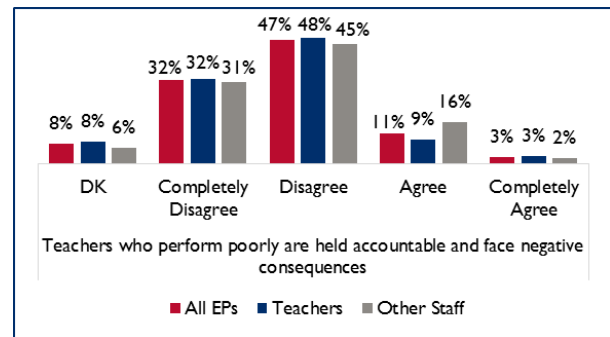
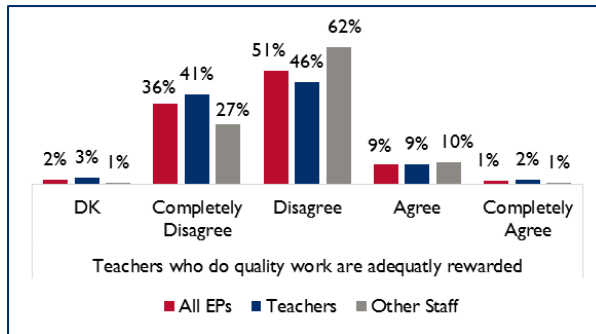
How would you rate the following in BiH in relation to the education level you teach?



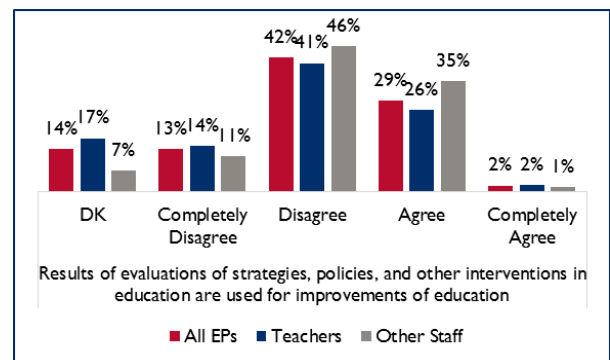
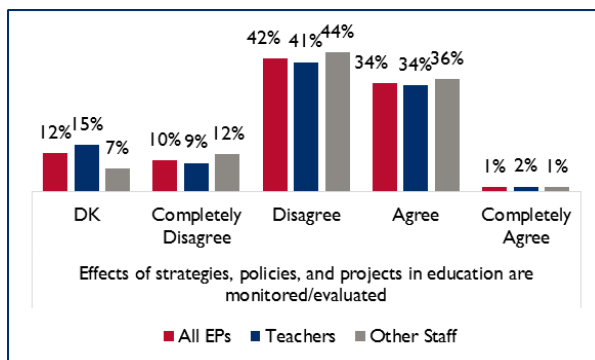
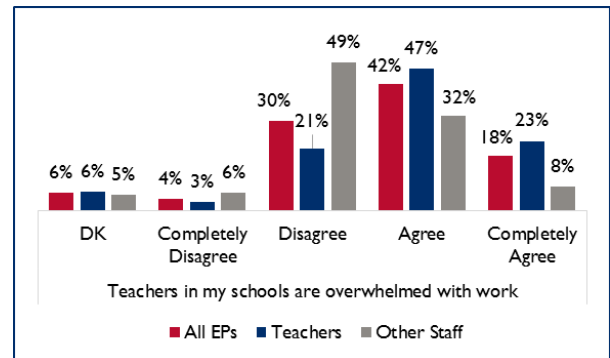
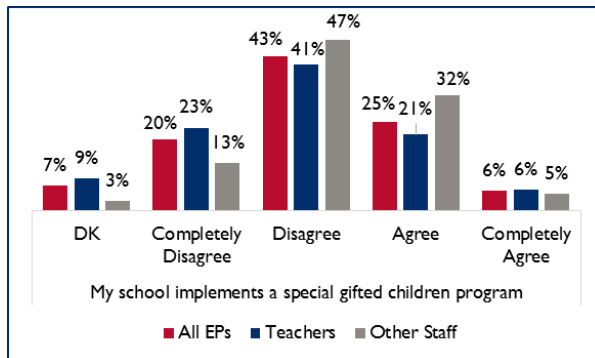
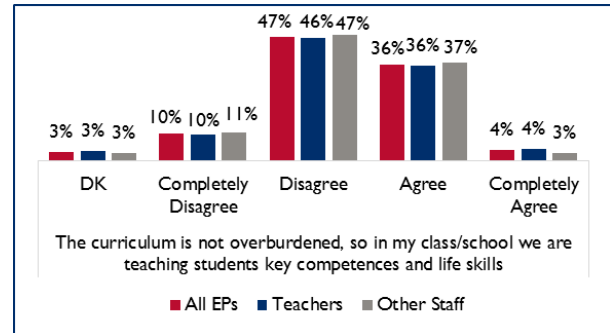
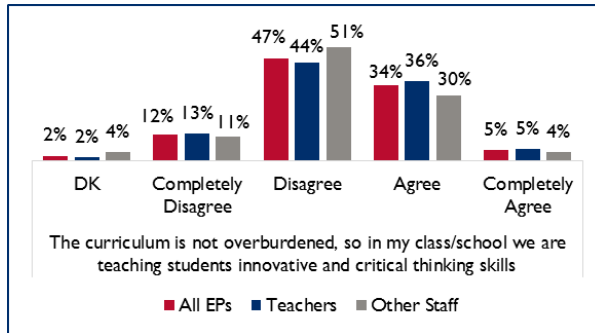
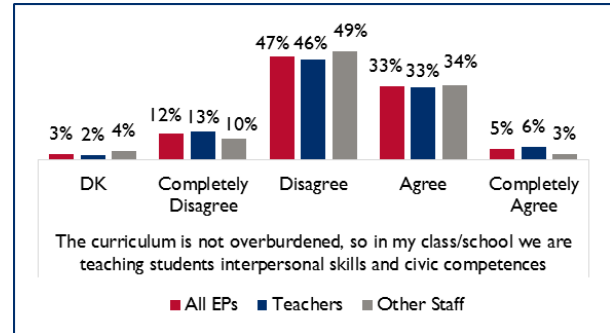
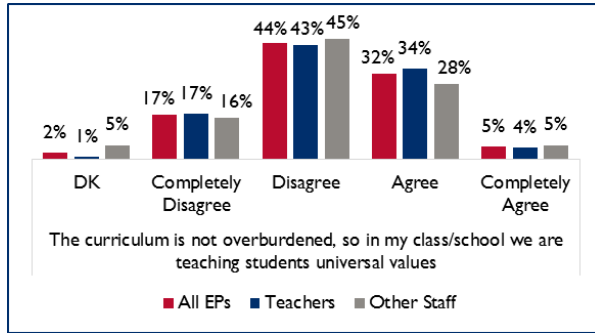
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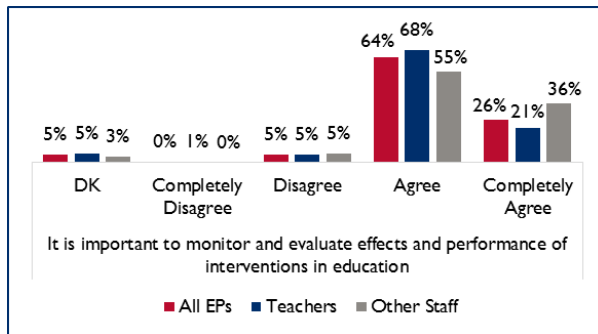
How much do you agree with the following statements?



How much do you agree with the following statements?

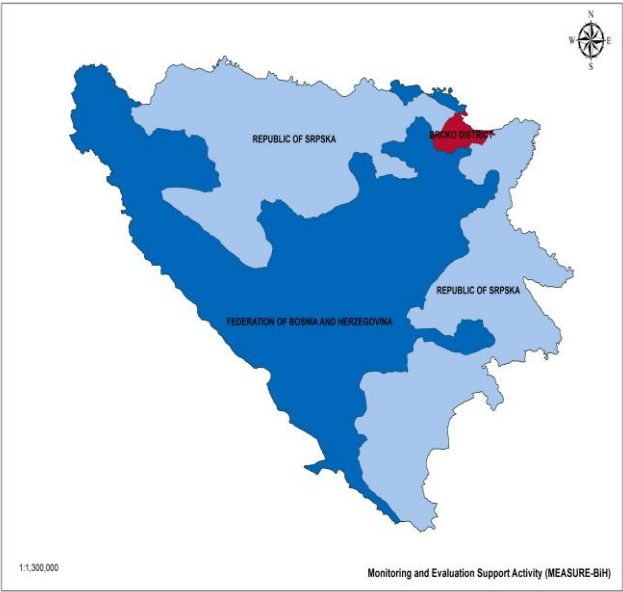
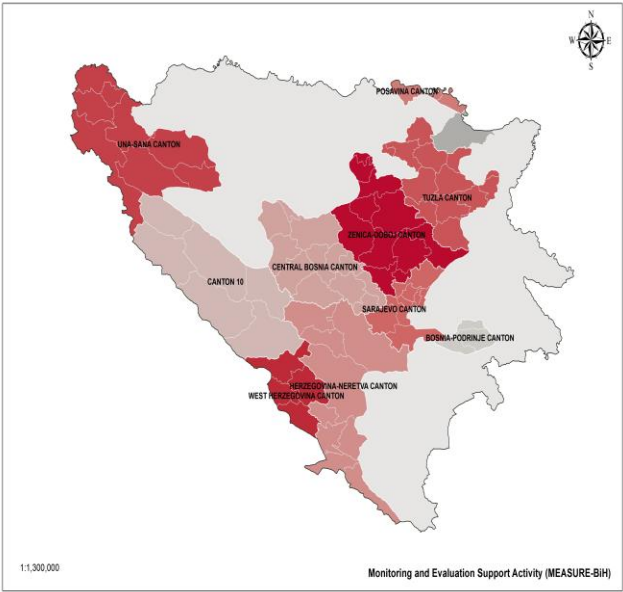


How much do you agree with the following statements?



ANNEX V: BACKGROUND: BASIC EDUCATION IN BiH CONTEXT

Bosnia and Herzegovina is a decentralized state composed of two entities—the Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska, as well as the Brcko District of Bosnia and Herzegovina (BDBiH), which constitutes a separate administrative unit. The Constitution of Bosnia and Herzegovina defines the competences and responsibilities of each level of authority.

Entities in Bosnia and Herzegovina and BDBiH	Cantons in the Entity Federation of BiH
	
<p>Overview of constitutional set up in Bosnia and Herzegovina. On the left, two entities of Bosnia and Herzegovina (Republika Srpska and FBiH) and BD BiH are presented.</p> <p>In addition, the right illustration presents constitutional set up of the FBiH, which is consisted of 10 cantons: I) Una-Sana Canton; II) Posavina Canton; III) Tuzla Canton; IV) Zenica-Doboj Canton; V) Bosnian-Podrinje Canton Gorazde; VI) Central Bosnia Canton; VII) Herzegovina-Neretva Canton; VIII) West Herzegovina Canton; IX) Sarajevo Canton; X) Canton 10.</p>	

According to the constitutional provisions, education is under the full jurisdiction of the Republika Srpska, ten Cantons in the FBiH, and BDBiH. Each of these 12 administrative units has its own ministry of education,³⁶ education legislation, and budgets. Each creates and implements its own education policies and adopts curricula, standards and norms. These units have all other rights

³⁶ In the case of BDBiH it is the Department for Education.

and obligations arising from their full responsibility for the organization and the functioning of the education system in their territory.

Within this education structure, there are nine pedagogical institutes:

- Republika Srpska – one pedagogical institute;
- Herzegovina-Neretva Canton – two pedagogical institutes;
- Sarajevo Canton – one pedagogical institute;
- Tuzla Canton – one pedagogical institute;
- Zenica-Doboj Canton – one pedagogical institute;
- Una-Sana Canton – one pedagogical institute;
- Bosna-Podrinje Canton – one pedagogical institute;
- West Herzegovina Canton – one pedagogical institute (also covers Canton 10);
- BDBiH – one pedagogical institute.

Pedagogical institutes are responsible for providing expertise for issues related to direct organization of the education process (i.e., curricula, teacher training, and quality assurance), as well as planning and organizing regular professional training for preschool, primary, and secondary educational institutions. The institutes also supervise the schools, their management, teachers, and associates. The cantons, which do not have their own institute, can use the services of any of the other pedagogical institutes. Republika Srpska also has an Institute for Adult Education.

All competent education authorities have their own education inspection services. Education inspection provides the governance control, that is, it monitors the implementation of laws and bylaws adopted by the competent education authorities. Education inspection services are obliged to respond to complaints filed by parents or any other interested party regarding issues of education rights and potential irregularities in any segment of the education process.

Due to the complex organization of the education sector, a system of formal coordination within Bosnia and Herzegovina has been established. Since 2003, the Ministry of Civil Affairs has been responsible for coordinating activities, harmonizing the plans of entity authorities, and defining strategies at the international level (Article 15 of the Law on Ministries and Other Bodies of Administration of Bosnia and Herzegovina, “Official Gazette of BiH No. 5/03”).

There are three advisory bodies at the BiH level:

- In 2008, the Conference of Ministers of Education in Bosnia and Herzegovina was established. The Conference is composed of the Minister of Civil Affairs, two entity Ministers of Education, 10 cantonal Ministers of Education, and the Head of the Department for Education in BD BiH. Sessions of the Conference are convened and chaired by the Minister of Civil Affairs at least three times a year. The ministers discuss

relevant issues related to education and training, and all conclusions and recommendations are adopted by consensus.

- The Rectors' Conference in Bosnia and Herzegovina was established by the Framework Law on Higher Education in Bosnia and Herzegovina and organized by the universities. It identifies and represents the common interests of universities in Bosnia and Herzegovina and establishes cooperation with educational institutions in Bosnia and Herzegovina and abroad. The Conference adopts its decisions by consensus.
- The Council for General Education in Bosnia and Herzegovina deals with matters related to the reform of preschool, primary, and secondary education. The Council adopts its recommendations by consensus and delivers them to the Ministries of Education.

There are three education agencies at the BiH level. Two agencies were established by the Framework Law on Higher Education in BiH ("Official Gazette of BiH" No. 59/07 and 59/09):

- The Centre for Information and Recognition of Qualifications in Higher Education (CIP) is responsible for informing and recognizing qualifications in higher education within the framework of the Lisbon Convention, as well as representing Bosnia and Herzegovina in ENIC/NARIC networks.
- The Agency for Development of Higher Education and Quality Assurance (HEA) is responsible for establishing criteria for accreditation, providing recommendations to education authorities regarding criteria and standards for the opening, closing, and licensing of higher education institutions, as well as representing Bosnia and Herzegovina in international organizations for quality assurance in higher education.

The Agency for Preschool, Primary and Secondary Education (APOSO) was established by the Law on Agency for Preschool, Primary and Secondary Education ("Official Gazette of BiH" No. 88/07). It was given the task to establish standards of student knowledge and assessment of the results achieved; and to evaluate and improve the common core curricula for primary and secondary education in Bosnia and Herzegovina and to develop VET.

Education in BiH is mainly financed through the public budgets of Republika Srpska, the cantons and BDBiH, but to some degree also through municipal budgets, depending on jurisdiction (for example, co-financing of preschool and primary education in municipalities where these education levels fall under the jurisdiction of local communities).

There are budget lines in the budget of the Ministry of Education and Science of FBiH for student standards, implementation of the Bologna process, textbook policies, and some short-term projects (grants).

FBiH allocates about 4.7% of its GDP for education (Federation of BiH Institute for Statistics) and Republika Srpska allocates about 4.3% of its GDP (Republika Srpska Institute for Statistics,

Financial Statistics of Education – Annual Release 2016). BDBiH allocates about 16.5% of its total budget for education (“Official Gazette of BDBiH” No. 28/17).

Four framework laws on education and one establishing a new agency have been adopted at the BiH level:

- Framework Law on Preschool Upbringing and Education in Bosnia and Herzegovina (“Official Gazette of BiH” No. 88/07);
- Framework Law on Primary and Secondary Education in Bosnia and Herzegovina (“Official Gazette of BiH” No. 18/03);
- Framework Law on Secondary Vocational Education and Training in Bosnia and Herzegovina (“Official Gazette of BiH” No. 63/08);
- Framework Law on Higher Education in Bosnia and Herzegovina (“Official Gazette of BiH” No: 59/07 and 59/09); and
- Law on Agency for Preschool, Primary and Secondary Education (“Official Gazette of BiH” No. 88/07).

The framework laws define the basic principles, objectives, and standards for the education sectors based on EU objectives and standards for education and training, as well as the relevant international and European conventions and recommendations through which the education sector in the EU is continually being developed and upgraded. The framework laws were used by the competent education authorities in creating their own legislation. The education laws in Republika Srpska, the cantons, and BD BiH are harmonized with the framework laws.

Thirteen strategic documents in the area of education and training have been adopted at the BiH level. They serve as guidelines for the relevant education authorities, determining further development of the sector, and they are based on strategic goals of the UN and EU in education and training. Some of them are outdated and need to be replaced with new country-wide strategies, which is one of the precondition for EU integration in the so called “European Education and Training Area” and for receiving financing through EU IPA (Instrument for Pre-accession) funds for the necessary reforms in education and training.

These documents are the following:

- Strategic Directions for Development of Preschool Upbringing and Education in Bosnia and Herzegovina for the period 2005-2010 (Adopted by the Council of Ministers of BiH in 2005)
- Strategy for Development of Vocational Education and Training in Bosnia and Herzegovina for the period 2007-2013. (“BiH Official Gazette” No. 65/07)
- Strategic Directions for the Development of Education in Bosnia and Herzegovina with Implementation Plan for 2008-2015. (“BiH Official Gazette” No. 63/08)

- List of documents for further Implementation of the Bologna Process: Framework for Higher Education Qualifications in BiH; Implementation of the Framework for Higher Education Qualifications in BiH; Standards and Guidelines for Quality Assurance in Higher Education in BiH; Recommendations for Implementation of Quality Assurance in Higher Education in BiH; Action Plan for Recognition of Qualifications in BiH; Model of Diploma Supplement for BiH; Handbook for Users of the Model of Diploma Supplement in BiH (“BiH Official Gazette” No. 13/08)
- Roadmap and Plan of Activities for Inclusion of BiH in EU Programs Lifelong Learning and Youth in Action until 2013 (“BiH Official Gazette” No. 74/08)
- Baseline of the Qualifications Framework in Bosnia and Herzegovina (“BiH Official Gazette” No. 31/11)
- Strategy of Entrepreneurial Learning in Education Systems in Bosnia and Herzegovina for the period 2012-2015 with Implementation Action Plan (“BiH Official Gazette” No. 31/12)
- Framework Policy for Early Childhood Development in Bosnia and Herzegovina (“BiH Official Gazette” No. 36/12)
- Principles and Standards for Adult Education in BiH (“BiH Official Gazette” No. 39/14)
- Strategic Platform for Development of Adult Education in the Context of Lifelong Learning in Bosnia and Herzegovina for the period 2014-2020 (“BiH Official Gazette” No. 96/14)
- Action Plan for the Development and Implementation of the Qualifications Framework in Bosnia and Herzegovina for the period 2014-2020. (“BiH Official Gazette” No. 28/15)
- Roadmap for the Implementation of the EU Directive on Regulated Professions 2005/36/EC and 2013/55/EU (“BiH Official Gazette” No. 10/16)
- Priorities for the Development of Higher Education in Bosnia and Herzegovina for the period 2016-2026 (“BiH Official Gazette” No. 35/16)
- Platform for Development of Preschool Education in BiH for the period 2017-2022 (“BiH Official Gazette” No. 02/18).

Approximately 550,000 children and youth are included in the process of formal education in BiH, representing about 16% of the total population. They are being educated in more than 2,500 education institutions, which employ around 48,000 teachers and other teaching staff (Agency for Statistics of BiH, Education Statistics–Year 2016/2017, First release No. 2/17). Formal education in Bosnia and Herzegovina consists of four education sectors: preschool, primary, secondary, and higher education. Within this general division, different programs and qualifications can be acquired in the secondary and higher education sectors.

Approximately 52% of the population has completed secondary education, while 10% of the population has completed tertiary education (higher education). (Source: Labor Force Survey 2016 (LFS 2016), population: age 15 and above).

