OECD Reviews of Evaluation and Assessment in Education

NORTH MACEDONIA

Hannah Kitchen, Soumaya Maghnouj, Richard Ruochen Li, George Bethell, Elizabeth Fordham and Manuela Fitzpatrick

In collaboration with unicef

OECD

OECD Reviews of Evaluation and Assessment in Education: North Macedonia

Hannah Kitchen, Soumaya Maghnouj, Richard Ruochen Li, George Bethell, Elizabeth Fordham and Manuela Fitzpatrick

OECD
BETTER POLICIES FOR BETTER LIVES

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Please cite this publication as:
OECD (2019), *OECD Reviews of Evaluation and Assessment in Education: North Macedonia*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *https://doi.org/10.1787/079fe34c-en*.

ISBN 978-92-64-84412-4 (print)
ISBN 978-92-64-36616-9 (pdf)

OECD Reviews of Evaluation and Assessment in Education
ISSN 2223-0947 (print)
ISSN 2223-0955 (online)

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Photo credits: Cover © iQoncept - Fotolia.com, © AKS - Fotolia.com, © Sergej Khackimullin - Fotolia.com, © UNICEF/UNI197791/Gilbertson VII Photo, © UNICEF/UN048825/Ergen, © UNICEF/UN040893/Vas, © UNICEF/UN040894/Vas, © UNICEF/UN0262726/

Corrigenda to OECD publications may be found on line at: *www.oecd.org/about/publishing/corrigenda.htm*.

© OECD 2019

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to *rights@oecd.org*. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at *info@copyright.com* or the Centre français d'exploitation du droit de copie (CFC) at *contact@cfcopies.com*.

Foreword

The Republic of North Macedonia has made remarkable progress in expanding access to education and strengthening institutional capacity. Yet, the majority of youth leave school without mastering basic competencies for life and work, and students' socio-economic background continues to influence learning outcomes. The education sector in North Macedonia requires strong and strategic reform to improve quality and equity, so that all young people in the country reach their full potential and realise their aspirations.

This review was undertaken by the OECD with the support of UNICEF at the request of, and in close collaboration with the Ministry of Education and Science of the Republic of North Macedonia.

Focused on the assessment and evaluation system for schools, the review offers recommendations to help the country capitalise on the positive practices and policies that are already in place. It encourages North Macedonia to put student learning at the heart of evaluation and assessment. This will mean moving towards a system where assessment provides students, teachers, schools and policy makers with the information that enables them to reflect critically on their work and identify what they can do better in the future.

The review builds on the collaboration between the OECD Directorate for Education and Skills and UNICEF. The review has benefitted from our organisations' complementary experience and expertise to provide an analysis that is sensitive to the context of evaluation and assessment in North Macedonia's education system while drawing on international research and best practice from around the world.

Above all though, we hope that this review will be a useful reference for North Macedonia as it reforms its assessment and education systems. This review comes at an important moment for North Macedonia, as it considers developing a new national student assessment. This review discusses many of the policy options that the country is considering and provides guidance that can inform this decision. We hope that the review's recommendations contribute to the development of an education system that provides excellence for all.

Andreas SCHLEICHER
Director for Education and Skills and Special Advisor
on Education Policy to the Secretary-General

Benjamin PERKS
Representative UNICEF to the
Republic of North Macedonia

Acknowledgements

This review was developed in co-operation with UNICEF, whose staff provided valuable guidance and support. In particular, the review team would like to thank Parmosivea Soobrayan, Regional Education Advisor for Europe and Central Asia region, for his co-operation and commitment for the partnership between the OECD and UNICEF. The review team would like to convey our sincere appreciation to the UNICEF North Macedonia office, led by Benjamin Perks, Representative, and Elspeth Erickson, Deputy Representative. We would also like to thank the UNICEF education team, notably Vera Kondikj Mitkovska, Education Specialist, Ardita Zekiri, Programme Assistant, and Bore Pucoski, Programme Officer for their guidance, support and insights.

The review team would also like to thank the North Macedonian government, under the leadership of the Ministry of Education and Science (MoES), for their support and contributions to the review. The review has benefited from the encouragement of the Minister of Education and Science Arbër Ademi, the Deputy Minister Petar Atanasov, and their teams.

We are very grateful to the officials and education experts from the Ministry of Education and Science, and beyond, who graciously shared their insights and knowledge with us. In particular, we would like to thank the members of the Steering Committee, Natasha Jankovska and Biljana Trajkovska, State Advisors of the MoES, Beti Lameva, Head of Unit for Matura and Information Technology in the National Examinations Centre (NEC), Mitko Cheshlarov, Head of Sector for Curricula Development in the Bureau for Development of Education (BDE), Ajshe Ajrulai, Head of Sector for Research in the Bureau for Development of Education (BDE), Ardijana Isahi Paloshi, Advisor from the Vocational Education and Training Centre (VETC) and Antoanela Stojanoska, Inspector from the State Education Inspectorate (SEI), who provided valuable contributions to the review.

We sincerely thank all the participants in the review visits, including officials from the MoES and its agencies – the NEC, the BDE and the VETC. We would extend our gratitude to other national bodies, such as the Board for Accreditation and Evaluation of Higher Education in North Macedonia and municipal offices, as well as international bodies, including the World Bank, the United States Agency for International Development (USAID) and the delegation of the European Union. We are grateful to the researchers, non-governmental organisations, school leaders, teachers, teacher unions, parents and students, that kindly gave their time to share their views, experience and knowledge with us. We would especially like to thank the schools in Skopje and Tetovo municipalities for welcoming us so warmly during our review visits.

The OECD review team was led by Elizabeth Fordham (OECD Secretariat), co-ordinated by Hannah Kitchen (OECD Secretariat) and included George Bethell (Director of Anglia Assessment), Manuela Fitzpatrick (OECD Secretariat), Ruochen Richard Li (OECD Secretariat) and Soumaya Maghnouj (OECD Secretariat). We would also like to

thank Iva Simonovska, who provided valuable linguistic support and Maja Cvetanoska who developed the Country Background Report. Within the OECD Secretariat we would also like to thank Charlotte Mayard, Daniel Trujillo, Aanya Niaz and Aleksandra Zhivkovikj, who made very helpful contributions to the report. The review team is grateful for the support and advice from Andreas Schleicher, Director for Education and Skills, and Paulo Santiago, Head of Policy Advice and Implementation Division. Sara Gouveia provided administrative support and organised the publication process, Claire Berthelier, Célia Braga-Schich and Rachel Linden helped to prepare the draft for publication.

Table of contents

Acronyms and abbreviations **11**

Executive summary **13**

Raising learning outcomes through student assessment 13
Using teacher appraisal to support and incentivise good teaching 14
Aligning school evaluation with its core purposes of accountability and improvement 14
Creating a stronger framework to monitor and evaluate national progress in education 15

Assessment and recommendations **17**

Introduction 17
Main trends: despite strong participation in education, learning outcomes are not improving 18
Evaluation and assessment in North Macedonia 23
Raising learning outcomes through student assessment 27
Using teacher appraisal to support and incentivise good teaching 32
Aligning school evaluation with its core purposes of accountability and improvement 36
Creating a stronger framework to monitor and evaluate national progress in education 41
References 46

Chapter 1. The education system in the Republic of North Macedonia **49**

Introduction 50
National context 50
Governance and funding of the education system 53
Structure of schooling in North Macedonia 62
Main trends in participation, learning and equity 66
Conclusion 76
Annex 1.A. Key indicators 78
References 80

Chapter 2. Raising learning outcomes through student assessment **85**

Introduction 86
Key features of an effective student assessment system 86
Student assessment in North Macedonia 91
Policy issues 98
Developing meaningful reporting of student results 99
Focusing assessment practices on helping students learn 107
Updating the state *matura* to encourage and assess better student learning in the key areas 112
Conclusion 122
References 126

Chapter 3. Using teacher appraisal to support and incentivise good teaching **131**

Introduction 132
Key features of an effective appraisal system 132
The teaching profession in North Macedonia 136

Teacher appraisal in North Macedonia ... 141
Policy issues ... 145
Policy issue 3.1. Ensuring that entry into, and progression along the teaching career path is based on professional competence ... 146
Policy issue 3.2. Developing a culture of learning and feedback in schools ... 156
Policy issue 3.3. Strengthening external support for teachers' professional development ... 164
Conclusion ... 168
Notes ... 171
References ... 172

Chapter 4. Aligning school evaluation with its core purposes of accountability and improvement ... 177

Introduction ... 178
Key features of an effective school evaluation system ... 178
School governance in North Macedonia ... 183
School evaluation in North Macedonia ... 185
Policy issues ... 191
Policy issue 4.1. Professionalising the State Education Inspectorate ... 191
Policy issue 4.2. Ensuring that integral school evaluations focuses centrally on improving school quality ... 196
Policy issue 4.3. Developing schools' capacity to carry out meaningful self-evaluation ... 203
Policy issue 4.4. Providing schools with greater resources to enhance the quality and impact of school evaluation ... 209
Conclusion ... 213
References ... 217

Chapter 5. Creating a stronger framework to monitor and evaluate national progress in education ... 221

Introduction ... 222
Key features of effective system evaluation ... 222
System evaluation in North Macedonia ... 226
Policy issues ... 230
Policy Issue 5.1. Centralising the use of EMIS and improve its capacity ... 230
Policy Issue 5.2. Designing a national assessment that supports national learning goals ... 237
Policy Issue 5.3. Institutionalising system evaluation ... 248
Conclusion ... 256
References ... 260

Tables

Table 1.1. Education and development in North Macedonia ... 52
Table 2.1. State *matura* ... 96
Table 2.2. Standards from the Cambridge curriculum and other national curricula ... 100
Table 3.1. The multi-professional school support team ... 141
Table 3.2. Teacher appraisal in North Macedonia ... 142
Table 4.1. School evaluation in North Macedonia ... 185
Table 4.2. North Macedonia's School Performance Quality Indicator Framework ... 187
Table 4.3. Examples of descriptors for the indicator "teaching process" in the SPQI framework ... 188
Table 5.1. System evaluation in North Macedonia ... 226

Table 5.2. Key decisions regarding North Macedonia's national assessment 241

Annex Table 1.A.1.Key indicators 78

Figures

Figure 1. Gross enrolment rate by level of education in North Macedonia (2000-15) 19
Figure 2. Mean reading performance in PISA (2000 through 2015) 20
Figure 3. Change in the share of low performers in reading over PISA cycles 21
Figure 4. PISA 2015 results and government expenditure in lower secondary education 22
Figure 5. Differences in science performance, by language of test, before and after accounting for socio-economic background (PISA 2015) 23
Figure 6. Interactions within the evaluation and assessment framework 26
Figure 1.1. Percentage of population from an ethnic minority group 51
Figure 1.2. System of Education Governance in the Republic of North Macedonia 55
Figure 1.3. Distribution across the education system of responsibility for school resources, curriculum and establishing student assessment policies 57
Figure 1.4. Expenditure on education, as a percentage of GDP and as a percentage of total government expenditure (2011-16) 59
Figure 1.5. PISA 2015 results and government expenditure in lower secondary education 59
Figure 1.6. Public education expenditure by education level in percentage, 2016 61
Figure 1.7. North Macedonia Education system 63
Figure 1.8. Gross enrolment rate by level of education in North Macedonia (2000-15) 66
Figure 1.9. Gross enrolment in upper secondary education (2015) 67
Figure 1.10. Change in the share of low performers in reading over PISA cycles 70
Figure 1.11. Mean reading performance in PISA, 2000 through 2015 71
Figure 1.12. Participation in professional development activities (PISA 2015) 73
Figure 1.13. Net enrolment in upper secondary education, by income quintile (2011) 74
Figure 1.14. Differences in science performance, by language of test, before and after accounting for socio-economic background (PISA 2015) 76
Figure 2.1. Student assessment and learning 88
Figure 2.2. National examinations and assessments in public school in OECD countries 90
Figure 2.3. Years (grades) and curriculum (performance) levels from the New Zealand curriculum 102
Figure 2.4. Differences between the current design of the state *matura* and its recommended design 113
Figure 2.5. Distribution of students according to the percentage of questions answered correctly on different *matura* subject tests in 2017 117
Figure 3.1. Types of teacher appraisal 133
Figure 3.2. Types of teacher appraisals in OECD countries (2015) 135
Figure 3.3. Evolution of the school network in North Macedonia (2007-17) 137
Figure 4.1. School evaluation framework 179
Figure 4.2. School evaluation in OECD countries 180
Figure 4.3. Existence of school leader appraisal in OECD countries (2015) 183
Figure 5.1. System evaluation 224
Figure 5.2. Key steps in developing the national assessment 238

Boxes

Box 1. The Republic of North Macedonia's goals for education 18
Box 2. OECD Reviews on Evaluation and Assessment in Education (framework) 26
Box 3. Recommended actions for reporting student results 28

Box 4. Recommendations for focusing assessment on student learning ... 29
Box 5. Recommendations for revising the state *matura* ... 31
Box 6. Recommendations for entry into, and progression along, the teaching career path ... 33
Box 7. Recommendations for developing learning and feedback in schools ... 34
Box 8. Recommendations for supporting teachers' professional development ... 36
Box 9. Recommendations for professionalising the State Education Inspectorate (SEI) ... 37
Box 10. Recommendations for focusing integral school evaluation on school quality ... 38
Box 11. Recommendations for developing school capacity ... 39
Box 12. Recommendations for developing school resources linked to evaluation ... 40
Box 13. Recommendations for improving the use of EMIS ... 42
Box 14. Recommendations for a new national assessment ... 43
Box 15. Recommendations for institutionalising system evaluation ... 45
Box 1.1. Comprehensive Strategy for Education 2018-25 ... 53
Box 1.2. OECD-UNICEF survey of teachers and principals in North Macedonia ... 58
Box 1.3. Reform of the three- and four-year VET programme ... 65
Box 1.4. OECD Reviews of Evaluation and Assessment in Education ... 77
Box 2.1. Purposes of assessment ... 87
Box 2.2. Key assessment terms ... 89
Box 2.3. Key definitions on learning standards and progression ... 94
Box 2.4. "Working mathematically" learning standard from New South Wales, Australia ... 101
Box 2.5. Reporting scales in Ontario, Canada ... 105
Box 2.6. Setting examinations at different levels in Ireland ... 114
Box 2.7. Project Assignments in England, Wales and Northern Ireland (United Kingdom) ... 116
Box 2.8. The "EUX" hybrid programme in Denmark ... 122
Box 2.9. Recommendations ... 122
Box 3.1. The merit-based career development structure reform proposal ... 143
Box 3.2. Performance criteria and levels in teacher standards ... 148
Box 3.3. Ireland's initial teacher education criteria and guidelines ... 152
Box 3.4. Certification examination after ITE in Germany ... 153
Box 3.5. Estonian strategy to further develop school leaders, 2014-20 ... 155
Box 3.6. Subject groups in Vietnamese schools ... 160
Box 3.7. Teacher Learning Circles in Georgia ... 161
Box 3.8. Multi-tier intervention model in Finland ... 162
Box 3.9. Moscow's online school platform ... 166
Box 3.10. Recommendations ... 168
Box 4.1. Defining "good schools" at the national level ... 193
Box 4.2. Example of classroom observation indicators to evaluate the quality of teaching and learning ... 199
Box 4.3. Local follow-up to external evaluation in OECD countries ... 201
Box 4.4. School leadership academies in Austria and Ireland ... 207
Box 4.5. School efficiency index in Romania ... 210
Box 4.6. Recommendations ... 213
Box 5.1. EMIS in Georgia ... 233
Box 5.2. Florida's PK-20 Education Information Portal, a data access portal from the United States 235
Box 5.3. The National Assessment of Knowledge of Slovenia ... 239
Box 5.4. Presenting contextualised assessment results in Sweden and Australia ... 246
Box 5.5. Romania's Institute of Educational Sciences ... 252
Box 5.6. Recommendations ... 257

Acronyms and abbreviations

ARACIP	Agenţia Română de Asigurare a Calităţii în Învăţământul Superior - Romania's Agency for Quality Assurance in Pre-University Education
asTTle	New Zealand's Assessment Tools for Teaching and Learning
BDE	*Бирото за развој на образованието* - Bureau for Development of Education
CSL	Ireland's Centre for School Leadership
DES	Ireland's Department of Education and Skills
ECEC	Early childhood education and care
ECTS	European Credit Transfer and Accumulation System
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
ESCS	PISA index of economic, social and cultural status
EU	European Union
Eurostat	European Statistical Office
GDP	Gross domestic product
ICALT	International Comparative Analysis of Learning and Teaching
ICT	Information and communication technology
ID	Identity document
IES	*Institutul de Științe ale Educației* - Romania's Institute of Educational Sciences
MESR	*Ministerul Educației și Cercetării Științifice* - Romania's Ministry of National Education and Scientific Research
MoES	*Министерство за образование и наука* - Ministry of Education and Science
MOS	*Московская онлайн школа* - Moscow Online School
MQF	*Македонската рамка за квалификации* - Macedonian Qualification Framework
MTSP	*Министерство за труд и социјална политика* - Ministry of Labour and Social Policy
NAK	*Nacionalno ocenjevanje znanja* - Slovenia's National assessment of Knowledge
NEC	*Државен испитен центарl* - National Education Centre
NEET	Not in employment, education or training
NGO	Non-governmental organisations
PIRLS	Progress in International Reading Literacy Study
PISA	OECD Programme for International Student Assessment
PPP	Purchasing power parity
SEI	*Државниот просветен инспекторат* - State Education Inspectorate
SEN	Special Education Needs
SPQI	School Performance Quality Indicators
SSO	*Државен завод за статистика* - State Statistical Office
TIMSS	Trends in International Mathematics and Science Study
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USD	United States dollars
VET	Vocational Education and Training
VETC	*Центар за стручно образование и обука* - Vocational Education and Training Centre
ZELS	*ЗЕЛС* - Association of the Units of the Local Self-Government

Executive summary

Since the last OECD review of the Republic of North Macedonia (hereafter referred to as "North Macedonia") in 2003, more children now participate in education and remain in school for longer. Despite these improvements, low learning outcomes indicate that many young adults in North Macedonia leave education without mastering the basic competencies for life and work. Inequities remain large and children from minority communities are still less likely to access quality education and to successfully progress through the system.

This report looks at the design and practice of student assessment, teacher appraisal, and school and system evaluation in North Macedonia, focusing on how they can enhance student learning. North Macedonia has many positive evaluation and assessment practices and has made important efforts to create a more learner-centred education system. Since 2003, the country has created separate government agencies that now lead key evaluation and assessment functions. North Macedonia is currently in the midst of developing a national assessment and discussing the introduction of a merit-based career structure for teachers.

However, assessment practices continue to be predominantly summative and provide limited quality feedback to advance students' learning. There is limited support to strengthen teachers' classroom assessment techniques and develop a culture of learning and feedback in schools. The country's data systems and evaluation processes that feed information into policy making are still weak.

Strengthening North Macedonia's evaluation and assessment system to set high expectations for all students and to support students learn will be key to achieve the country's potential and create a more equitable education system where all students can succeed in education and life.

Raising learning outcomes through student assessment

In North Macedonia, teachers' assessment judgements are not based on established, national learning standards, and classroom assessment practices are predominantly summative and limited to a narrow range of lower-order tasks. Consequently, students receive little quality feedback to help them understand how to advance in their learning. They also have few opportunities to demonstrate the more applied skills and complex transversal competencies that are part of the country's curriculum. This review proposes ways in which North Macedonia can develop meaningful reporting of student results, by developing coherent national learning standards and aligning student assessment to them. Focusing assessment practices on helping students learn will require the expanded use of diagnostic assessment tools, and providing greater flexibility and support to teachers to encourage the use of formative practices.

While the state *matura* is one of the strengths of North Macedonia's assessment system – its administrative procedures are sound and the results are trusted – the examination needs to evolve to keep pace with changes in the education system. In particular, this review looks

at how the state *matura* might be adapted to support the government's goal of improving the quality and attractiveness of vocational education and training (VET); how the country assesses and recognises the knowledge and skills of VET students is a key issue that it would like to address. This review also suggests revisions to the *matura's* design and structure to promote learning across a range of subjects, better discriminate across different levels of student achievement and enhance the reliability of results.

Using teacher appraisal to support and incentivise good teaching

In recent years, North Macedonia has made several attempts to create more robust teacher selection and promotion methods, with the aim of establishing a more learner-centred system. Initiatives include the proposal to develop a merit-based career structure for teachers, as well as efforts to support teachers' professional development in core areas, such as training on classroom assessment techniques. However, these efforts have not been sustained – the merit-based career system is still not implemented – and do not amount to a comprehensive policy to support the teaching profession.

North Macedonia must ensure that entry into, and progression along the teaching career path are based on professional competence. This will require the introduction of the performance-based career structure and mechanisms to ensure that only the most qualified candidates are selected for teaching. Further, North Macedonia should formalise and encourage a culture of learning and feedback in schools, by developing the "Teacher Actives" and reviewing the role of the in-school support team to focus more on creating an effective, inclusive learning environment. North Macedonia's teachers need access to high quality professional development opportunities and tools. Increasing funding for professional development will be key to increase their take-up and availability.

Aligning school evaluation with its core purposes of accountability and improvement

North Macedonia has a school evaluation framework that covers the key areas that are important for an effective school evaluation system. However, this framework has not been fully implemented or appropriated by stakeholders. Both external and self-evaluation focus largely on ensuring compliance with the framework, rather than encouraging a culture of reflection and improvement in schools. Fundamentally, this reflects a disconnect between the aims of the framework – to enhance school quality and school-led improvement – and the perception of evaluation among inspectors and schools as an administrative requirement. This is exacerbated by a useful, yet complicated evaluation framework, which inspectors and schools find difficult to apply, and the lack of support to schools on how to use evaluation results to inform improvement efforts.

Guaranteeing the integrity and independence of the State Education Inspectorate (SEI) and building its internal professional capacity will allow the inspectorate to lead a meaningful school evaluation system. However, increased professional independence of the SEI will need to be balanced by greater oversight of, and accountability for, its work. North Macedonia should revise its integral school evaluation to focus more strongly on improving school quality and develop schools' capacity to carry out meaningful self-evaluation. For this purpose, it will be necessary to provide schools with the necessary tools and adequate financial resources to measure their performance and implement their improvement plans.

Creating a stronger framework to monitor and evaluate national progress in education

In North Macedonia, system evaluation is at a nascent stage of development. Recent years have seen important steps towards establishing the institutions and instruments that can support effective system evaluation. However, many basic components are still lacking, and data systems and the processes for feeding information into decision-making are weak. Among the significant gaps is the absence of clear objectives for improving learning outcomes.

The Ministry of Education and Science (MoES) should consider moving North Macedonia's Education Management Information System (EMIS) unit closer to the ministry's central leadership to give it greater authority over who collects school-level data and improve its capacity and functionality. Notably, North Macedonia is now planning to introduce a new national assessment. A well-designed assessment would provide valuable information to monitor student performance at key stages of their education against national goals. This review proposes how the assessment could be designed to best support a primarily formative purpose and how the dissemination and use of its results can enhance their formative value.

This report also strongly supports the current ministry initiative to develop its own research unit that will help to ensure information is used more systematically for policy making. In addition, the MoES should consider developing a wider network of research entities that contribute to system evaluation under clearly defined roles. Promoting the sharing and use of evaluation results, by annually publishing an analytical, public, education report can help hold the government accountable for educational improvement. The report might include prominent reporting against national goals and targets, accompanied by analysis of progress.

Assessment and recommendations

Introduction

The OECD last reviewed the education policies of the Republic of North Macedonia in 2003 (OECD, 2003[1]). Today, sixteen years on, more children and young people participate in education and remain in school for longer. There have also been major institutional improvements since 2003, with the creation of separate government agencies that now concentrate professional capacity for key evaluation and assessment functions. This includes the National Examinations Centre (NEC), which manages the country's state *matura* examination that is recognised across the region for its innovative design and integrity. It also includes the State Education Inspectorate (SEI), which leads and supports regular external and internal school evaluations in North Macedonia. School evaluations focus on many of the aspects of the school environment that research recognises to be essential for learning.

Yet despite these improvements, progress on the most important measure of education system quality – student learning outcomes – remains limited. Data from the OECD Programme for International Student Assessment (PISA) show that learning outcomes in North Macedonia are lower than international and regional averages, and show no sign of improvement. In 2015, half of the country's 15-year-olds did not demonstrate basic proficiency in all three subjects in which they were assessed – mathematics, reading and science (OECD, 2016[2]). The apparent lack of improvement in student learning outcomes occurs at a time when increasing numbers of students in North Macedonia are progressing to tertiary education, but not subsequently into jobs. This situation points to an urgent need to reinforce the national framework for evaluation and assessment so that student learning is directed and assessed to more rigorous, relevant national standards. It also highlights the need to ensure that struggling students are detected early on and supported to master the essential knowledge and skills that they will need to participate fully in their country's development as a competitive economy and prospective member of the European Union.

Aware of the need to strengthen evaluation and assessment policies, North Macedonia asked the OECD and UNICEF to undertake a review that would provide recommendations in three key areas. First, on how to develop a national assessment system that would enable the government to monitor national learning outcomes and support instructional improvement, while avoiding the distortions that resulted from past assessment models. Second, was to provide guidance on how to develop further the state *matura* examination, especially with a view to better recognising and rewarding the competencies of upper secondary students from vocational programmes. A third priority concern was how to create an effective system for teachers' professional and career development. These objectives accord with the national aims that are set out in the country's new education strategy (see Box 1) which was published when this OECD-UNICEF review began.

Box 1. The Republic of North Macedonia's goals for education

In 2018, North Macedonia launched the Comprehensive Strategy for Education for 2018-25. The strategy includes a number of actions relevant to evaluation and assessment and improving education quality, such as:

- Significantly increasing the share of children in pre-school and introducing a compulsory year of pre-primary education (ages 5-6).
- Reforming the curricula and programmes for compulsory education to increase their relevance and attractiveness, better aligning them to children's stages of development and focus more on learning outcomes.
- Supporting the development and consistent use of quality textbooks while reducing reliance on textbooks for teaching.
- Better orienting vocational education and training (VET) programmes towards the needs of the labour market.
- Strengthening the competence of teaching staff at all educational levels.
- Strengthening management and leadership capacity at central and local government levels, and within schools, and ensuring harmonised and transparent policies.
- Developing a national assessment by 2020 and a new concept for the state *matura*, in particular for VET students.

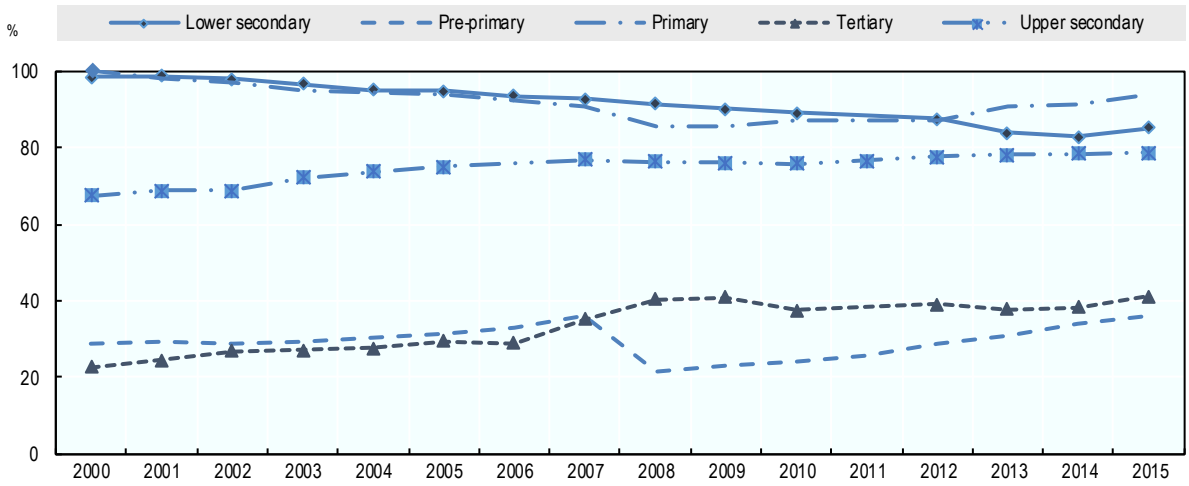
Source: (MoES, 2018[3]), *Comprehensive Education Strategy for 2018-25*, Ministry of Education and Science, Skopje.

Main trends: despite strong participation in education, learning outcomes are not improving

Younger generations show similar levels of educational attainment as their peers in OECD and EU countries

Following a dip in the years after independence, participation in schooling has expanded steadily (Figure 1). This has translated into higher levels of educational attainment among younger generations in North Macedonia, similar to those found in OECD and EU countries. In 2017, while 38.3% of older adults (45-64 years) had left school without upper secondary education, this was the case for just 18% of young adults (25-34 years) (similar to the EU average of 16% of 25-34 year-olds) (Eurostat, n.d.[4]).

Figure 1. Gross enrolment rate by level of education in North Macedonia (2000-15)



Source: (UNESCO-UIS, n.d.[5]) *The Republic of North Macedonia*, UNESCO-UIS, http://uis.unesco.org/country/MK (accessed on 25 November 2018).

However, while participation in upper secondary has improved, gross enrolment at this level remains more than 10 percentage points lower than other countries in the region, and significantly below the EU average of 119%. Enrolment is lowest among students from a lower socio-economic background and in rural areas. Reasons for not attending school at this level relate to poor learning conditions and families' and students' low expectations (World Bank, forthcoming[6]).

Participation in higher education has expanded rapidly in the last two decades

The country's higher education system has expanded rapidly in the last two decades. In 2017, there were 22 higher education institutions compared to only five in 2003/2004 (UNESCO-IBE, 2011[7]). The expansion of supply is reflected in increased gross enrolment, from 15% in 1991 to over 40% in 2015 (UNESCO-UIS, n.d.[5]). However, rapid growth has not been accompanied by sufficient quality controls. There is little selection into higher education programmes. All students who pass the state *matura* (which had a pass rate of 94.3% in 2017 among gymnasium students) can attend university and the quotas for government-funded places are very large. The rapid expansion of higher education during a period when North Macedonia's performance in international assessments has remained very low suggests that many students are entering university with major gaps in their basic knowledge and skills and without the types of higher-order competencies required to advance successfully at this level.

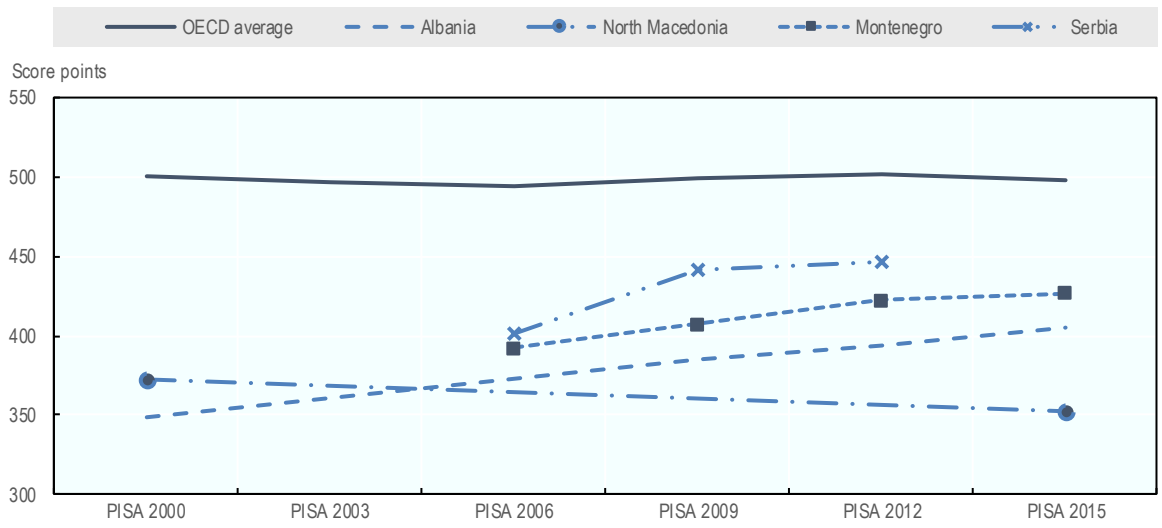
There are also concerns that tertiary programmes do not reflect labour market needs. Recent graduates from higher education in North Macedonia are far less likely to be employed (55.4%) (Eurostat, 2017[8]) than tertiary graduates in EU countries (83%) (OECD, 2017[9]). An explanation for high unemployment among tertiary graduates are low skills, or skills mismatch. One factor contributing to the latter is limited diversity in the provision of higher education programmes, in particular few high quality, technical options in higher education. This leads many vocational upper secondary graduates to pursue academic subjects in higher education.

Learning outcomes are among the lowest in the region and are not improving

In PISA 2015, North Macedonia's 15-year-olds performed almost four years behind their OECD peers, with an average score of 384 in science compared to 493 in OECD countries (OECD, 2016[10]). The country scored lower than its neighbours, including Albania (427 score points) and Montenegro (411 score points), and only slightly above Kosovo (378 score points) (OECD, 2016[10]).

The country's performance in international assessments also shows little evidence of improvement. Reading performance in PISA declined by 21 points between 2000 and 2015 (Figure 2). In comparison, neighbouring Albania succeeded in increasing performance by 56 score points, the equivalent of nearly two years of schooling, over the same period.

Figure 2. Mean reading performance in PISA (2000 through 2015)

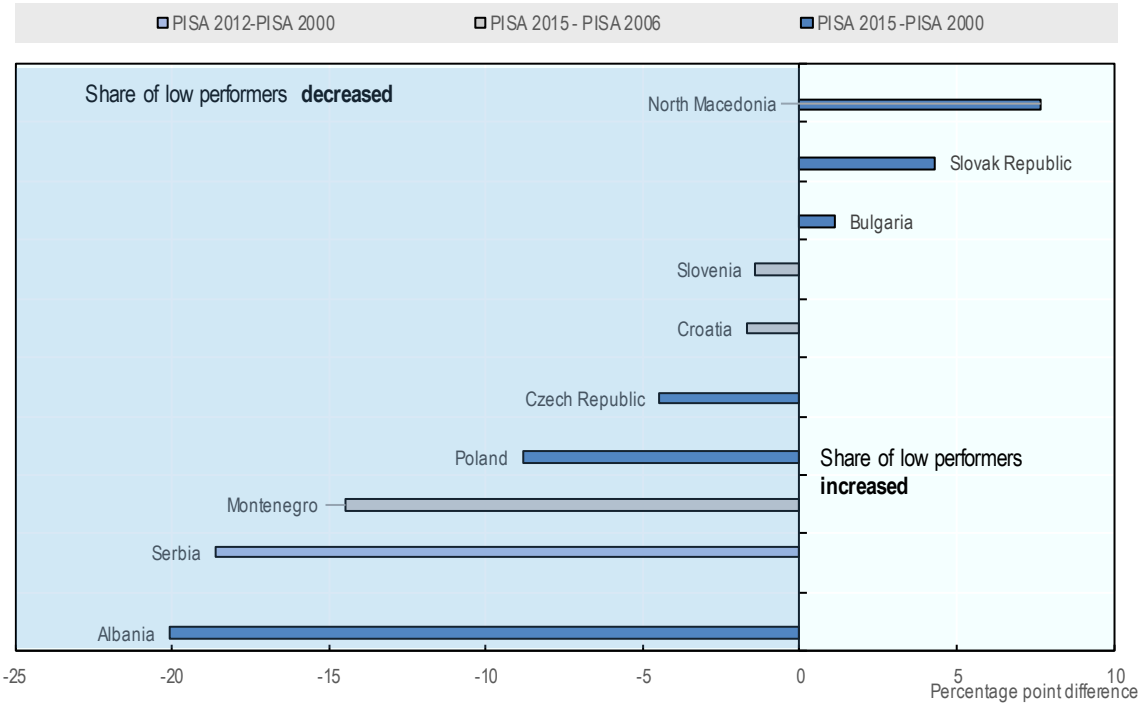


Note: Albania participated in PISA 2000, 2009, 2012 and 2015. North Macedonia in PISA 2000 and 2015. Montenegro in PISA 2006, 2009, 2012 and 2015. Serbia participated in PISA 2006, 2009 and 2012.
Source: (OECD, 2016[10]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

More than three out of five 15-year-olds lack basic reading skills

A particular concern in North Macedonia is the high and increasing share of students who are not acquiring basic mathematics or reading skills. The country has one of the highest proportions of students (52.2%) failing to demonstrate basic proficiency (Level 2) in all three domains of science, mathematics and reading among PISA-participating countries. Notably in reading, more than three out of five 15-year-olds lack basic reading skills (70.7%) as measured by PISA. This compares to 20% across OECD countries, 50% in Albania and 42% in Montenegro. While the share of low-performers has fallen over time in most of the region, low performers in North Macedonia increased by nearly 7 percentage points between 2000 and 2015 (Figure 3) (OECD, 2016[10]).

Figure 3. Change in the share of low performers in reading over PISA cycles



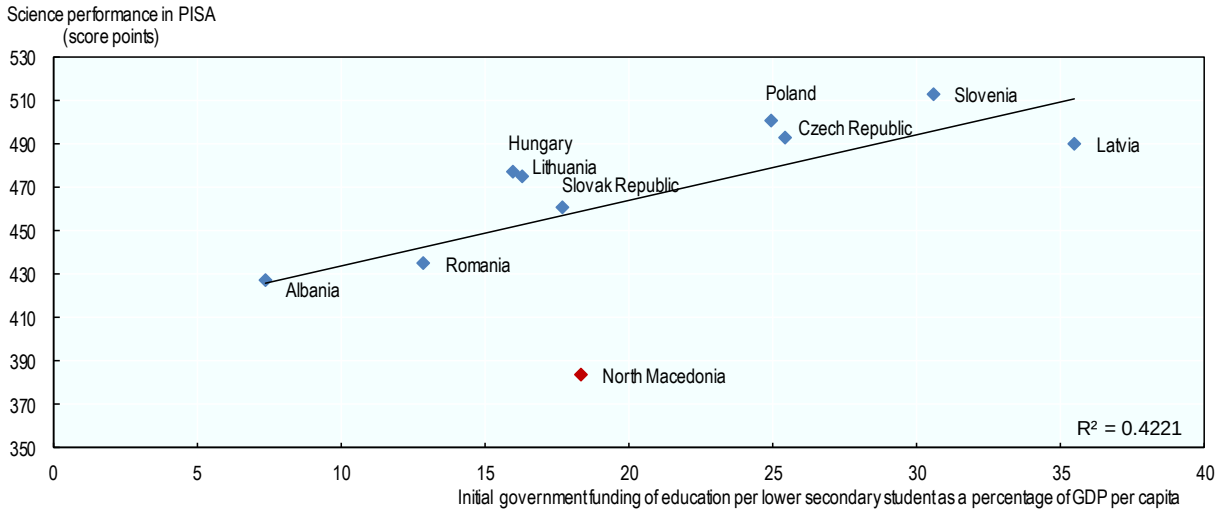
Source: (OECD, 2016[10]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

Neighbouring countries achieve better outcomes with the same level of education spending

At 3.7% of GDP in 2016, public expenditure on education in North Macedonia is lower than the OECD average (4.2% of GDP) and has declined in recent years (World Bank, forthcoming[6]) (OECD, 2018[11]). Between 2011 and 2016, North Macedonia's public spending on education as a percent of GDP fell from 4.6% to 3.7%. The share of total government expenditure allocated to education also declined, from 13.3% to 11.6% (World Bank, forthcoming[6]).

Comparative analysis suggests that while increased funding will be important to improve education outcomes, there is also scope for North Macedonia to achieve better results with the resources it invests (OECD, 2016[2]). Neighbouring countries have been able to achieve higher participation rates and better learning outcomes with similar or lower levels of expenditure on education (Figure 4). This points to the need for more attention to the effectiveness and efficiency of resource allocation in North Macedonia, in particular greater efforts to optimise the school network, which is characterised by a large number of small schools and high student-teacher ratios.

Figure 4. PISA 2015 results and government expenditure in lower secondary education



Sources: (UNESCO-UIS, 2018[12]), *Education: Initial government funding of education per student as a percentage of GDP per capita*, UNESCO-UIS, http://data.uis.unesco.org/ (accessed on 25 January 2018); (OECD, 2016[10]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

School location and language of instruction are strongly related to outcomes

Students' socio-economic background is less strongly associated with learning outcomes in North Macedonia than in many OECD countries, as measured by PISA, partly because outcomes are pervasively low and because certain ethnic groups – in particular Roma populations - are less likely to be enrolled in school at age 15. However, differences in learning outcomes by school location and ethnic group are significant. North Macedonia has among the largest rural-urban performance gaps of all PISA-participating economies. Fifteen-year-old students in rural areas perform 47 score points behind their peers in urban settings in science (compared to the average difference across OECD countries of 17 score points). This gap is equivalent to nearly 1.5 years of schooling (OECD, 2016[10]).

Participation in education and learning outcomes among ethnic minority groups, especially the Albanian community, are also markedly lower than the ethnic Macedonian community. Over half of Macedonian children attended pre-primary education, compared to less than one in five Albanians. The gap across ethnic groups becomes more pronounced as students advance in the system (USAID, n.d.[13]). While Albanians represent nearly 25% of the total population, they account for only 15.6% of secondary students and only 5.5% of tertiary enrolment (World Bank, forthcoming[6]). In PISA 2015, students who took the examination in Albanian were more than one year behind their peers who took the science examination in Macedonian, even after accounting for their socio-economic background (Figure 5).

Figure 5. Differences in science performance, by language of test, before and after accounting for socio-economic background (PISA 2015)

Source: (OECD, 2016[10]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

Evaluation and assessment in North Macedonia

This review analyses how policies for assessing student learning, appraising and supporting teachers, evaluating schools and evaluating the performance of the education system overall can be used to improve learning outcomes. The review draws on the OECD's analysis of policies and practices for evaluation and assessment in over 30 education systems, and the rich evidence this has generated on the factors associated with progress in education quality in different country contexts (OECD, 2013[14]). Such a comparative perspective reveals three interrelated, systemic issues that will be important to address in order to support better learning in North Macedonia.

Setting goals for improving learning outcomes and measuring progress

In North Macedonia, the absence of a national discussion, goals or monitoring related to improvement in learning is striking. At the highest level, while the new Comprehensive Education Strategy is a step forward in many respects – by setting out important actions that have gained general national support - it does not articulate any national targets for improving learning outcomes. At the school level, evaluation is a valued process but encourages schools to focus on procedural compliance, rather than critically reviewing how their learning environment is supporting students to develop their knowledge and skills. None of the schools that the review team visited indicated that they had any goals or targets for improving student-learning outcomes.

At the classroom level, teachers lack the means – either through learning standards focused on outcomes or through assessment resources linked to curriculum expectations – to detect and diagnose students' learning needs. This leaves the vast majority of the country's students moving through school without acquiring essential competencies. Interviews conducted by the review team suggest that teachers set objectives for their students in terms of content knowledge to be acquired, rather than of individual learner improvement over

time in relation to broader competencies. At present, evaluation and assessment tends to focus on identifying the very high achievers – those who will do well in academic competition, "Olympiads" – and those with learning difficulties. Teachers and schools lack the tools to assess learning more broadly and inclusively.

In a country where three in five 15-year-olds lack basic reading or numeracy skills, setting simple, measurable targets that the public, schools and teachers can understand would provide an essential focus for effort to improve learning outcomes. This review provides recommendations on how learning standards, classroom assessment resources and a national standardised assessment can be developed to help teachers make informed professional judgements about student learning and effective teaching strategies. These tools can also help schools, municipalities and the Ministry of Education and Science (MoES) to set and monitor appropriate, but stretching goals to drive forward improvement in learning. Communicating these goals and progress to the public will help to create national expectations and accountability for meeting national targets.

Strengthening professional competence

North Macedonia has strong technical expertise in its evaluation and assessment agencies – the State Education Inspectorate (SEI), the National Education Centre (NEC) and the Bureau for Development of Education (BDE). However, these institutions are not able to contribute effectively to policy making and implementation because they lack an independent voice and vital resources. Many of the institutions have a number of key functions that are empty – for example, at the time of the review team's visit, the NEC did not have a director and lacked psychometricians and information technology staff. These institutions also lack sufficient funds – for example, the BDE's budget is not adequate to provide the sixty hours of professional development for teachers that it is expected to offer. Within central government, the absence of dedicated research staff and limited support for data management and analysis – the country's Education Management Information System (EMIS), for example, functions with just two members of staff – limits the ministry's capacity for evidence-based policy making.

This review recommends how the capacity of agencies responsible for evaluation and assessment should be strengthened, as the means to build professional competence and independence. The key institutions in central government need leaders who can represent them at a political level with a strong technical voice. They also need adequate resources, so that they can fulfil their core functions effectively, and have some financial space to identify and implement improvements to their work. For example, the NEC's *matura* datasets could be mined to better understand the kinds of questions or topics that students find most difficult, so that teachers can be helped to teach these topics more effectively in the future.

Supporting and resourcing schools to lead improvement

On paper, schools in North Macedonia have a wide range of support that they can draw upon. They receive regular external evaluations and undertake their own self-evaluations. Municipalities are also located close to schools and directly finance them. Each school has its own multi-professional support team that includes a pedagogical expert ("pedagogue"), a psychologist and a special educational needs (SEN) advisor. This degree of support for individual schools is uncommon in most OECD countries.

However, most schools operate in a very difficult context. Historic underfunding and a lack of transparency in funding allocations means that many schools do not have adequate

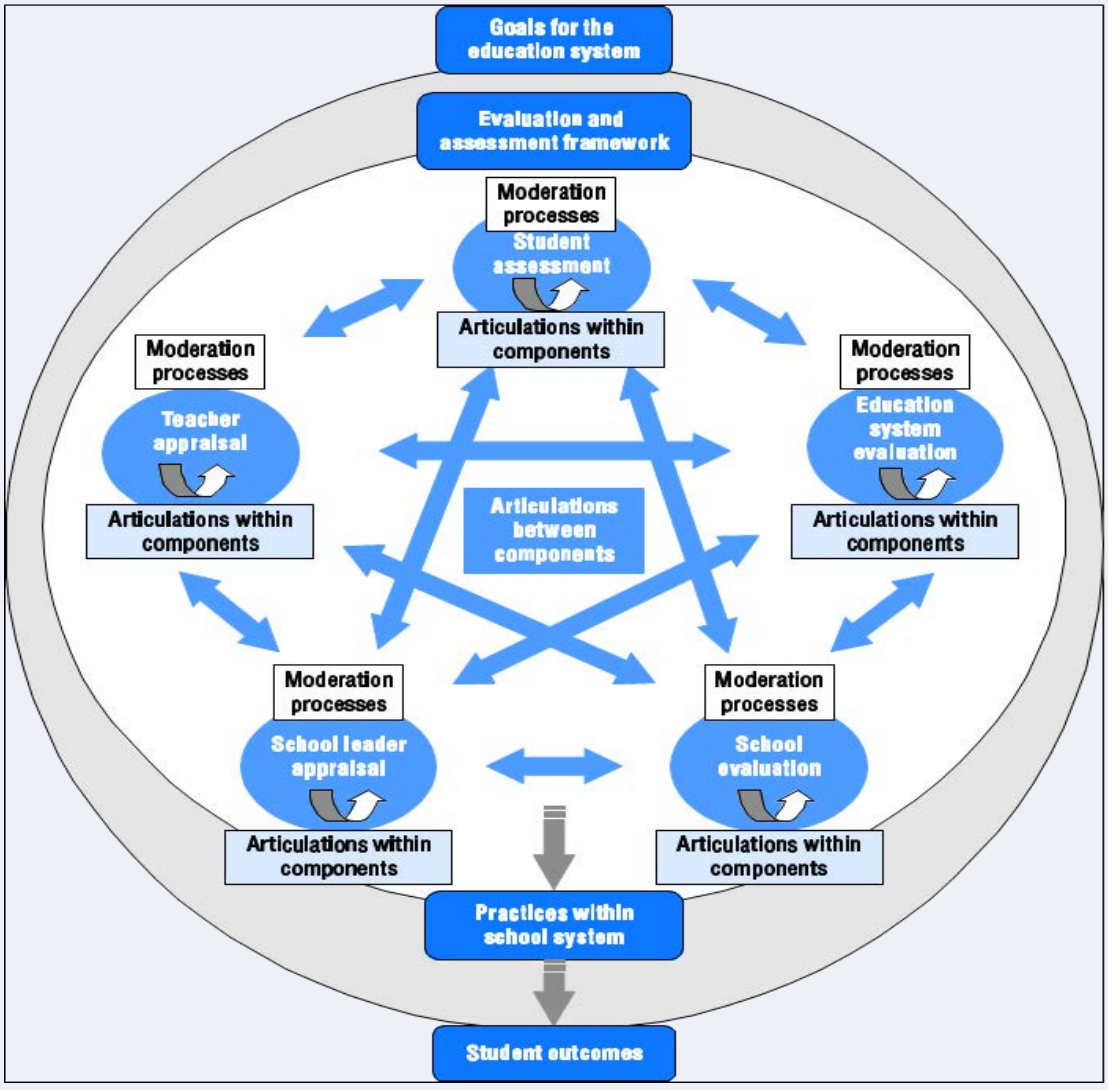
resources to cover their basic running costs, and certainly not to invest in improvements in the instructional environment. The role of school leaders is restricted by external local political pressures, which limits their ability to effectively lead school improvement.

Raising educational outcomes in North Macedonia will depend significantly on strengthening schools' capacity to design and lead instructional improvement. This review recommends how schools can be better supported centrally, through the school evaluation framework and data, to critically reflect on their performance and set their own objectives for teaching and learning. It also suggest how schools can become supportive communities for teachers' professional development, by reinforcing existing promising practices like the teacher groups (the "Teacher Actives"), regular appraisal and the multi-professional support teams. Teacher development will also be encouraged by the recognition and incentives provided by a new performance-based teacher career path.

Box 2. OECD Reviews on Evaluation and Assessment in Education (framework)

The OECD Reviews on Evaluation and Assessment in Education show how the components of evaluation and assessment – student assessment, teacher appraisal, school evaluation, school leader appraisal and system evaluation – can be developed in synergy to enhance student achievement in primary and secondary (Figure 6).

Figure 6. Interactions within the evaluation and assessment framework



This work has highlighted three hallmarks of a strong evaluation and assessment framework:

- Setting clear standards for what is expected nationally of students, teachers, schools and the system overall. Countries that achieve high levels of quality and equity set ambitious goals for all, but are also responsive to different needs and contexts.

- Collecting data and information on current learning and education performance. This is important for accountability – so that objectives are followed through – but also for improvement, so that students, teachers, schools and policy makers receive the feedback they need to reflect critically on their own progress, and remain engaged and motivated to succeed.
- Achieving coherence across the evaluation and assessment system. This means, for example, that school evaluation values the types of teaching and assessment practices that effectively support student learning, and that teachers are appraised on the basis of the knowledge and skills that promote national education goals. This is critical to ensure that the whole education system is working in the same direction, and that resources are used effectively.

Source: (OECD, 2013[14]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en.

Raising learning outcomes through student assessment

In North Macedonia, using assessment to support learning is difficult because teachers' assessment judgements are not based on established, national learning standards, and therefore do not convey reliable information on student achievement. While PISA results reveal that the majority of the country's 15-year-olds are unable to perform basic cognitive tasks, the same students receive top marks in the classroom.

Classroom assessment practices are also predominantly summative and limited to a narrow range of lower-order tasks. Despite recent policy efforts to strengthen formative practices, students receive little quality feedback to help them understand how to advance in their learning. They also have few opportunities to demonstrate the more applied skills and complex transversal competencies that are part of the country's curriculum.

Finally, while the state *matura* is one of the strengths of North Macedonia's assessment system – its administrative procedures are sound and the results are trusted – the examination needs to evolve to keep pace with changes in the education system. In particular, this review looks at how the state *matura* might be adapted to support the government's goal of improving the quality and attractiveness of VET pathways. It also suggests revisions to the *matura's* design in order to promote learning across a wider range of subjects in general education, better discriminate across different levels of student achievement, and enhance the reliability of the results.

Policy issue 2.1 Making the results of student assessment more meaningful

In North Macedonia, inconsistent learning expectations across grades and subjects result in unreliable student marks. These inconsistencies are a consequence of limited support for teachers' assessment literacy, and lack of coherence in the national curriculum, which combines resources, developed at different times according to different educational principles. For example mathematics curriculum for the grade 9, based on the Cambridge curriculum, focuses on competencies like posing research questions using statistical methods, while the mathematics curriculum for the 1st year of secondary (grade 10), not based on the Cambridge curriculum, gives far greater weight to performing discrete tasks such as calculating a mean.

At the same time, teachers' limited training in assessment design means that they tend to revert to simple knowledge-recall tests with which they are most familiar, rather than assessing more complex interactions of knowledge and skills or higher-order abilities. The challenges around teachers' assessment literacy are exacerbated by the country's narrow marking scale of 1-5, which combined with strong societal expectations for high marks, results in classroom assessment marks being clustered around four and five. Student marks therefore contain little meaning with respect to what students can do, and do not effectively help students to understand their strengths and weaknesses.

Box 3. Recommended actions for reporting student results

2.1.1 Develop coherent national learning standards that set out what students should know and how they are expected to apply knowledge to promote more valid, reliable assessments. To achieve the latter, the country will needs to review and align national learning standards across different grades so that student learning is scaffolded towards increasingly complex, higher-order competencies. Particular priority should be given to standards in core learning areas, like mathematics and reading and writing, especially because the latter currently do not have standards in grades 1-3.

The development of leaning standards should be accompanied by the introduction of performance levels that set out student achievement against national standards, e.g. above, meeting or below national learning expectations. This is especially important in grades 1-3, where there is no standardised description of student achievement at present.

2.1.2 Align student assessment with national learning standards by providing teachers with supports such as clear explanations of the criteria underlying different learning standards and their performance levels, rubrics for assessing students, marked examples of student work and examples of assessments to evaluate students. These materials can be provided via an online platform so that they reach more teachers, can be easily updated and facilitate teachers' own contributions to online content. Once a new national assessment is developed (see Recommendations 5.2.1 and 5.2.2), teachers should be encouraged to use its items as inspiration for their own assessments and compare their students' work with results on the national assessment to promote more accurate and reliable classroom assessment.

2.1.3 Enhance the accuracy and educational value of marking and reporting by extending the marking scale of classroom assessment. The scale might be extended to 1-10, reflecting similar practices in the region. The new marking scale should be linked to the new national learning and performance standards (see Recommendation 2.1.1). The BDE can help teachers to use the new marking scale by creating moderation opportunities, like helping teachers to mark each other's assessments and discussing in groups how to give marks.

The country might also consider introducing a project assignment at the end of lower secondary to inform students' choice of upper secondary programme, motivate all students to apply themselves and reinforce more rigorous standards, especially in core subjects.

Policy issue 2.2 Focusing assessment practices on helping students learn

In North Macedonia, the intensive focus on summative marks and the predominant perception of assessment as a judgement of achievement obscures the other important function of assessment – providing information to improve learning. This creates a situation where teachers are not making sufficient use of assessment results to help students understand their current proficiency and determine the next steps in their learning. This

leads to many students moving from grade to grade without meeting expectations for their level.

Providing and recording easy-to-understand feedback is also a critical aspect of assessment for learning. In North Macedonia however, almost one-third of secondary school teachers surveyed for this review reported that they either "never or almost never" or just occasionally provided written feedback to students (in addition to a grade) (see Box 2). At the same time, while teachers have frequent contact with parents, the main tool to report student progress – the student report card – does not provide much descriptive information about student learning, especially after grade 6 when providing this information is no longer mandatory.

While the MoES has made some efforts to encourage teachers to use assessment more formatively, embedding the practice in classrooms is challenging. The experience of OECD countries shows that it requires significant and consistent support for teachers, such as resources related to formative assessment, professional development and incentives that encourage its use (OECD, 2013[14]). In North Macedonia, developing these kinds of support will need to be complemented by addressing systemic barriers that make it difficult for teachers to use assessment results to adapt instruction to students' needs and interests. One barrier is the country's dense and rigid curriculum. Curricula rigidity is reinforced by external school inspections ("integral evaluation"), which evaluate how closely schools adhere to the curriculum and, in turn, discourage schools to adapt the curriculum to their specific context.

Box 4. Recommendations for focusing assessment on student learning

2.2.1 Promote the use of diagnostic assessments, especially in early grades, to help teachers better understand how far their students are meeting national expectations and what skills and knowledge they still need to develop. Teachers could be required to undertake diagnostic assessments at the beginning of grades 1-3 and on an ad hoc basis as relevant using instruments based on the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) that have recently been adapted to the North Macedonian context. As teachers become more comfortable with diagnostic assessments, they should be encouraged to develop their own assessments, based on national learning standards. Teachers will also need guidance on how to use the results from the diagnostic assessments to identify student progress and tailor subsequent instruction.

2.2.2 Provide and record high quality feedback to help students and parents understand a student's learning needs. The student report card should be updated to provide more space for descriptive feedback that explains why a student received a specific mark. This will help students and parents understand the next steps to improve learning. The country should also ensure that this more descriptive feedback is systematically recorded and shared, for example in the country's Education Management Information System (EMIS), so that parents, students and other teachers can access feedback from previous teachers. This continuous documentation would help teachers to better understand student needs.

2.2.3 Remove barriers to providing formative assessment by systematically ensuring that all schools can allocate a certain amount of learning time as they wish. This would provide teachers with greater flexibility to use teaching time to respond to the learning needs that assessment results highlight. Greater curricula flexibility should be matched by changes to the school evaluation framework to focus on broader measures like school-wide achievement of national learning standards, rather than detailed implementation of the curriculum.

To take advantage of greater autonomy, teachers will need more support to implement formative assessment. The BDE might support the country's school-based teacher groups – the "Teacher Actives" – to focus on practical assessment issues, like questioning and feedback techniques and how to use the new diagnostic assessments.

Policy issue 2.3 Updating the state matura to encourage and assess better student learning in key areas

There are a number of ways in which the state *matura* could be revised to better recognise and encourage student learning. One issue is the range of assessed subjects. In contrast to national examinations in many OECD countries, mathematics is not compulsory in North Macedonia (OECD, 2015[15]). This results in very few upper secondary school students taking mathematics (roughly 13% in 2017). Internationally, mathematics, alongside reading and writing, is considered to be a core competence that students should acquire at school and an area where information on student achievement is important to inform university selection. A related issue is that while students in North Macedonia study many subjects at school (15) which is higher than in many OECD countries (Ofqual, 2012[16]), the *matura* only assesses four. The mismatch between timetabled subjects and those that are externally examined leaves students with little recognition and no certification for two-thirds of the subjects that they study.

Another issue is the reliability and comparability of student results. An elective subject is marked at the school-level by markers from the same school, who develop the test themselves. Although schools receive guidance about how to develop and mark student tests, ultimately this method of marking risks that results are not reliable and comparable across different schools. There is a similar concern in relation to the project assignment. While the project was introduced in order to include an authentic assessment component within the *matura*, its educational value is reduced because there is little consistency in how projects are conceptualised across schools.

Third, the *matura* is currently not very effective at discriminating different levels of student achievement. This is partly because the 1-5 marking scale makes available only a limited range of marks. For example, in the 2017 English examination, a student in the 89th percentile received the same mark (4) as a student in the 65th percentile. It also reflects concerns with the tests themselves, which in some subjects do not appear to include items that are sufficiently discriminating. A number of subjects have unusually high student results, which prevents an accurate identification of the top-performing students. In the *matura*, a small number of students take certain subjects like mathematics and biology, and these tend to be the students who anticipate that they are likely to do very well. For example, around 60% of students got at least 75% of questions correct on their biology test, which was the case of only 7.6% of student who took the English test. Currently the NEC does not produce systematically the type of item-level analysis that would help item developers understand if item difficulty is appropriate for the examination's target audience.

A final issue is the alignment of the *matura* with North Macedonia's aim to improve VET. At present, students enrolled in four-year VET programmes (around 50% of the upper secondary cohort) are eligible to take the *matura*, giving them the choice of pursuing tertiary education or entering the labour market directly. However, the current *matura's* design, where VET subjects are assessed at the school-level, means that students in the four-year VET do not graduate with any externally validated certification in their vocational field. This means that vocational students lack meaningful recognition of their

vocational skills and that vocational results do not carry the same external authority as those in general academic subjects. As part of a wider reform to improve the quality and prestige of VET, the country is now considering the development of a distinct "VET *matura*". However, this review suggests that national goals for VET could best be achieved by making the existing *matura's* model more flexible and allowing it to certify achievements in VET fields.

Box 5. Recommendations for revising the state *matura*

2.3.1 Revise the *matura's* design to provide more meaningful results in key subjects, by:

- Making mathematics a compulsory subject to motivate all students to master at least basic mathematics and help universities make a more informed decision regarding student selection into mathematics and other related courses.
- Creating two versions of the mathematics exam, at basic and higher levels, to provide mathematics certification that is useful and accessible for all students, while providing those students who wish to pursue mathematics at a higher level with the option to study more advanced concepts.
- Considering extending further the core subjects that are assessed to ensure a better match between the breadth of subjects studied and those that are assessed.
- Marking all subjects externally to increase the value of the subjects previously taken internally, and improve the overall reliability of the *matura* results.
- Standardising the project assignment, e.g. by limiting the topics and the format and providing online examples of acceptable project assignments and guidelines for school staff on how to oversee and assess projects. Regular external moderation, from the NEC or the BDE, could also be conducted for quality assurance.

2.3.2 Adapt marking and improve item quality to provide greater discrimination of student ability and motivate students to improve their learning. The NEC should analyse items following each administration of the *matura* to learn how students engaged with the test items. The analysis can inform future item development so that there are not too many items that are too easy, too difficult or have poor discriminating ability. Undertaking these procedures will help to improve item quality and normalise the distribution of the student marks. The country should also consider extending the marking scheme, in line with changes to the marking scheme for classroom assessment, to 1-10 (Recommendation 2.1.3), to provide greater scope to discriminate between different levels of achievement.

2.3.3 Strengthen the VET component by externally validating student achievement in the VET subject and linking the results to employer-recognised certification. The externally validated VET subject should provide students with a formal VET certification, integrated in North Macedonia's national qualification framework, to signal readiness to employers and technical tertiary faculties. VET students should also be required to complete their project assignment for the *matura* in their chosen vocational subjects to provide greater recognition and time for the development of vocational skills.

To make VET certification more feasible, the current 150+ different specialisations should be reduced to a small number of subjects related to sectors that have been identified as important by economic and labour assessments. Over time, the current VET specialisations can be consolidated into VET families so that students do not pursue options that are too narrow, limiting their future employment options. The VET Centre should continue to oversee examination procedures to provide quality assurance. Since the Centre does not have the capacity to develop and mark all tests, the design and marking of the assessments might involve a body of employers or professional associations.

Using teacher appraisal to support and incentivise good teaching

High quality teaching is shown to be the most important school-level factor related to student learning outcomes. Effective education systems place a strong emphasis on selecting, training and retaining teachers with the competencies needed to help students succeed (Schleicher, 2016[17]). Appraisal supports such a culture of professionalism by first ensuring that all teachers have the aptitudes to teach, while also helping and incentivising teachers to develop higher levels of expertise and responsibility throughout their careers.

In recent years, North Macedonia has made several attempts to create more robust teacher selection and promotion methods, with the aim of establishing a more learner-centred system. Initiatives include the proposal for a merit-based career structure for teachers, as well as efforts to support teachers' professional development in core areas, such as classroom assessment techniques. However efforts have not been sustained – the merit-based career system is still not implemented – and do not amount to a comprehensive policy to support the teaching profession.

Policy issue 3.1 Ensuring that entry into, and progression along the teaching career path is based on professional competence

In 2016, the BDE in collaboration with the United States Agency for International Development (USAID) developed a plan to introduce a performance-based career path for teachers. The new career structure set out different steps linked to increasing levels of teaching competence and a new appraisal system determining how teachers would be promoted. Taking forward the plans to introduce a performance-based career path in North Macedonia would encourage teachers to develop new skills and take on new roles and responsibilities.

At the same time as enhancing the management of talent within the existing teacher workforce, North Macedonia needs to ensure that there is more rigorous selection and preparation for new entrants to the profession so that they can also become strong teachers in the future. High-performing education systems invest significantly in attracting and selecting talented and motivated candidates into teaching, and provide them with adequate training to develop the competencies required to become effective teachers (Schleicher, 2015[18]). However in North Macedonia, entry into teacher initial education is not selective, with almost all applicants to initial teacher education programmes being accepted (Mickovska et al., 2013[19]). This not only means that new entrants may lack key pre-requisites, like core academic knowledge and motivation, but impacts the status of the teaching profession and its attractiveness to high achieving students. It also contributes to a significant oversupply of new teachers, which is an inefficient use of government resources (since all initial teacher education places within the quota are subsidised by the government).

The above situation is exacerbated by the absence of other strong mechanisms to ensure the preparedness of teacher education graduates. North Macedonia lacks specific criteria for the accreditation of teacher education programmes as well as robust requirements for initial teacher licensing and adequate guidance for probation appraisal, and mentoring. Overall, the weak selection and quality assurance mechanisms for entry into teaching exacerbates the risk that new teachers enter the profession without a minimum level of knowledge and skills to be effective in the classroom. Aware of these challenges, the ministry has recently proposed to create an academy that would introduce an additional year of initial teacher education at the end of a candidate's bachelors, with the purpose of

selecting and training teacher candidates. While the intent of the academy is positive, it does not address the deeper problem of lack of selection and heterogeneity in the quality of initial teacher education programmes. Instead of introducing an additional layer of initial preparation it would be more efficient and effective to make initial teacher education more selective and rigorous.

Box 6. Recommendations for entry into, and progression along, the teaching career path

3.1.1 Introduce the planned performance-based teacher career structure. Issues like how teachers seeking a promotion will be appraised and the impact on teacher salaries were not addressed in the 2016 plans, so the first step for the ministry and the BDE will be to clearly define the process for the new external appraisal. This should include developing guidance for evaluators on the kinds of evidence they should collect to determine teachers' readiness for promotion (e.g. classroom observations, reviewing teachers' portfolios, and interviews with the candidate). Indicators and descriptors of quality teaching should also be developed to orient evaluators towards what they should focus on when observing teaching practices. The above will need to be accompanied by training for evaluators on how to appraise teachers' competencies in line with the teaching standards.

The ministry will also need to determine how the new appraisal will impact other aspects of teacher policy, including linking career promotion to a salary increase to reward performance. Teachers will need to be supported to identify and undertake professional development that will help them advance up the new career path. One way to support this is by clearly identifying the teaching competencies targeted by accredited training programmes in the new professional development catalogue (Recommendation 3.3.1). Another is by providing school principals and a professional support team with training on how to orient teachers towards professional development that best meets their needs.

3.1.2 Select the most qualified candidates for teaching and ensure that they receive adequate support during probation. Greater selection of aspirant teachers into teacher education programmes could be achieved by reducing the quotas for government-funded tertiary places and requiring that candidates attain minimum *matura* marks in core subjects such as mother tongue and mathematics. In the future, universities may also be encouraged to also evaluate a candidate's motivation and their socio-emotional skills, for example, through interviews. The ministry needs to introduce programme-specific accreditation criteria aligned with the 2016 teaching standards to help ensure that all accredited initial teacher education programmes provide quality theoretical and practical training.

The ministry should also consider more robust mechanisms for initial and full licensing of new teachers. One option is to introduce a national qualification examination at the end of initial teacher education so that all selected teachers meet minimum requirements. This new examination might replace the confirmation examination at the end of the probation period to avoid redundancy. It would also need to be accompanied by a stronger probation appraisal to evaluate classroom practice and other attributes that are hard to assess in an examination. BDE evaluators might become the final decision-maker for probation appraisal, given the high stakes that this decision carries for a teacher's career. All novice teachers should also receive a mentor who can report on their performance across the year, both as input to their probation appraisal and to provide more formative feedback. Ensuring that all new teachers receive quality mentorship during their probation is important to support novice teachers in developing their pedagogical knowledge and skills, recognising that many have not benefited from a quality practicum.

Policy issue 3.2 Developing a culture of learning and feedback in schools

School-level support for teachers that is sustained and connected to their daily practices is among the most effective type of professional development and learning. In North Macedonia, there are already several in-school practices to help teachers. This includes an informal culture of collaborating, with teachers exchanging materials, discussing students' learning and working with each other as part of in-school teacher subject groups called "Teachers Actives". Each school also has a multi-professional support team comprising a pedagogue, a SEN advisor, a psychologist and a principal, who are supposed to help teachers respond to different student learning needs. Principals and pedagogues also lead regular in-school teacher appraisal.

While these practices are positive, they could provide stronger support for teachers. For example, it is unclear if the "Teacher Actives" are effectively in place in all schools, and they lack any external support or funding. Regular appraisal also needs to be more directly focused on the most important aspects of teaching for learning and linked to common teaching standards. At present, school-level evaluators, principals and pedagogues, do not receive the necessary training and technical support to make appraisal a meaningful exercise (Mickovska et al., 2013[19]). A further issue is the current overlap of appraisal processes – by inspectors from the SEI as part of external school evaluations, by BDE advisors and school-level appraisal by school leadership. These processes are not co-ordinated, are largely administrative and show little evidence of improving teaching practices.

Finally, the multi-professional support teams seem to be operating according to a very narrow definition of learning support. In a number of schools that the review team visited, the pedagogues perceived their role as being limited to helping teachers manage "problem" students at high risk of failure, instead of supporting teachers to understand the learning needs of each student and help them design lesson plans that create a more inclusive and effective learning environment.

Box 7. Recommendations for developing learning and feedback in schools

3.2.1 Guide principals and pedagogues to make regular teacher appraisal a more meaningful process. Given the redundancies and overlap created by three different regular appraisal processes, this review recommends phasing out the role of the BDE and SEI in regular appraisal. Instead, regular appraisal would be led solely at the school level by principals and pedagogues. This is in line with international practices and research which highlight the value of in-school appraisers leading regular appraisal as they have a more accurate understanding of a teacher's performance and can create more open conversations that are conductive to the developmental objectives of regular teacher appraisal (OECD, 2013[14]).

Principals and pedagogues will need support to focus regular appraisal on evaluating teachers against the country's new teaching standards (when they are introduced), and encouraging development towards higher levels of teaching competence through:

- Guidance on how to observe evidence of the new teacher competencies.
- Suggestions on how to use teacher portfolios more meaningfully, for example, by focusing on teachers' learning goals in their development plan.
- Introducing teacher self-evaluation to encourage teachers to reflect on their teaching practices and development objectives.

- Establishing a development plan that identifies specific, discrete areas for learning and improvement for the coming year.

The school principals and pedagogues that undertake regular appraisals also need to receive training in appraisal techniques. Practical guidance on how to observe teaching and provide formative feedback should be included in principals' initial preparation. Training sessions should be developed for this purpose for in-service principals and pedagogies.

3.2.2 Develop the "Teacher Actives" groups by giving them an official role in teacher professional development. For example, the BDE might provide examples of collaborative professional development activities that "Teacher Actives" can undertake like peer classroom observations and organising in-school training. The BDE should also designate and train co-ordinators of the "Teacher Actives" to ensure that "Teacher Actives" are developed across all schools. The "Actives" might be provided with some small discretionary funds to undertake their development activities.

3.2.3 Review the role of the in-school support team to focus on helping teachers to create an effective, inclusive learning environment. One option is to introduce a multi-tier support model to provide different "tiers" of support to meet learners' different needs, similar to the approach used in Finland (Mitchell, 2014[20]). The support team might meet regularly as a group to review teachers' learning plans to ensure that teachers have identified the different learning needs of the students in their class (e.g. who is on track to achieve national standards, who needs further support and who needs to be challenged) and put in place differentiated strategies to meet these needs. As well as helping teachers to address specific cases of struggling learners, they would also provide teachers with advice on classroom-wide approaches to improve learning outcomes, such as at the start of the school year to help teachers develop effective plans for the coming year and at the end to discuss strategies that have been more or less effective. These new roles should be reflected in the competency standards for school support staff, as part of implementation of the performance-based career structure (Recommendation 3.1.1). The ministry will also need to make sure that the initial training of school support staff is aligned with these standards and with modern concepts of SEN and inclusive education, and that mandatory training requirements are set for existing professional support teams to help them understand and apply new methods.

Policy issue 3.3 Strengthening external support for teachers' professional development

While in-school professional development is important to support teachers in adopting more effective practices, there remains an important role for external training, especially in a context such as North Macedonia, where the gaps in teacher knowledge and skills are significant and genuine pedagogical leadership capacity within most schools remains weak. At present, however, there are concerns with both the availability and the quality of external training courses in the country. The take-up of professional development is relatively low compared to OECD and Western Balkan countries, and schools receive very little financial support to organise in-service training for their staff. As access to official training programmes is limited, teachers in North Macedonia often find and pay for training themselves, or turn to informal support, such as the Internet, to access teaching materials. The Internet makes it easier for teachers to collaborate beyond their schools and increases the range of teaching tools that teachers can draw upon (Schleicher, 2016[21]). However, the ministry needs to take a more active role in reviewing Internet content and platforms if this resource is to be leveraged effectively to improve teaching practice. The country's market-based teacher professional development model also needs to be complemented by stronger mechanisms for quality assurance.

Box 8. Recommendations for supporting teachers' professional development

3.3.1 Ensure that professional development meets teachers' needs. In the past, the BDE was responsible for maintaining a catalogue of accredited teacher professional development programmes. This role should be re-established so that teachers receive professional development that meets minimum quality criteria. The accreditation process should check that programmes are targeting teachers' core competencies as defined in the new teaching standards and aligned with the national priorities for teaching and learning set out in the Education Strategy 2018-25.

The ministry also needs to review both the scale and the way professional development is funded. The BDE requires significantly more resources if it is to provide the established ten hours of free training in national priority areas that all teachers are required to take every three years. In addition, earmarked subsidies should be given directly to schools as discretionary funds for them to use to choose training in line with their own needs and interests.

3.3.2 Develop more digital resources to support continuous professional development. Since more than two thirds of the country's teachers already rely heavily on student assessment tools and lesson plans from the Internet (OECD and UNICEF, 2018[22]), the BDE could create a national online repository to build on this practice. The BDE could complement teacher-provided materials where there are gaps and ensure that materials meet minimum quality criteria. Material can also be peer reviewed. To encourage teacher collaboration, the repository might include an online forum where teachers can collaborate and solve problems that they face in their teaching practice.

3.3.3 Strengthen the role of the BDE. A broader concern for teaching in North Macedonia is the lack of a comprehensive approach to develop the profession. Recent policies and programmes have not been consistently supported - like the development of teaching standards and a performance-based career path, which remains unimplemented. Strengthening the BDE so that it is formally recognised as the key government body for supporting the teaching profession would help to ensure that teaching is recognised as a political priority. The reformed BDE would be responsible for key areas of teacher policy, formulating policy recommendations and advising the minister.

Aligning school evaluation with its core purposes of accountability and improvement

The purpose of school evaluation is to help schools improve their practices and keep them accountable for the quality of the education that they provide to their students. North Macedonia has a school evaluation framework that covers the key areas that are important for an effective school evaluation system. However, this framework has not been fully implemented or appropriated by stakeholders. Both external and self-evaluation focus largely on complying with the framework, rather than encouraging a culture of reflection and improvement in schools. Fundamentally, this reflects a disconnect between the aims of the framework – to enhance school quality and school-led improvement - and the perception of evaluation among inspectors and schools as an administrative requirement. This is exacerbated by a useful, yet complicated evaluation framework, which inspectors and schools find difficult to apply, and by the lack of support given to schools on how to use evaluation results to inform improvement efforts.

Policy issue 4.1 Professionalising the State Education Inspectorate

External school evaluation in North Macedonia does not yet fulfil its stated core functions of ensuring school accountability and helping schools improve. The overwhelming perception of evaluation – external and internal – as reported to the review team by the

inspectorate, principals and teachers, was as a process to ensure compliance with regulations and the national evaluation framework.

Leadership of the SEI is key for shaping how staff within the SEI and schools understand the role of school evaluation. In most OECD countries, the head of a school inspectorate is expected to combine deep understanding of school improvement, strong leadership skills and integrity. Inspectorate directors hold a senior leadership position within a country's education system, regularly advising the ministry and the minister on issues of school quality. In contrast, the SEI Director in North Macedonia is not considered as a senior managerial position and does not play an advisory role to the minister. For example, the minimum eligibility requirements for the position of director are similar to those of other inspectors.

The SEI also lacks the technical capacity, integrity and independence to lead school evaluation at the national level. It was reported to the review team that the SEI evaluations are sometimes used for political purposes, for example to justify principal dismissals. While this points to a lack of integrity and independence, there are also few mechanisms to ensure that the SEI is made accountable for the quality of its work. In most OECD countries, school inspectorates are subject to a number of accountability requirements, such as the need to produce an annual report on the quality of their work, which is publicly debated in parliament. Inspectors must follow codes of practice and there are clear and explicit mechanisms for stakeholders, such as principals, teachers, students and parents, to make complaints. While some of these elements are present in North Macedonia, the reported practice of using evaluations to justify principal dismissals suggests that they are very weak at present.

Box 9. Recommendations for professionalising the State Education Inspectorate (SEI)

4.1.1 Guarantee the independence and integrity of the Inspectorate. The appointment requirements for the SEI director should focus on demonstrated competence in school improvement and a strong understanding of how evaluation impacts school quality. Adherence to national codes of conduct should also be enforced, with any violations resulting in dismissal.

Increased professional independence of the SEI will need to be balanced by greater oversight of, and accountability for, its work. All stakeholders should have clear and fair opportunities to redress any grievances. A board of respected national education experts could also be formed to help maintain the SEI's independence and oversee the quality of its work. The role and prominence of the SEI's annual report could also be reinforced by focusing explicitly on the quality of the organisation's work (and not merely reporting activities undertaken), and debating its contents in parliament.

Accompanying the above measures with a national consultation to determine a shared vision of "a good school" in North Macedonia would help in developing greater national understanding and ownership of the role of evaluation in supporting school improvement and better student outcomes.

4.1.2 Build the professional capacity of the SEI. New inspectors currently receive only three days of initial training, which is inadequate to develop the skills needed to evaluate schools in a way that is consistent and valid. As an immediate priority, the SEI should design and deliver a set of training courses for existing inspectors with a focus on explaining the purpose of school evaluation and developing key evaluation competencies, such as how to conduct a classroom observation and report back to schools. The training should provide inspectors with practical opportunities to try out new techniques and receive feedback, and to participate in an evaluation visit. In the medium term, the ministry will need to revise inspector's initial training to bring it more into line with the duration, structure and depth of well-established programmes in OECD and EU countries.

To expand the breadth and depth of the SEI's experience and expertise, it should consider training and licensing experts as external consultants that can join the evaluation teams on an ad hoc basis. Possible external consultants might include experienced teachers from other schools and advisors from the BDE and the Vocational Education and Training Centre (VETC).

Policy issue 4.2 Ensuring that integral school evaluations focus centrally on improving school quality

While North Macedonia's school evaluation framework includes many of the aspects that are important for creating an effective and supportive school environment, with 7 areas, 28 indicators and 99 parameters, it can be difficult for inspectors to implement and puts schools under a lot of pressure to compile and report data. As many countries have studied the effectiveness of their school evaluation practices, they have found it important to simplify their frameworks to focus on key aspects of school quality. This is important to move evaluation from a checkbox exercise, to a more focused, in-depth review of the quality of school practices and how they can be improved.

A distinct aspect of school evaluation in North Macedonia is that inspectors are expected to appraise all teachers in the school individually. Since inspectors have limited time, individual classroom observations are often very short, just ten minutes, during which inspectors will simply check documents such as students' portfolios and lesson plans. Teachers do not receive written feedback or their results from the classroom observation.

If school evaluations are to lead to improvement, they need to provide schools with information that helps them to understand what they do well, and where improvements can be made. At present, however, the review team's interviews revealed that schools largely perceive evaluation to be an externally imposed process that is disassociated from their own planning and development efforts. An important way to ensure that evaluations trigger school action is providing useful, actionable feedback at the end of an evaluation, complemented by greater follow-up support where necessary.

Box 10. Recommendations for focusing integral school evaluation on school quality

4.2.1 Revise school integral evaluation to focus more centrally on the quality of teaching and learning. The indicators in the School Performance Quality Indicators (SPQI) framework that guide evaluation should be reduced to around 10 to 15 and revised to distinguish between a set of core indicators to be evaluated in every cycle and secondary indicators to be evaluated on a rotating/discretionary basis. This will make the framework more manageable for inspection teams and give them more time to focus on key indicators of teaching and learning. There are also gaps in the existing framework that need to be addressed. For example, indicators on school pedagogical leadership, the quality of self-evaluation and schools' capacity to reflect on its practices should be included as part of the core indicators evaluated by the SEI.

In order to create more time to meaningfully evaluate teaching and learning, the individual teacher appraisals that are currently part of the integral evaluation should be replaced with more extended classroom observations of a sample of classrooms to gain a deeper understanding of instruction in the school. Individual teacher appraisals should instead be led by the school principal and the BDE (Recommendation 3.2.1). To reduce the administrative burden that integral evaluations place on schools, the SEI should simplify and digitalise the collection of administrative data.

4.2.2 Make sure that integral evaluations deliver constructive feedback to schools. The SEI needs to make sure that recommendations in the school evaluation reports are clear, specific and actionable. The SEI can start by reviewing a sample of national reports and interviewing schools to understand how feedback is used. It should also look at international practices on reporting. Low-performing schools will likely require additional assistance to act on feedback, and the ministry should explore ways to concentrate external support on where it can make the most difference. Towards this end, the country should consider gradually introducing a risk-based approach to school evaluation and follow-up that prioritises schools at risk on core indicators. As part of this new model, the follow-up visits by inspectors to all schools might be replaced by more sustained support for select schools that is led by the regional or municipal level. North Macedonia will need to consider the best structure to provide such support – for example, whether to create a body of school improvement officers that work across multiple municipalities or develop a separate improvement unit within the SEI.

Policy issue 4.3 Developing schools' capacity to carry out meaningful self-evaluation

While most schools in North Macedonia undertake regular self-evaluations and develop school action plans, few have appropriated these processes as internal tools to improve the quality of their practices. Schools need more practical support and training to undertake meaningful self-evaluation. At present, school actors with a leading role in self-evaluation do not receive any training or guidance to implement an effective self-evaluation process that is embedded in school planning activities.

At the same time, school principals in North Macedonia are not sufficiently trained to carry out key pedagogical leadership tasks such as leading self-evaluation and planning activities or setting a clear vision for the school. Principals' initial training does not provide time for preparation in these areas and, in addition, is purely theoretical in nature. Once in-service, there are also limited programmes for principals' professional development. Moreover, political interference and the high level of turnover among principals make it difficult to build a professional school principal corps that is recognised for their expertise.

Box 11. Recommendations for developing school capacity

4.3.1 Provide support and training for school actors on self-evaluation, by considering the following actions:

- Revising self-evaluation guidance. As a first step, the country might review schools' experience of self-evaluation to understand what a new comprehensive self-evaluation manual should include.
- Providing more training for school actors on self-evaluation. A mandatory, practical module on self-evaluation could be added to school principals' initial preparation. Regular training should be offered to school staff involved in self-evaluation and school boards. Schools that struggle the most with undertaking meaningful self-evaluation might be offered technical assistance from BDE advisors.

- Reviewing and providing feedback on self-evaluation during integral evaluations, by adding an indicator on the quality of self-evaluation practices to the integral evaluation framework.
- Creating an online portal for schools to share their experience with self-evaluation. The ministry might also recognise schools with exceptional self-evaluation practices through a title like "learning organisation" or "excellence in using evidence" and share these examples of good practice on the online portal.

4.3.2 Develop school principals' instructional leadership skills. North Macedonia should consider creating a leadership academy to help professionalise the principal role. This academy would be in charge of providing initial preparation and in-service professional development for principals. As a first step, the academy should co-ordinate the finalisation and introduction of competency standards for principals, which would be used to inform their selection and training, and the evaluation of school leadership during school evaluations.

Protecting the principal appointment process from political interference will be essential to ensure that principals are selected based on their professional competence. Ways to achieve this include providing school boards with clear selection guidelines and ending municipalities' role in validating principal appointments and renewals. The municipalities' validation process should be replaced by validation by an external and independent body, such as the SEI. Decisions about principal renewal and dismissal should also be depoliticised by introducing a principal performance appraisal to provide a fair and independent measure of performance.

Policy issue 4.4 Providing schools with greater resources to enhance the quality and impact of school evaluation

Schools in North Macedonia will need additional resources to appropriate evaluation as a tool to drive their own improvement. Better access to their own data will allow schools to analyse and monitor their performance and compare themselves to others. Many countries use standardised assessment and examination results to inform school evaluation. North Macedonia's SPQI framework includes few indicators on student-learning outcomes, limiting schools' and the Inspectorate's capacity to evaluate how far learning outcomes in a given school compare to national or local benchmarks.

Second, schools need predicable, adequate financial resources to introduce quality improvements. While schools in North Macedonia have significant discretionary power over the use of their resources, decades of underfunding and lack of transparency in the distribution of financial resources mean that they have few financial resources to implement improvement plans. Greater transparency and fairness of funding will need to be complemented by increased school funding overall.

Box 12. Recommendations for developing school resources linked to evaluation

4.4.1 Provide schools with indicators and tools to measure their performance, for example, by using results from the state *matura* as a measure of students' learning outcomes in the school evaluation framework. The ministry should also make data more accessible to schools so that they can monitor key outcome indicators such as students' learning outcomes, completion and drop-out rates. One option is to develop a school portal or "view" on EMIS that gives individual schools access to their own data and provides national and regional benchmarks.

North Macedonia's plans to introduce a national assessment are very positive and will provide essential data for monitoring learning outcomes at the national level (see Policy issue 5.2). However, the intention to use the results for school ranking should be reconsidered. Using assessment results alone to rank schools and reward certain teachers is unfair, as it does not control for the school's

socio-economic profile. Instead, the assessment results can be included in the school evaluation framework to encourage schools to reflect on how they support students' learning outcomes and school accountability. In the medium term, the ministry might consider developing a school index that contextualises school performance including factors such as financial inputs and socio-economic context.

4.4.2 Provide schools with adequate financial resources to implement their improvement plans. The ministry should consider making it compulsory for municipalities to use funding formulas and provide clear guidelines on the variables to be included (e.g. urban/rural, students' socio-economic background). The ministry should also consider providing schools with small discretionary grants from central funding for professional development or implementing projects under their improvement plan.

Creating a stronger framework to monitor and evaluate national progress in education

System evaluation is central to education reform. It is important for holding the government and other stakeholders accountable for meeting national education goals. It also provides the information needed to define better policies and make sure that they have their intended impact. In North Macedonia, system evaluation is at a nascent stage of development. Recent years have seen some important steps towards establishing the institutions and instruments that can support system evaluation. However, many basic components are still lacking, and data systems and the processes for feeding information into decision-making are weak. Among the significant gaps are the absence of clear objectives for improving learning outcomes and a national assessment that would support efforts to raise achievement.

Policy issue 5.1 Centralising the use of EMIS and improving its capacity

North Macedonia's EMIS is not used by the country's policy makers to its full extent. For example, the sections of the MoES responsible for primary and secondary education directly collect data from schools, rather than retrieving data from EMIS. Providing data to numerous requestors is burdensome for schools and multiple collections risk compromising data quality.

This situation reflects a number of challenges in the current operation of EMIS. First, with only two staff members, the EMIS team lacks capacity and a strong voice within the ministry. EMIS also lacks strong quality control mechanisms such as data validation and auditing procedures to ensure that data are of the highest quality. Another issue is that data are stored across different databases, which are not linked, limiting data analysis. For example, student demographic data are stored in EMIS while *matura* results are stored in the NEC database. The functionality of EMIS is also currently limited, which means that users are not able to take full advantage of its data.

In addition, EMIS currently plays a limited role in monitoring national goals, which is an important aspect of system evaluation. This reflects the absence of measurable national goals in North Macedonia. While the country's Comprehensive Education Strategy 2018-25 lists some national objectives, they are not focused on outcomes, most notably not on improvement in student learning, and are not measurable.

Box 13. Recommendations for improving the use of EMIS

5.1.1 Formalise EMIS as the central source of data. The ministry should consider moving the EMIS unit closer to the ministry's central leadership to give it greater authority over the collection of school-level data. Staff capacity in the EMIS unit should also be bolstered, by adding more staff and addressing current skill and position gaps including strong leadership, software development and quantitative analysis.

Establishing data definition and collection protocols would also help to clarify to whom schools are required to provide data and ensure that standard data definitions are applied across different schools and the education system overall. The country should also consider using students' national identifications in all its databases and ensure that all data are digitised to allow for greater interoperability between databases, notably EMIS and the NEC database containing *matura* results. Finally, introducing regular quality assurance procedures for EMIS data (e.g. visiting a sample of schools to check data collection) would help to verify data accuracy and encourage more individuals to use the system.

5.1.2 Enhance the functionality of EMIS by introducing regular reporting procedures to help EMIS users make greater use of the system's data. For example, regular reports of the most commonly used data (e.g. on participation and completion) could be made publicly available so that users can automatically retrieve data. Developing a user-friendly public data portal would enable users such as schools, researchers and national policy makers to browse national education data and select schools and municipalities for comparison (e.g. by location or language of instruction).

5.1.3 Improve the articulation of national education goals and align future EMIS development with them. To help direct the country towards national priorities, the government will need to establish specific goals for improving student achievement, associated with measurable, achievable targets. Targets could be based on data from international assessments (e.g. reducing the share of low performers in PISA in line with European Union targets), and the national assessment when it is developed. Given the evidence of disparities in learning outcomes, other goals to improve equity might also be included, such as to close the performance difference between urban and rural areas and/or different ethnic groups. New goals and targets will need to be accompanied by the development of a national indicator framework to collect data and monitor progress publicly. The development of an indicator framework would also help to orient the future development of EMIS by easily identifying data gaps.

Policy issue 5.2 Designing a national assessment that supports national learning goals

From 2013 to 2017, North Macedonia administered a national standardised assessment, which aimed to compare teachers' classroom marks with student results on the assessment. Teachers were supposed to be ranked based upon how closely their marks corresponded to students' assessment results, with those who were ranked highly receiving a financial bonus. However, this reward system was never implemented and the assessment was abolished, largely on the grounds that it placed too much pressure on teachers and had a negative impact on teachers' classroom activities.

North Macedonia is now planning to introduce a new national assessment. A well-designed assessment would provide valuable information to monitor student performance at key stages of their education against national goals. The results can also be used to inform policies and future system planning, and help to improve the quality of teachers' professional judgement at the classroom level as well (see Recommendations 3.3.1 and 3.3.2). In addition, the ministry had been considering the potential use of the results to rank and reward schools. Such a measure, however, could undermine the formative functions of

the assessment and have a negative impact on teacher and school behaviour. Moreover, student results are influenced by a wide range of factors beyond a school's control like student background, ability and motivation (OECD, 2013[14]). The means that ranking schools on assessment results alone will not provide an accurate measure of school performance. This review therefore recommends that North Macedonia should not use the assessment results for ranking and rewarding schools (see Recommendation 4.4.1).

Box 14. Recommendations for a new national assessment

5.2.1 Determine the purpose of the national assessment and align its design to the purpose. The ministry should first create a steering committee to make key decisions on the assessment's development and build national support. The steering committee can help to determine which organisation will be responsible for the new assessment. Given the NEC's experience in administering the *matura* and international assessments, it is best positioned to take on this responsibility. Next, the committee will need to determine the assessment's primary function. This review recommends that the latter be focused on providing formative feedback to teachers and schools to help address key challenges in the country such as low learning outcomes and little support for teachers' assessment capacity (see Policy issue 2.2), in addition to monitoring learning outcomes at the system level.

Once the assessment's primary purpose has been determined, this should closely influence its design. The following points suggest how the assessment could be designed to best support a primarily formative purpose:

- Combine census (i.e. all students from a population of interest) and sample-based (i.e. a representative sample of students from the population) testing. A census assessment could provide formative information to help teachers adapt instruction to their students' needs. However, census assessments can easily acquire high stakes, and are expensive and time-consuming to implement. To manage these costs, North Macedonia might implement a hybrid model of census assessments in grades 3 and 6 so that support can be directed towards struggling students and schools; and a sample-based assessment in grade 9 to avoid confusing the national assessment with a high school entry examination.
- Test mother tongue language and mathematics since they represent core skills. Additional subjects e.g. science and/or national history could be added in grade 9.
- Ensure that items assess learning rather than memorisation by following proper item-writing convention (e.g. reviewing items for potential bias and varying the placement of distractor choices (Anderson and Morgan, 2008[23]). Multiple-choice and closed-format responses can be used in grades 3 and 6, and more open-format questions added in grade 9.
- Consider computer-based delivery as it tends to be cheaper to administer (aside from the initial capital investment), less prone to human error and the results are delivered more quickly.

5.2.2 Pay careful attention to the dissemination and use of national assessment results to enhance their formative value. Different reports can be developed for individual schools and teachers, as well as a national public report. Each report should contain information to help the specific audience use the information to understand current performance and make improvements in the future. For example, reports for teachers can include item-level analysis to help them improve the teaching and assessment of similar content in the future. The national report should disaggregate results by demographic factors (e.g. gender, language of instruction, school type, municipality, student socio-economic status) to inform policy making.

Policy issue 5.3 Institutionalising system evaluation

Education policy making should draw on national information about how the system is currently operating and international research about what factors contribute to effective teaching and learning. In North Macedonia, however, decision-making is not always based on the available evidence, risking that political considerations are prioritised above what is most important for teaching and learning. This can mean that the system's limited resources are not used as efficiently as they could be – for example, teacher numbers have consistently increased in past decades despite a falling student population (see Policy issue 3.1). It can also result in policies with negative consequences for teaching and learning, such as the intention to use the previous national assessment results to reward or penalise teachers (see Policy issue 5.2).

This situation reflects limited analytical capacity within central government. At the same time, while the agencies around the ministry, such as the BDE, the NEC and the SEI have some research responsibilities, they lack clear mandates, resources, capacity and stable leadership. Another issue is that education information is not well reported or analysed publicly. Unlike most OECD countries, North Macedonia does not have a national education report, which is guided by national policy goals and priorities.

System monitoring and evaluation are also weak at the local level. Following decentralisation, municipalities have taken on responsibilities for school resource allocation and staff recruitment but this has not been accompanied by increased oversight. The experience of decentralisation in other countries shows that in order to produce better outcomes, local governments need a framework to follow and to be held accountable (World Bank, 2006[24]). Municipalities are also not well resourced for managing education delivery. Each municipal government has just one or two members of education staff. It was reported to the review team that the municipalities do not come together to share good practices or experiences.

Box 15. Recommendations for institutionalising system evaluation

5.3.1 Build support for system evaluation through the creation of a policy analysis and research unit within the MoES. This review strongly supports the current ministry initiative to develop its own research unit, which will help to ensure information is used more systematically for policy making. In order for the new unit to guide different parts of the MoES and its associated institutions, it must be prominently situated within the ministry (e.g. by directly reporting to the minister and regularly attending meetings with the ministry's leadership).

5.3.2 Develop a wider network of research entities that contribute to system evaluation. For the specialised agencies like the BDE, the NEC and the SEI to fulfil their duties, they need clearly defined roles that do not change in response to political considerations. This can be supported by developing mandates for each agency that are enshrined in legislation, agreeing a multi-year activity programme and related budget for each agency, and explicitly setting out the appointment process for directors for each agency to ensure candidates' technical and professional competencies.

The research function of the individual agencies should also be carefully reviewed. The BDE should be formalised as the research arm of government and provided with the necessary resources and responsibilities, as part of a broader reinforcement of its role in supporting instructional improvement (see Recommendation 3.3.3). Given the extensive information that the NEC and the SEI collect, both should continue to have complementary research functions, with the necessary resources and staff skills that these functions require.

5.3.3 Promote the sharing and use of evaluation results, by annually publishing an analytical, public, education report to help hold the government accountable for educational improvement. The report might include prominent reporting against national goals and targets, accompanied by analysis of progress. These reports can also be used by the wider research community to direct secondary analysis into key issues that affect the education system.

Another measure to ensure that non-partisan evidence review becomes an integral part of the policy making process could be to introduce a government guideline that all major policies and programmes should first be piloted, and the pilot studied, before full-scale implementation. Major programmes should also be systematically evaluated to determine their effectiveness and inform future reforms.

5.3.4 Strengthen local accountability. The government in North Macedonia should consider setting out clearer expectations for how municipalities are expected to perform their role for education delivery (e.g. by setting out the principles that govern school funding or staffing). These principles would also provide the basis for local audit. Given the current opacity of local school funding arrangements and the evidence that funding is currently not efficient, the country should evaluate education resource allocation and use the results to inform the development of a more efficient resource allocation policy (see also Recommendation 4.4.2).

References

Anderson, P. and G. Morgan (2008), "Developing tests and questionnaires for a national assessment of educational achievement", https://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-7497-9. [23]

Eurostat (2017), *Employment rates of recent graduates (aged 20–34) not in education and training, 2017*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Employment_rates_of_recent_graduates_(aged_20%E2%80%9334)_not_in_education_and_training,_2017_(%C2%B9)_(%25).png (accessed on 31 August 2018). [8]

Eurostat (n.d.), *Database - Eurostat*, http://ec.europa.eu/eurostat/web/education-and-training/data/database (accessed on 13 July 2018). [4]

Mickovska, G. et al. (2013), *Policy and Practice Analysis of the Teacher Professional and Career Development in the Republic of Macedonia*, USAID, Skopje, http://www.mcgo.org.mk/wp-content/uploads/2013/12/Policy-and-Practice-Analysis-of-the-Teacher-Professional-and-Career-Development.pdf (accessed on 13 July 2018). [19]

Mitchell, D. (2014), *What Really Works in Special and Inclusive Education: Using Evidence-based Teaching Strategies*, Routledge, London, https://www.routledgetextbooks.com/textbooks/_author/mitchell-9780415623230/. [20]

MoES (2018), *Comprehensive Education Strategy for 2018-2025*, Ministry of Education and Science, Skopje. [3]

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2018-en. [11]

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2017-en. [9]

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en. [10]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264267510-en. [2]

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en. [15]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en. [14]

OECD (2003), *Reviews of National Policies for Education: South Eastern Europe 2003 : Volume 1: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo*, OECD Publishing, Paris. [1]

OECD and UNICEF (2018), *OECD-UNICEF survey of teachers and principals in North Macedonia*. [22]

Ofqual (2012), *International Comparisons in Senior Secondary Assessment: Full Report*, Ofqual. [16]

Schleicher, A. (2016), *Teaching Excellence through Professional Learning and Policy Reform: Lessons from Around the World*, OECD, http://dx.doi.org/10.1787/9789264252059-en (accessed on 30 January 2018). [17]

Schleicher, A. (2016), *Teaching Excellence through Professional Learning and Policy Reform: Lessons from Around the World*, OECD, http://dx.doi.org/10.1787/9789264252059-en (accessed on 30 January 2018). [21]

Schleicher, A. (2015), *Schools for 21st-Century Learners: Strong Leaders, Confident Teachers, Innovative Approaches*, International Summit on the Teaching Profession, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264231191-en. [18]

UNESCO-IBE (2011), *World Data on Education - The former Yugoslav Republic of Macedonia*, http://www.ibe.unesco.org/ (accessed on 9 July 2018). [7]

UNESCO-UIS (2018), *Education : Initial government funding of education per student as a percentage of GDP per capita*, http://data.uis.unesco.org/ (accessed on 4 July 2018). [12]

UNESCO-UIS (n.d.), *The Republic of North Macedonia | UNESCO UIS*, http://uis.unesco.org/country/MK (accessed on 28 June 2018). [5]

USAID (n.d.), *Main findings and recommendations from the nationwide assessment of reading and numeracy skills in early grade students*. [13]

World Bank (2006), *Keeping an eye on subnational governments: internal control and audit at local levels*, World Bank, Washington D.C., http://web.worldbank.org/archive/website01006/WEB/IMAGES/INTERN-2.PDF. [24]

World Bank (forthcoming), "North Macedonia: Public Finance Review", World Bank, Washington D.C. [6]

Chapter 1. The education system in the Republic of North Macedonia

Since the early 2000s, the Republic of North Macedonia has improved access to education and steps have been taken to strengthen inclusiveness. However, educational attainment and performance continue to be strongly influenced by a student's background. Learning levels remain among the lowest in Europe and the Western Balkans. This reflects systemic challenges of low funding, unstable governance and limited capacity. Placing student learning at the centre of North Macedonia's evaluation and assessment processes can help to focus the system onto raising standards for all.

Introduction

Since the last OECD review of the Republic of North Macedonia's (hereafter referred to as "North Macedonia") education system in 2003, significant progress has been made in consolidating democratic government and opening the economy. At the same time, the country has improved access to education, with school and tertiary enrolment now similar to levels in OECD countries. Steps have also been taken to improve inclusiveness – such as introducing instruction in minority languages and establishing higher education quotas for students from ethnic groups. Yet despite these improvements, young citizens of North Macedonia continue to leave education with among the lowest learning outcomes in Europe and the Western Balkans. Major differences in educational outcomes across different ethnic groups also persist. While poverty rates have fallen in recent decades, low educational performance is limiting the employment and life opportunities of many individuals and impeding national development. This review looks at how evaluation and assessment can direct the education system towards higher learning standards for all students.

National context

Socio-economic context

Further progress needed to reduce unemployment and poverty

Despite fluctuations, the overall poverty level in North Macedonia has remained largely unchanged over the past two decades. In 2015, 21% of North Macedonia's population was living below the national poverty line, compared to 22% in 2000. The poverty rate is higher than in other Western Balkan countries, such as Bosnia and Herzegovina (16.9%) and Montenegro (8.6% in 2013). The government is aware of the need to reduce poverty, and has made reducing poverty to below 16% by 2020 a key goal in the Programme of Government 2017-20 (Government of the Republic of North Macedonia, 2017[1]).

Unemployment is one reason why poverty levels have remained comparatively high. One in four people over 15 are unemployed, compared to less than one in ten across OECD countries. High levels of informal employment – equivalent to nearly 20% of total employment in 2015 – further exacerbate poverty, inequality and social vulnerability (OECD, 2018[2]). High levels of unemployment and informality partly reflect a skills gap – especially around higher-order, technical and socio-emotional skills – according to national employers (World Bank, 2017[3]). The broader socio-economic trends of demographic decline, a consequence of low birth rates and high migration flows, is symptomatic of the lack of job opportunities but also hinders economic development (World Bank, 2018[4]).

North Macedonia is ethnically and linguistically diverse

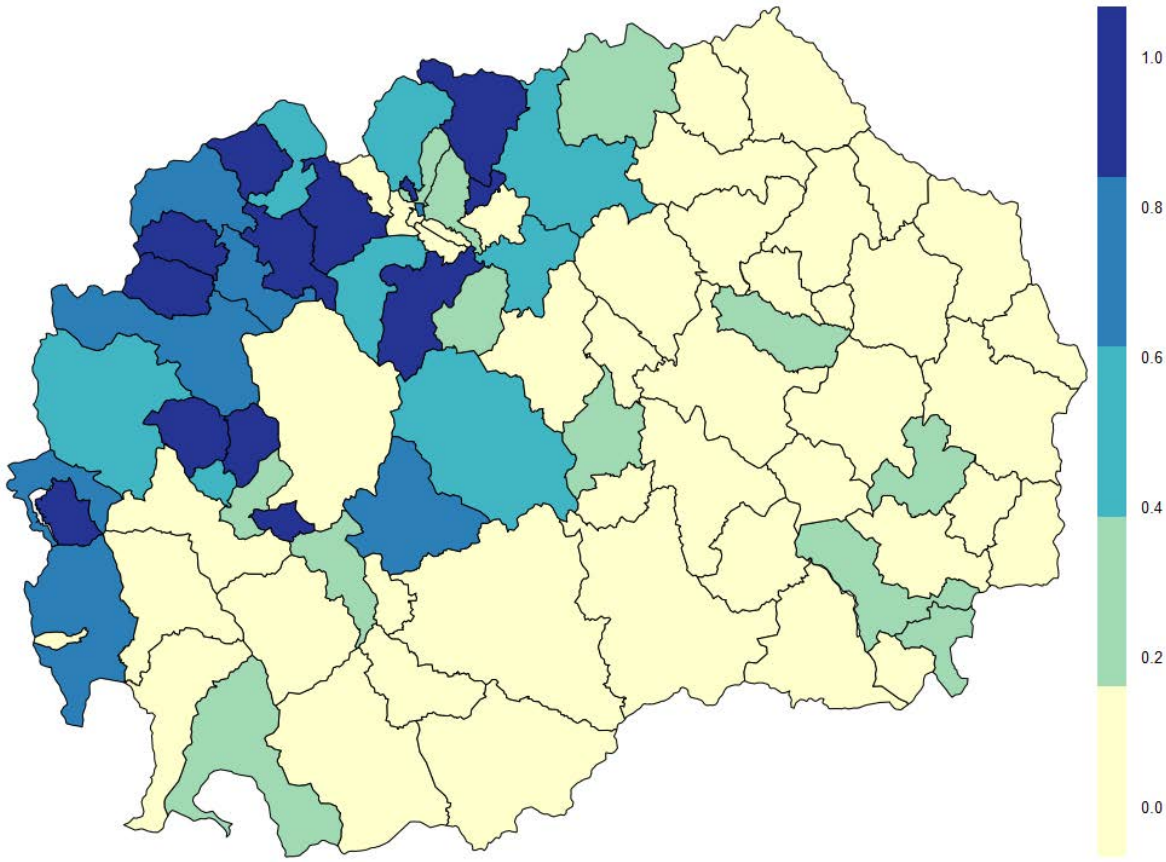
Ethnic Albanians represent around 23% of North Macedonia's population. The ethnic Albanian minority is mostly concentrated in Northwestern regions of the country. Other minority groups include the Vlachs, the Roma, the Serbian and the Turkish, in descending order of population size (OECD, 2003[5]). Inequities across ethnic groups are large – in particular between the Macedonian and Albanian communities. Members of minority groups are less likely to progress in education and to be employed than ethnic Macedonians (OECD, n.d.[6]) (Figure 1.1), contributing to higher poverty rates among minority groups.

Among the Roma, the poverty rate is three times the national average (Biljana Petrovska Mitrevska, 2017[7]).

In response to concerns among ethnic groups regarding their political representation, the Ohrid Framework Agreement (2001) provided a framework to devolve power to municipalities (Lyon, 2012[8]). The Agreement led to decentralisation reforms, beginning in 2005 (Macedonia, 2003[9]).

Figure 1.1. Percentage of population from an ethnic minority group

by statistical jurisdiction



Source: Authors calculation based on (MAKStat Database, n.d.[10]), *Total population according the ethnic affiliation*, Census 2002, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=c63fa1f5-6bc8-4569-a141-853f4c4cc421 (accessed on 24 March 2018).

Table 1.1. Education and development in North Macedonia

Key indicators

	North Macedonia	OECD Average
GDP per head, USD, constant prices, constant PPPs, 2016*	14 942	38 096
GDP, volume – annual growth rates (%), 2016*	2.4	2.3
Gini coefficient of household disposable income in 2014 (or nearest year)*	36.1	31.3
Population growth (annual %), 2016**	0.1	0.67
Rural population (% of total population), 2016**	43	20
Unemployment rate aged 15-24, all persons (%)*	49.5	16.6
Unemployment rate, aged 15 and above, all persons (%), 2016*	26.1	8.1
% of 18-24 year-olds, NEETS (unemployed or inactive), 2016*	24.7	11.1
% of 18-24 year-olds, NEETS (unemployed or inactive) women, 2016 *****	25.9	16
Human Development Index HDI, 2015***	0.748	0.89
% of 15-year-olds attaining Level 2 or below in science, 2015*****	62.9	21.2
% of 15-year-olds attaining Level 2 or below in mathematics, 2015*****	70.2	23.4
% of 15-year-olds attaining Level 2 or below in reading, 2015*****	70.7	20
Literacy rate (%), 2002 *******	96.1	N/A

Sources: *: (OECD, 2018[2]), *Competitiveness in South East Europe: A Policy Outlook 2018*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264298576-en;** (UNESCO-UIS, n.d.[11]), *The Republic of North Macedonia*, UNESCO UIS, http://uis.unesco.org/country/MK; *** (UNDP, n.d.[12]), *Human Development Data (1990-2015)*, Human Development Reports, http://hdr.undp.org/en/data; **** (OECD, 2016[13]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en; ***** (ILO, n.d.[14]), *Key Indicators of the Labour Market (KILM) 2015*, http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm; ******* (World Bank Database, n.d.[15]), *Literacy rate, adult total (% of people ages 15 and above)*, Data, https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=MK.

Despite recent reforms, lack of transparency and accountability continue to hinder national development

Since its independence in 1991, North Macedonia has made progress in consolidating democratic governance, with regular elections being held following international standards (Transparency International, 2014[16]). Nevertheless, the public sector remains highly politicised. A corruption scandal in 2015 involving senior-level officials brought down the ruling coalition. The ensuing political crisis highlighted North Macedonia's weak accountability mechanisms and high levels of corruption (European Commission, 2016[17]). Steps have subsequently been taken to establish legal and institutional anti-corruption frameworks, but their implementation remains a major challenge. Regulatory, supervisory and advisory bodies are unable to carry out their functions effectively, and independently of political pressures (Transparency International, 2014[16]).

Strengthening the independence and transparency of public administration is necessary for North Macedonia's accession to the European Union (EU). It is also important for improving the country's education system. At present, the appointment of principals, teachers and directors of key agencies frequently reflects political affiliations rather than demonstrated competence and experience. The absence of transparency and accountability mechanisms in the use of education expenditures are also a major reason for the system's inefficiencies (see Chapter 5).

Governance and funding of the education system

Governance of the education system

The national strategy for education focuses on essential actions, but lacks goals and monitoring mechanisms

The Government's Comprehensive Education Strategy for 2018-25 and associated Action Plan for 2020 set out key actions to be undertaken in the coming years to improve teaching and learning (Box 1.1). Priorities include developing student-centred instruction, measuring learning in terms of outcomes (rather than focusing solely on knowledge acquisition) and the introduction of a national assessment. The government also aims to reform curricula to make learning more relevant to the labour market (MoES, 2018[18]) However, the strategic documents do not set out any specific goals for the sector. There is a notable absence of targets to raise learning outcomes, despite the country's low performance in international student assessments. The strategy also lacks an implementation plan or a defined process to monitor progress.

Box 1.1. Comprehensive Strategy for Education 2018-25

In 2018, North Macedonia launched the Comprehensive Strategy for Education for 2018-25. Relevant actions concerning evaluation and assessment and improving education quality include:

- Significantly increasing the share of children in pre-school and introducing a compulsory year of pre-primary education (ages 5-6);
- Reforming the curricula and programmes for compulsory education to increase their relevance and attractiveness, better aligning them to children's stages of development and focus more on learning outcomes;
- Supporting the development and consistent use of quality textbooks while reducing reliance on textbooks for teaching;
- Better orienting vocational education programmes towards the needs of the labour market;
- Strengthening the competence of teaching staff at all educational levels;
- Strengthening capacities at the central, local and school levels in management, and ensuring harmonised and transparent policies; and
- Developing a national assessment by 2020, a new concept for the state *matura* and final examination for secondary vocational school students, and the Macedonian Qualifications Framework.

Source: (MoES, 2018[18]), Comprehensive Education Strategy for 2018-25, Ministry of Education and Science, Skopje.

Lack of professional capacity and unco-ordinated data systems weaken the Ministry's ability to set and monitor policy goals

The Ministry of Education and Science (MoES) is responsible for developing strategic and legal documents and defining and implementing policies for all levels of education, except pre-primary (MoES, 2018[19]). Pre-primary education is under the shared responsibility of three ministries: the Ministry of Labour and Social Policy (MTSP) and the MoES. The Ministry of Education and Science lacks technical capacity for evidence-based policy making or monitoring policy implementation. This undermines the development of coherent and consistent policies and strategic planning, as observed in the repeated changes in the curriculum (Chapter 5).

A major factor impeding evidence-based policy making in North Macedonia is underdeveloped and under-used data systems (see Chapter 5). While the ministry developed and implemented an Education Management Information System (EMIS) in 2010, it remains understaffed – there are just two members of staff in the EMIS unit - and under-used both within the ministry and across the education system. Central databases, for example, for school inspection and student examination results are not integrated with EMIS and data are collected multiple times from schools by different parts of the ministry. Data are also not comparable across the sector, for example, the State Statistical Office (SSO) and EMIS use different definitions for key indicators like school drop-out.

Specialised bodies affiliated to the ministry provide technical expertise, but are weakened by lack of strong leadership and insufficient resources

Specialised bodies affiliated to the ministry provide technical expertise and develop policies in specific areas including (see Figure 1.2):

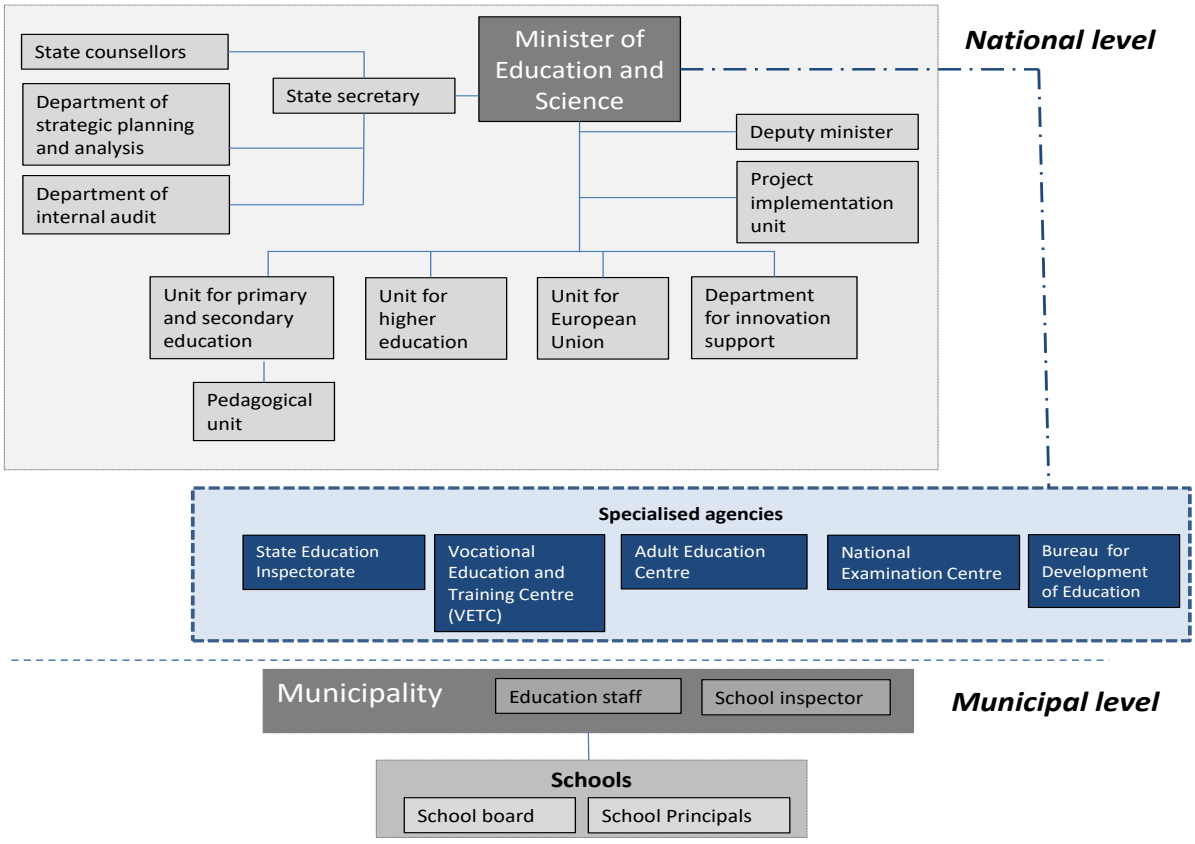
- The State Education Inspectorate (SEI) conducts the external evaluation of schools, follow-up activities and undertakes ad hoc school inspections in response to written requests from teachers, parents, school principals or the municipality.
- The Bureau for Development of Education (BDE) develops curricula and associated learning standards for all levels from pre-primary to secondary education (except for vocational education and training [VET] subjects). In addition, the BDE provides teacher training and conducts education research.
- The National Examination Centre (NEC) was established as an independent body from the BDE. It is responsible for developing and implementing national examinations in collaboration with the BDE for general education and with the Vocational Education and Training Centre (VETC) for vocational education. It is tasked with organising North Macedonia's participation in international assessments and for undertaking national examinations, including state *matura*, school *matura* and VET final examinations. NEC is also responsible for training and licensing school leaders.
- The VETC produces analysis and research on VET, develops professional standards and standards for vocational qualifications, curriculum and teacher training. It is also responsible for developing the vocational content for the state *matura*.
- The National Board for the Macedonian Qualification Framework (MQF) is responsible for developing the qualifications system and providing recommendations on how to align the education system with labour market needs.

The members of the National Board for the MQF include representatives from the MoES, the MTSP, the VETC, the BDE and higher education institutions, among others (MoES, 2018[19]).

While the specialised agencies have relatively good technical capacity, they are often understaffed and lack specific skill sets (e.g. psychometric, statistical or information and communication technology skills). Inadequate resources frequently prevent them from fulfilling their functions effectively. For example, the review team's interviews revealed that the BDE lacks the necessary resources to provide teacher training.

The agencies are separate from the ministry, but they do not have a strong independent voice. Their leadership positions are often subject to political interference or are left open. For example, at the time of the review team's visit, the NEC had not had a director. There is also no established forum to ensure that the agencies work together to share information, or to systematically and regularly contribute to policy development within the ministry. At present, this is a particular concern for the BDE, which has not been involved in the development of the new curriculum for grades 1-3 or the new national assessment. While the BDE was once an influential body, there are concerns about its declining influence and capacity. This review recommends reforming the BDE as the main organisation for teacher support and policy, complemented by sufficient resources for this role (Chapter 5).

Figure 1.2. System of Education Governance in the Republic of North Macedonia



Note: The picture provides a broad overview of the governance structure in the country and does not include all governance units and sub-units.
Source: Adapted from (MoES, 2018[19]), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

Recent reforms have decentralised education service delivery, but have not developed capacity to match

The process of decentralisation that began in 2005, following the Ohrid Framework Agreement, has progressively given municipalities the responsibility to fund and run pre-school institutions, and primary and secondary schools in collaboration with central authorities. North Macedonia's 81 municipalities – of which 10 make up the City of Skopje – are tasked with opening new establishments, distributing central funding, maintaining and auditing schools and appointing principals, and school board members (MoES, 2018[19]).

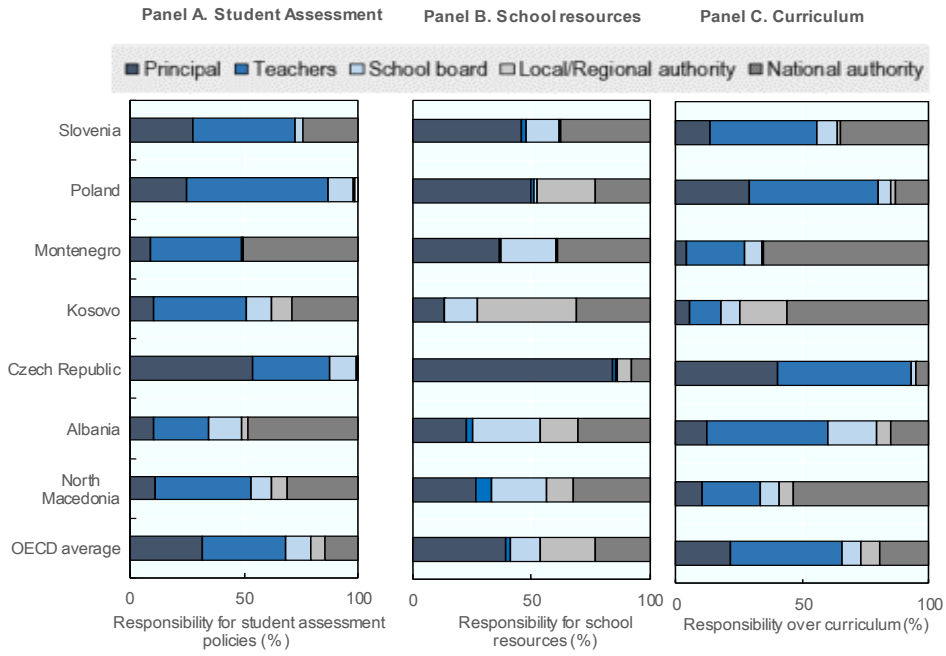
Following the decentralisation reform, international organisations and donors provided training to develop technical capacity at the local level. However, municipalities still lack capacity and sufficient resources to effectively manage education. The majority of municipalities have only one person in charge of education. While there is an Association of the Units of the Local Self-Government (ZELS), there is little sharing of best practices across municipalities. In addition, the progressive transfer of power to municipalities was not accompanied by the development of oversight mechanisms or a matching reallocation of funds in line with their new responsibilities (OSCE, 2014[20]). As a result, decentralisation led to many municipalities incurring debt, a situation which many are still in. The review team's interviews also revealed that political interference is widespread in mayors' choice of school principals or funding allocation decisions.

While schools have significant autonomy, political interference and lack of support prevent them from fully using it

Schools in North Macedonia report comparatively high levels of autonomy over school resource management and student assessment policies. School boards currently play a more influential role in managing school resources in North Macedonia than across most OECD countries (see Figure 1.3) (OECD, 2016[21]). Boards in North Macedonia are responsible for proposing an annual work programme and nominating the school leader who is then approved by the mayor (MoES, 2018[19]). In practice, however, the board members often anticipate the mayor's preference based on political affiliations thereby limiting the board's real autonomy. The board's capacity to influence what happens in schools is further hindered by the lack of capacity of its members who are not provided with training for their role.

Figure 1.3. Distribution across the education system of responsibility for school resources, curriculum and establishing student assessment policies

Assuming the responsibilities of the five actors combined amount to 100%



Source: (OECD, 2016[21]), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en.

School principals have considerable responsibility over human resource management, including the selection, firing and evaluation of teachers (OECD, 2016[21]). However, according to stakeholders interviewed by the review team, principals' autonomy in hiring decisions is limited by pressure to accept teachers based on political affiliations (see Chapter 3).

Teachers in North Macedonia also have considerable responsibility to develop classroom assessment, more so than in many OECD countries (see Figure 1.3). Schools are responsible for carrying out a number of student assessments and have significant space to develop the internal component and the project relating to the state *matura* (see Chapter 2). However, they receive little national support for this, and there are no national systematic moderating procedures to ensure reliability or quality of school-based assessments that contribute to the *matura*.

In contrast, North Macedonia's schools have little autonomy over the curriculum (OECD, 2016[21]) and do not benefit from any subject or time flexibility (European Commission, 2018[22]). North Macedonia's heavy curriculum load and the lack of school autonomy limits teachers' ability to plan teaching time in order to be able to check for student understanding and repeat content if necessary. This contributes to a large share of students acquiring significant gaps in basic competencies as they move through school.

Box 1.2. OECD-UNICEF survey of teachers and principals in North Macedonia

The OECD conducted a survey for teachers and principals in North Macedonia in July 2018, in collaboration with UNICEF and the Ministry. The purpose was to collect more comprehensive field data on teacher and school practices, as a complement to information gathered by the review team during school visits. In total, 1 392 teachers and 158 principals from all school education levels participated in the survey, which was anonymous.

The survey for teachers had 23 questions focused on:

- Background information
- Teaching practices
- Curriculum and learning standards
- Professional development appraisal

The survey for school leaders had 21 questions focused on:

- Background information
- Training and teacher support
- School management and planning
- School self-evaluation
- School integral evaluation

The review's analysis draws, among other things, on information collected in the survey, in particular for Chapters 3 and 4.

Source: (OECD and UNICEF, 2018[23]),"OECD-UNICEF survey of teachers and principals in North Macedonia," Skopje.

Funding of the education system

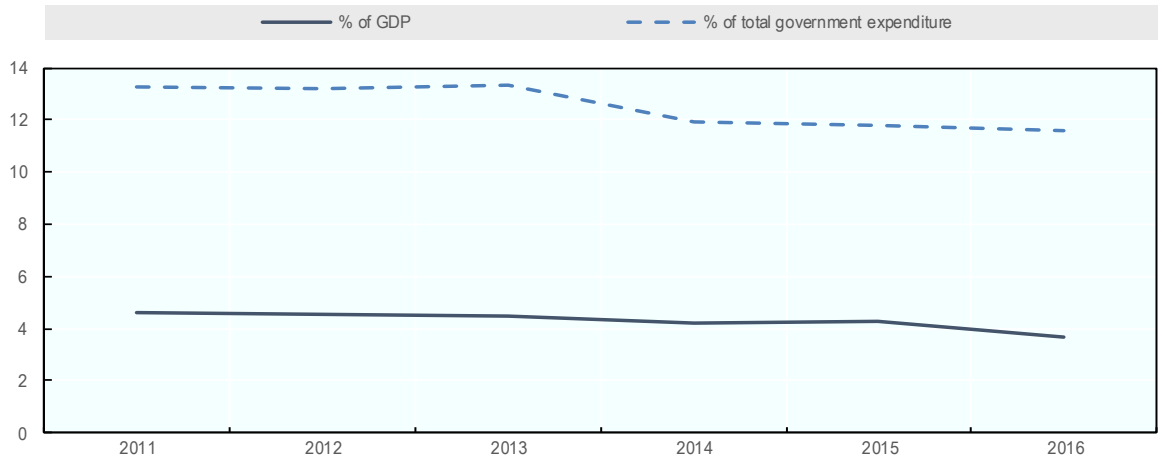
Public spending on education has been historically low, and is declining further

At 3.7% of GDP in 2016, public expenditure on education in North Macedonia is much lower than the OECD average (4.2% of GDP) (World Bank, forthcoming[24]) (OECD, 2018[25]) and has declined in recent years. Between 2011 and 2016, North Macedonia's public spending on education as a percentage of GDP fell from 4.6% to 3.7% (Figure 1.4). The share of total government expenditure allocated to education also declined from 13.3% to 11.6%, which is below the United Nations benchmark of 15-20% (UNESCO, 2014[26]). Low and declining levels of government expenditure suggest that education has not been a national priority since independence.

Data from the OECD Programme for International Student Assessment (PISA) shows that, among the countries and economies whose cumulative expenditure per student is under USD 50 000, higher expenditure on education is strongly associated with higher scores. At present, information on cumulative expenditure in North Macedonia is missing, but it is

likely to be well below the USD 50 000 threshold, suggesting that additional spending would improve learning outcomes in North Macedonia.

Figure 1.4. Expenditure on education, as a percentage of GDP and as a percentage of total government expenditure (2011-16)

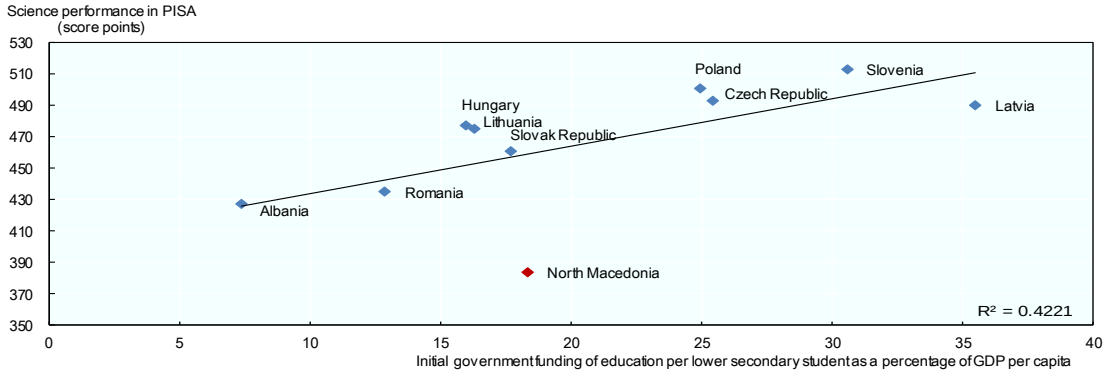


Note: For spending as a percentage of total government expenditure only central government expenditure is included.
Source: (World Bank, forthcoming[24]), *North Macedonia: Public Finance Review*, World Bank, Washington D.C.

North Macedonia's limited resources could be used more efficiently

Comparative analysis suggests that while increased funding will be important to improve education outcomes, there is also scope for North Macedonia to achieve better results with the resources it invests (OECD, 2016[21]). Neighbouring countries have been able to achieve higher participation rates and better learning outcomes with similar or lower levels of expenditure on education (Figure 1.5).

Figure 1.5. PISA 2015 results and government expenditure in lower secondary education



Sources: (UNESCO-UIS, 2018[27]), *Education: Initial government funding of education per student as a percentage of GDP per capita*, UNESCO-UIS, http://data.uis.unesco.org/ (OECD, 2016[13]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

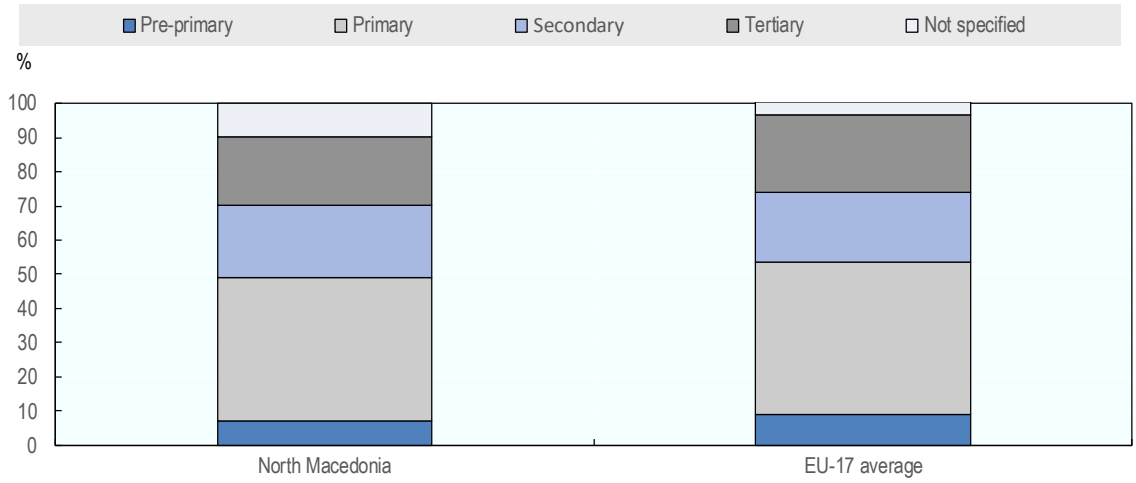
Among the reasons behind the limited positive impact of North Macedonia's education spending are the inefficient use of the country's limited resources and the lack of oversight mechanisms. One notable example of the former is the "The Computer for Every Student" initiative (2007-08), which was the equivalent to EUR 60 million, around 19% of the education budget for that school year. This programme does not represent the most effective use of North Macedonia's limited education funds. There is little international evidence that greater computer use among students leads to better performance (OECD, 2016[21]). In line with these findings, while this programme has resulted in North Macedonia having high computer-per-student ratios (0.63), similar to the average in OECD countries (0.77), there is no evidence that it has improved learning. Furthermore, the computers purchased under this programme are now obsolete.

The large number of small schools and high student-teacher ratios also suggests that there is considerable scope to use resources more efficiently. More than 85% of primary and lower secondary schools enrolled less than 50 students in 2016-17 (State Statistical Office, 2018[28]). While average student-teacher ratios (13.8) are similar to averages in many OECD countries (13.1), there are wide variations across municipalities. In some schools, there are just three students per teacher, while in urban areas this can increase to eighteen students per teacher (World Bank, forthcoming[24]). Low student-teacher ratios partly reflect the need to cater to a multilingual student body, but also indicate considerable scope for North Macedonia to optimise its school network. The teacher workforce could also be more effectively managed to match student numbers. While there has been a 23% decline in school students since 2000, the number of teachers has expanded by 10% and the numbers of classes and teachers remain unchanged (World Bank, forthcoming[24]).

Expenditure levels in the early years of education are comparatively low

North Macedonia spends less in early childhood education and care (ECEC) and primary education, in comparison to EU countries (Figure 1.6). Ensuring adequate investment in early years learning is crucial to tackle disadvantage and poverty (OECD, 2017[29]). Prioritising spending in early childhood education and care (ECEC) education is particularly important in North Macedonia, given the low and uneven coverage of its current pre-primary system. Directing existing resources more towards the early years of education would also be efficient, since high quality pre-primary and primary education has a lasting impact on student outcomes (OECD, 2017[29]) and is less costly than remedial actions later on.

Figure 1.6. Public education expenditure by education level in percentage, 2016



Note: "Not Specified" refers to resources provided to auxiliary services for education, such as scholarships, payments to students' families, room and board, and infrastructure. EU-17 refers to data from Austria, Belgium, Cyprus[1], Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovak Republic, Slovenia and Spain.
Source: (World Bank, forthcoming[24]) *North Macedonia: Public Finance Review*, World Bank, Washington D.C.

North Macedonia allocates more resources per student to upper secondary and higher education. With fewer student enrolled at such levels, such an allocation appears to be regressive, especially considering that secondary and tertiary education enrolment is significantly lower among ethnic minorities.

Municipalities have considerable autonomy for resource allocation, but little oversight

Following decentralisation, municipalities are responsible for distributing central education funds to schools. Municipalities are free to determine how to allocate funds to local schools. Certain municipalities, such as Skopje, have developed school funding formulas based on the number of students and the size of the school building, among other factors. Such initiatives foster greater transparency and ensure that schools receive funds commensurate with their needs. However, there is currently no requirement for municipalities to disclose the standards and criteria used in resource allocation (MoES, 2018[19]). Such limited oversight of municipal funding practices, combined with limited central support, means that school funding is largely opaque. It also means that municipalities are under little

[1] Note by Turkey:
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union:
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

pressure to ensure that funds are allocated according to need. This situation is exacerbated by the limited direct funding that municipalities provide to schools, which accounts for only 3-4% of school funds (World Bank, forthcoming[24]). In many decentralised contexts, local financing of education is an important lever to encourage municipal or state governments to ensure that funds are spent efficiently and yield the greatest impact.

The lack of oversight for school financing also raises integrity concerns. Interviews with the review team indicated that some municipalities use their funding power to exert influence on principals, by withholding funds. The lack of accountability mechanisms as well as the misuse of resources has also led several municipalities to incur debt.

Many schools lack basic resources

Historically low levels of education spending, and the absence of any explicit national mechanism to target additional resources to disadvantaged schools or students, have resulted in many schools lacking basic resources. Reports indicate that one-third of schools require major repairs (World Bank, forthcoming[24]) and satellite and multiple-shift schools are particularly prone to infrastructure problems. While the large share of multiple-shift schools partly reflects the need to provide multilingual education, in many cases, especially in urban areas, it also reflects inadequate capital spending. Overall, North Macedonia allocates a very small share of its total expenditure to capital expenses (5.2%) (World Bank, forthcoming[24]), compared to 8% on average across OECD countries (OECD, 2018[25]). While there is little evidence that material resources have a strong impact on student outcomes, OECD research suggests that ensuring minimum standards is necessary for high quality education provision (OECD, 2016[21]).

Structure of schooling in North Macedonia

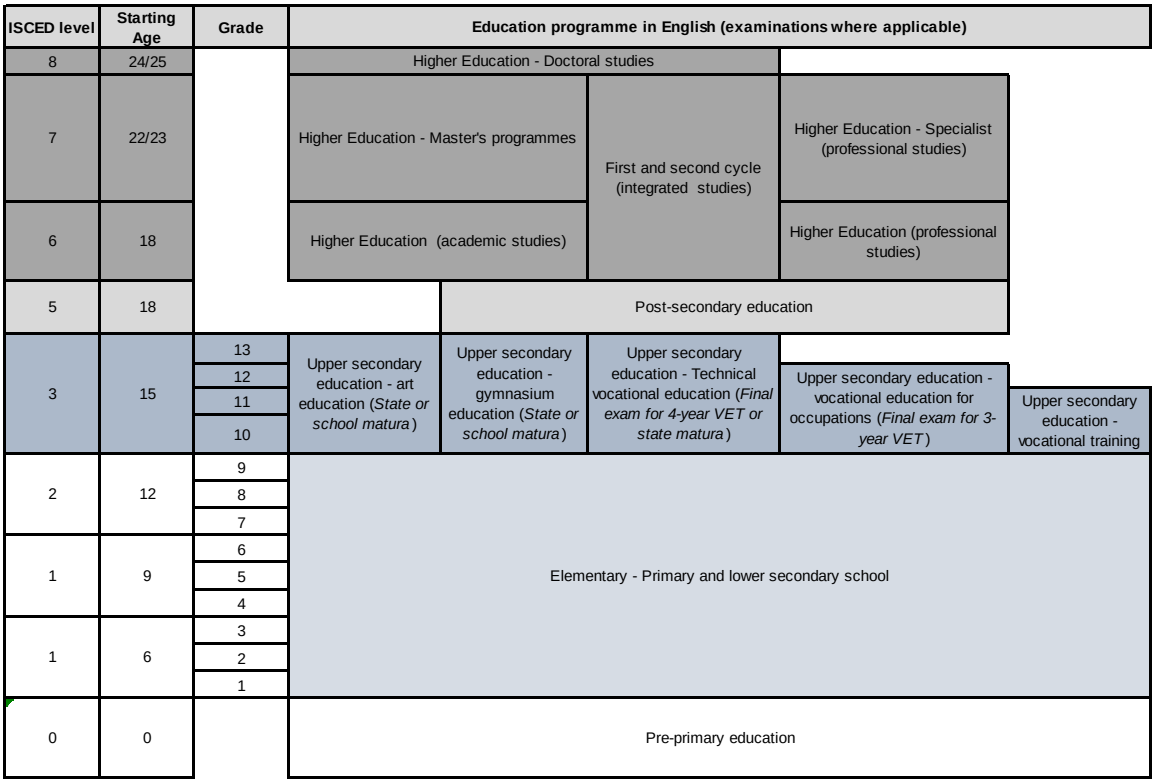
General programmes

Education is compulsory until the end of upper secondary school and predominantly publicly provided

Education in North Macedonia has been compulsory from the start of primary to the end of upper secondary education since 2008 (Figure 1.7). The current Comprehensive Strategy for Education envisages introducing a compulsory year of pre-primary education (age 5-6) (MoES, 2018[18]).This reform should help address wide variations in children's basic competencies when they enter primary school, which partly reflects low participation in pre-primary institutions.

The vast majority of students attend public institutions. There are no private primary or lower secondary education institutions[1] in North Macedonia and virtually all students (97%) attend public schools in upper secondary. Pre-primary is also predominantly public, with 98% of children attending public pre-primary institutions (World Bank, forthcoming[24]). There is greater diversity of providers in tertiary education, where 15% of students attend private institutions, reflecting an expansion of private universities in recent years.

Figure 1.7. North Macedonia Education system



Source: (MoES, 2018[19]), *North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

Satellite schools account for two-thirds of elementary schools

In 2017-18, nearly two-thirds of primary and lower secondary schools were satellite schools, which account for 15% of enrolled students. Satellite schools are subsidiary primary and secondary education facilities managed by a central school. Reports indicate that the conditions in which satellite institutions operate are significantly worse than those of central schools. For example, satellite schools are nearly five times more likely to have unsafe roofs (Herczynski, 2003[30]). Leaders of satellite schools are often responsible for more than one institution and in some cases, multiple schools, which makes it harder to lead and manage each school. Satellite schools can be organised across separate, and sometimes geographically remote sites, which creates further logistical challenges for principals. Gaps in the knowledge and skills of the teaching workforce in satellite schools are also pronounced reflecting, among other things, the common practice of sending inexperienced new teachers to satellite schools, or sometimes sending teachers to these schools as a punishment (Herczynski, 2003[30]).

Students from the main minority groups have the right to education in their mother tongue

Students from the main ethnic groups - Albanian, Turkish and Serbian communities – can receive instruction in their mother tongue language in primary school, and for Albanian

and Turkish students, in secondary education as well (Eurydice, n.d.[31]). Students from the latter two groups can also take the state *matura* in their mother tongue. Students from ethnic minorities are also required to study Macedonian between grades 4 and the end of upper secondary education (Krsteska-Papic et al., 2015[32]). Linguistic diversity of education means that around one-third of schools are bilingual or trilingual. Reports suggest that in multilingual schools, ethnicities operate virtually independently and, frequently, in separate buildings (Krsteska-Papic et al., 2015[32]). This raises concerns regarding minorities not gaining proficiency in the national language (Anger, Van't Rood and Gestakovska, 2010[33]) and the country's ability to foster inter-ethnic integration.

Schools struggle to respond to student demand

Nearly half of primary and three-quarters of secondary schools offer double-shift instruction and 5% of institutions offer triple-shifts (World Bank, forthcoming[24]). The large student numbers in big cities in particular in Skopje, and the related lack of sufficient capital investment are one of the main factors behind the high prevalence of multiple-shift schools. Another is the need to cater to different ethnic linguistic groups. The high prevalence of multiple-shift schools is an obstacle to increasing instructional time or after-school study, which are both low in North Macedonia.

Vocational education and training

Students are tracked into VET or general schools at age 15

Students are selected into different education programmes - essentially general education (gymnasium) and vocational education and training - for upper secondary at age 15, which is lower than the most frequent age of selection across OECD countries (16) (OECD, 2016[13]). Students' choice is guided by their teachers on the basis of their interests and average marks in grades 6-9. Interviews with national stakeholders revealed that teachers are frequently under parental pressure to give students high marks so that they will be able to attend the best schools. This raises concerns regarding the reliability of classroom assessment marks. Upper secondary principals are likewise often subject to parental interference, to accept students whose marks may not be high enough to guarantee them a place at the school.

Upper secondary students are distributed roughly equally across general (44%) and VET tracks (56%). Within VET, there are three different tracks, of two, three or four years. The vast majority of VET students attend the four-year track. In contrast, a very small minority attend the two (2%) and three year tracks (4%), which aim to prepare students to directly enter the labour market, or post-secondary education in the case of the three year track (MoES, 2018[19]). Rather than signalling the high quality and attractiveness of VET tracks, the large share of students in VET tracks reflects the limited number of study places available in general schools. In some cases, students may end up attending a VET high school due to the lack of a general high school in their local area (MoES, 2013[34]).

Both VET and gymnasium students can take the state matura which enables them to access tertiary education

Graduates from gymnasiums and four-year vocational education can both take the national examination, the state *matura*, which is a requisite to access tertiary education (MoES, 2018[19]). Instead of the state *matura*, students in these programmes can opt to take a final exam (the school *matura* or final examination for students in VET schools), that certifies

completion of compulsory education for direct entry into the labour market. However, only 2% of gymnasium students take these options.

Vocational graduates are currently more likely to pursue higher education. Some of the reasons for this include the flexibility of schooling and certification in North Macedonia, the limited availability of high quality vocational and technical options at the post-secondary level and the low status of secondary vocational qualifications in North Macedonia's labour market (MoES, 2013[34]). The lack of professionally and technically-oriented higher education programmes is reflected in the fact that at least around 20% of vocational upper secondary graduates who attend higher education follow general programmes, such as law and management (ETF, 2017[35]).

There are major reforms underway to improve the quality and labour market relevance of VET programmes

The lack of technical skills among vocational school graduates is considered a major bottleneck by firms in North Macedonia. One reason for this is the lack of flexibility that VET schools have in terms of the curriculum and how they plan teaching and learning, which prevents them from adequately responding to labour market demands (World Bank, 2017[3]). While the possibility for VET students to take the state *matura* and progress to general tertiary education provides important flexibility, the current certification system provides little recognition for vocational and technical skills. The quality of the education and training provided in the VET tracks also need to be improved (MoES, 2013[34]).

North Macedonia is undertaking a reform of the three- and four-year vocational programmes to improve their quality and labour market relevance (see Box 1.3). The aim is to provide students with the broad set of skills required by employers. As they progress in their VET career, students will choose a specific field, which will allow them to develop the specific competencies for their sector. To enable this, VET students will devote fewer hours to general studies in their last years of upper secondary (Spasovski et al., 2018[36]).

Box 1.3. Reform of the three- and four-year VET programme

North Macedonia envisages strengthening work-based learning and promoting a competence-based, modularised approach in vocational education that is focused on the development of broad, transferable skills.

The main features of a revised VET programme are:

- **Modularisation**: the replacement of subjects with learning units ("modules") which are either mandatory or optional. Modules may be taken independently as electives or alongside other modules focused on a particular area to create a coherent programme. This approach aims to provide a more individualised and flexible learning experience, which will reflect students' different interests and needs. It also allows for greater mobility across programmes.
- **Progressively giving more time to vocational studies**: the time that students allocate to vocational education will increase, while general education will be reduced, resulting in 45% of teaching time devoted to general education and 55% to VET.

- **Promoting work-based learning**: in the revised syllabus, work-based learning based on work experiences should form an integral part of the VET education.

The reform also aims to introduce a VET-specific *matura* exam for VET graduates (see Chapter 2).

Source: (Spasovski et al., 2018[36]), *Concept Paper On Modernization of The Secondary TVET*, Ministry of Education and Science, Project For Skills Development And Innovation Support (Sdisp), https://mk-dizajn.hr/wba4wbl/wp-content/uploads/sites/30/2018/09/Concept_Paper_modernization_of_secondary_TVET_EN-_MK-.pdf.

Main trends in participation, learning and equity

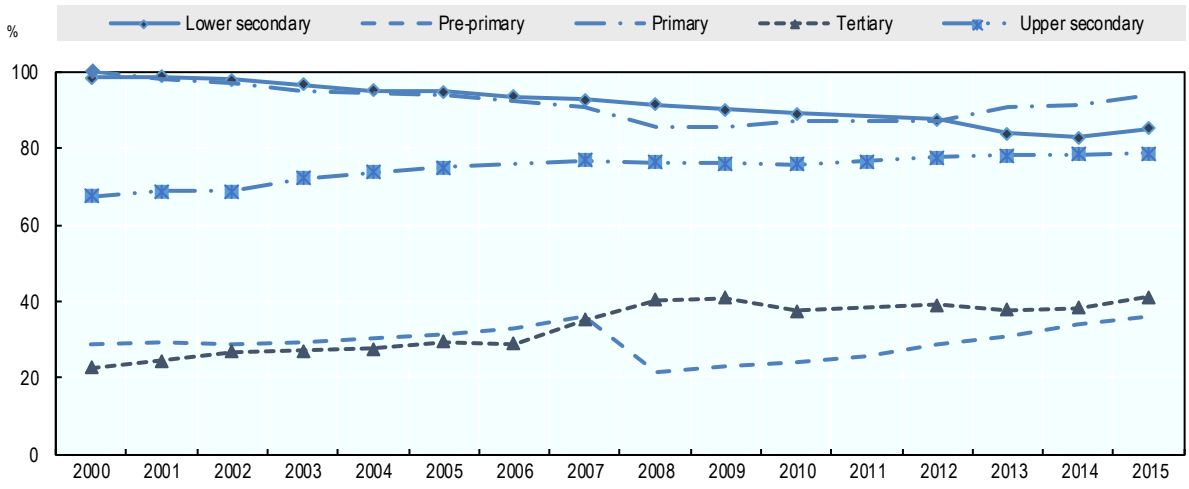
Enrolment has increased significantly across all levels of education in North Macedonia in recent decades, however low learning outcomes indicate that many young adults in North Macedonia leave education without mastering the basic competencies for life and work. Inequities remain large and children from minority communities are still less likely to access quality education and to successfully progress through the system.

Participation

Participation to compulsory education has increased, but a minority of students leave school before completing upper secondary

Increases in primary enrolment over the past decade mean that North Macedonia, like most of its neighbours in the Western Balkans, has now met the benchmark of "full" primary school enrolment. Following a dip in the years following independence, participation at other levels of schooling has expanded steadily. Between 2000 and 2015, gross enrolment rate in upper secondary education increased from 67% to 79%, and from 23% to 41% in higher education (Figure 1.8) (UNESCO-UIS, n.d.[11]).

Figure 1.8. Gross enrolment rate by level of education in North Macedonia (2000-15)

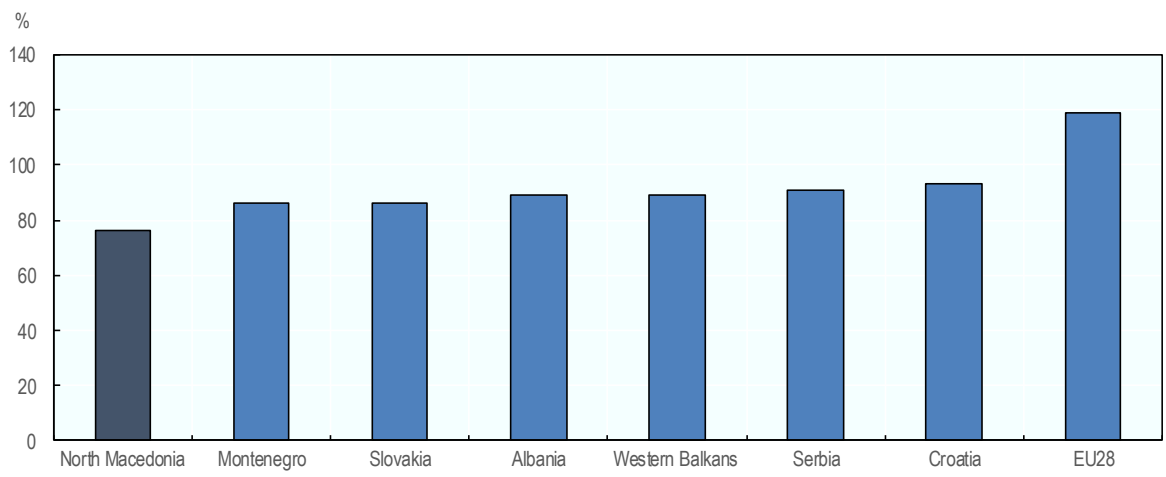


Source: (UNESCO-UIS, n.d.[11]), *The Republic of North Macedonia*, UNESCO-UIS, http://uis.unesco.org/country/MK (accessed on 15 February 2018).

Progress education participation has translated into higher levels of educational attainment in North Macedonia among younger generations, similar to those found in OECD and EU countries. In 2017, while 38.3% of older adults (45-64 years) had left school without upper secondary education, this was the case for just 18% of young adults (25-34 years) (similar to the EU average of 16% of 25-34 year-olds) (Eurostat, n.d.[37]). Similarly, nearly one-third of young adults in North Macedonia have now attained tertiary education (EU average: 40%), compared to only 13.5% of older adults (35-64 years).

Despite improvements, gross enrolment in upper secondary remains more than 10 percentage points lower than other countries in the region, and significantly below the EU average of 119% (Figure 1.9). While net enrolment data provides a more accurate indication of participation, these data are not internationally reported in North Macedonia. However, low levels of completion in upper secondary (47.2%) and high rates of out-of-school children (16.2%) suggest that actual attendance in upper secondary may be significantly lower than gross enrolment data (76%). Enrolment is lowest among students from a lower socio-economic background and in rural areas. Reasons for not attending school at this level relate to poor learning conditions and families' and students' low expectations (World Bank, forthcoming[24]). The latter may also be influenced by low educational attainment among older generations. Parents with lower levels of education may have lower expectations for their children's educational attainment, and be less engaged in their children's school activities and progress, which has been shown to impact students' attitudes towards school.

Figure 1.9. Gross enrolment in upper secondary education (2015)



Note: The Western Balkan average excludes data from North Macedonia, Bosnia Herzegovina and Kosovo.
Source: (World Bank, forthcoming[24]), *North Macedonia: Public Finance Review* World Bank, Washington D.C.

Despite recent progress, access to pre-primary education remains limited and lower than in other Western Balkan countries

Enrolment in pre-primary school among children aged 3-6 increased from 21.8% in 2007 to 28.3% in 2015 (OECD, 2018[2]). However, participation remains low compared to neighbouring countries – Albania (81%), Montenegro (56%) and Serbia (40%) – and far below the average across OECD countries (95%).

Low levels of pre-primary attendance mean that children enter school without basic literacy and numeracy skills. The envisaged introduction of a compulsory year of pre-primary education (age 5-6) is an opportunity to level the playing field and ensure that children enter school well-prepared (MoES, 2018[18]).

There has been a rapid expansion of higher education, but with limited quality controls

North Macedonia's higher education system has expanded rapidly in the last two decades. In 2017, there were 22 higher education institutions compared to only five in 2003/2004 (UNESCO-IBE, 2011[38]). The expansion of supply is reflected in increased gross enrolment, from 15% in 1991 to over 40% in 2015. This compares with 66% in Albania, 58% in Serbia and 71% across OECD countries (UNESCO-UIS, 2018[39]), (OECD/CAF/UN ECLAC, 2016[40]).

However, rapid growth has not been accompanied by sufficient quality controls. One factor is that entry into higher education programmes is not very selective, because the quotas for government-funded places are very large. Another factor is that university funding creates little incentive to be selective. Universities are funded on a per student basis, which encourages universities to focus on filling places. Students are required to pass the state *matura* to enter university, but in 2017, nearly all candidates enrolled in gymnasium education (94.3%) passed the *matura*. Further selection occurs only when demand exceeds the quota, or for a few programmes such as architecture, that set additional entrance tests. The rapid expansion of higher education also reflects concerns that accreditation has not been sufficiently robust or independent, especially among private providers where a large part of the recent expansion has taken place.

One consequence of the lack of selection into higher education is that some students may be admitted without the pre-requisite knowledge and skills that would be expected for similar programmes internationally. For example, it was reported to the review team that many programmes with substantial quantitative content like mathematics, physics or engineering do not require students to pass quantitative subjects in the *matura* such as mathematics or physics. Overall, the rapid expansion of higher education during a period when North Macedonia's performance in international assessment has remained very low suggests that many students are entering higher education with major gaps in basic knowledge and skills and without the types of higher-order competencies required to advance successfully at this level.

Weak selection is also a factor behind North Macedonia's high drop-out rates and long completion times in higher education. Between 2010 and 2014, North Macedonia's completion rates in Bachelor programmes of 45% were similar to the regional average, but lower than in OECD countries (68% in 2013) (European Commission, 2016[41]). Concerns about selection into, and the quality of higher education, are also reflected in high unemployment rates among university graduates and firms' reports that graduates lack key competencies. Given concerns that higher education has not been accompanied by

sufficient quality controls, there are now plans to separate the accreditation and evaluation functions for the Board for Accreditation and Evaluation of Higher Education, to ensure more robust and objective evaluation of universities.

Tertiary programmes do not reflect labour market needs

Recent graduates from tertiary education in North Macedonia are far less likely to be employed (55.4%) (Eurostat, 2017[42]) than tertiary graduates in EU countries (83%) (OECD, 2017[43]). One explanation for high unemployment among tertiary graduates are low skills, or skills mismatch. Firms in North Macedonia report difficulties finding workers with technical skills and broader cognitive and social and emotional skills (World Bank, 2017[3]). Among the tertiary graduates who do find employment, a national study found that one-third have a qualification that is not well matched to the requirements of their job, while a further third of graduates are over-educated for their job (ETF, 2017[35]).

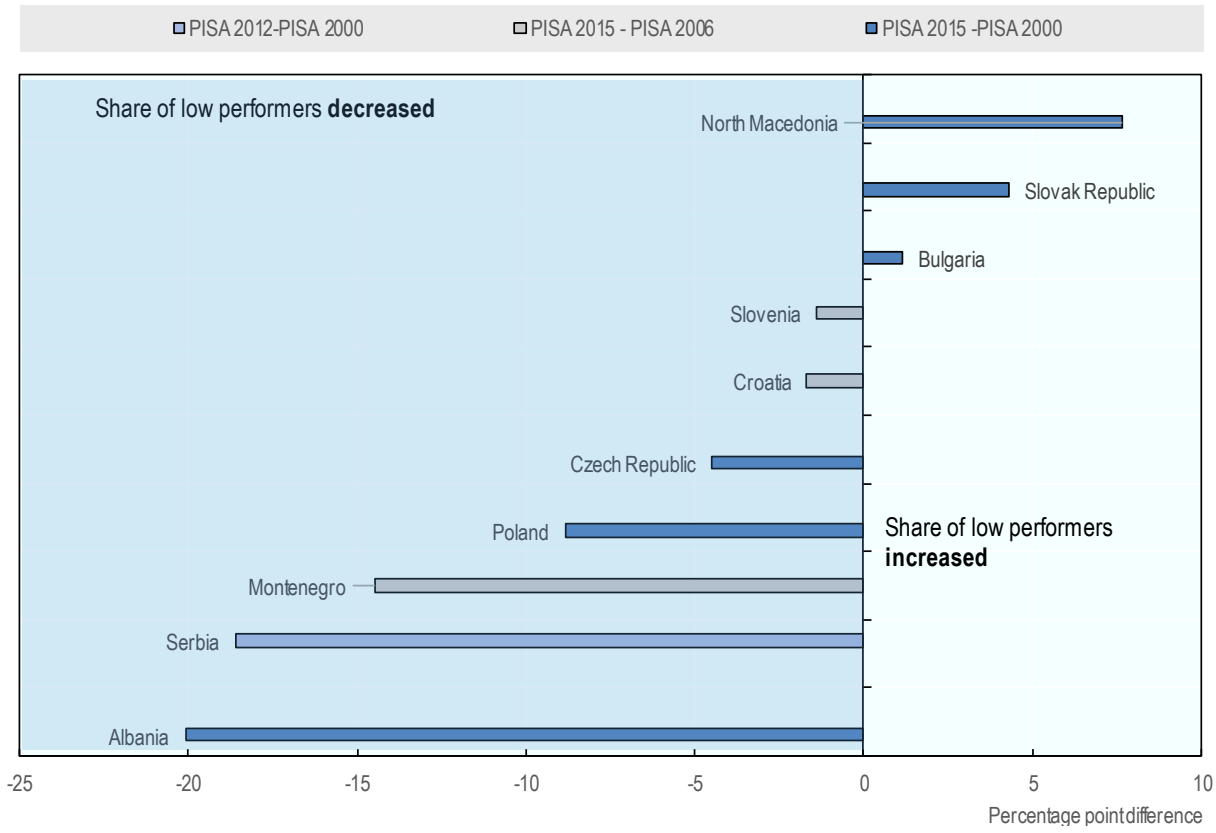
One factor leading to the skills mismatch is the limited diversity in the provision of higher education programmes in North Macedonia. The majority of higher education students are following general social studies, such as arts, social sciences and law. Although national data are not available, stakeholders told the review team that many vocational upper secondary graduates pursue academic or general subjects in higher education. While this provides students with significant of flexibility, it also reflects the absence of high quality, technical options in higher education. Many OECD countries provide vocational upper secondary graduates with a range of different tertiary options including short-course technical programmes. In contrast, among the technically-oriented programmes that do exist in North Macedonia, these are typically delivered by universities in the same format as academically-oriented programmes, under the traditional Bologna first-cycle model (3 to 4 year programmes equivalent to 180 to 240 ECTS credits) (MoES, 2018[19]).

Learning outcomes

Most 15-year-olds lack basic science, reading and mathematics

North Macedonia has one of the highest proportions of students (52.2%) failing to demonstrate basic proficiency (Level 2) in all three domains of science, mathematics and reading among PISA-participating countries. Notably in reading, more than three out of five 15-year-olds lack basic reading skills (70.7%) as measured by PISA. This compares to 20% across OECD countries, 50% in Albania and 42% in Montenegro. In addition, while the share of low performers has fallen over time in most of North Macedonia's neighbours, low performers in North Macedonia increased by nearly 7 percentage points between 2000 and 2015 (Figure 1.10) (OECD, 2016[13]).

Figure 1.10. Change in the share of low performers in reading over PISA cycles



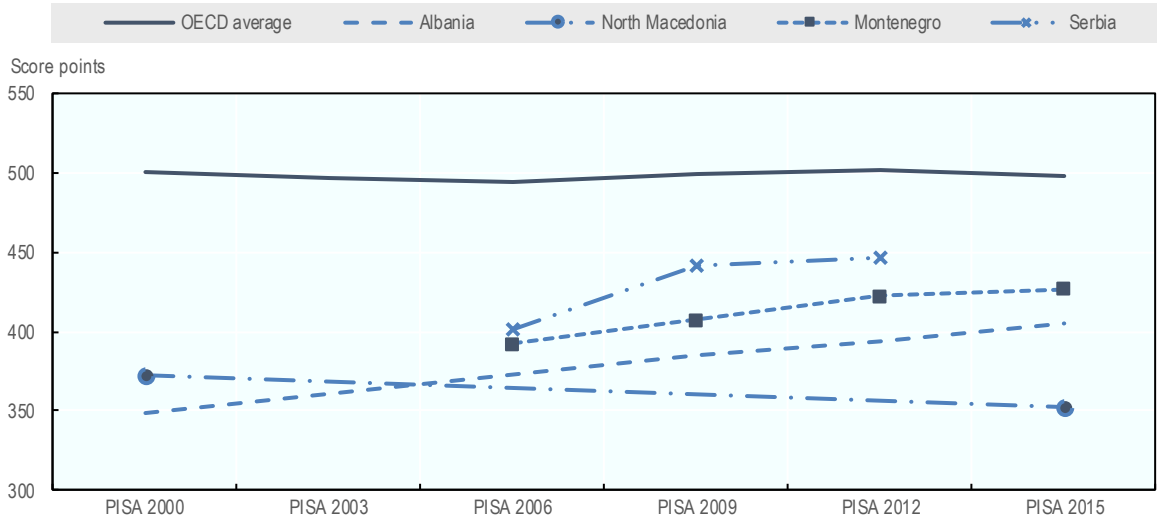
Source: (OECD, 2016[13]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en

Learning outcomes have stagnated and are among the lowest in the region

In 2015, North Macedonia's 15-year-olds performed almost four years behind their OECD peers, with an average score of 384 in science compared to 493 in OECD countries. Among neighbouring countries with similar income levels, North Macedonia's performance was below Albania (427 score points) and Montenegro (411 score points), and slightly above Kosovo (378 score points) (OECD, 2016[13]).

Learning outcomes have stagnated over time, according to North Macedonia's performance in international assessments. Reading performance in PISA declined by 21 score points between 2000 and 2015 (Figure 1.11). In comparison, neighbouring Albania has succeeded in increasing performance by 56 score points, equivalent to nearly two years of schooling, over the same period. The performance of students in grade 8 in North Macedonia in the Trends in International Mathematics and Science Study (TIMSS) also shows a similarly stagnating pattern between 1999 and 2011 (World Bank, n.d.[44]).

Figure 1.11. Mean reading performance in PISA, 2000 through 2015



Note: Albania participated in PISA 2000, 2009, 2012 and 2015. North Macedonia in PISA 2000 and 2015. Montenegro in PISA 2006, 2009, 2012 and 2015. Serbia participated in PISA 2006, 2009 and 2012.
Source: (OECD, 2016[13]), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

Teaching and learning in the early years does not equip students with foundation skills

The United States Agency for International Development's (USAID) assessments of student-learning outcomes in the primary grades, the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA), were conducted in 2016 with a sample of around 8 000 students in the end of grades 2 and 3. Results indicated that students in North Macedonia master elementary reading and mathematics skills, such as naming letters correctly. However, they struggle with essential skills such as oral reading fluency, reading comprehension skills or subtraction. In grade 2, less than 40% of students completed subtasks on reading comprehension, compared to the international benchmark of 80% (USAID, n.d.[45]).

Schools provide limited instruction time

At age 6, grade 1 students in North Macedonia have among the lowest levels of intended instruction time (552 hours) among PISA-participating countries. By the time students are 14 years-old, they will have had nearly 900 hours less instruction than students on average across OECD countries (OECD, 2016[21]). Short learning time in schools limits the breadth and depth of study and the scope to pursue additional subjects or remedial classes. One of the obstacles to increasing instructional time in North Macedonia is the high prevalence of double-shift schools (World Bank, forthcoming[24]).

Moreover, there is evidence that the use of learning time is not well adapted to children's development stage. In interviews with the review team, school principals said that primary-age children were expected to sit in a classroom for long periods of time with limited breaks. The government is currently considering further reducing learning time. Instead schools might be enabled through the curriculum, and encouraged, to make more

effective use of the allocated instruction time, giving students the opportunity to engage in more hands-on activities.

Schools have limited resources to support student learning

While PISA 2015 data indicates that teachers in North Macedonia are usually available to provide students with remedial classes or targeted support for those who are excelling, they often lack the space to do so, especially in multi-shift schools. Only 38% of students are enrolled in schools that provide a room where students can do their homework (OECD average: 73.5%) (OECD, 2016[21]).

Teachers also lack professional pedagogical guidance in how to respond to learning needs. While schools in North Macedonia have well-established support teams that include special education, pedagogical and psychological advisors, these teams lack any practical preparation in the classroom. Their preparation is also based on a concept of special educational needs that emphasises students' problems and frequently focuses on those students with major learning needs or disabilities, in contrast to a more modern, inclusive approach where all students are supported to do their best.

Initial teacher education does not equip new teachers with minimum teaching competencies

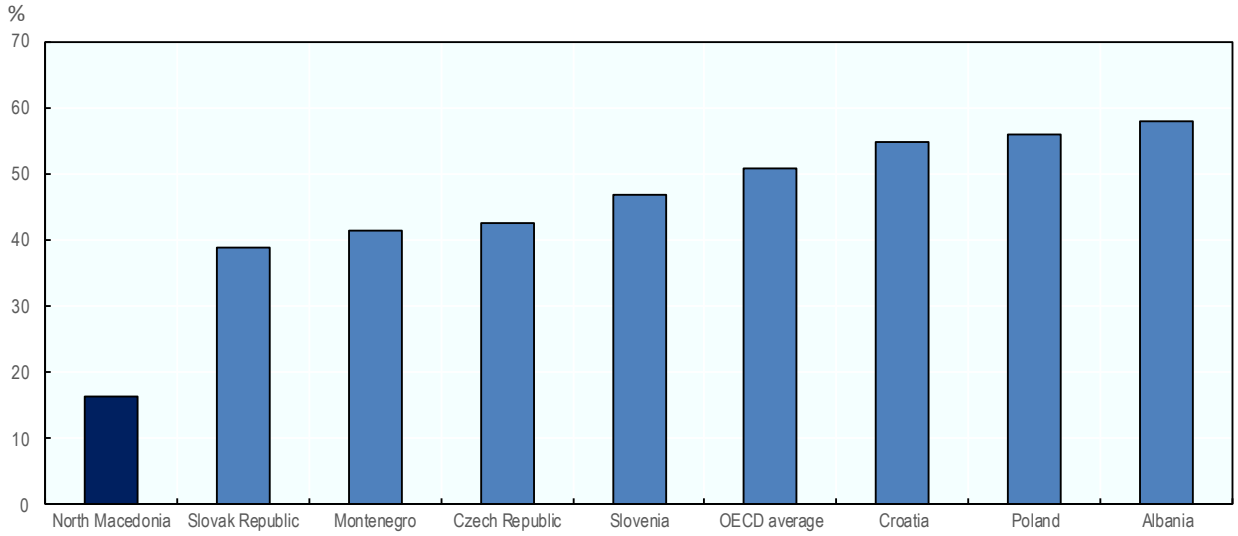
Initial teacher education is provided by universities, and suffers many of the issues associated with lack of selection and low quality as higher education in general. Entry to initial teacher education is not selective, with the vast majority of candidates who apply receiving a place. The lack of robust accreditation, which is not programme specific, also means that there are few mechanisms to ensure that teacher programmes sufficiently prepare teachers, especially in the practical demands of teaching. While teacher candidates have a teaching practicum in a school, this is not always well-integrated in the rest of their initial education and teacher candidates are frequently not coached by experienced teacher mentors during their practicum. The absence of strong mechanisms for initial certification at the end of teacher education means that new teachers enter the profession without any assurance that they have met minimum teaching competencies (see Chapter 3).

Teachers participate in professional development less than in many other countries

Teachers in North Macedonia are expected to participate in at least 60 hours of professional development over three years, but limited funding means that this does not happen in practice. Consequently, teachers report very little participation in professional development compared to other countries (Figure 1.12). Professional development is especially important for teachers in North Macedonia, given the limitation of initial teacher education.

Figure 1.12. Participation in professional development activities (PISA 2015)

Teachers' attendance in professional development activities as reported by school principals



Source: (OECD, 2016[21]), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en.

Equity

Little variation in education outcomes reflects a high share of low performers overall

Schools in North Macedonia are among the least socio-economically segregated across PISA-participating countries. This means that children of advantaged and disadvantaged backgrounds are more likely to attend the same school than in other countries (OECD, 2017[46]). As a result, student's socio-economic background is less strongly associated with learning outcomes than in many OECD countries. In PISA 2015, only 6.9% of the difference in science performance across students in North Macedonia was driven by differences in students' socio-economic status (compared to 12.9% on average across OECD countries).

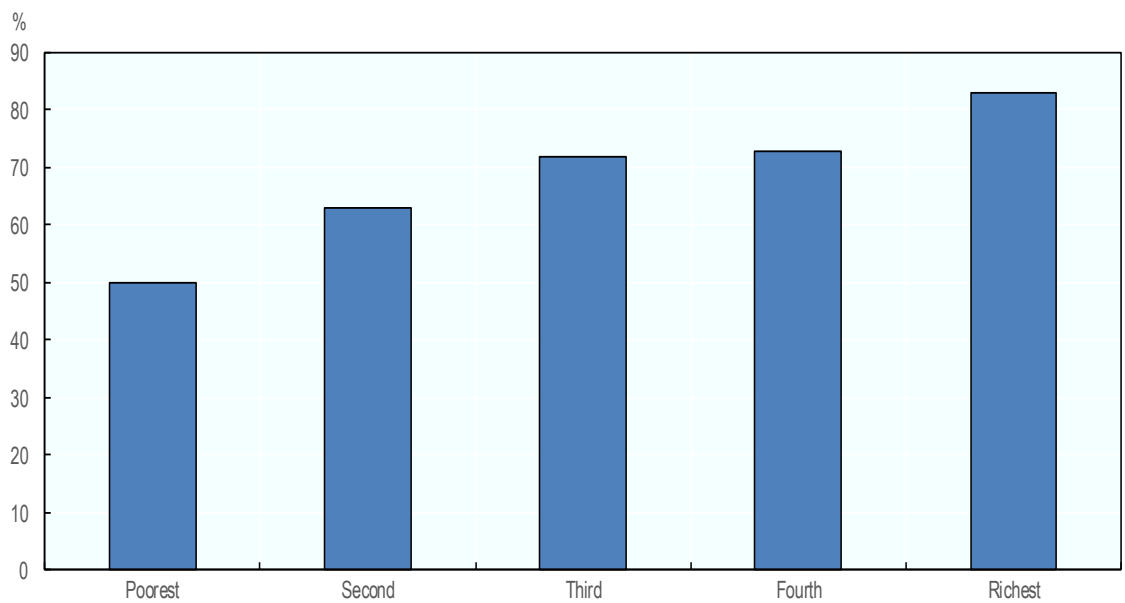
However, to a large extent this reflects that all students in North Macedonia, regardless of socio-economic background, achieve low levels of learning outcomes. Students with more advantaged backgrounds do not perform as well as their peers from similar backgrounds in other PISA-participating economies. While few of those from disadvantaged backgrounds overcome their background to perform very well. Only 4.1% of students in North Macedonia overcame their low socio-economic background to perform in the top quarter of students in PISA 2015. In contrast, neighbouring countries such as Croatia and Montenegro are more effective at helping students from disadvantaged backgrounds realise their potential with a share of "resilient" students of 24.4% and 9.4% respectively (OECD, 2016[13]).

Disadvantaged students are less likely to participate in pre-primary education and upper secondary education

Less than 1% of children from the poorest quintile attend pre-primary school compared to 55.9% of children from the richest quintile (World Bank, 2015[47]). One reason that children from disadvantaged backgrounds are less likely to attend pre-primary education is that places are distributed to the children of working parents and often from double-income families (Ravens, 2010[48]). A World Bank report also found that low attendance is due to lack of demand from families, regardless of their socio-economic background or geographic location. Among 3-5 year-olds who do not attend pre-school, this is frequently because relatives considered them to be too young (World Bank, forthcoming[24]). Pre-primary participation is also low across minority groups - only 2.6% of 4-year-olds from Roma communities attend pre-primary education (World Bank, 2015[47]). Data shows significant gaps in the pre-school attendance rates of 3-4 year-olds from Macedonian (36.5%) and Albanian (2.9%) communities (EFC, 2015[49]).

At the other end of schooling, students from disadvantaged backgrounds are also less likely to be enrolled in upper secondary education (Figure 1.13). In recent years, dedicated programmes like the Secondary Education Conditional Cash Transfers Programme (2009) have helped to boost participation among students from disadvantaged groups. However, in 2011 only 50% of students in the poorest quintile were enrolled in upper secondary education, compared to 83% of those in the richest quintile (World Bank, forthcoming[24]).

Figure 1.13. Net enrolment in upper secondary education, by income quintile (2011)



Source: (World Bank, forthcoming[24]), *North Macedonia: Public Finance Review*, World Bank, Washington D.C.

Disadvantaged students are three times more likely to be enrolled in a pre-vocational or vocational programme than their advantaged peers

PISA 2015 results show that 15-year-olds enrolled in vocational programmes in North Macedonia perform at a lower level than their peers in general programmes by 21 score points, after accounting for socio-economic status, similar to the OECD average (OECD, 2016[13]). Students in vocational programmes also achieve lower results in the state *matura*. On the other hand, unlike in many OECD countries, VET students – attending four-year programmes – stand an equal chance of progressing to higher education.

Boys are under-achieving in school

On average across OECD countries, boys score slightly higher than girls in science and mathematics. On the other hand, in North Macedonia, as in other PISA-participating Western Balkan countries, girls outperform boys in science (by 20 score points) and in mathematics (by 7 score points). Girls' advantage in reading is even larger and equivalent to more than one year of schooling (46 score points). Boys are also more likely – by 10 percentage points – to be low performers in science than girls (OECD, 2016[13]). state *matura* results also show gender gaps in favour of girls.

Disparities between rural and urban regions are still large

North Macedonia has among the largest rural-urban performance gaps of all PISA-participating countries and economies. Fifteen-year-old students in rural areas perform 47 score points behind their peers in urban settings in science (compared to the average difference across OECD countries of 17 score points). This gap is equivalent to nearly 1.5 years of schooling (OECD, 2016[13]). Results from the 2017 *matura* show a similar pattern. Limited access to education institutions at all levels in rural areas may be one of the factors behind students' underperformance. At 61%, net enrolment in upper secondary in rural areas is significantly lower than in urban areas (75%) (World Bank, 2015[47]). Children in urban areas are also six times more likely to be enrolled in pre-primary education than those in rural areas. Evidence indicates that learning conditions are poorer in rural settings (e.g. damaged floors, old electrical networks), reflecting the greater concentration of double-shift and satellite schools (World Bank, forthcoming[24]; Herczynski, 2003[30]) (Herczynski, 2003[30]).

Ethnic minorities face important challenges

The government has implemented a number of initiatives to encourage more equitable school outcomes across ethnic groups. At the school level, the MoES formally accepted the Concept for Intercultural Education (2016), a normative document promoting diversity in education, and has partnered with USAID (2017-22) to strengthen inter-ethnic integration, by upgrading curricula and textbooks and renovating schools (USAID, n.d.[50]; Krsteska-Papic et al., 2015[32]). Efforts to improve minorities' access to higher education include the quota introduced by the MoES for ethnic minorities in 2003, (amounting to 23% of total enrolment), and in 2004, recognising the State University of Tetovo, an Albanian-language university (MoES, 2018[19]).

However, the disparities persist, especially among the ethnic Albanian community. Albanians are less likely than students of Macedonian ethnicity to participate and successfully progress in education. Over half of Macedonian children attended pre-primary education, compared to less than one in five Albanian children. The gap becomes more

pronounced as students advance in the system (USAID, n.d.[45]). While Albanians represent nearly 25% of the total population, they account for only 15.6% of secondary students and only 5.5% of tertiary enrolment (World Bank, forthcoming[24]).

Inequities also persist for those who remain in education, in particular for those who do not undertake their education in Macedonian. In PISA 2015, students who took the test in Albanian were more than one year behind in science compared to those who took it in Macedonian, even after accounting for their socio-economic background (Figure 1.14) (World Bank, 2017[51]). Low levels of performance might reflect poor learning conditions, including the level of teacher qualifications – in predominantly Albanian schools and municipalities (World Bank, forthcoming[24]).

Figure 1.14. Differences in science performance, by language of test, before and after accounting for socio-economic background (PISA 2015)

Source: (OECD, 2016[13]), PISA 2015 Results (Volume I): Excellence and Equity in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

Other smaller ethnic minorities also face similar challenges in accessing education. Roma are 2.2% of the total population, but represent only 0.5% of secondary school students and 0.1% of university students (OECD, 2003[5]).

Conclusion

While North Macedonia has implemented several initiatives in recent years to orient learning more closely around students' learning needs, there has not been a consistent approach to raising the educational outcomes of all students. The learning outcomes of students are very low and are not improving. Creating a system so that there is greater awareness and understanding of where students are in their learning (Chapter 2) and how the education system overall is performing (Chapter 5), will need to be matched by greater support to create effective teaching and learning environments (Chapters 3 and 4). This report looks at how the creation of a coherent framework for evaluation and assessment embedded within a long-term strategy for reform could help to improve equity and quality across the system (Box 1.4).

Box 1.4. OECD Reviews of Evaluation and Assessment in Education

OECD Reviews of Evaluation and Assessment look at how evaluation and assessment policy can be used to improve student outcomes. They examine countries' evaluation and assessment policies and practices for school education, and draw on insights from international practices, to provide actionable recommendations.

The reviews focus on four key components:

- **Student assessment** monitors and provides feedback on individual student progress and certifies the achievement of learning goals.
- **Teacher appraisal** assesses the performance of teachers in providing quality learning for their students.
- **School evaluation** looks at the effectiveness of schools in providing quality education.
- **System evaluation** uses educational information to monitor and evaluate the education system against national goals.

The reviews draw on existing OECD work on evaluation and assessment, which included reviews of 18 countries' evaluation and assessment policies and practices. Each country review is based on national information, provided by the country to the OECD; background research and country visits. During the country visits, a team of OECD staff and international experts meet with key actors across the education system to identify policy strengths and challenges, and discuss the challenges of evaluation and assessment with national actors. The OECD prepares a report for the country, which analyses national practices and policies, and provides policy recommendations to strengthen evaluation and assessment linked to national goals and priorities.

Annex 1.A. Key indicators

Annex Table 1.A.1.Key indicators

#	List of key indicators	The Republic of North Macedonia	OECD countries
Background information			
Economy			
1	GDP per head in USD PPP, 2016	14 942	38 096
2	GDP annual growth rate, 2016	2.4	2.3
Society			
3	Population annual growth rate, 2016	0.1	0.7
4	Population aged 14 years or less (%), 2016	16.8	17
5	Fertility rate (children per woman aged 15-49 years), 2015	1.5	1.7
6	Youth unemployment rate (aged 15-24 years), 2016	49.5	16.7
	Total unemployment rate (aged 15 above), 2016	26.1	7.4
Education indicators			
System			
7	Usual starting age of early childhood education programmes, 2015	3	3
8	Starting age of compulsory education, 2015	6	6
9	Duration of compulsory education (years), 2015	12	10
Students			
10	*Net enrolment rates (2015)*		
	Pre-primary education (3-4 year-olds)	30.8	72
	Primary education (5-14 year-olds)	91.7	97
	Secondary education (15-19 year-olds)	78.9	85
11	Tertiary education attainment rate (25-34 year-olds), 2016		43
12	Share of students enrolled in vocational programmes for upper secondary education (15 to 19 year-olds), 2015	59.5	25
Teachers			
13	*Ratio of students to teaching staff (2015)*		
	Primary education	14	15
	Lower secondary education	8.1	13
	Upper secondary education	11.7	13

14	*Share of female teachers (2014)*		
	Pre-primary education	99	97
	Primary education	81	82
	Lower secondary education	58	68
	Upper secondary education	59	58
Learning outcomes			
23	Mean students' performance in science, PISA 2015	384	493
24	Percentage of students below PISA proficiency Level 2 in science, PISA 2015	62.9	21
25	Percentage of variance in science performance explained by student's socio-economic background, PISA 2015	6.9	13

Notes

[1] While the Constitution does not allow the establishment of private primary schools in the country, there are currently a small number of experimental private institutions.

References

Anger, J., R. Van't Rood and Z. Gestakovska (2010), *Learning Study on the Achievements and Experiences of Projects on Inter-Ethnic Education and Youth Work in Macedonia - Sida Review*, https://www.sida.se/contentassets/65e16b53d4a94b36a677501d5f52541d/learning-study-on-the-achievements-and-experiences-of-projects-on-inter-ethnic-education-and-youth-work-in-macedonia_2960.pdf (accessed on 9 August 2018). [33]

Biljana Petrovska Mitrevska (2017), *Multidimensional poverty analysis - Republic of Macedonia*, https://www.eapn.eu/wp-content/uploads/2011/10/EAPN-Multidimensional-poverty-analysis-Macedonia-2017-1243.pdf (accessed on 8 August 2018). [7]

EFC (2015), *Evaluation of the Early Childhood Development Programme in the former Yugoslav Republic of Macedonia - Final evaluation report*, Education for change Ltd (EFC), http://www.efc.co.uk (accessed on 10 August 2018). [49]

ETF (2017), *Tracing Secondary Vocational and Tertiary Education Graduates in the former Yugoslav Republic of Macedonia - 2-16 Tracer Study Results*, https://www.etf.europa.eu/webatt.nsf/0/370594378AEE2242C12581C90068FE63/$file/2016%20Tracer%20study%20results%20MK.pdf (accessed on 12 July 2018). [35]

European Commission (2018), *Recommended Annual Instruction Time in Full-time Compulsory Education in Europe – 2017/18.*, http://dx.doi.org/10.2797/616811. [22]

European Commission (2016), "From University to Employment: Higher Education Provision and Labour Market Needs In the Western Balkans Synthesis Report", https://ec.europa.eu/education/sites/education/files/2016-higher-education-labour-market-balkans_en.pdf (accessed on 9 July 2018). [41]

European Commission (2016), "The former Yugoslav Republic of Macedonia 2016 Report", https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2016/20161109_report_the_former_yugoslav_republic_of_macedonia.pdf (accessed on 28 June 2018). [17]

Eurostat (2017), *Employment rates of recent graduates (aged 20-34) not in education and training, 2017*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Employment_rates_of_recent_graduates_(aged_20%E2%80%9334)_not_in_education_and_training,_2017_(%C2%B9)_(%25).png (accessed on 31 August 2018). [42]

Eurostat (n.d.), *Database - Eurostat*, http://ec.europa.eu/eurostat/web/education-and-training/data/database (accessed on 13 July 2018). [37]

Eurydice (n.d.), *Republic of North Macedonia Overview*, https://eacea.ec.europa.eu/national-policies/eurydice/content/former-yugoslav-republic-macedonia_en (accessed on 28 June 2018). [31]

Government of the Republic of North Macedonia (2017), *Program of Government 2017-2020*. [1]

Herczynski, J. (2003), "Policy paper: Treatment of Satellite Schools", MMS Project, Skopje. [30]

ILO (n.d.), *Key Indicators of the Labour Market (KILM) 2015*, http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm (accessed on 28 June 2018). [14]

Krsteska-Papic, B. et al. (2015), "Concept for Intercultural Education", *Ministry of Education and Science, Skopje*, https://nmie.org/conception-for-intercultural-education/. [32]

Lyon, A. (2012), "Decentralisation and the Management of Ethnic Conflict: a Case Study of the Republic of Macedonia", https://bradscholars.brad.ac.uk/bitstream/handle/10454/5693/PhD%20Thesis%20-%20Aisling%20Lyon%2007014955.pdf?sequence=3 (accessed on 4 July 2018). [8]

Macedonia, G. (2003), *Ohrid Framework Agreement*. [9]

MAKStat Database (n.d.), *Total population according the ethnic affiliation, Census 2002*, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=c63fa1f5-6bc8-4569-a141-853f4c4cc421 (accessed on 24 January 2019). [10]

MoES (2018), *Comprehensive Education Strategy for 2018-2025*, Ministry of Education and Science, Skopje. [18]

MoES (2018), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje. [19]

MoES (2013), *Strategy for Vocational Education and Training in a Lifelong Learning Context - 2013-2020 - Draft document*, Ministry of Education and Science, Skopje. [34]

OECD (2018), *Competitiveness in South East Europe: A Policy Outlook 2018*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264298576-en. [2]

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2018-en. [25]

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2017-en. [43]

OECD (2017), *PISA 2015 Results (Volume III): Students' Well-Being*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264273856-en. [46]

OECD (2017), *Starting Strong 2017 - Key OECD Indicators on Early Childhood Education and Care.*, OECD Publishing, Paris, https://doi.org/10.1787/9789264276116-en. [29]

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266490-en. [13]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en. [21]

OECD (2003), *Thematic Review of Education Policy of the former Yugoslav Republic of Macedonia*. [5]

OECD (n.d.), "Republic of Macedonia - Teacher Education Programme on Early Numeracy and Literacy in the former Yugoslav Republic of Macedonia", http://www.oecd.org/education/ceri/UNICEF.MCD.SystemNote.pdf (accessed on 28 June 2018). [6]

OECD/CAF/UN ECLAC (2016), *Latin American Economic Outlook 2017: Youth, Skills and Entrepreneurship*, OECD Publishing, Paris, http://dx.doi.org/10.1787/leo-2017-en. [40]

OECD and UNICEF (2018), *OECD-UNICEF survey of teachers and principals in North Macedonia*. [23]

OSCE (2014), *Analytical Report on the Decentralization Process Organisation for Security and Co-operation in Europe*, https://www.osce.org/skopje/231581?download=true (accessed on 28 June 2018). [20]

Ravens, J. (2010), *A financially feasible plan for equal access to Early Childhood Programs in the Republic of Macedonia - FAir Play*, https://www.unicef.org/tfyrmacedonia/UNICEF_Fair_Play_ANG(2).pdf (accessed on 9 July 2018). [48]

Spasovski, L. et al. (2018), *Concept Paper on Modernization of the Secondary TVET - Ministry of Education and Science, Project For Skills Development and Innovation Support (Sdisp)*, https://mk-dizajn.hr/wba4wbl/wp-content/uploads/sites/30/2018/09/Concept_Paper_modernization_of_secondary_TVET_EN-_MK-.pdf. [36]

State Statistical Office (2018), *Primary, lower secondary and upper secondary schools at the end of the school year, 2016/2017*, Republika Makedonija, Državen zavod za statistika, http://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=41 (accessed on 3 July 2018). [28]

Transparency International (2014), *Former Yugoslav Republic of Macedonia: Overview of Political Corruption*, https://knowledgehub.transparency.org/helpdesk/former-yugoslav-republic-of-macedonia-overview-of-political-corruption (accessed on 28 June 2018). [16]

UNDP (n.d.), *Human Development Data (1990-2015)*, http://hdr.undp.org/en/data (accessed on 28 June 2018). [12]

UNESCO (2014), *2014 Global Education for All Meeting - Final Statement The Muscat Agreement Status of EFA*, http://unesdoc.unesco.org/images/0022/002281/228122E.pdf (accessed on 28 June 2018). [26]

UNESCO-IBE (2011), *World Data on Education - The former Yugoslav Republic of Macedonia*, http://www.ibe.unesco.org/ (accessed on 9 July 2018). [38]

UNESCO-UIS (2018), *Education : Initial government funding of education per student as a percentage of GDP per capita*, http://data.uis.unesco.org/ (accessed on 4 July 2018). [27]

UNESCO-UIS (2018), *UIS Statistics - Gross enrolment by level of education*, http://data.uis.unesco.org/# (accessed on 29 January 2019). [39]

UNESCO-UIS (n.d.), *The Republic of North Macedonia, UNESCO-UIS*, http://uis.unesco.org/country/MK (accessed on 28 June 2018). [11]

USAID (n.d.), *Education | Macedonia | U.S. Agency for International Development*, https://www.usaid.gov/macedonia/education (accessed on 13 August 2018). [50]

USAID (n.d.), *Main findings and recommendations from the nationwide assessment of reading and numeracy skills in early grade students*, https://www.stepbystep.org.mk/WEBprostor/Nationwide_Study_Report_of_EGRA_and_EGMA_assessment.pdf. [45]

World Bank (2018), *Vulnerabilities Slow Growth - Western Balkans Regular Economic Report No. 13*, http://pubdocs.worldbank.org/en/701051523374120261/WBRER13-10Apr2018.pdf (accessed on 20 July 2018). [4]

World Bank (2017), "Looking for Skills in the former Yugoslav Republic Macedonia", https://openknowledge.worldbank.org/bitstream/handle/10986/27745/112196-WP-P133003-PUBLIC-27-6-2017-13-40-18-MKDReportLookingforSkillsFinal.pdf?sequence=1&isAllowed=y (accessed on 28 June 2018). [3]

World Bank (2017), *Macedonia in international assessment (PISA) - How to improve and take action?*, World Bank, Washington, D.C. [51]

World Bank (2015), *Former Yugoslav Republic of Macedonia - Early Childhood Development - SABER Country Report*, http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/ECD/SABER_ECD_Macedonia_CR_Final_2015.pdf (accessed on 11 July 2018). [47]

World Bank (n.d.), *Education Statistics | Learning Outcomes*, http://datatopics.worldbank.org/education/wDashboard/dqlearningcnty (accessed on 11 July 2018). [44]

World Bank (forthcoming), "North Macedonia: Public Finance Review", World Bank, Washington D.C. [24]

World Bank Database (n.d.), *Literacy rate, adult total (% of people ages 15 and above)*, https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=MK (accessed on 28 June 2018). [15]

Chapter 2. Raising learning outcomes through student assessment

This chapter looks at how the assessment system of the Republic of North Macedonia measures and shapes student learning. Classroom assessments are not based on established, national learning standards, and therefore do not convey reliable and meaningful information on student achievement. Teachers predominantly rely on summative assessment practices, which are limited to a narrow range of lower-order tasks, thereby providing students with little quality feedback. This chapter suggests that North Macedonia develop national learning standards to provide students with more consistent and accurate information of their attainment. It will also be critical to support and encourage formative assessment practices to support teachers monitor student learning.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

The primary purpose of student assessment is to determine what students know and are capable of doing, to help them advance in their learning and take an informed decision on the next step in their education. In the Republic of North Macedonia (referred to hereafter as "North Macedonia"), using assessment in this way is difficult because teachers' assessment judgements are not based on established, national learning standards, and therefore do not convey reliable information on student achievement. While the OECD Programme for International Student Assessment (PISA) reveals that the majority of 15-year-olds are unable to perform basic cognitive tasks, in their schools those same students are receiving outstanding classroom marks and are scoring highly on the state *matura*.

A further challenge is that teachers' classroom assessment practices are predominantly summative and limited to a narrow range of lower-order tasks. Despite recent policy efforts to strengthen formative practices, students receive little quality feedback and few opportunities to demonstrate important dimensions of the curriculum, in particular more applied skills and complex, transversal competencies such as problem-solving and critical thinking.

This chapter suggests how North Macedonia can develop a student assessment system with more educational value. It recommends the creation of national learning standards as a means to help teachers form assessment judgements that are more consistent and meaningful. Stronger understanding of national expectations will help teachers to confidently and accurately monitor student learning. Alongside greater support and encouragement for formative assessment, this will help teachers to identify and address learning gaps early on. Finally, while the *matura* is renowned across the region for its innovative design and integrity, a decade after its implementation, the model should be reviewed to keep pace with changes in the education system. This review suggests revisions to ensure that the *matura* is helping to foster higher-order skills and better prepare students to progress to higher levels of education and to enter the labour market.

Key features of an effective student assessment system

Student assessment refers to the processes and instruments that are used to evaluate student learning (see Figure 2.1). These include assessment by teachers, as part of school-based, classroom activities like daily observations and periodic quizzes, and though standardised examinations and assessments that are designed and graded outside schools.

Overall objectives and policy framework

At the centre of an effective policy framework for student assessment is the expectation that assessment supports student learning (OECD, 2013[1]). This expectation requires that national learning objectives be clear and widely understood. Regulations concerning assessment must orient teachers, schools and assessment developers on how to use assessment to support learning goals.

To these ends, effective assessment policy frameworks encourage a balanced use of summative and formative assessments, as well as a variety of assessment types (e.g. teacher observations, written classroom tests and standardised instruments). These measures help to monitor a range of student competencies and provide an appropriate balance of support, feedback and recognition to students to encourage them in improve their learning.

Finally, effective assessment frameworks also include assurance mechanisms to regulate the quality of assessment instruments, in particular central, standardised assessments.

The curriculum and learning standards communicate what students are expected to know and be able to do

It is important to have common expected learning outcomes against which students are assessed to determine their level of learning and how improvement can be made (OECD, 2013[1]). Expectations for student learning can be documented and explained in several ways. Many countries define them as part of national learning standards. Others integrate them into their national curriculum frameworks (OECD, 2013[1]).

While most reference standards are organised according to student grade level, some countries are beginning to organise them according to competency levels (e.g. beginner and advanced), each of which can span several grades (New Zealand Ministry of Education, 2007[2]). This configuration allows for more individualised student instruction, but requires more training for teachers to properly understand and use the standards when assessing students.

Types and purposes of assessment

Assessments can generally be categorised into classroom assessments, national examinations and national assessments. Assessment has traditionally held a summative purpose, which aims to explain and document learning that has already occurred. Many countries are now also emphasising the importance of formative assessment, which aims to understand learning as it occurs in order to inform and improve subsequent instruction and learning (see Box 2.1) (OECD, 2013[1]). Formative assessment is now recognised to be a key part of the teaching and learning process and has been shown to have one of the most significant positive impacts on student achievement among all educational policy interventions (Black and Wiliam, 1998[3]).

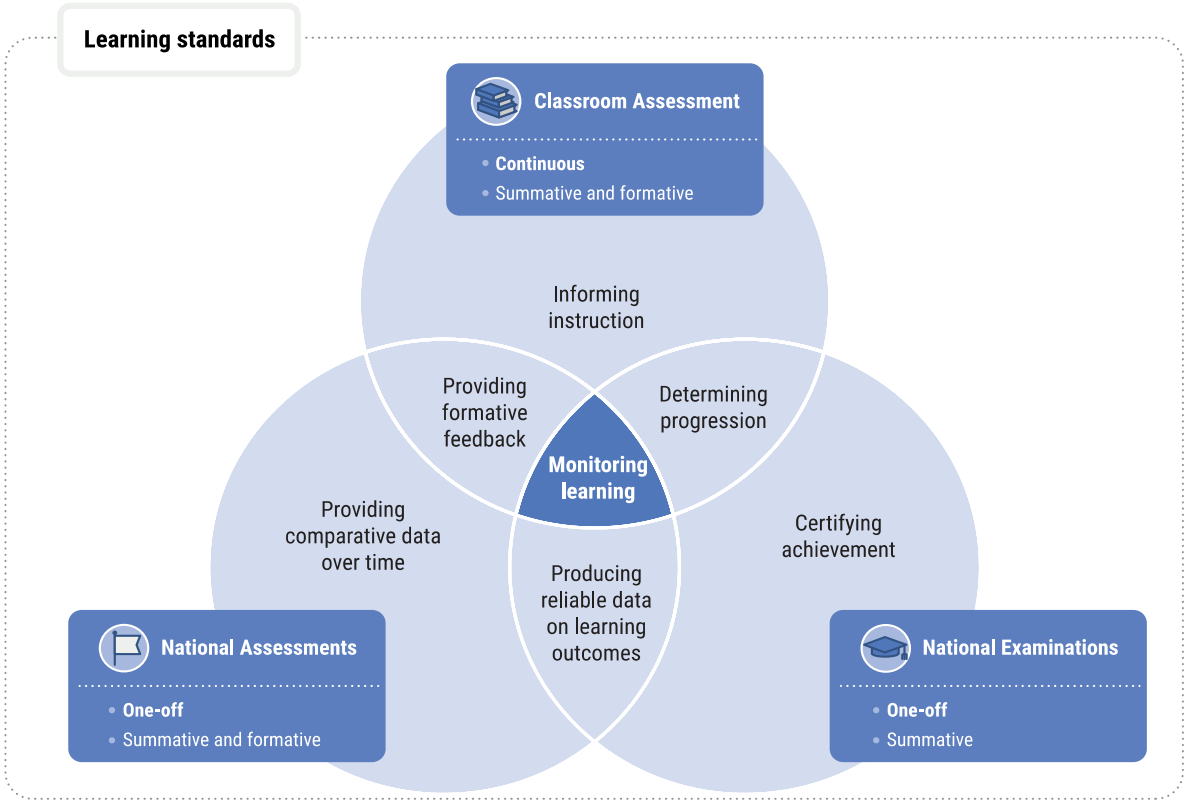
Box 2.1. Purposes of assessment

- **Summative assessment** – assessment *of* learning, summarises learning that has taken place, in order to record, mark or certify achievements.
- **Formative assessment** – assessment *for* learning, identifies aspects of learning as they are still developing in order to shape instruction and improve subsequent learning. Formative assessment frequently takes place in the absence of marking.

For example, a teacher might ask students questions at the end of lesson to collect information on how far students have understood the content, and use the information to plan future teaching.

Source: (OECD, 2013[1]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en.

Figure 2.1. Student assessment and learning



Classroom assessment

Among all types of assessment, classroom assessment has the greatest impact on student learning (Absolum et al., 2009[4]). Classroom assessment supports learning by regularly monitoring learning and progress; providing teachers with information to understand students' learning needs and guide instruction; and helping students understand the next steps in their learning through the feedback their teachers provide.

Classroom assessments are administered by teachers in classrooms and can have both summative and formative purposes. Classroom assessments can be delivered through various formats, including closed multiple-choice questions, semi-constructed short answer questions and open-ended responses like essays or projects. Different assessment formats are needed for assessing different types of skills and subjects. In general, however, assessing complex competencies and higher-order skills requires the usage of more open-ended assessment tasks.

In recent decades, as most OECD countries have adopted more competency-based curricula, there has been a growing interest in performance-based assessments like experiments or projects. These types of assessments require students to mobilise a wider range of skills and knowledge and demonstrate more complex competencies like critical thinking and problem solving (OECD, 2013[1]). Encouraging and developing effective, reliable performance-based assessment can be challenging. OECD countries that have tried to promote this kind of assessment have found that teachers have required far more support than initially envisaged.

Effective classroom assessment requires the development of teachers' assessment literacy

Assessment is now seen as an essential pedagogical skill. In order to use classroom assessment effectively, teachers need to understand how national learning expectations can be assessed – as well as the students' trajectory towards reaching them – through a variety of assessments. Teachers need to know what makes for a quality assessment – validity, reliability, fairness – and how to judge if an assessment meets these standards (see Box 2.2). Feedback is important for students' future achievement, and teachers need to be skilled in providing constructive and precise feedback.

Box 2.2. Key assessment terms

- **Validity** – focuses on how appropriate an assessment is in relation to its objectives. A valid assessment measures what students are expected to know and learn as set out in the national curriculum.
- **Reliability** – focuses on how consistent the assessment is measuring student learning. A reliable assessment produces similar results despite the context in which it is conducted, for example, across different classrooms or schools. Reliable assessments provide comparable results.

Source: (OECD, 2013[1]) , *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en.

Many OECD countries are investing increasingly in the development of teachers' assessment literacy, beginning in initial teacher education. In the past, teachers' initial preparation in assessment was primarily theoretical, but countries are now trying to make it more practical, for example, by emphasising opportunities for hands-on learning where teachers can develop and use different assessments. Countries encourage initial teacher education providers to make this shift by incorporating standards on assessment in programme accreditation requirements and in the expectations for new teachers in national teacher standards.

It is essential that teachers' initial preparation on assessment is strengthened through on-going, in-school development. Changing the culture of assessment in schools – especially introducing more formative approaches and performance-based assessments, and using summative assessments more effectively – requires significant and sustained support for teachers. Continuous professional development such as training on assessment and more collaborative opportunities when teachers can share effective assessment approaches provides vital encouragement. Pedagogical school leaders also play an essential role in establishing a collaborative culture of professional enquiry and learning on assessment.

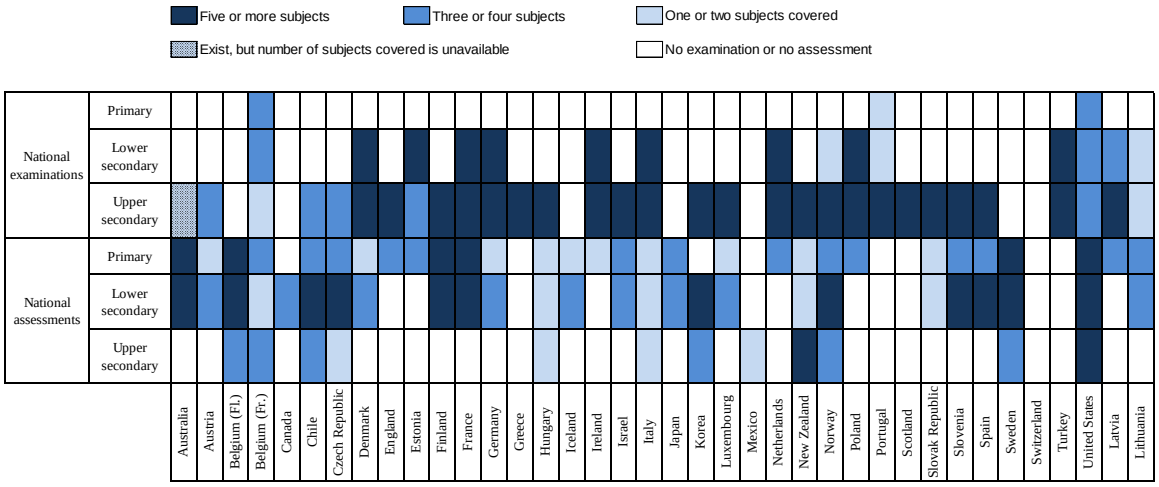
Finally, countries need to invest significantly in practical resources to ensure that learning expectations defined in national documents become a central assessment reference for teachers and students in the classroom. These resources include rubrics that set out assessment criteria, assessment examples aligned to national standards and marked examples of student work. Increasingly, countries make these resources available on line through interactive platforms that enable teachers to engage in the development of

standards, which facilitates a greater feeling of ownership over the resources and makes it more likely that they will be used.

National examinations

National examinations are standardised assessments developed at the national or state level with formal consequences for students. The vast majority of OECD countries (31) now have exit examinations at the end of upper secondary to certify student achievement and/or for selection into tertiary education, reflecting rising expectations in terms of student attainment as well as the importance of transparent systems for determining access to limited further education opportunities (see Figure 2.2). National examinations are becoming less common at other transition points, as countries seek to remove barriers to progression and reduce early tracking. Among those OECD countries (approximately half) who continue to use national examinations to inform programme and/or school choice for entrants to upper secondary education, few rely solely or even primarily on the results of examinations to determine a student's next steps.

Figure 2.2. National examinations and assessments in public school in OECD countries



Notes: Number of subjects covered in the assessment framework (subjects may be tested on a rotation basis). Data for the national examinations and assessments in Lithuania are drawn from authors' considerations based on OECD (2017[5]), *Education in Lithuania*, Reviews of National Policies for Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264281486-en.
Source: OECD (2015[6]), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2015-en.

While classroom assessment is the most important assessment for learning, evidence shows that the pace of learning slows down without external benchmarks like examinations. National examinations signal student achievement and in many countries carry high stakes for students' future education and career options, which can help to motivate students to apply themselves (Bishop, 1999[7]). They are also more reliable than classroom assessment and less susceptible to bias and other subjective pressures, making them a more objective and arguably fairer basis for taking decisions when opportunities are constrained, such as access to university or high-demand schools.

However, there are limitations related to the use of examinations. For instance, they can only provide a limited snapshot of student learning based on performance in one-off,

time-pressured exercises. To address this concern, most OECD countries complement examination data with classroom assessment information, teachers' views, student personal statements, interviews and extra-curricular activities to determine educational pathways into upper secondary and tertiary education.

Another concern is that the high stakes of examinations can distort teaching and learning. If examinations are not aligned with the curriculum, teachers might feel compelled to dedicate excessive classroom time to examination preparation instead of following the curriculum. Similarly, students can spend significant time outside the classroom preparing for examinations through private tutoring. To avoid this situation, it is important that items on examinations are a valid assessment of the curriculum's learning expectations and encourage high quality learning across a range of competencies.

Most OECD countries are taking measures to address the negative impact that the pressure of examinations can have on student well-being, attitudes and approaches to learning. For example, Korea has introduced a test-free semester system in lower secondary education with activities like career development and physical education to develop students' life skills and reduce stress (OECD, 2016[8]).

National assessments

National assessments provide reliable information on student learning, without any consequences for student progression. Across the OECD, the vast majority of countries (30) have national assessments to provide reliable data on student learning outcomes that is comparative across different groups of students and over time (see Figure 2.2). The main purpose of a national assessment is system monitoring and, for this reason, national assessments provide essential information for system evaluation (see Chapter 5).

Countries might also use national assessments for more explicit improvement purposes, such as to ensure that students are meeting national achievement standards and identify learning gaps in need of further support. In these cases, providing detailed feedback to teachers and schools on common problems and effective responses is critical.

Many OECD countries also use national assessments for school accountability purposes, though there is considerable variation in how much weight is given to the data. This is because student learning is influenced by a wide range of factors beyond a school or teacher's influence – such as their prior learning, motivation, ability and family background (OECD, 2013[1]).

National assessment agencies

Developing high quality national examinations and assessments requires a range of assessment expertise in fields such as psychometrics and statistics. Many OECD countries have created government agencies for examinations and assessments where this expertise is concentrated. Creating a separate organisation with stable funding and adequate resources also helps to ensure independence and integrity, which is especially important for high-stakes national examinations.

Student assessment in North Macedonia

Since the last OECD review of education in North Macedonia in 2003, the country has made significant advances in several key areas of student assessment. The main national examinations at the end of upper secondary that have been in place for ten years – the

state *matura*, the school *matura* and the final examination for certification and tertiary placement purposes – are trusted nationally and respected across the region. In recent years, a strong effort has also been made to increase and improve the use of formative assessment in classrooms.

Nevertheless, there is a divergence between the intent of North Macedonia's assessment strategy and what occurs in the country's schools. In classrooms, a focus on summative assessment still tends to outweigh formative objectives. Grading also frequently reflects societal expectations for high marks, rather than accurately revealing what students know and can do. This pressure is compounded by relatively weak teacher assessment literacy and the limited resources provided to teachers to evaluate student progress. As a result, students do not receive reliable feedback on their learning, which combined with the pressures of a dense curriculum means that the instruction they receive can quickly outpace their individual learning rhythm. This has contributed to a situation where the majority of students progress through school with good grades and do well in national examinations – nearly all students enrolled in gymnasiums pass the *matura* (94.3% in 2017) – but, as international assessments suggest, are not mastering basic competencies in literacy and numeracy (OECD, 2016[9]).

Overall objectives and policy framework

A key strength of the assessment framework in North Macedonia is national recognition of the value of assessment for student learning. Assessment features in national policy documents – such as the Comprehensive Education Strategy, and laws on primary and secondary school. There have also been efforts to develop teachers' awareness and skills for formative assessment. In 2015, the Bureau for Development of Education (BDE) published a Formative Assessment Manual, which encourages teachers to increase the use of formative assessment and has guided professional development activities. Other guidance specifically on the use of assessment in primary has been developed and used for professional development purposes (Gerard et al., n.d.[10]).

However, together the laws and policies do not provide a coherent framework to ensure that assessment consistently supports learning. For example, while formative assessment is valued, the new draft law on the national assessment outlines that one of its functions will be to provide data for school ranking. Ranking schools based on raw assessment results neglects the strong contextual factors that impact learning and can encourage a high-stakes approach to school accountability that risks undermining the assessment's learning function.

Recent curricula changes emphasise a more competency-based approach to teaching and learning

Recent years have witnessed important attempts at curriculum modernisation, in particular in the early grades. However, there have been significant problems with implementation, creating undue pressure on teachers and students and a lack of continuity in learning expectations. This is particularly evident in sciences and mathematics. In 2014, the Cambridge curriculum was introduced in these subjects from grades 1-9. In many respects, this was a positive development. The Cambridge curriculum gives students more time for content mastery and strong encouragement to engage in critical questioning. It is also less based upon retaining factual knowledge and more focused on applying knowledge and skills to real-world contexts.

However, implementation was rushed, rather than phased in gradually grade-by-grade, and schools and teachers were not provided with adequate support. The government is now again revising curricula in grades 1-3 and will begin piloting new materials in a small number of schools in the near future. However, these reforms are happening without an evaluation of the effectiveness and impact of the Cambridge curriculum.

While there have been significant changes to curricula in the lower grades, curricula in upper secondary and in mother tongue languages across all grades were developed as early as 2001 without further updating. This creates challenges in terms of the consistency of expectations for student learning. It also means that upper secondary education in particular still tends to focus on retaining factual knowledge, with a lack of emphasis on developing critical thinking and other 21st century competencies.

Another challenge, especially in upper secondary where students study 15 subjects, is the curriculum's density. The review team was told that the rigid nature of the curriculum makes it difficult to adapt and, as a result, such adaptation rarely occurs. Schools in North Macedonia report lowest levels of responsibility for the curriculum compared with other countries participating in PISA (OECD, 2016[11]). A very broad curriculum with many mandatory subjects also encourages surface-level retention and prohibits in-depth learning (OECD, 2013[1]).

Learning standards are comprehensive but fragmented

The BDE has created learning standards for nearly all subjects and grades. The Cambridge curriculum also provides learning standards for mathematics and science, labelled learning expectations. A notable gap in the country's learning standards however are standards for reading and writing in grades 1-3, which provide the foundations for later learning and in other subjects.

Another concern is that the standards are not aligned with each other. While the Cambridge curriculum provides standards for mathematics and science up to grade 9, the previous standards for these subjects that existed before Cambridge was introduced also co-exist. Such inconsistent learning standards impacts the quality of teaching and student assessment. Importantly, the review team's interviews revealed that teachers do not have a common set of learning expectations for their students and instead form their own, individual and inconsistent expectations. Students, therefore, receive an education that is not cohesive and lacks a clear reference point that identifies what they should be working towards. Inconsistent expectations also make it difficult to establish meaningful evaluation and accountability practices at school or system level.

Box 2.3. Key definitions on learning standards and progression

Learning standards and performance descriptors: clear statements of expected student learning and the key characteristics of student work by grade in the core domains of reading and writing, and mathematics. This could also include performance descriptors that set out the characteristics of student work at different levels of performance.

Learning progressions: set out how students typically move through learning in reading and writing, and mathematics in line with the expectations set out in the learning standards. These could be accompanied by examples of student work at the different learning stages. Learning progressions signal to teachers the knowledge and skills that students need to develop and be able to draw on so that they are able to meet the expectations of the curriculum and learning standards.

Source: (Kitchen et al., forthcoming[12]), *OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Turkey*, OECD Publishing, Paris.

Classroom assessment

Students are graded on a five-point scale from grade 4 onwards

In grades 1-3, students do not receive numeric marks. Instead, their performance is reported as a written description of student work in school report cards (referred to as certificates of achievement) that do not include standardised descriptors (such as good, very good, etc.). From grades 4-6, students receive descriptions of their performance and also numeric marks. After grade 6, all students receive numeric marks on a scale of 1 (lowest) to 5 (highest). Students receive their marks at the end of grading periods on report cards and their marks also appear in their "*e-dnevnik*" online journal. A mark of 1 is considered inadequate while all others are passing marks. In theory, students who receive 1 at the end of a grade must repeat that grade, but in practice this occurs very rarely and the Law on Primary Education states that students in grades 1-5 cannot repeat grades. According to PISA 2015, only 3.1% of 15 year-old students in the country have ever repeated a grade, compared to 11.3% on average across OECD countries (OECD, 2016[11]).

From grade 6 onwards, marks from classroom assessments inform student pathways

The average of a student's marks from grades 6-9, as well as student preference, informs the type of upper secondary school – gymnasium, vocational or arts secondary school a student attends. While students are free to select their school of preference, students are admitted on the basis of the overall score. This results in students with lower grades tending to be oriented towards vocational high schools while the highest performing students are encouraged to enrol in the most prestigious gymnasiums. However, due to demographic decline there are spaces in all but the most prestigious gymnasiums in Skopje, which creates genuine choice for most students.

Classroom assessment focuses heavily on numeric grades

The five-point grading scheme provides a central focus for teachers, students and parents in North Macedonia. Beyond the formal reporting requirements, students receive grades

regularly for most exercises. Grades are also used to manage student behaviour, with students marked up or down on academic tasks based on attitudes and attendance. Teachers interviewed by the review team also stated that they felt pressure from parents, not just to regularly report grades, but also to provide students with high marks.

While summative recognition is important, focusing too much on student marks can mean that the deeper learning not assessed by tests is neglected. A narrow focus on numerical grades as the only measure of performance can also lead to grade inflation. This is a particular concern in North Macedonia, in part because of societal pressures, but also because teachers lack clear, consistent standards to benchmark achievement and because their overall assessment capacity is weak. Too much emphasis on grades also limits the space for formative assessment practices, which policy in North Macedonia states to be a priority and is critical for effective learning.

At the same time, expectations to report high marks, combined with a culture that emphasises performance in academic competitions and Olympiads, encourages teachers to focus on the top performers rather than bringing each student to reach their own potential and national standards. According to the Law on Secondary Education, students receive monetary compensation for performing well in academic competitions, and teachers of competition winners are also rewarded.

There have been efforts to support teachers' assessment knowledge and skills

While there have been important recent initiatives to develop teachers' assessment skills, in particular in the area of formative assessment, overall training and support in this area remains relatively limited.

Initial teacher education in North Macedonia is not well-aligned with recent curricula changes and does not ensure that teacher candidates graduate with minimum competencies in assessment (see Chapter 3). Once in the profession, the quality and availability of teachers' professional development opportunities are relatively limited. For example, while there have been isolated efforts to improve support for formative assessment, teachers and teacher trainers said these have not fully taken root because continuous support is insufficient. Teachers lack sustained support and training to encourage them to integrate new models of assessment. While teachers do provide informal support to each other within and across schools, for example, by sharing best practices and exchanging lesson plans, through the "Teacher Actives" in schools and social media. However, these activities are not resourced at the national level and occur outside the formal guidance of the ministry, which limits their access to materials and other resources.

National examinations

The state matura is a well-respected model across the region

There is one main national examination in North Macedonia, the state *matura* (see Table 2.2). When it was implemented in 2008, the *matura* was recognised across the region for its modern design and integrity. Students are examined in a core of mother tongue language, and mathematics or a foreign language, and can choose from a list of electives for the remaining subjects. It also includes a project assignment, providing space to recognise a broader range of competencies than a standardised examination and enables students to engage in a subject that they find particularly interesting. In contrast with many other national examinations across the region where there are frequently issues with

integrity, the administration and results of the *matura* are trusted nationally. These are important strengths.

Table 2.1. State *matura*

Components	Examinations (40%): • Compulsory examination: mother tongue language • 1st elective: mathematics or a foreign language • 2nd elective: choice from list of general subjects • 3rd elective: – Gymnasium students: choice from list of general subjects – Vocational students: a vocational subject in line with a students' vocational track • Project Classroom assessment (60%): • Average marks from all subjects, grades 6-9
Eligibility	All students completing gymnasiums and four-year vocational education schools.
Item development	Item development is led by state subject committees, composed of professors and practitioners commissioned by the National Education Centre (NEC). Individual schools develop items for school-assessed subjects and establish committees to assess these subjects.
Question format	Multiple-choice, closed-format short answers and open-ended questions. Pen and paper.
Grading	Mark out from 1-5 (1=fail; 2-5=pass). Students also receive their percentile rank for externally examined subjects.
Marking	Compulsory examination, 1st and 2nd electives marked centrally. Multiple-choice and closed-format questions are marked electronically; open-ended questions marked by human assessors. 3rd electives and project marked at school level.
Results	A student who receives at least "2" has passed and has the right to attend a higher education institution. Higher education faculties consider marks and percentiles from the state *matura* subjects (40%) and classroom subject averages (60%) for selection.
Reporting	Individual student results are accessible through an online portal on NEC's website 30 days after the examination. Results are not reported at the school or municipal level. NEC prepares a technical, internal report on the *matura* reports.

Source: (MoES, 2018[13]), *The Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

A decade after its introduction, there are aspects of the state matura that could be improved

In the decade since the *matura's* initial design and implementation, a number of issues have arisen. These include the need to better align the *matura* with the country's ambitions to improve the quality and prestige of vocational education and training (VET). It also includes the range of subjects that students take in the *matura*. In particular very few, roughly 13% of students in 2017, take the mathematics test. This effectively means that almost 90% of students in North Macedonia are never assessed in mathematics in a standardised manner during schooling.

Student results also tend to be compressed into a small range of scores, which suggests that question items are not effective at discriminating at the top of the ability range. Some subjects – especially electives like biology, physics and chemistry – have mean scores near or above 4. With such a preponderance of high scores, it might be difficult for external parties to discriminate between different students, and the students themselves might sort themselves into fields of study in which they are not strong. Universities do receive a

student's percentile rank in external subjects, which can help to select students with the greatest potential; however, given the small share of students taking some examinations and the clustering of marks at the top end, the percentile may be misleading.

Alternative examinations to the state matura might also require review

Instead of the state *matura*, students can choose to take a school *matura* (gymnasium students) or a final examination (vocational students) that certifies completion of upper secondary, but does not enable a student to progress to tertiary. The design of these examinations is similar to the state *matura* – with mother language as a compulsory subject, an elective subject and a project assignment. All parts of the examinations are marked within a student's school. Students who pass receive a diploma and have access to post-secondary education.

While providing students who do not wish to progress to tertiary with formal recognition of their schooling is positive, very few, around 2% of gymnasium students, choose this option. Among OECD countries with this kind of examination, it is frequently aimed more directly at students who do not intend to continue to tertiary. This means that the examinations are often earlier in schooling (e.g. end of lower secondary); the content is easier; and the question format is sometimes more applied. There is limited involvement of the business sector in assessing the skills required in VET subjects in the practical assignment.

National assessment

A new national assessment is in the early stages of development

North Macedonia currently does not have a national assessment. Previously, a sample-based national assessment was administered from 2001 to 2006, with primarily a monitoring purpose, and another from 2013 to 2017, which assessed all students from grades 4 upwards annually in randomly selected subjects. The results from the latter were controversially intended to be used to monitor the accuracy of teachers' classroom assessments marks, with the intention of rewarding or penalising teachers depending on how far their classroom assessment marks aligned with students' marks on the national assessment.

The new national assessment, if designed with a strong formative function, has the potential to provide teachers with a better understanding of student learning in line with national expectations. Through studying students' results on the assessment, teachers will also be able to improve their own understanding of how to evaluate student performance vis-à-vis a common reference point. Furthermore, teachers can improve their own assessment literacy by reviewing the questions that were designed for the national assessment and integrating some key concepts into their own classroom assessments (see Chapter 5).

National assessment agencies

The BDE supports teachers' classroom assessment capacity

The BDE has a long list of responsibilities. It develops national curricula and provides teacher training to teachers in gymnasiums and those teaching general subjects in VET schools. In recent years, it has developed specific supports and training on teachers' classroom assessment. In the past, the BDE contributed to the development of the state *matura* (by developing examination specifications for general education subjects),

was responsible regular teacher appraisals, and was expected to undertake educational research.

The BDE does not have sufficient resources to meet the demands of all its responsibilities. It has not financed or accredited teachers' professional development in recent years; it undertakes limited research; it and does not regularly undertake teacher appraisals. One recommendation of this review is that the BDE formally become the central body responsible for teacher support and policy, which is an area that has been under resourced and under represented at the policy-making level to date (see Chapter 3). As part of these changes, the BDE will need to review its structure so that adequate resources can be devoted to each of its functions, and relevant expertise developed. This might include developing a specific unit devoted to teacher professional development, with an expansion of capacity on assessment.

The NEC is the examination and national assessment agency

The National Examination Centre (NEC) is responsible for developing and administering the state *matura* and acts as the national centre for international testing. This review also recommends that the NEC assume responsibility for the new national assessment that is being developed (see Chapter 5). The NEC currently employs roughly 30 staff, but lacks statistical skills and information technology capacity. Furthermore, the organisation suffers from frequent turnover in leadership, with some ten different directors in the past ten years, limiting the organisation's ability to represent its needs at the political levels and contribute its professional competence to policy making. There is some research capacity, for example, internal reports on the *matura* are produced. However, limited internal capacity and a lack of demand at the policy-making level means that assessment results are not fully exploited. For example, there is little demand to analyse and publish *matura* results by individual exam question. This kind of information is useful for teachers, since it helps them to understand typical student errors and misunderstandings, and can inform how they teach the similar content or concepts in the future (see Chapter 5).

Policy issues

North Macedonia has already started to put in place supports for teachers to use more reliable and valid assessments. In order for assessment to better support learning, it is imperative that those efforts are expanded and well-resourced. This will entail developing clear benchmarks for learning – national learning standards – and providing teachers with resources and tools to apply them in the classroom. The country has already begun to consider how the *matura* can be adapted to address changing needs, in particular the importance of improving the quality of vocational high schools. This review provides suggestions on how this can be done, proposing modifications to the existing *matura* rather than the creation of a separate new *matura* specifically for vocational schools. It also suggests that now, a decade on from when the *matura* was first implemented, is a good time to review its overall structure and design to encourage greater breadth in learning, and more meaningful grading.

Developing meaningful reporting of student results

A fundamental concern with student assessment in North Macedonia is that assessment results, from teachers' classroom marks to state *matura* scores, do not necessarily reflect what a student knows and can do. This is the result of multiple factors including limited support for teachers' assessment literacy, and inconsistencies in learning expectation across grades and subjects. This situation reflects the lack of coherence in the national curriculum, which combines resources developed at different times for different purposes.

This has a number of negative consequences for teaching and learning. First, it creates inconsistent expectations, in terms of the kinds of knowledge and skills that students should master, which differ across subjects and grades. The lack of coherent standards risks that judgements about student learning are not reliable; a concern which is exacerbated by pressure on teachers to inflate grading.

Another risk is that assessments might only evaluate a narrow set of skills, since the lack of clear learning expectations makes it difficult to understand the more complex competencies students are expected to demonstrate. This is a particular risk in North Macedonia, where teachers have limited training in assessment design and tend to revert to the simple knowledge-recall tests with which they are most familiar.

Finally, unclear standards make it more difficult to identify students who are struggling. This is especially the case when there is an absence of national progressions, which set out the knowledge and skills students typically need to acquire as they move along the trajectory towards higher skills development.

Develop coherent national learning standards

Learning standards illustrate what students are expected to master at a certain level of education (Kleinhenz and Ingvarson, 2007[14]). In a competence-based curriculum, standards are constructed to depict both what students should know and how they are able to apply that knowledge. Clearly defined standards can inform the development of more effective and valid assessments, and provide more reliable data about student progress. Many OECD countries have introduced learning standards as a policy lever to change teaching and assessment practices and improve outcomes (OECD, 2013[1]).

*Review and align national learning standard*s

Currently, North Macedonia's learning standards reflect various educational principles owing to their independent conceptualisation. For example, the Cambridge mathematics curriculum's standards for grade 9 are concerned with competencies that involve mastery of several skills, such as posing research questions using statistical methods. The mathematics standards for the 1st year of secondary (grade 10), which is not based on the Cambridge curriculum, however, are more focused on performing discrete tasks, such as calculating a mean. Table 2.2 illustrates some of these differences.

Table 2.2. Standards from the Cambridge curriculum and other national curricula

Cambridge curriculum for mathematics (Grade 9 and below) Programme area: Data processing	Learning standards and curriculum for mathematics (other national curriculum) (grade 10 and above) Programme area: Working with data
• Propose a research question using statistical methods • Identify primary or secondary sources for appropriate data • Perform statistical calculations and select statistics that are most related to the problem • Interpret tables, graphs and diagrams and make conclusions to support or reject initial assumptions	• Calculate the arithmetic mean • Determine the mode and the median • Assess whether the sample is representative • Organise data and present them graphically

Source: (Education, n.d.[15]) *Standards for high school education*, http://bro.gov.mk/?q=gimnazisko-obrazovanie-standardi (accessed on 6 January 2019).

As North Macedonia moves towards introducing a more competency-based curriculum in the upper secondary grades, the learning standards across grades should be made coherent with each other. In particular, standards should focus on the same competencies so students can scaffold learning to develop increasingly complex, higher-order competencies, like effective communication and problem solving. This will also provide clarity for students and teachers in terms of learning expectations.

Prioritise learning standards for reading and writing in grades 1-3

The government is currently introducing a new curriculum in grades 1-3 and developing standards for primary school. It is particularly important that the learning standards in these grades are aligned with later standards, so that students develop the essential skills and knowledge that will enable them to master more complex content in the later grades. The Cambridge curriculum that is currently in place in these grades has learning standards in mathematics and science, providing a useful example that North Macedonia's curricula can build on. However, other subjects, notably in Macedonian and other mother tongue languages, do not have learning standards.

Priority should be given to standards in reading and writing as a means to improve teaching and learning in these crucial early years. Most OECD countries with standards have emphasised their development in the core subjects of reading and writing, as well as mathematics. In North Macedonia, high quality standards would improve the reliability of the descriptive feedback that teachers provide to students and establish commonly understood expectations for learning. Students can see how they are progressing and gain confidence in themselves, helping to develop the type of metacognitive awareness that provides the foundation for future learning.

Given North Macedonia's experience with the Early Grade Reading Assessment (EGRA), the expected outcomes from these instruments can inform national learning standards in grades 1 through 3. As international and national results are available for EGRA, these data can be used to create standards that are both ambitious and realistic.

Introduce performance levels that set out how far students have achieved learning standards

Creating performance levels would help teachers of North Macedonia better understand the abilities of their students and adapt their instruction to students' different levels of competence. For example, if asked to solve a problem, a student might be able to solve some of the problem but not all of it, or demonstrate a correct approach to solving the

problem but ultimately arrive at an incorrect answer. Teachers who can create assessments to determine this type of nuance can then adapt their instruction in consideration of these identified differences. Research shows that successfully differentiating students' education in this manner can lead to improved student outcomes (Dumont et al., 2010[16]).

The performance levels can be used to assess the amount of progress a student has made, and not just whether the student can or cannot perform a particular task. Box 2.4 shows an example of a learning standard that accommodates a range of student performance. North Macedonia will need to determine how the levels should be organised to reflect what is most appropriate at the national level. This is a general issue, but especially important in grades 1-3 where there is no standardised description of student achievement. While the move to end numeric grading in these grades is positive, reflecting trends in most OECD countries, it remains important that students, parents, teachers and schools know how far students are meeting the expectations for their age and grade. Other countries that have introduced a similar approach frequently use three or four levels, corresponding to student work that is well below, below, meeting or above national learning expectations. In North Macedonia these kind of standard descriptions of achievement can be used across all grades, in the absence of numeric marks in the lower grades and alongside numeric marks later on.

Box 2.4. "Working mathematically" learning standard from New South Wales, Australia

New South Wales, Australia, divides its curriculum into different domain areas, which are further categorised into competencies. Each competence is associated with a content standard, which is disaggregated into three levels according to grades. The following example comes from "working mathematically" competence of the mathematics domain.

Standard: Develop understanding and fluency in mathematics through inquiry, exploring and connecting mathematical concepts, choosing and applying problem-solving skills and mathematical techniques, communication and reasoning.

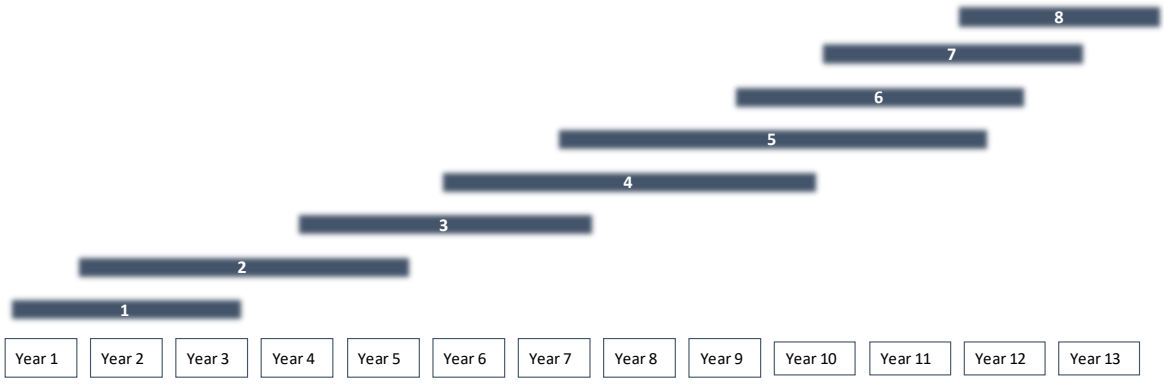
	Grades 1 and 2	Grades 3 and 4	Grades 5 and 6
Level 1	Describes mathematical situations using every day and some mathematical language, actions, materials, diagrams and symbols.	Uses appropriate terminology to describe, and symbols to represent, mathematical ideas.	Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions.
Level 2	Uses objects, diagrams and technology to explore mathematical problems.	Selects and uses appropriate mental or written strategies, or technology, to solve problems.	Selects and applies appropriate problem-solving strategies, including in the use of digital technologies, in undertaking investigations.
Level 3	Supports conclusions by explaining or demonstrating how answers were obtained.	Checks the accuracy of a statement and explains the reasoning used.	Gives a valid reason for supporting one possible solution over another.

Source: (New South Wales Education Standards Authority, 2018[17]), *Mathematics K-10*, http://syllabus.nesa.nsw.edu.au/mathematics/mathematics-k10/outcomes/ (accessed on 20 January 2018).

It is important that performance levels should be determined independently of a student's grade (though advancement through grades should be associated with achieving minimum standards). A student can be in grade 8 but demonstrate a lower level of performance in a particular competence than a student in grade 6. This arrangement is more constructive because it allows for teachers to properly identify a student's current level of competence,

particularly if a student is advanced or struggling, and adapt instruction for that student. To better understand the relationship between proficiency levels and grades, it is helpful to think of levels of performance as being able to span multiple grades. This is illustrated in Figure 2.3, which shows curriculum levels from New Zealand. According to this model, students in different grades may be placed in the same performance level or, students in the same grade can be in different performance levels.

Figure 2.3. Years (grades) and curriculum (performance) levels from the New Zealand curriculum



Source: (New Zealand Ministry of Education, 2007[18]), *The New Zealand Curriculum*, http://nzcurriculum.tki.org.nz/content/download/1108/11989/file/The-New-Zealand-Curriculum.pdf.

Align student assessment with national learning standards

Developing national learning standards are an important first step, but North Macedonia also needs to ensure that students are assessed according to the standards. Otherwise, teachers will not know if students have learnt what was intended and some students will be left behind.

International experience shows aligning assessment with learning standards is challenging and that investing in supporting materials is necessary in order for standards to act as a central point of reference for classroom and centralised assessments (Shepard, 2001[19]). Teachers in particular require considerable support to accurately assess students' vis-à-vis their expected outcomes, especially under a competence-based curriculum like North Macedonia's curriculum where these are framed as complex constructs that integrated both knowledge and skills.

Support teachers in developing assessments that are aligned with learning standards

Teachers require a range of resources and support to develop classroom assessments that are aligned with the national learning standards. These include:

- *Materials that clearly explain the criteria* underlying the different learning standards and their performance levels and provide a rubric for assessing students against the criteria. Furthermore, the materials should also illustrate how the rubric classifies different examples of student work so teachers would be able to apply the rubric to the work that they mark (OECD, 2013[1]). Examples of marked student

work could also be included so teachers can see and understand how to provide valuable feedback through their marks.

- *Resources that can help teachers create assessments* to evaluate students against the standards. These might be examples of questions, activities, projects, investigations, quizzes and tests that are accompanied by the standard that they assess and how they do so (Shewbridge et al., 2011[20]).

  Previously, the BDE included such examples when they developed training materials for teachers to increase their use of formative assessment. Giving teachers access to an online repository of materials is a more efficient way of placing resources into their hands as the repositories can be updated and expanded with minimal resource investment. Moreover, the repositories can be "crowd sourced," meaning teachers themselves can contribute to the repositories' growth by uploading materials that they have created for other teachers to use. In Moscow (Russian Federation) online repositories have a review feature such that teachers can also rate each other's lesson plans so the most useful ones can be identified and more easily accessed (see Chapter 3 for further description about resource sharing between teachers).

- *Support for teachers' peer-to-peer collaboration,* so they can directly assist each other in creating assessments. Research into educational change has noted that some of the most effective catalysts for implementing reforms can be peer-to-peer relationships between schools (Higham, Hopkins and Matthews, 2009[21]; Fullan, 2004[22]). In North Macedonia, many teachers have already formed informal associations to facilitate collaboration. Chapter 3 discusses how informal teacher groups can be formalised and supported to provide more professional development in assessment and across other areas.

It is important that these initiatives not to be viewed as ad hoc projects, but as permanent resources that teachers use, appropriate and develop further. As part of the BDE's more formalised role for teacher support and development that this review recommends, it can be tasked with developing these resources and developing the online platform so that teachers can access them. It will be critical to ensure that assessment resources are clearly mapped to the learning standards, to guide teachers in selecting the most appropriate assessments.

In order to fully embed these efforts, they should be linked to teacher appraisal and school evaluation processes. As part of teacher appraisal, teachers' assessments, for example, can be reviewed internally and externally to ensure that they are aligned with national standards. Integral school evaluations can also review to what extent schools are encouraging their teachers to collaborate with each other and with teachers in other schools (see Chapters 3 and 4). By creating these continuous monitoring mechanisms, North Macedonia can ensure that the support provided to teachers is used and that their assessment practices continuously improve as a result.

Connect classroom assessments with the national assessment

The draft Law for Primary Education provides the legal basis for the development of a new national assessment. Chapter 5 of this report discusses specific decisions for the national assessment, including its alignment with national learning standards.

With national and school-level support, teachers will be able to use the national assessment to improve their own assessment literacy. For example, they can use national assessment

items as inspiration for their own assessments and compare their students' work and marks with results on the national assessment, which would help achieve more accurate and reliable classroom assessment.

One way to encourage teachers to use the national assessment as a resource is to involve them directly in its development. In several OECD countries, including Canada, New Zealand and Norway, teachers are responsible for developing national assessment items and for marking student answers (OECD, 2013[1]). Involving teachers in this way (in North Macedonia, teachers already help mark the state *matura*) not only gives them a feeling of ownership over the assessment, but also makes them think critically about how the assessment items are created and how student marks are related to national learning standards. Teachers can then bring that experience with them to their classrooms and be better equipped to align their own assessment and marking practices with the national standards.

Enhance the accuracy and educational value of marking and reporting

A final issue that is currently making it difficult for teachers to use marking to meaningfully convey student learning in North Macedonia is the compression of the national marking scale. Inherently, a scale of one to five does not allow for very fine-grained judgement. Exacerbating this problem is the grade inflation that occurs in North Macedonia, linked to strong societal expectations for high marks. As a result, student marks gravitate towards four and five. This means that the marks contain little meaning with respect to what students can do, which prevents teachers from using the marks to help students understand their strengths and weaknesses, and take steps to improve their learning. Consistent inflation of marks can also mislead students, as they might believe that they have mastered a domain and be less motivated to further their learning in that area.

Extend the marking scale and link it with the national learning standards

To make marking more meaningful, the review team recommends that North Macedonia extend its national marking scale. Grading schemes vary across countries, but most feature a greater number of potential marks than five (Eurydice, n.d.[23]). Examples include A through F (allowing for – and + marks, such as B- or C+), 1 through 10 and 1 through 100. Several former Soviet states, including Latvia have also changed the range of possible classroom grades from 1-5 to 1-10. A grade of 10 represents "with distinction," 5 represents "satisfactory" and 1 represents "extremely weak." Other states that have adopted a similar approach include Armenia and Belarus (Semyonov et al., 2017[24]). Having more available marks gives teachers more flexibility over how they report student results and relieves some of the pressure they might feel currently with so few marks from which to choose. This review recommends that North Macedonia consider moving to a 10-point marking scale, as it is close to the existing marking scale and will enable the country to draw on the experience of other countries in the region who have implemented a similar change in recent years.

Once the national marking scale has been extended, it will have to be linked to the national learning standards in the materials mentioned in Recommendation 2.1.2. Teachers will need to have a shared understanding, grounded in the national standards, of what type of student performance is considered to meet minimum proficiency and how it can be differentiated from performance that does not.

To support this shared understanding, the new marking scale should be linked to levels of performance within each standard. For example, a numeric mark of 1-3 might indicate that

a student was well below expected national standards and equate to a level 1 on the new performance levels, while a mark of 7-10 would indicate that a student was working above national expectations and equate to a higher level in the new performance levels. In grades 1-3 where descriptive grading is used, teachers would report where a student was in terms of meeting national expectations (e.g. well below, below, meeting and above) without providing the numerical grades. Many countries across the OECD and beyond have introduced a similar approach to assessing levels of student learning alongside national learning standards (see Box 2.5).

Box 2.5. Reporting scales in Ontario, Canada

In Ontario, Canada, a six-point letter grade scale is used to report student achievement against provincial curriculum expectations in each subject or course. In grades 1 to 6 (see example below), and six-point numeric scales are used for grades 7 to 8, and grades 9 to 12. Each point on the achievement scale is accompanied by a descriptor and aligns with a provincial standard level, which is the reporting scale used for province-wide student assessments. This information is included in student report cards to help parents and students understand students' results.

Letter Grade	Achievement of the Provincial Curriculum Expectations
A- to A+	The student has demonstrated the required knowledge and skills with a high degree of effectiveness. Achievement surpasses the provincial standard (Level 4).
B- to B+	The student has demonstrated the required knowledge and skills with considerable effectiveness. Achievement meets the provincial standard (Level 3).
C- to C+	The student has demonstrated the required knowledge and skills with some effectiveness. Achievement approaches the provincial standards (Level 2).
D- to D+	The student has demonstrated the required knowledge and skills with limited effectiveness. Achievement falls much below the provincial standards (Level 1).
R	The students has not demonstrated the required knowledge and skills. Extensive remediation is required.
I	Insufficient evidence to assign a letter grade.

A four-point rating scale is also used to report on students' learning skills and work habits: E-excellent; G-good; S-satisfactory; and N-needs improvement.

Sources: (Rushowy, 2017[25]), *Report card, curriculum changes on the way in Ontario*, Toronto Star, https://www.thestar.com/news/queenspark/2017/09/06/report-card-curriculum-changes-on-the-way-in-ontario.html, (London Region MISA PNC, 2011[26]), *Comment Framework: Progress Reports and Report Cards*, http://www.misalondon.ca/PDF/a&e/Comment_Framework_Feb_2011.pdf; (Ontario Ministry of Education, 2010[27]), *Growing success: assessment, evaluation and reporting in Ontario schools*, Ontario Ministry of Education, Toronto.

Support teachers to use the new marking scale through consistent moderation

Moderation will be critical if teachers are to achieve a shared understanding of student performance vis-à-vis the new marking scale. Moderation refers to procedures that ensure the quality and comparability of assessment judgements. Examples of moderation include teachers marking each other's assessments, discussing in groups how to give marks or teachers' marks being checked by an external organisation (OECD, 2013[1]). These procedures are particularly important in North Macedonia in order to help teachers address potential bias in their marking and support them in withstanding external pressure to deliver high marks.

As the developer of learning standards, the BDE would be well positioned to help teachers start to moderate their own work. The BDE could invite selected teacher representatives from schools to come to sessions where BDE staff and teachers would mark common examples of student work using the new scale and then discuss the different marks to encourage a shared understanding among teachers. During these sessions, the BDE would also explain the purpose behind the new marking scale and how to engage with students and parents who might be confused by it and/or demand the highest marks for their children.

Schools can also support teachers to implement the new marking scheme by protecting teachers from external pressures to inflate marks. Schools should be encouraged to adopt an assessment policy that makes it clear that when teachers provide an assessment mark, it is based on evidence collected from multiple sources and professional judgement – is it not open to negotiation. Schools may also prohibit parents from meeting with teachers in the weeks immediately preceding the time when report cards are sent home and make it clear that report card grades cannot be changed once awarded. In neighbouring Serbia, a country where parental pressure for high marks is also considerable, schools have introduced similar policies.

Emphasise that marks are to be used for monitoring student learning, not for ranking

In North Macedonia, it was reported to the review team that classroom grades are used to classify and rank students, sometimes even based on non-academic criteria such as behaviour and attitude. Classroom assessment marks are most effective when they are used to help teachers and students monitor student learning. By focusing on marks as a tool for judgement, teachers and students miss the opportunity to gain more information about where a student is in his/her learning and how that student's learning can be improved.

When the new marking scale is introduced, national guidance should emphasise the importance of using grades for formative purposes and not just for summative ranking. A particular focus should be given to ensuring that marks be used to identify struggling students so they can be supported to reach minimum national learning expectations. This approach should be reinforced by teacher appraisal and school evaluations, where teachers and the school would be expected to demonstrate how teaching and learning is organised to help all students to make good progress (see Chapters 3 and 4).

Consider introducing a project assessment at the end of lower secondary to inform students' choice of upper secondary programme

The absence of a high-stakes assessment at the end of lower secondary can be considered a positive aspect of schooling in North Macedonia, as it prevents the assessment from creating a negative backwash in lower secondary classrooms. Nevertheless, students might find it useful to have more information about their learning at this stage to help them decide what type of upper secondary institution to enter. The country might consider how classroom assessment in lower secondary might be used more effectively to inform student choice of high school programme, motivate all students to apply themselves and reinforce more rigorous standards, especially in core subjects.

At present, a student is oriented towards high school programmes based on his/her average marks from all subjects. While the above recommendations will create a more reliable record of achievement, it is also important that students in these transitional years are given opportunity to explore their interests and that this is recognised as part of formal reporting

procedures. For example, in Ireland students at the end of lower secondary education complete two classroom-based assessments in each subject that often takes the form of individual or group project work over three to four weeks (NCCA, 2016[28]) (NCCA, 2019[29]) (NCCA, 2018[30]). Such assignments not only recognise students who might do less well in narrower academic tasks, but also motivate them to pursue their strengths. North Macedonia already includes a project as a core component of the *matura*. Including this in lower secondary education might provide students with greater opportunity to explore areas where they are particularly interested and talented, and guiding their future high school choice.

Focusing assessment practices on helping students learn

The purpose of assessment is to provide information that can be used to improve student learning. In North Macedonia, achieving this purpose is difficult because of an intensive focus on summative marks and results. Instead of viewing assessment as an integral contributor to learning, students and teachers tend to view assessment only as a judgement of achievement. Educators do not tend to use assessment results to help students better understand their current proficiency and determine how they can develop further their knowledge and skills. This leads to many students moving from grade to grade without meeting expectations for their level.

Using assessment in more formative ways – to guide future learning – is one important way to address the above situation. The Ministry of Education and Science (MoES) has made some efforts to promote formative assessment in North Macedonia. For example, the BDE has delivered formative assessment training based on the primary school assessment and formative assessment manuals that it has developed. However, embedding formative assessment in classrooms is challenging. The experience of OECD countries shows that it requires significant and consistent support for teachers, such as resources related to formative assessment and incentives that encourage its use (OECD, 2013[1]). This review recommends the use of diagnostic assessments as an effective way to anchor more formative methods in the classroom. It also highlights some of the barriers that have prevented progress in this area, and how they can be overcome.

Promote the use of diagnostic assessments, especially in early grades

A diagnostic assessment is a type of formative assessment that is administered at the beginning of a study unit in order to determine a student's level and to develop a suitable learning programme for that student (OECD, n.d.[31]). Implementing diagnostic assessments would help teachers in North Macedonia better understand how far their students are meeting national expectations and what skills and knowledge they still need to develop. This kind of information is particularly important in North Macedonia, because the data from international assessments shows that as students move through school, major gaps in their learning are not addressed, contributing to very low levels of mastery in basic competencies in the final years of schooling. Diagnostic assessments, particularly administered in early grades, help teachers identify learning needs when students are young, thus reducing the need for resource intensive remediation measures when students are older.

Use EGRA and EGMA as diagnostic assessments for young students

Early diagnostic assessments have been administered in North Macedonia, but not systematically. In 2016, the Step-by-Step foundation in North Macedonia conducted the

EGRA and Early Grade Mathematics Assessment (EGMA) with children in grades 2 and 3. The results show that students of North Macedonia struggle with essential skills such as oral reading fluency, reading comprehension skills and subtraction (see Chapter 1). Results also show a gap between what Macedonian, Albanian and students of other ethnic groups can do, and between students from urban and rural areas (Step by Step, 2016[32]).

As EGRA and EGMA have already been adapted to the Macedonian context and have produced baseline data, it would be simple and cost effective to adopt them as key classroom resources that all teachers are expected to use in early grades. Teachers should be required to administer these tests at the beginning of grades 1-3[1] and encouraged to administer them on an ad hoc basis as they see fit. Using centrally developed resources for this purpose is advantageous because the instruments have already been piloted and deemed fit for use, which is important in a context where diagnostic assessments are relatively new. However, over time, once teachers are comfortable with the concept of diagnostic assessment, they should be encouraged to develop their own assessments, based upon the national learning standards. Teacher-created assessments would be more sensitive to their specific classroom contexts, such as individual learner needs and cultural references, which would provide more accurate diagnosis of student learning.

At the time of the review team's visit, there was a proposal to reduce class hours in primary school. Given the EGRA and EGMA results of students in lower levels, and the fact that students of North Macedonia already receive fewer instructional hours than their international peers (see Chapter 1), further reducing their hours in class might not be advisable. Students would then have fewer hours for learning and it would be more difficult to introduce certain activities that take more time to organise and execute, such as reading in small groups. Data collected from diagnostic assessments can be used to better inform this decision.

Communicate that the purpose of diagnostic assessment is to support students and not classify them

The value of diagnostic assessments is that the results can be used to identify student progress and tailor subsequent instruction. In order to ensure that this purpose of diagnostic assessments is well-understood, it will be important to accompany the assessments with guidance for teachers on how to best use the results. For example, assessments manuals should explain to teachers what students who have a certain assessment mark can do and what those students should learn next.

Diagnostic assessments should explicitly not be used to classify students for services such as special education. In North Macedonia, it will be important to communicate this distinction because there is a historic tendency to interpret a struggling student as having special learning needs. Therefore, system inertia might compel some teachers to view students who perform poorly on diagnostic assessments as in need of special education as opposed to simply having had less exposure to reading and math in their homes and in need of extra help (Bialik and Fadel, 2017[33]).

To this end, guidance introduced with the assessments might also provide teachers with suggestions of how to support students who do not meet these expectations. For example, materials can discuss how to teach a class of students with different proficiency levels. Teachers might also receive suggestions about additional learning opportunities that can be provided for students who are struggling the most.

Provide and record high-quality feedback to support learning

Providing and recording easy-to-understand feedback is a critical component of using diagnostic assessments and of effective assessment practice in general. In North Macedonia, however, teachers do not habitually provide descriptive feedback to students. Almost one-third of secondary school teachers surveyed for this review reported that they either "never or almost never" or just occasionally provided written feedback to students (in addition to a grade). Creating the expectation that teachers systematically provide descriptive written feedback that they, students and parents, refer to, will help embed formative feedback in North Macedonia.

Update reporting structures to reflect the new marking scale

North Macedonia's national student report card does not provide space for much descriptive reporting. It lists student's subjects, his/her numeric mark in that subject and a single-word description of that numeric mark. The description does not explain student's strengths or weaknesses so much, as it acts as a non-numeric equivalent to a student's mark (e.g. 1 is insufficient, 2 is sufficient, etc.).

This national report card template will need to be updated to include a comprehensive explanation of the learning targets that students are expected to achieve and what is necessary to receive each of the 10 marks (OECD, 2013[1]). Parents and students will need to be notified of the changes to the marking scale and what the new marks mean. In addition to presenting the students' numeric marks, the report card should provide space for descriptive feedback (more than a single word) that explains the different aspects of the student's performance, according to the national standards, that led to receiving his/her specific mark. The feedback should be specific to the student and not a pre-written description that is given to any student who receives a particular mark. With clear feedback, students and parents will understand better what a student's strengths and weaknesses are and what needs to be done to improve the student's learning.

Providing feedback to parents

In order for parents to support their children's learning, they need quality information about their children's level of competence and what the priorities for further learning are. With this type of information, parents can better understand their children's needs and discuss progress with their children and their teachers (Absolum et al., 2009[4]). However, research shows that in many countries, including across the OECD, parents often believe they do not receive enough information about their children's progress from their schools (OECD, 2013[1]).

According to the OECD's survey as part of this review, teachers of North Macedonia have frequent contact with their students' parents. However, formative feedback is not always provided to students and parents, and a student's report card does not provide much descriptive information about student learning, especially after grade 6 when providing this information is no longer mandatory. Teachers also told the review team that parents tend to be more concerned with the numeric marking that their children receive rather than their actual learning.

To improve the quality of feedback provided to students and parents, teachers might structure their contact with parents around key milestones during the year (Shepard, 2001[19]). For example, according to the same OECD survey, the vast majority of teachers in North Macedonia rely on student portfolios as part of their assessment practice.

After students receive feedback on their portfolios and bring it to their parents, then a follow-up parent-teacher meeting can be scheduled (OECD, 2013[1]). These procedures would naturally then guide conversations with parents around student strengths and areas to focus on, illustrated by examples of student work.

Recording descriptive feedback

To help ensure that feedback is fully utilised, it should be recorded electronically. Teachers, parents and students can then access the feedback of a student's previous teachers, even if they are from different schools and municipalities. This continuous documentation would help to ensure that teachers could build upon previous individualised instructional efforts. For example, the Education Management Information System (EMIS) for the state of Maryland in the United States contains a section called "teacher comments", in which a teacher records his/her descriptive feedback for students, which is separate from the student's summative marks. This information can be viewed by the student and the students' parents and is permanently stored in EMIS, meaning it would follow the student should he/she change schools (Abdul-Hamid, Mintz and Saraogi, 2017[34]).

North Macedonia's EMIS does not hold the descriptive feedback a student receives. Even in grades 1-6, where providing descriptive feedback is mandatory, this information is only recorded physically but not electronically. To maximise the utility of descriptive feedback and further encourage teachers to give it, the MoES should develop EMIS to hold descriptive information and require teachers to record it (see Chapter 5).

Remove barriers to providing formative assessment

North Macedonia has invested in promoting the use of formative assessment in classrooms, which has led to greater awareness of its importance. However, one reason why formative assessment has not become more strongly embedded are systematic barriers like a dense and rigid curriculum that prevent teachers using the formative assessment methods that they have learnt. Removing these barriers and strengthening support systems around formative assessment would reinvigorate the use of formative assessment, contributing to better-informed instruction and improved student achievement.

Remove rigid time expectations in the curriculum

Using formative assessment techniques requires that teachers have some flexibility over how they allocate class time. If assessments reveal that most students are not meeting learning expectations, for example, it is the teacher's responsibility to tailor his/her instruction to meet student needs instead of introducing concepts for which they are not yet ready to learn (OECD, n.d.[31]; Pritchett and Beatty, 2012[35]).

North Macedonia's curriculum is very dense, which creates a rigid structure. In grade 8, students are required to take 15 subjects. Given that students in North Macedonia already receive among the least instructional time of all PISA-participating countries, teachers are obliged to rapidly cover lots of material in very little time. This creates little room for flexibility if teachers wish to slow down to help students who are struggling. However, data collected from principals as part of PISA shows that schools in North Macedonia have comparatively little flexibility with respect to deciding how instructional time should be allocated (see Chapter 1) (OECD, 2016[11]). In contrast, in countries where teachers have more flexibility over the curriculum, schools themselves decide how many hours to allocate to each subject during each grade in order to meet a minimum number of hours across several grades (Eurydice, 2018[36]).

If teachers are to use assessment for more formative purposes, they must be able to adapt the curriculum to the needs of their students (OECD, 2013[1]; OECD, 2018[37]). As MoES is already in the process of changing the curriculum in grades 1-3, greater flexibility could be built into the new curriculum by allowing teachers to have more autonomy over how they proceed through the curriculum. The review team was told that schools might be allocated a certain amount of time in their timetable that they can use as they see fit. This could be systematically implemented to lend flexibility to the curriculum, and schools and teachers should be encouraged to use it to this end. Evaluating the effects of greater teacher flexibility within the new grades 1-3 curriculum could then inform a decision about how other curricula can be made more flexible.

Allow for greater flexibility in the teaching of the curriculum in the integral evaluation process

In addition to the curriculum itself being rigid, school external evaluation (called "integral evaluation" in North Macedonia) reviews how closely schools adhere to the curriculum and, in turn, discourages schools to adapt the curriculum to their specific context. For example, one of the school quality indicators refers to whether the curriculum is being implemented according to the ministry's prescriptions. School officials reported to the review team that they felt pressure to follow the curriculum precisely or they would be penalised through the integral evaluation process. Without external expectation to exercise flexibility, teachers will find it difficult to use results from formative assessment if it requires altering teaching plans.

Instead of inspecting whether schools are strictly following the curriculum, integral evaluation can be modified to focus on the extent to which schools are supporting all students to achieve national learning expectation. This might be indicated by *matura* results and in the future, national assessment results, as well as the quality of instruction in general. This will ensure that teachers are following the national curriculum, but that they are doing so in an intelligent, flexible way, in order to meet their students' learning needs. Such a change would encourage schools and teachers to exercise flexibility over how the curriculum is used, which would create space for formative assessment and tailored instruction. Chapter 4 provides more on how North Macedonia can reform the school inspection process to better support quality teaching and learning.

Strengthen support in schools for implementing formative assessment

Some efforts have been made in the past to train teachers in using formative assessment techniques, but frequent turnover in key leadership positions mean that momentum has been lost. Once the curriculum and integral evaluation give teachers the autonomy needed to conduct formative assessment, they will need to be supported to ensure that they are motivated to use formative assessment (OECD, 2013[1]; Fullan and Miles, 1992[38]).

International research shows that the kinds of learning opportunities that are most effective at improving teaching competence are job-embedded, collaborative and sustained over time. School-based professional development opportunities like group discussions about teaching activities, joint preparation of instructional material, classroom observations, and coaching offer these kinds of opportunities (Darling-Hammond and Rothman, 2011[39]). These activities allow teachers to learn and practice over an extended period of time in a context closely connected to their daily work and the challenges that they face to introduce new assessment approaches.

However, school-based professional development opportunities require impetus and support to thrive. North Macedonia already has a tradition of school-based teacher groups – the "Teacher Actives". With support from the BDE, as recommended in Chapter 3, these groups might be encouraged to focus on the practical issues that will help teachers introduce more formative assessment into their classrooms. School leaders can help to create a school environment where formative assessment is encouraged, for example, by clearly identifying it as a valued activity in the school plan and in teacher development plans. Accompanying activities might include allocating more time for teachers to collaborate and discuss how they are using formative assessment and the challenges they are encountering (Kitchen et al., 2017[40]).

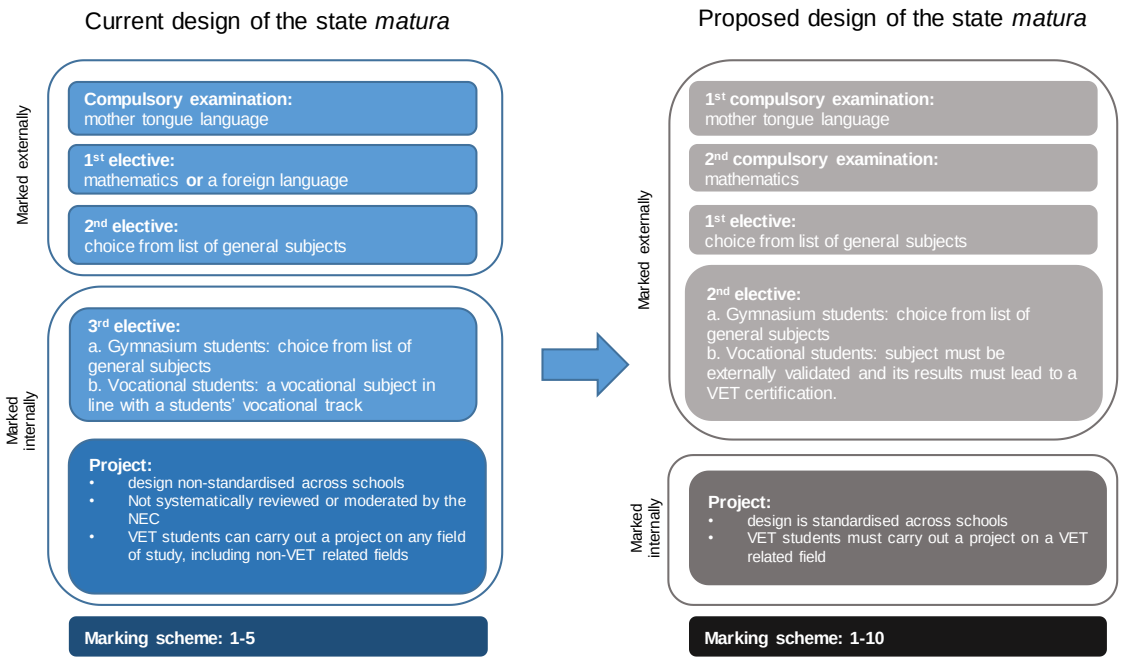
Updating the state *matura* to encourage and assess better student learning in the key areas

The state *matura* is one of the strengths of North Macedonia's assessment system. Its administrative procedures are sound and the results from the examination are trusted. When it was created, it was modern and progressive. Ten years on, it is time to review the *matura* model, to build on its strengths and address emerging challenges. Reviewing the *matura* also provides the opportunity to ensure that it is adapted to system changes that have occurred, in particular the country's desire to improve the quality of upper secondary VET.

Revise the matura design to provide more reliable results in key subjects

When the state *matura* was originally devised, it was hoped that it would certify that students had met basic minimum requirements for graduation from upper secondary school, and that the results would help university faculties select them for further education. In particular, the design aimed to encourage good coverage of core subjects – like mother tongue language and mathematics. However, in practice very few upper secondary school students now take the mathematics electives (roughly 13% of registered candidates selected mathematics in 2017). This situation makes it difficult to determine if students have basic competencies in key areas, and provides university faculties with limited information to make decisions concerning selection.

Figure 2.4. Differences between the current design of the state *matura* and its recommended design



Source: Adapted from (MoES, 2018[13]), *The Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje, and on information provided in the OECD Review mission.

Make mathematics a compulsory subject

Currently, the only compulsory subject in the *matura* is mother tongue language. The rest of the subjects are electives, one of which is marked internally. Students thus strategically select subjects where they are likely to obtain the highest marks for externally marked subjects, while reserving those that they find most challenging for internal marking. Consequently, very few students choose mathematics as an externally marked subject. This situation makes it difficult for mathematics and science faculties to select the most qualified students and deprives the labour market of valuable skills. Most importantly, it leaves the majority of students with no firm guarantee that they have reached basic standards in a critical domain.

Internationally, mathematics, alongside reading and writing, are considered to be some of the core competencies that students should acquire at school. Not only are they essential for life and work, but they also provide the foundations for other domains such as the humanities and sciences. For this reason, many OECD countries assess mathematics externally as a compulsory subject in national examinations either in lower or secondary school (OECD, 2015[6]; Ofqual, 2012[41]).

This OECD review recommends that mathematics be made a compulsory subject on the state *matura*. This would result in two compulsory subjects – mother tongue and mathematics – and two additional elective subjects. This would motivate all students in North Macedonia to ensure that they master at least basic mathematics. The results from the *matura* would help teachers to better orient their instruction. Universities would be able

to make a more informed selection of students into mathematics and other faculties where mathematics is important.

Create two versions of the mathematics exam, at basic and higher levels

A common consideration when assessing mathematics centrally is whether to use assessment time to evaluate the breadth of a student's understanding across several mathematics concepts or the depth of his/her understanding in a few concepts (Ofqual, 2012[41]). One method that several countries, such as Ireland, the Netherlands and Norway, use to balance these needs is to administer the mathematics examination as two tests, with one assessing more basic concepts and the other assessing more advanced topics. Depending upon a student's interests, he/she can decide to take either the basic or advanced mathematics test in order to fulfil the mathematics requirement of the national examination.

North Macedonia has implemented a similar approach in the past, with an advanced level mathematics, but the option was not popular among students and was eventually eliminated. However, if mathematics is to be compulsory for all students, the examination content will need to be accessible across the full ability range. Alongside considering the OECD's proposal to make mathematics compulsory, the ministry and the NEC should consider introducing a two-level examination at basic and advanced levels. Each examination will need to be carefully designed with the intended audience and purpose in mind. Box 2.6 provides examples of how other countries set examinations at different levels.

Box 2.6. Setting examinations at different levels in Ireland

In **Ireland**, the Leaving Certificate Examinations, the final examinations taken at the end of the secondary school system, are available at two levels - ordinary and higher level, in a variety of subjects including English language, natural sciences, humanities and the arts. In addition, the examinations for Irish language and mathematics are also available at the foundation level. Students can take a combination of higher-level and ordinary-level examinations.

In order to certify school completion, students must pass examinations at any level in five subjects. Students who meet this criterion are also able to access post-secondary non- tertiary courses that usually last one year and, in many cases, provide access to higher education institutions.

Source: (Department of Education and Skills, 2018[42]), *The Education System*, Ireland, https://www.education.ie/en/The-Education-System/ (accessed on 25 March 2018).

Consider extending further the core subjects that are assessed by the state matura

In the future, North Macedonia should also review the relationship between the subjects that upper secondary students are required to study and those that they are assessed by the *matura*. At present, students in upper secondary study a significant number of subjects (15). This is higher than many OECD countries, where Denmark is at the upper end with 13 subjects (Ofqual, 2012[43]). In contrast to the range of subjects studied in North Macedonia, the *matura* only assesses students in four subjects. This structure is uncommon internationally – in countries where students are required to study many subjects, they tend to be examined in a broad range of compulsory subjects too.

For example, in France students study 9 to 12 subjects in upper secondary, and are assessed in 9 compulsory subjects by the *Baccalauréat*. In the Netherlands, students study 9 or 10 subjects with 9 compulsory subjects assessed by the examination in *vmo* schools (Ofqual, 2012[43]).

In North Macedonia, the mismatch between the number and range of timetabled subjects, and the comparatively limited number of externally examined subjects leaves students with little recognition and no certification for two-thirds of the subjects that they study. (While classroom assessment marks from all subjects contribute to the overall *matura* score, these marks tend to be inflated diminishing their recognition and certification functions).

In the future, North Macedonia should consider addressing this mismatch. Issues to consider include the depth versus breadth of knowledge and skills that North Macedonia wishes its students to achieve in upper secondary. There is not a single approach that works. Some OECD countries opt for less subjects to enable greater depth and coverage of content within individual subjects, such as England. In contrast, others favour breadth across different domains, such as France. Most countries however require that students study a mother tongue language, mathematics, a social science, science and a foreign language until the end of upper secondary (Ofqual, 2012[43]). If North Macedonia decided to increase the subjects that are assessed externally, one option might be to introduce a general humanities and/or general sciences examination, as part of the compulsory core of subjects.

Mark all subjects externally

At present, one elective subject from the state *matura* is marked internally at the school-level by markers from the same schools who develop the test themselves. Although schools receive guidance from NEC about how to develop and mark student tests, ultimately this method of marking risks that results are not reliable and comparable across different schools. It also encourages students to choose their weakest subject as this elective because they know that if demand for their chosen tertiary programme is high, higher education institutions will focus on their marks from externally examined subjects and discount their results in the internally marked subject, in order to determine selection.

This review recommends that all *matura* subjects be marked externally. Having external results would increase the value of the subjects previously taken internally, and improve the overall reliability of the *matura* results. It would also improve the meaningfulness of student results since they would be given a percentile rank according to the entire pool of test takers in that subject, as opposed to only those who elected to take the test externally. VET students, who must take an internally marked VET subject as an elective, would be exempt from this regulation except in specific VET areas (see Recommendation 2.3.3).

Standardise the project assignment

Including a project assignment in the state *matura* was an innovative development that demonstrates its progressiveness. The intent of the project assignment is to add an authentic assessment component to students' certification of upper secondary school. According to assessment theory, the project assignment should require students to use skills they have learnt throughout upper secondary school in a practical and authentic manner, thus providing educational value in addition to acting as a certification instrument.

At the present, however, the project assignment has little educational value because there is little consistency in how projects are conceptualised across schools. The NEC does not systematically review or moderate the projects. However, the NEC did recently review

some selected project assignments and found that much of what constituted them did not reflect the intent of the requirement. Despite guidelines, the subject matter of project assignments was very broad (e.g. ranging from biology to ethnic tension to mechanics), as was the format of the project (e.g. reports, speeches, or a conversation with the teacher). With such variety, it is difficult to ensure that the quality of all project assignments meets the same minimum standards and that all students improved their learning by completing a project assignment.

The educational value of project assignments could be improved by standardising their composition. Currently, students decide upon their project assignments individually with their teachers. This process could be made more uniform by limiting the topics and the format (e.g. essays or presentations). External resources could be provided to help support schools, such as online examples of acceptable project assignments and guidelines about how school staff can organise themselves to oversee and assess projects. Regular external moderation, from the NEC or BDE, could also be conducted to serve as quality assurance. These efforts would help to create a common purpose and structure around project assignments, which would ensure that the amount of work students have to do to complete project assignments is similarly rigorous across classrooms and schools. The approach used by OECD countries to ensure the quality and consistency of project assignments could also provide inspiration for North Macedonia (see Box 2.7).

Box 2.7. Project Assignments in England, Wales and Northern Ireland (United Kingdom)

In **England, Wales and Northern Ireland (United Kingdom)**, students completing their "A" Levels at the end of upper secondary can also produce an optional "Extended Project". The Extended Project provides students with the opportunity to develop and demonstrate their project management skills and extended writing.

- **Subjects**: the "Extended Project" can be completed in one or more of the student's study areas and/or areas of interest related to a student's main study programme, in agreement with their examination centre (often their school). Examples of acceptable titles for Extended Projects are available online.
- **Outcome:** a design, performance, report, dissertation or artefact.
- **Assessment:** the Extended Project is internally assessed by a candidate's examination centre. Candidates are required to produce a written log, verified by a supervisor, a written report, supplementary evidence and a presentation.

Students are assessed against four objectives. Each objective has contributes a specific weight to the student's overall mark:

1. Manage - identify, design, plan and complete the individual project or task within a group project, applying organisation skills and strategies to meet stated objectives. Contributes 15-25% to final mark.
2. Use resources - obtain and select information from a range of sources, analyse data, apply relevantly and demonstrate understanding of any appropriate linkages, connections and complexities of their topic. Contributes 15-25% to final mark.
3. Develop and realise - select and use a range of skills, including new technologies, to solve problems, to take decisions critically, creatively and flexibly, and to achieve planned outcomes. Contributes 35-45% to final mark.

4. Review – evaluate outcomes including own learning and performance. Select and use a range of communication skills and media to convey and present outcomes and conclusions. Contributes 15-25% to final mark.

Marking grids are provided to demonstrate student performance at three levels for each assessment outcome, and how marks may be allocated.

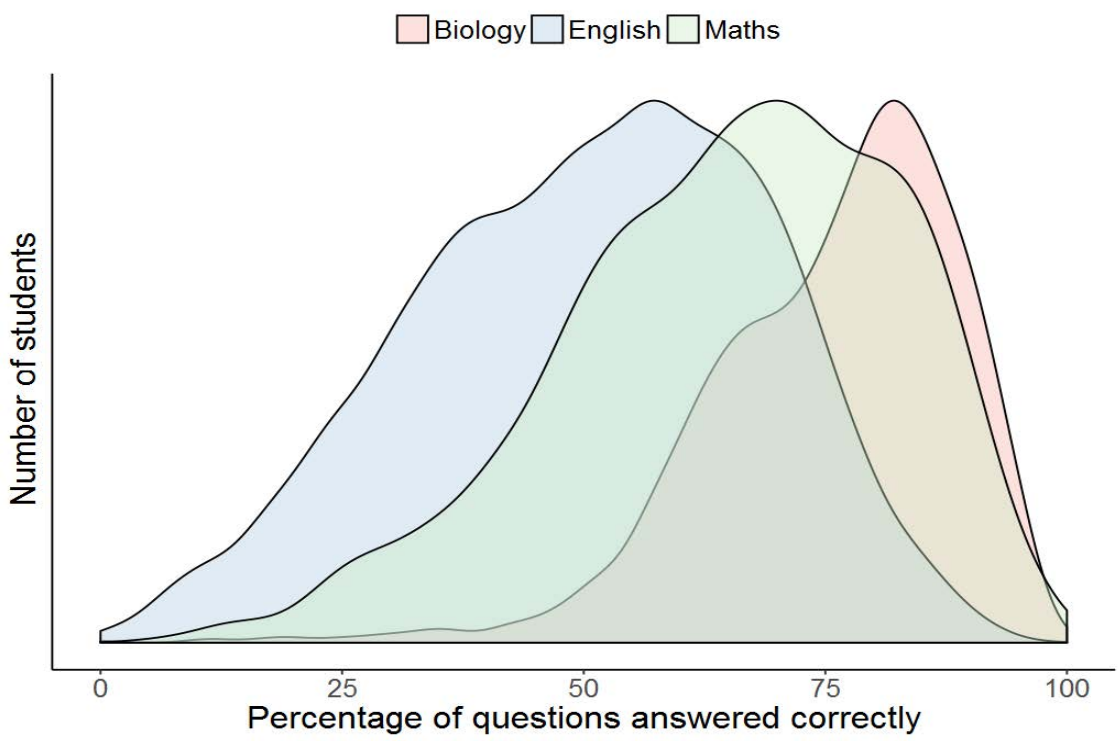
- **Learning hours**: 120 hours in total. Approximately 50 hours of taught time and 70 hours preparing for assessment.
- **Grades:** A* - E

Source: (UCAS, n.d.[44]), *Extended Project Qualification (EPQ)*, https://qips.ucas.com/qip/extended-project-qualification-epq (accessed on 14 January 2019).

Adapt marking and improve item quality to provide greater discrimination of student ability and motivate students to improve their learning

Some subjects on the *matura* have unusually high student results while others have a more normally distributed range of student results. Figure 2.5 shows the distribution of students on the English, mathematics and biology subject tests of the *matura* according to the percentage of correctly answered items on each test.

Figure 2.5. Distribution of students according to the percentage of questions answered correctly on different *matura* subject tests in 2017



Source: Author's calculations based on data provided by NEC.

The different distributions of *matura* results distort the relationships between the number of questions a student answered correctly, his/her percentile rank and mark. For example, a small difference in percentile rank points could represent a large difference in correctly answered items in some subjects and a small difference in other subjects. In 2017 in English, the difference between the 99th and 95th percentile ranks represents a difference of almost 20% of correctly answered items. In biology, the same difference in percentile ranks represents of a difference of 6% of correctly answered items. These disparities could mislead tertiary education faculties who select whom they believe to be the top students for enrolment.

With respect to marking, the limited range of marks means that in the 2017 English examination, a student in the 89th percentile received the same mark (4) as a student in the 65th percentile. This can affect student motivation and learning opportunities in upper secondary.

The *matura's* marking scheme should be changed, but should also be accompanied by a more analytical item development process. A surplus of items that are too easy, too difficult or have poor discriminating ability is producing a skewed distribution of results in which a small range of scores is occupied by a large number of students. Analysing item-level *matura* results to inform future item development would improve the quality of the items and normalise the distribution of the marks that students receive.

Change the marking scheme to 1 to 10

Similar to student marks on their report cards, the state *matura* marking scheme should be expanded to 1-10. The current scheme makes too few marks available, which potentially forces vastly different levels of performance into the same mark. While students also receive a percentile rank, which is more precise, the mark still determines whether a student passes or fails the subject and represents a significant motivating factor for the student. It is therefore highly important to confer marks that accurately represent student performance so students are driven to improve their learning.

To implement such a change, the proper communication will need to be created so parents and students understand what each mark represents. NEC staff who are responsible for scaling students' raw scores will also need to be trained in how to translate raw scores into scaled scores on the new scale.

As well as expanding the marking scheme, North Macedonia could also consider providing a student's raw results to universities for selection purposes, alongside the percentile ranking and scaled score. While the percentile rank provides universities for further information for selection purposes, since a large number of students achieve very high marks, it can be misleading. Moreover, a percentile rank only reports student achievement in comparison to the performance of others. While universities naturally seek those students with the greatest potential from their cohort, they should also ensure that students meet specified standards. This is particularly important in North Macedonia given the concerns about the low levels of students' basic competencies towards the end of schooling, and the low quality of tertiary education. Providing universities with a student's raw score would help them to take a more informed decision based on students' objective performance in subjects. Over time, it would also reinforce the role of learning standards across the education system.

Produce and analyse item statistics after the state matura has been administered

After a large-scale assessment is administered, student responses represent a source of valuable information about the functioning of the items. Internationally, most OECD countries conduct a post-mortem analysis of national assessments and examinations after their administration in order to learn about how students engaged with the test's items. For example, the percentage of students that answered questions correctly (p-value) conveys the difficulty level of the items relative to each other. Point-biserial correlations, which indicate to what extent students who answered more questions correctly overall (i.e. high-performing students) are more likely to answer individual items correctly, help identify the discriminating ability of items.

Currently, the NEC does not systematically produce item statistics after administrations of the state *matura*. The review team recommends that statistics such as these be regularly produced and analysed. Through review of these data, the NEC and item developers will have better understanding of whether they have created appropriate items and how future items can be better written.

Tests from non-compulsory, external subjects might deserve particular analytical attention, as many of these had average scores near or above 4 in 2017. This could be a product of a self-selecting population taking tests that were designed for a general population. In other words, perhaps only the best students in these subjects are electing to take the corresponding *matura* test, for example in maths, which would naturally lead to higher than expected scores. If, after analysing item statistics, this is indeed the case, then item developers can develop items that are more difficult, understanding their target population is a highly specific one, not a general one. *matura* scores in these subjects would then follow a more normal distribution and enable a better discrimination of student ability.

Strengthen the VET component of the state matura

In North Macedonia, a sizeable share of upper secondary students are enrolled in VET programmes (approximately 50% of the cohort). The state *matura* provides these students with important flexibility – enabling them to pursue tertiary education, or to directly enter the labour market if they wish. Providing students with this flexibility is positive, and contributes to the real and perceived rigour of the *matura* that VET students undertake because it entails a solid academic dimension.

However, there are number of challenges associated with upper secondary VET education in North Macedonia which suggest that it is not equipping students or the economy with important skills. Employers report that graduates of upper secondary VET lack key skills that are important in the workplace, in particular for technical skills (ETF, 2017[45])). Also, after completing four years of vocational education, many students choose to return to more general study when they reach university. While this is not necessarily a problem and underscores the significant flexibility of the structure of schooling in North Macedonia, it does reflect a lack of opportunities for students to continue vocational education to higher levels, such as post-secondary and tertiary VET. As VET education is also more expensive to provide than general upper secondary education, some might question the cost effectiveness of this model. Aware of these challenges, North Macedonia is now implementing a five-year programme to improve the quality of vocational education (see Chapter 1).

Another issue is the certification of skills acquired in VET programmes. A factor contributing to the reluctance of VET students to remain in the VET pathway and the

comparatively low prestige of VET, is that students' vocational skills are not assessed in a way that helps them be recognised by employers or professional tertiary faculties. While four-year VET students can pass a *matura* to enter higher education, they do not graduate with externally validated certification in their specific vocational field, which would provide more meaningful recognition of their vocational subjects. In effect, studying VET does not confer a professional or vocational advantage to students, which diminishes the attractiveness of pursuing a VET programme in the first place (MoES, 2013[46]).

North Macedonia is now considering the development of a "VET *matura*". The justification given for considering such a reform is that VET students take fewer general education courses compared to gymnasium students and therefore are at a disadvantage when taking the state *matura*. One purpose of the proposed VET *matura*, would be to assess general education outcomes, containing questions of lower difficulty, for students enrolled in VET. However, given North Macedonia's goal of raising the overall quality and prestige of VET, this review recommends a single *matura* model be maintained, to ensure that VET students continue to be evaluated to the same rigorous standards as general education students. The review suggestions changes to the design of the *matura* model to better certify vocational subjects.

Externally validate the VET subject of the state matura and link the results to certification

Students who attend upper secondary VET institutions and take the state *matura* are required to take one elective in a VET subject. This subject however, is internally marked at the student's schools. Results of internal assessments are less likely to be reliable due to inconsistent testing conditions, items and marking criteria across schools (OECD, 2013[1]). It also means that vocational subjects do not carry the same external recognition or certification as general academic subjects. This contributes to a perception of vocational subjects as less prestigious. Practically, the lack of reliability of internally examined subjects makes it difficult to use the results of internal VET subject tests to signal students' specific skills to professional tertiary programmes or potential employers.

Instead of creating a new examination specifically for VET students, this OECD review suggests that the state *matura* be revised to externally validate students' vocational capacities. This would provide vocational studies with more meaningful recognition and certification, helping both employers and tertiary education faculties to identify promising VET students.

Passing the externally validated VET subject should also provide students with a formal VET certification, integrated in North Macedonia's national qualification framework. This would recognise students' vocational competencies - signalling readiness to employers and technical tertiary faculties - and provide students with a clearer pathway to professional employment. In turn, the attractiveness of VET would also be enhanced.

Internationally, externally validated vocational qualifications are often conferred to graduates of upper secondary vocational programmes (OECD, 2014[47]). These qualifications play a key role in enhancing the attractiveness of the upper secondary vocational track, though they do not prevent students from pursuing general tertiary education upon graduation.

Determine responsibility for assuring the quality and external validation of the new VET certification

While the VET Centre itself does not have the capacity to mark all VET elective tests, it is important that they continue to establish procedures, such as through their current monitoring visits, to ensure the standardised administration of the new VET examination and certification. Their involvement would act as quality assurance to ensure that testing experiences are common and that final results are comparable. Instead, the design of the assessments, establishment of the standards and assessment of the students against the standards might involve a body of employers or similar professional associations (OECD, 2014[47]). For example, during its visit, the review team learnt that an electro-engineering firm was helping to shape learning outcomes and craft a work-based learning programme.

Several countries have created vocational examination systems that follow this configuration. In Switzerland, professional examinations are led and developed by the relevant industries, while the Federal Office of Professional Education and Training checks the documentation of the examinations (Fazekas and Field, 2013[48]). In Germany, many local chambers of commerce are responsible for determining the assessment content of professional examinations, but their methods must follow frameworks that are established at the national level (Fazekas and Field, 2013[49]). It will be important that the VET Centre still has an overall strategic and validation role, to ensure that the external VET assessments reflect the national interest and do not become too narrowly focused on a niche skills set for certain occupations or declining industries (OECD, 2010[50]).

At present, there are over 150 different VET specialisations, meaning it would not be possible to externally validate all VET electives on the state *matura*. A more practical course would be to select a small number of subjects related to sectors that have been identified as important by economic and labour assessments. Over time, the current VET specialisations can be consolidated into VET families. This condensed structure would avoid presenting students with options that are too professionally narrow, thereby limiting students' future employment options, help maintain the quality of the tests themselves and, in time, award certification several programmes that are part of the same professional family.

Require project assignments be related to VET

Like students from gymnasium upper secondary schools, VET students also have to complete a project assignment as part of the state *matura*. Their projects can be from any field of study. In practice, the review team was told that many VET students do complete a project in a VET related field, but some still focus on a general education subject, which further disincentivises students from focusing on their VET pathways.

North Macedonia should require that VET students complete their project assignment for the state *matura* in their chosen vocational subjects. In cases where the business community offers apprenticeships, students' project assignments can be linked to those opportunities, such as by designing a project that is relevant to the student's place of employment. By having to spend time developing a vocational project, students might become more interested in their subjects and have a stronger likelihood of pursuing their vocations in the future.

Box 2.8. The "EUX" hybrid programme in Denmark

The EUX programme was launched in **Denmark** in 2010 as a means of improving the attractiveness of VET by encouraging the link between VET and higher education. EUX combines a three-year gymnasium general upper secondary education and a four-year apprenticeship in a single programme. EUX is normally four years and a few months in length, with some variability between fields of study. It is a demanding programme, since the students must follow two curricula, so it will only become a small part of the Danish VET system (2% of students in 2013-14). An evaluation has shown that it can attract a group of mid-performing students into VET. These are students with a stronger academic performance than most VET students, but not as strong as the strongest gymnasium students.

Source: (Musset et al., 2019[51]), *OECD Review of Vocational Education and Training in Estonia*, OECD Publishing, Paris, https://doi.org/10.1787/g2g9fac9-en.

Conclusion

The *matura* in North Macedonia is an important achievement. The national trust in its results and its innovative design make it a deservedly recognised example across the region. However, classroom assessment - the aspect of a country's assessment framework that is most important for student learning – should be a priority. Teachers need more assessment resources and more practical professional development that will help them to integrate effective assessment methods into their classrooms. This will provide the support to raise student learning outcomes in North Macedonia, and especially to ensure that all students do well, regardless of their starting points.

Box 2.9. Recommendations

Developing meaningful reporting of student results

2.1.1 Develop coherent national learning standards that set out what students should know and how they are expected to apply knowledge to promote more valid, reliable assessments. To achieve the latter, the country will needs to review and align national learning standards across different grades so that student learning is scaffolded towards increasingly complex, higher-order competencies. Particular priority should be given to standards in core learning areas, like mathematics and reading and writing, especially because the latter currently do not have standards in grades 1-3.

The development of leaning standards should be accompanied by the introduction of performance levels that set out student achievement against national standards e.g. above, meeting or below national learning expectations. This is especially important in grades 1-3, where there is no standardised description of student achievement at present.

2.1.2 Align student assessment with national learning standards by providing teachers with supports such as clear explanations of the criteria underlying different learning standards and their performance levels, rubrics for assessing students, marked examples of student work and examples of assessments to evaluate students. These materials can be provided via an online platform so that they reach more teachers, can be easily updated and

facilitate teachers' own contributions to online content. Once a new national assessment is developed (see Recommendations 5.2.1 and 5.2.2), teachers should be encouraged to use its items as inspiration for their own assessments and compare their students' work with results on the national assessment to promote more accurate and reliable classroom assessment.

2.1.3 Enhance the accuracy and educational value of marking and reporting by extending the marking scale of classroom assessment. The scale might be extended to 1-10, reflecting similar practices in the region. The new marking scale should be linked to the new national learning and performance standards (see Recommendation 2.1.1). The BDE can help teachers to use the new marking scale by creating moderation opportunities, like helping teachers to mark each other's assessments and discussing in groups how to give marks.

The country might also consider introducing a project assignment at the end of lower secondary to inform students' choice of upper secondary programme, motivate all students to apply themselves and reinforce more rigorous standards, especially in core subjects.

Focusing assessment practices on helping students learn

2.2.1 Promote the use of diagnostic assessments, especially in early grades, to help teachers better understand how far their students are meeting national expectations and what skills and knowledge they still need to develop. Teachers could be required to undertake diagnostic assessments at the beginning of grades 1-3 and on an ad hoc basis as relevant using instruments based on the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) that have recently been adapted to the North Macedonian context. As teachers become more comfortable with diagnostic assessments, they should be encouraged to develop their own assessments, based on national learning standards. Teachers will also need guidance on how to use the results from the diagnostic assessments to identify student progress and tailor subsequent instruction.

2.2.2 Provide and record high-quality feedback to help students and parents understand a student's learning needs. The student report card should be updated to provide more space for descriptive feedback that explains why a student received a specific mark. This will help students and parents understand the next steps to improve learning. The country should also ensure that this more descriptive feedback is systematically recorded and shared, for example in the country's Education Management Information System (EMIS), so that parents, students and other teachers can access feedback from previous teachers. This continuous documentation would help teachers to better understand student needs.

2.2.3 Remove barriers to providing formative assessment by systematically ensuring that all schools can allocate a certain amount of learning time as they wish. This would provide teachers with greater flexibility to use teaching time to respond to the learning needs that assessment results highlight. Greater curricula flexibility should be matched by changes to the school evaluation framework to focus on broader measures like school-wide achievement of national learning standards, rather than detailed implementation of the curriculum.

To take advantage of greater autonomy, teachers will need more support to implement formative assessment. The BDE might support the country's school-based teacher groups – the "Teacher Actives" – to focus on practical assessment issues, like questioning and feedback techniques and how to use the new diagnostic assessments.

Updating the state matura to better assess student learning in the most important areas

2.3.1 Revise the *matura's* design to provide more meaningful results in key subjects, by:

- Making mathematics a compulsory subject to motivate all students to master at least basic mathematics and help universities make a more informed decision regarding student selection into mathematics and other related courses.
- Creating two versions of the mathematics exam, at basic and higher levels, to provide mathematics certification that is useful and accessible for all students, while providing those students who wish to pursue mathematics at a higher level with the option to study more advanced concepts.
- Considering extending further the core subjects that are assessed to ensure a better match between the breadth of subjects studied and those that are assessed.
- Marking all subjects externally to increase the value of the subjects previously taken internally, and improve the overall reliability of the *matura* results.
- Standardising the project assignment e.g. by limiting the topics and the format and providing online examples of acceptable project assignments and guidelines for school staff on how to oversee and assess projects. Regular external moderation, from the NEC or BDE, could also be conducted for quality assurance.

2.3.2 Adapt marking and improve item quality to provide greater discrimination of student ability and motivate students to improve their learning. The NEC should analyse items following each administration of the *matura* to learn how students engaged with the test's items. The analysis can inform future item development so that there are not too many items that are too easy, too difficult or have poor discriminating ability. Undertaking these procedures will help to improve item quality and normalise the distribution of the student marks. The country should also consider extending the marking scheme, in line with changes to the marking scheme for classroom assessment, to 1-10 (Recommendation 2.1.3), to enable provide greater scope to discriminate between different levels of achievement.

2.3.3 Strengthen the VET component by externally validating student achievement in the VET subject and linking the results to employer-recognised certification. The externally validated VET subject should provide students with a formal VET certification, integrated in North Macedonia's national qualification framework, to signal readiness to employers and technical tertiary faculties. VET students should also be required complete their project assignment for the *matura* in their chosen vocational subjects to provide greater recognition and time for the development of vocational skills.

To make VET certification more feasible the current 150+ different specialisations should be reduced to a small number of subjects related to sectors that have been identified as important by economic and labour assessments. Over time, the current VET specialisations can be consolidated into VET families so that students do not pursue options that are too narrow, limiting their future employment options. The VET Centre should continue to oversee examination procedures to provide quality assurance. Since the Centre does not have the capacity to develop and mark all tests, the design and marking of the assessments might involve a body of employers or professional associations.

Notes

[1] While EGRA and EGMA have only been administered in grades 2 and 3 in North Macedonia, they can, and have been elsewhere, be administered in grade 1 without adopting the materials (Gove and Wetterberg, 2011[52]).

References

Abdul-Hamid, H., S. Mintz and N. Saraogi (2017), *From Compliance to Learning: A System for Harnessing the Power of Data in the State of Maryland*, The World Bank, http://dx.doi.org/10.1596/978-1-4648-1058-9. [34]

Absolum, M. et al. (2009), *Directions for Assessment in New Zealand (DANZ) Report: Developing Students' Assessment Capabilities*, Ministry of Education, Wellington. [4]

Bialik, M. and C. Fadel (2017), *Overcoming System Inertia in Education Reform*, http://curriculumredesign.org/wp-content/uploads/Inertia-in-Education-CCR-Final.pdf. [33]

Bishop, J. (1999), *Are National Exit Examinations Important for Educational Efficiency?*, Cornell University ILR School, http://digitalcommons.ilr.cornell.edu/articles. [7]

Black, P. and D. Wiliam (1998), "Assessment and Classroom Learning", *Assessment in Education: Principles, Policy & Practice*, Vol. 5/1, pp. 7-74, http://dx.doi.org/10.1080/0969595980050102. [3]

Darling-Hammond, L. and R. Rothman (eds.) (2011), *Teacher and Leader Effectiveness in High-Performing Education Systems*, Alliance for Excellent Education and Stanford Center for Opportunity Policy in Education, Washington DC, https://edpolicy.stanford.edu/sites/default/files/publications/teacher-and-leader-effectiveness-high-performing-education-systems.pdf (accessed on 16 April 2018). [39]

Department of Education and Skills (2018), *The Education System in Ireland*, https://www.education.ie/en/The-Education-System/ (accessed on 10 January 2019). [42]

Dumont, H. et al. (2010), *The nature of learning : using research to inspire practice*, OECD Publishing, Paris, https://doi.org/10.1787/9789264086487-en (accessed on 27 February 2018). [16]

Education, B. (n.d.), *Standards for high school education*, http://bro.gov.mk/?q=gimnazisko-obrazovanie-standardi (accessed on 27 March 2019). [15]

ETF (2017), *Tracing Secondary Vocational and Tertiary Education Graduates in the former Yugoslav Republic of Macedonia - 2-16 Tracer Study Results*, https://www.etf.europa.eu/webatt.nsf/0/370594378AEE2242C12581C90068FE63/$file/2016%20Tracer%20study%20results%20MK.pdf (accessed on 12 July 2018). [45]

Eurydice (2018), *Recommended Annual Instruction Time in Full-time Compulsory Education in Europe*, http://dx.doi.org/10.2797/616811. [36]

Eurydice (n.d.), *National Education Systems*, https://eacea.ec.europa.eu/national-policies/eurydice/national-description_en (accessed on 13 August 2018). [23]

Fazekas, M. and S. Field (2013), *Skills beyond School Review of Germany*, OECD Publishing, Paris, https://doi.org/10.1787/9789264202146. [49]

Fazekas, M. and S. Field (2013), *Skills beyond School Review of Switzerland*, OECD Publishing, Paris, https://doi.org/10.1787/9789264062665-en. [48]

Fullan, M. (2004), "Leadership Across the System", http://michaelfullan.ca/wp-content/uploads/2016/06/13396061760.pdf. [22]

Fullan, M. and M. Miles (1992), "Getting reform right: What works and what doesn't", *Phi Delta Kappan*, Vol. 73/10, pp. p 774-52, http://search.proquest.com/openview/90f371562121c3949aece5d25131b48f/1?pq-origsite=gscholar&cbl=41842 (accessed on 16 February 2018). [38]

Gerard, T. et al. (n.d.), *Improving the Assessment of Students in the Primary Schools in Macedonia*, Bureau for Development of Education. [10]

Gove, A. and A. Wetterberg (2011), *The Early Grade Reading Assessment: Applications and Interventions to Improve Basic Literacy*, RTI, http://dx.doi.org/10.3768/rtipress.2011.bk.0007.1109. [52]

Higham, R., D. Hopkins and P. Matthews (2009), *System Leadership in Practice.*, McGraw-Hill International (UK) Ltd, https://books.google.fr/books?hl=en&lr=&id=M7bmArWFgLsC&oi=fnd&pg=PP1&dq=Higham,+Hopkins+and+Matthews,+2009&ots=cxxBJuhdWo&sig=oZqZQnGjzb4FzNJbUYXhg2rJxwg#v=onepage&q=Higham%2C%20Hopkins%20and%20Matthews%2C%202009&f=false (accessed on 8 March 2018). [21]

Kitchen, H. et al. (forthcoming), *OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Turkey*, OECD Publishing, Paris. [12]

Kitchen, H. et al. (2017), *OECD Reviews of Evaluation and Assessment in Education Romania*, OECD Publishing, Paris, https://doi.org/10.1787/9789264274051-en. [40]

Kleinhenz, E. and L. Ingvarson (2007), "Standards for Teaching: Theoretical Underpinnings and Applications", Australian Council for Educational Research (ACER), http://research.acer.edu.au/teaching_standards/1. [14]

London Region MISA PNC (2011), *Comment Framework for Progress Reports and Report Cards*, http://www.misalondon.ca/PDF/a&e/Comment_Framework_Feb_2011.pdf (accessed on 18 January 2019). [26]

MoES (2018), *The Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje. [13]

MoES (2013), *Strategy for Vocational Education and Training in a Lifelong Learning Context*, Ministry of Education and Science, Skopje. [46]

Musset, P. et al. (2019), *OECD Review of Vocational Education and Training in Estonia*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, https://dx.doi.org/10.1787/g2g9fac5-en. [51]

NCCA (2019), *Junior Cycle Mathematics Guidelines for the Classroom-Based Assessments and Assessment Task*, NCCA, https://www.curriculumonline.ie/getmedia/f5af815d-5916-4dc9-bfda-4f3d73bc4787/Assessment_Guidelines_Mathematics.pdf (accessed on 18 January 2019). [29]

NCCA (2018), *Junior Cycle History Guidelines for the Classroom-Based Assessment and Assessment Task First Edition*, https://www.curriculumonline.ie/getmedia/adcacb84-1886-4ea2-9b0a-36063e84cedc/JC_History-Assessment_Guidelines.pdf (accessed on 18 January 2019). [30]

NCCA (2016), *Junior Cycle Business Studies Guidelines for the Classroom-Based Assessments and Assessment Task*, NCCA, https://www.curriculumonline.ie/getmedia/db49a6b8-0cf8-446f-bc28-b382d37cb53d/AssessmentGL_BS_2018_EN.pdf (accessed on 18 January 2019). [28]

New South Wales Education Standards Authority (2018), *Mathematics K–10*, http://syllabus.nesa.nsw.edu.au/mathematics/mathematics-k10/outcomes/ (accessed on 17 January 2018). [17]

New Zealand Ministry of Education (2007), *The New Zealand Curriculum*, http://nzcurriculum.tki.org.nz/content/download/1108/11989/file/The-New-Zealand-Curriculum.pdf. [2]

New Zealand Ministry of Education (2007), *The New Zealand Curriculum / Kia ora - NZ Curriculum Online*, http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum#collapsible4 (accessed on 17 January 2018). [18]

OECD (2018), *Curriculum Flexibility and Autonomy in Portugal - an OECD Review*, https://www.oecd.org/education/2030/Curriculum-Flexibility-and-Autonomy-in-Portugal-an-OECD-Review.pdf (accessed on 14 August 2018). [37]

OECD (2017), *Education in Lithuania*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264281486-en. [5]

OECD (2016), *Education Policy Outlook: Korea*, http://dx.doi.org/www.oecd.org/education/policyoutlook.htm . (accessed on 10 January 2019). [8]

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266490-en. [9]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264267510-en. [11]

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en. [6]

OECD (2014), *Skills Beyond School: Synthesis Report*, OECD Publishing, Paris, http://www.oecd.org/education/skills-beyond-school/Skills-Beyond-School-Synthesis-Report.pdf (accessed on 17 August 2018). [47]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, http://www.oecd.org/edu/school/synergies-for-better-learning.htm. [1]

OECD (2010), *Learning for Jobs*, OECD Publishing, Paris, https://www.oecd-ilibrary.org/docserver/9789264087460-en.pdf?expires=1542285558&id=id&accname=guest&checksum=D6398535F72C413742243CA9C9DEA7B3. [50]

OECD (n.d.), "Assessment for Learning: Formative Assessment", https://www.oecd.org/site/educeri21st/40600533.pdf (accessed on 16 February 2018). [31]

Ofqual (2012), *Comparing international secondary assessment: full report*, https://www.gov.uk/government/publications/comparing-international-secondary-assessment-full-report (accessed on 16 August 2018). [41]

Ofqual (2012), *International Comparisons in Senior Secondary Assessment: Full Report*, Ofqual, http://ofqual.gov.uk/documents/international-comparisons-in-senior-secondary-assessment-full-report/ (accessed on 16 August 2018). [43]

Ontario Ministry of Education (2010), *Growing success: assessment, evaluation and reporting in Ontario schools*, Ontario Ministry of Education, Toronto, http://www.edu.gov.on.ca/eng/policyfunding/growsuccess.pdf (accessed on 18 January 2019). [27]

Pritchett, L. and A. Beatty (2012), "The negative consequences of overambitious curricula in developing countries", https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2102726 (accessed on 14 August 2018). [35]

Rushowy, K. (2017), *Report card, curriculum changes on the way in Ontario*, The Star, https://www.thestar.com/news/queenspark/2017/09/06/report-card-curriculum-changes-on-the-way-in-ontario.html (accessed on 18 January 2019). [25]

Semyonov, D. et al. (2017), *Student accountability in post-Soviet countries*, http://unesdoc.unesco.org/images/0025/002595/259570e.pdf (accessed on 21 September 2018). [24]

Shepard, L. (2001), *The role of classroom asssessment in teaching and learning*, University of California, Los Angeles, https://scholar.google.com/citations?user=vUYo2XsAAAAJ&hl=en#d=gs_md_cita-d&p=&u=%2Fcitations%3Fview_op%3Dview_citation%26hl%3Den%26user%3DvUYo2XsAAAAJ%26citation_for_view%3DvUYo2XsAAAAJ%3A9yKSN-GCB0IC%26tzom%3D-120 (accessed on 14 August 2018). [19]

Shewbridge, C. et al. (2011), *OECD Reviews of Evaluation and Assessment in Education: Denmark 2011*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264116597-en. [20]

Step by Step (2016), *Early Grade Reading and Mathematics Assessment in the Republic of Macedonia: Study Report*, USAID, http://www.stepbystep.org.mk/WEBprostor/EGRA_and_EGMA_Study_Report_-_May_2015.pdf (accessed on 11 July 2018). [32]

UCAS (n.d.), *Extended Project Qualification (EPQ)*, https://qips.ucas.com/qip/extended-project-qualification-epq (accessed on 14 January 2019). [44]

Chapter 3. Using teacher appraisal to support and incentivise good teaching

This chapter looks at how the Republic North Macedonia evaluates teaching practice and supports teachers to improve through its teacher appraisal system. The country has made several attempts to create more robust methods for teacher selection and promotion, however efforts have not been sustained and the proposed merit-based career system has still not been implemented. Creating a more effective teacher appraisal system will help to address many of gaps in teacher policy. As a priority, North Macedonia should implement its existing proposals for a merit-based career structure and teacher standards. An essential complement will be greater investment in professional development, within and outside school, so that teachers can access learning opportunities to become expert teachers as they progress in their career.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

High quality teaching is shown to be the most important school-level factor related to student learning outcomes. Effective education systems place a strong emphasis on selecting, training and retaining teachers with the competencies needed to help students succeed (Schleicher, 2016[1]). Appraisal supports such a culture of professionalism by first ensuring that all teachers have the aptitudes to teach, while also helping and incentivising teachers to develop higher levels of expertise and responsibility throughout their careers.

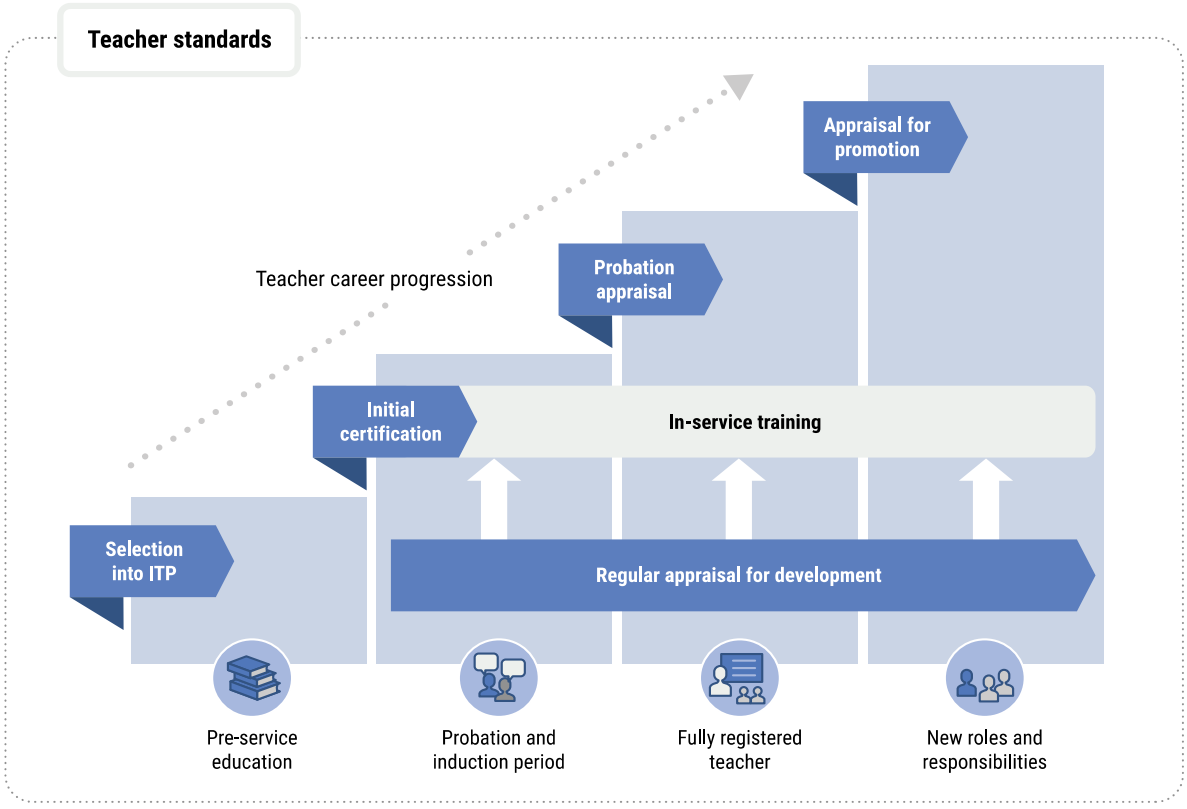
In recent years, the Republic of North Macedonia (hereafter referred to as "North Macedonia") has made several attempts to create more robust teacher selection and promotion methods, with the aim of establishing a more learner-centred education system. Initiatives include, the proposal to develop a merit-based career structure for teachers, as well as efforts to support teachers' professional development in core areas, such as training on classroom assessment techniques. However these efforts have not been sustained – the merit-based career system is still not implemented – and do not amount to a comprehensive policy to support the teaching profession.

Creating a more effective teacher appraisal system will help to address many of gaps in teacher policy. As a priority, North Macedonia should implement its existing proposals for a merit-based career structure and teacher standards. This will create the basis to ensure that new entrants to the profession develop essential teaching skills while incentivising existing teachers to grow professionally throughout their career. An essential complement will be greater investment in professional development, within and outside school, so that teachers can access learning opportunities to become expert teachers as they progress in their career.

Key features of an effective appraisal system

Teacher appraisal refers to how teachers are assessed and given feedback on their performance and competencies (see Figure 3.1). An effective appraisal system focuses on how well teachers are supporting the learning of all students. It provides teachers with support and incentives to continually develop their teaching competencies and assume roles that contribute to the development of the teaching profession overall. When used in this way, appraisal can positively influence teachers' attitudes, motivation and classroom practices and, through this, help to improve students' learning outcomes (OECD, 2013[2]). Countries combine different types of appraisal at different moments of a teacher's career to inform on-going learning, professional development and career progression (see Figure 3.1).

Figure 3.1. Types of teacher appraisal



Teacher standards

Standards provide a common reference point for teacher policies, including appraisal

A growing number of OECD countries have developed teaching standards to inform teacher policy and practices. Teaching standards describe what "good" teaching is and how it is demonstrated. They are used to align key teacher policies such as initial teacher training, certification and re-certification, career progression, professional development and teacher appraisal. Teacher standards are an essential part of an effective teacher appraisal system as they provide a common reference point for both teachers and evaluators that establish clear expectations, encourage consistent judgement and focus appraisal on the key aspects of teaching that matter for learning (Santiago et al., 2013[3]).

Teaching standards typically include a general profile setting out expected teacher competencies. Some also include specialised profiles for particular types of teachers such as for more experienced teachers as part of a differentiated career path, or for teachers of different educational levels or subjects (Santiago et al., 2013[3]). Effective teaching standards are aligned with national education priorities, learning standards and curricula to ensure that teachers develop teaching competencies that will support national learning goals (Louden, 2000[4]). They are also grounded in national and international evidence of the types of teaching approaches that have been shown to have the greatest impact on student learning.

Initial teacher preparation

Select candidates with strong academic skills and motivation to teach

Selecting teacher candidates with strong academic skills and the motivation to teach is key to ensure quality learning and teaching in schools. This influences how teachers are recruited both into initial teacher education programmes, and into the teaching profession. A recognised feature of the world's highest performing education systems is setting a high bar for entry into initial teacher education, with places accorded only to the most able school graduates (Barber, M. and Mourshed, 2007[5]). One way to support this is by setting a minimum threshold on the national school graduation or tertiary entry examinations.

Set a rigorous certification process at the end of teacher education to make sure to select qualified new teachers

Initial certification at the end of teacher education serves as a gatekeeper to ensure that those who enter the profession have acquired the basic competencies required for good teaching. In most OECD countries, initial certification requires successful completion of teacher education programmes which provide at least a Bachelor's level qualification, and increasingly a qualification at master's level. However, many OECD countries require in addition that prospective teachers pass an external qualification or licensing examination, which can help to ensure fairness and consistency for selection and guarantee basic standards (OECD, 2014[6]). This is particularly important in countries were teaching is a "career-based" public service, and lifetime employment is largely guaranteed, and where quality assurance in the tertiary sector is weak. Since an examination cannot recognise all the attributes that are important for teaching, countries with examinations often complement them with other forms of assessment such as interviews, which can capture motivation and socio-emotional skills. Finally, in most countries full certification as a teacher is dependent on successfully passing a probation appraisal, where teachers are able to better demonstrate the attitudinal dimensions of good teaching.

Types of teacher appraisal

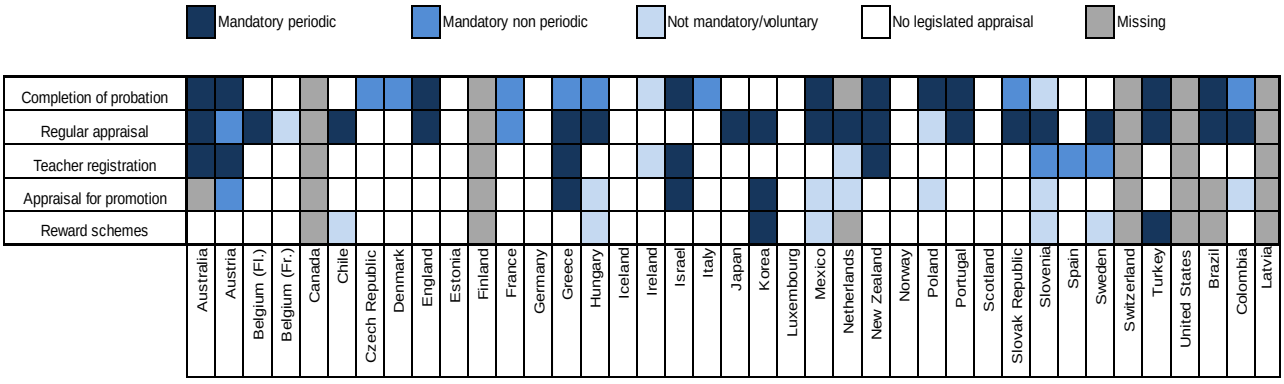
A probation period and appraisal provides new teachers with essential support in their first year(s) on the job

The first years of teaching are critical to build the foundations of good teaching practices. Most OECD countries set probation periods combining mentorship, classroom observations and formative feedback to ensure that new teachers are provided with support to develop their teaching practice (OECD, 2014[6]). Regular appraisal and feedback to teachers are key components of the probation period. In countries where the latter are not part of the probation period, retention rates of new teachers are often lower (OECD, 2017[7]).

In about half of OECD countries, successfully passing an appraisal at the end of the probation period is a requirement to become a fully certified teacher (see Figure 3.2). Probation appraisals helps to ensure that decisions on full certification are based on an evaluation of all the key competencies for teaching. Appraisal by the school leadership team, the school board or the teacher's mentor is the most common approach to full certification. These in-school actors have the opportunity to observe a trainee teacher's practice throughout the year, providing a fuller picture of their readiness to enter the profession. In some countries, the probation appraisal also includes an external evaluator

(OECD, 2013[2]). An external dimension for the probation appraisal is particularly important in education systems where the school leadership might lack capacity to make a valid and objective judgement about a teacher's competencies.

Figure 3.2. Types of teacher appraisals in OECD countries (2015)



Source: (OECD, 2015[8]), *Education at a Glance 2015: OECD Indicators, OECD Publishing, Paris,* https://dx.doi.org/10.1787/eag-2015-en.

Regularly appraising teachers provides meaningful feedback and informs classroom practices

Regularly appraising teachers to provide feedback on their professional practices is a common component of teacher appraisal in the majority of OECD countries (see Figure 3.2). Regular appraisal is primarily developmental, identifying a teacher's strengths and their learning needs. It draws on information from classroom observations to provide specific feedback to support teachers' continued professional growth (OECD, 2013[2]). Some OECD countries also use teachers' self-evaluation and their teaching portfolio as part of regular appraisal, as they encourage self-reflection and provide a range of evidence on a teacher's practices and needs for professional development (OECD, 2015[8]).

In most OECD countries, the regular appraisal of teachers is led by the school leadership team because they can develop a more accurate understanding of a teacher's practice, based on multiple observations throughout the year. Since the leadership team is familiar to the teacher, this is also likely to create a more informal setting for appraisal to encourage open and honest feedback (OECD, 2013[2]).

The formative value of regular appraisal is strengthened when the findings are used to inform decisions on teachers' professional development. In many countries, the school leader or leadership team is expected to work with teachers to establish individualised development plans, which define the type of activities a teacher will undertake in order to improve specific areas of practice. Such plans are most effective when they connect individual goals with school priorities for teacher development, as this helps to encourage teacher collaboration and peer learning (Goe, Biggers and Croft, 2012[9]).

Appraisal for promotion informs teachers' career progression and rewards performance

An increasing number of OECD countries are setting merit-based career structures to reward and encourage teachers to develop higher levels of competence and take on

differentiated teaching roles. External appraisal is often used in countries that introduced a merit-based career structure to inform teacher career advancement. This appraisal is often voluntary, at the request of a teacher, and is led by an evaluator that is external to the school to ensure integrity and transparency. This type of appraisal evaluates teachers' capacity to take on further responsibilities and rewards effective teaching (OECD, 2013[2]). Recognising and rewarding good teaching is important to ensure a motivated teaching profession. It also helps to make the best use of teachers' talent, by providing opportunities for career growth and retain talented teachers (OECD, 2014[10]).

Some education systems require teachers to go through an appraisal process to be re-certified as a teacher every couple of years. This re-certification process helps make sure that teachers are periodically appraised by an external appraising body even if they are not applying for promotion (Kitchen et al., 2017[11]).

The teaching profession in North Macedonia

Teaching is a relatively well-respected profession in North Macedonia. Teacher salaries compare favourably with average salaries at national level and there is strong demand to enter the profession. In the absence of rigorous mechanisms to control selection into the profession, this has resulted in a comparatively large (in contrast to a declining student population), and young profession. However, once in the profession, new teachers have few incentives to develop - the salary scale is largely flat and not linked to performance - or opportunities for high quality professional development organised by the government. Instead, many teachers rely on informal teacher networks and collaboration.

Teaching workforce

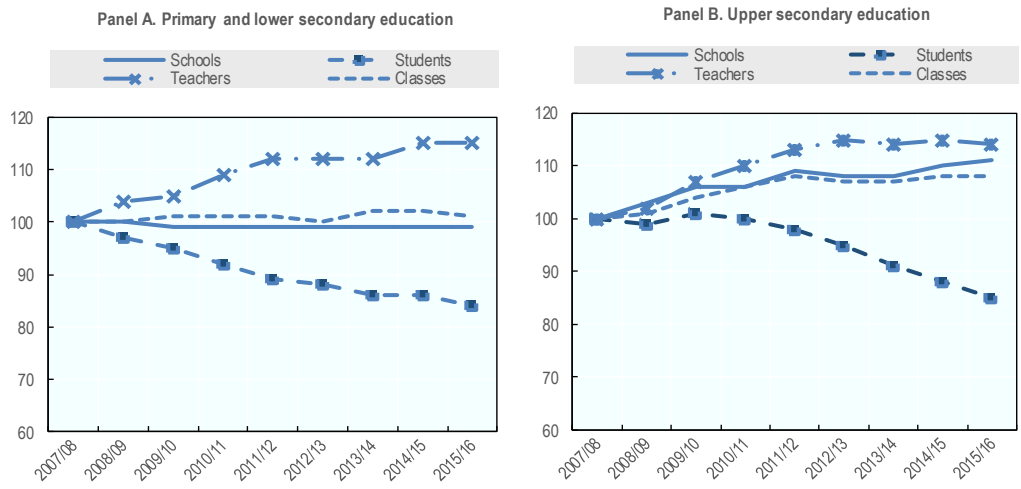
North Macedonia has a young and expanding teaching workforce

The teaching workforce has continued to expand despite an important fall in the student population. Between 2007 and 2016, the number of teachers in primary and lower secondary increased by 10%, while primary-age students decreased by a similar amount (see Figure 3.3). The mismatch between student and teacher numbers points to an inefficient use of resources. Inefficient resource management limits funds that could be devoted to improving teaching quality, such as investing in continuous professional development programmes (World Bank, forthcoming[12]).

The expansion in teacher numbers has resulted in a relatively young and inexperienced teaching workforce. Almost half of the teachers in North Macedonia in 2015 were below the age of 40 (MAKStat Database, n.d.[13]), compared to a little over a third in OECD countries (OECD, 2018[14]). The share of teachers nearing retirement age (50 years-old or above) is also low compared to OECD countries which tend to have an aging teaching population (26% in North Macedonia for 34% in the OECD) (MAKStat Database, n.d.[13]) (OECD, 2018[14]). As is the case in most European countries, teachers in North Macedonia are mainly women (69% in primary and lower secondary education and 59% in upper secondary education in 2017 (MAKStat Database, n.d.[13]).

Figure 3.3. Evolution of the school network in North Macedonia (2007-17)

2007=100



Source: (MAKStat Database, n.d.[13]), *Education and Science*, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat__ObrazovanieNauka__OsnovnoObrazovanie (accessed on 4 April 2018).

Teacher salaries and career progression

Teacher salaries are higher than in other Western Balkan countries

Average teacher salaries relative to GDP compare favourably with other European countries. The minimum teacher salary for primary teachers represented about 150% of the country's GDP per capita in 2015, compared to 87% of GDP per capita on average in European Union (EU) countries (European Commission/EACEA/Eurydice, 2016[15]). This reflects the steps taken by the ministry over the last decade to increase overall salary levels – in 2014, all teachers' salaries were increased by 4%. Nationally, teachers' salaries compare well to average earnings in North Macedonia, with the exception of Skopje where salaries are slightly below the mean (World Bank, forthcoming[12]).

However, the salary progression of teachers is relatively slow and flat compared to OECD and European countries covered by the Eurydice data collection on teachers' salaries and compensations[1] It takes teachers in North Macedonia an average of 40 years to reach the top of the salary scale, the longest time among European countries, and higher than the OECD average of 25 years (European Commission/EACEA/Eurydice, 2016[15]; OECD, 2017[16]). Salary increases are awarded to all teachers and are not contingent on demonstrating good performance through an appraisal process. According to the 2015 Law on Primary and Secondary Education, a teacher's mark from the School Integral Evaluation, the Bureau for the Development of Education (BDE) advisors' comments should be used to determine teachers' salary increases, but this requirement has never been implemented due to conflicting legal arrangements. This is unusual internationally. While salary increases in most OECD countries are linked to years of experience, appraisal results also impact salaries in over ten countries (McKenzie and Santiago, 2005[17]).

There is currently no career advancement structure

Unlike many OECD countries, there is as yet no differentiated career structure in North Macedonia. In schools, there are also few opportunities for teachers to take on new roles, like a subject head or chair. The one exception is the role of teacher mentor, which is also rewarded financially (mentors receive a financial allowance calculated as 20% of novice teachers' salary). In 2016, the BDE, with technical and financial support from the United States Agency for International Development (USAID), developed a proposal for a merit-based career structure with four career levels (novice teacher, teacher, teacher mentor and teacher advisor). The new career structure aimed to encourage and reward increasing levels of teaching competence with opportunities to take on new roles and responsibilities. The 2016 project also included new teaching standards and guidelines for how appraisal should be used to inform career advancement (see Box 3.1). However, the merit-based career structure was never implemented.

Initial teacher education and continuous professional development

Entry to initial teacher education programmes is not selective

To become a teacher in North Macedonia, candidates need to complete a four-year bachelor's degree and pass a probation appraisal and certification examination. Four universities in Skopje, Tetovo, Bitola and Shtip provide initial teacher education programmes for primary and lower secondary teachers through Faculties of Education and Institutes of Pedagogy. Upper secondary teachers (and lower secondary subject teachers) complete a bachelor's in the area that they will teach like mathematics, science or the Macedonian language, and for those who did not undertake teaching classes during their studies, they take supplementary courses in pedagogy and psychology in the education faculties.

Subject teachers in lower and upper secondary education can also choose a concurrent model where they take classes on pedagogy in parallel with subject knowledge, or a consecutive model where they follow teacher training after having completed a diploma in their subject area. Having both consecutive and concurrent models of initial teacher education is common in many OECD countries.

As for other tertiary programmes, the government sets quotas for how many students can enter the Faculties of Education and students are selected based on their results in the national examination at the end of upper secondary, the state *matura*. Also like for other tertiary programmes, students who receive a place within the quota have their place subsidised by the government. However, given the major expansion of tertiary places in recent years, the quotas are very large and therefore do not lead to any real selection - almost all candidates who apply for initial teacher education receive a place. Like for other tertiary programmes, among students who have obtained the *matura*, universities have limited flexibility in selecting students' for initial teacher training, and few set their additional entrance requirements (European Commission, 2013[18]). Since universities are funded on a per student basis, universities also have few incentives to be more selective for entry.

This lack of selection into initial teacher education contributes to the oversupply of teacher graduates. The teaching profession is under pressure to absorb an important number of graduates for a limited number of spots available. For every opening in public schools, it was reported to the review team that there are about 30 candidates. In any country, a surfeit of newly trained teachers reduces the prestige of the profession. Furthermore in

North Macedonia, it was reported to the review team that political allegiances and clientelism are frequently the deciding factor when schools recruit new teachers (Mickovska et al., 2013[19]). This means that the best teaching candidates may not receive a teaching post, reducing the motivation of the best school candidates to enter the profession and further undermining the professionalism of the teaching profession.

Initial teacher training is mostly theoretical

The content of initial teacher education has not followed reforms in the education system. Despite curricula changes over the past decade towards more student-centred, competency-based learning, initial teacher training continues to focus on theoretical subject knowledge and outdated pedagogical concepts, like focusing on the "average student" instead of more inclusive approaches to learning (European Commission, 2013[18]). The misalignment between initial teacher programmes and education reforms reflects a lack of co-ordination between the universities and the ministry, and weak accreditation. Accreditation is not programme specific, providing limited quality assurance (World Bank, 2013[20]), or few incentives for universities to adapt to changing needs in the education system.

Initial education also provides teacher candidates with limited practical learning opportunities. One issue is duration. Teacher candidates in faculties of education complete a 15-week practicum, only slightly less than in most OECD countries. However, for teacher candidates in non-education faculties, the teaching practicum varies between 10 hours to 100 hours - the lower end is significantly less than in most OECD countries. A broader challenge is the quality of the practicum. In order for the practicum to provide a meaningful learning experience, it should be integrated with the rest of teacher education programme content and provide candidates with experienced mentors in school. Another challenge reported by education faculties in North Macedonia is difficulty in finding placements, as schools receive no financial support or incentive to accommodate the trainee.

The ministry is planning to introduce a new Teacher Academy, which also be under the ministry's responsibility. This would provide the ministry with greater control on the quality and content of initial teacher education. Teacher candidates from all types of initial teacher education programmes and those who have completed a four-year bachelor's in a subject would be required to attend. The chosen candidates would attend between six months and one year of initial teacher education in the academies and be assured a post as a full-time teacher. Attending the teacher academies will be mandatory in order to be licensed to teach. This proposal aims to increase the quality of initial teacher training and ensure that all selected teachers have acquired the necessary pre-requisites to teach.

Participation in professional development is limited compared to OECD countries

Teachers are required to participate in 60 hours of professional development over three years. This includes ten mandatory hours in priority areas provided by the BDE, 40 hours chosen from programmes subsidised by the BDE, and a further 10 hours that are undertaken at a teacher's own cost. However, the BDE lacks the funding to implement this measure and has not funded training programmes beyond the priority areas for a number of years.

Limited funding for professional development may partially explain the low level of participation in North Macedonia compared to OECD countries and other Western Balkan countries. According to the OECD Programme for International Student Assessment (PISA), about 15% of teachers from North Macedonia participated in professional development activities in 2015 in the three months prior to the PISA test compared to

almost half of teachers from OECD countries (OECD, 2016[21]). Additionally, professional development may not always focus on the areas that are most important for raising achievement in North Macedonia. For instance, for the school year 2017-18, information and communication technology skills was one of the priority areas, while key competencies such as student assessment, were not (see Chapter 2).

With limited external training available, most professional development takes place at the school level or informally among teachers. An overwhelming majority of teachers surveyed for this review said that in-school professional development is the main way that they develop skills in areas such as student assessment, pedagogy and teaching students with special educational needs (SEN). Schools are required to include a professional development plan for teaching staff in their school plan every four years. This kind of in-school professional development can be very effective, since it is often collaborative and focuses directly on a teacher's daily practices. However in North Macedonia, these activities need more external support to ensure that they are sustainable and present in all schools. For example, it is unclear if all schools implement their professional development plans as their financial resources are limited and they do not receive additional funding for professional development.

Teaching and learning

Teachers have dedicated time for lesson preparation, but receive limited guidance on how to do so

Teachers are expected to spend less than half of their mandatory weekly working time teaching. This equates to less than 20 hours per week in both primary and secondary education, which is comparable to teaching time in most OECD countries (Mickovska et al., 2013[19]) (OECD, 2018[14]). This leaves significant time for teachers to carry out their non-teaching tasks as regulated by law (e.g. preparing lesson plans, reviewing students' work and participating in professional development activities). However, teachers receive very little guidance on how to allocate their non-teaching time to different tasks adequately to support their students' learning and develop their teaching practices (Mickovska et al., 2013[19]) This means that preparation time might not be used effectively or efficiently, and frequently means that teachers go home during this time, diminishing possible time for collaboration with colleagues.

A multi-actor support team in schools is supposed to help teachers meet diverse learning needs

Schools have multi-actor professional teams for supporting teaching and learning activities. The support teams include a pedagogical advisor, known as the "pedagogue", a school psychologist, and in some schools an advisor for SEN education known nationally as the "defectologist" (see Table 3.1).

While the team's stated role is to support teaching staff pedagogically and ensure that needs of all students are met, this is not always the case. One reason is that pedagogues and SEN advisors receive very limited practical training which may hinder their understanding of classroom interactions and how best to support teachers in their tasks. Despite efforts in recent years to promote inclusive education, practices of SEN education in many schools remain influenced by the Soviet-era "defectology" theory which is characterised by focusing primarily on children with significant learning needs or disabilities, often outside the classroom. This contrasts with more inclusive concepts of education and mainstreaming

for children with special learning needs that are now common in most OECD countries (Cooc, 2018[22]) (OECD, 2008[23]). Pedagogues are also often over-burdened with administrative tasks that distract them from their core duties.

Table 3.1. The multi-professional school support team

	Pedagogue	SEN advisor ("Defectologist")	School psychologist
Responsibility	Provides advice and support to teachers on how to improve teaching practices. Conducts classroom observations and provides feedback on teaching and learning. Organises remedial classes.	Helps teachers adapt their teaching. practices to special education needs of students. Helps ensure that the classroom and school environment is inclusive.	Provides counseling to students. Helps teachers address the needs of students and promote deep learning and socio-emotional skills. Helps teachers create a positive learning environment.
Ratio to teachers	15 : 1 000	6.6 : 1 000	14.7 : 1 000

Source: Review team's interviews with school staff.

Teacher appraisal in North Macedonia

North Macedonia has several different processes for regular appraisal, combining both in-school and external evaluators (see Table 3.2). However, these different processes are not currently serving providing effective support to improve teaching quality. This is in part because evaluators' lack preparation and support in how to undertake appraisals, but also because the wider appraisal framework is underdeveloped. Regular appraisal is not linked to transparent and consistent standards for teaching or professional development opportunities. There is also no means to promote and reward good teaching more formally, through performance-based increases in salary and status, creating few incentives for teachers to invest in their development throughout their careers.

Table 3.2. Teacher appraisal in North Macedonia

Types of appraisal	Reference standards	Body responsible	Guideline documents	Process	Frequency	Use
Initial certification	Teaching standards developed but not implemented	Faculties of education	Rulebook on the content and the form of the teacher diploma (Law 84/2009)	Students need to show successful completion of four years of studies, equivalent to 240 ECTS credits, defend a research thesis and complete practical instruction in school	Assessed throughout their studies	Obtain initial class teacher certification allowing students to apply to teaching positions in schools
Probation appraisal		Teacher mentors	Guidelines available but not used	Classroom observations during the probation period with a report describing the novice teacher's competencies	End of probation period	Informs the decision by the teacher confirmation examination commission (composed of Ministry of Education and Sciences (MoES) representatives, as well as university teaching staff and peer teachers within the same subject) Due to lack of mentors, not fully implemented
Regular appraisal		School principal and school support staff	Template for classroom observation developed by schools	Classroom observations	Four times a year	Provides formative feedback
		BDE	BDE protocol	Classroom observations	No defined frequency/ occurs mostly following a major reform	Provides formative feedback
		National Examination Centre (NEC)				Responsible for licensing and re-licensing school principals
		State Education Inspectorate (SEI)	SEI guidelines for evaluating teachers in primary and secondary education	Review teacher portfolio and records, undertake classroom observation	Every three years	Provide oral feedback to teachers and written score to principal
		Vocational and Education Training Centre (VETC)	Guidelines for observing and counselling VET teachers	Classroom observations	No defined frequency. Approximately one every two years	Provides formative feedback
Appraisal for promotion		None. Plans developed in 2016, but not implemented				
Appraisal for re-certification		none				

Source: (MoES, 2018[24]), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

Teaching standards have been developed but are not yet implemented

The teaching standards developed in 2016 by the BDE with the support of USAID cover the core areas of teaching identified in the Danielson Framework for Teaching that has inspired the appraisal system in many OECD countries: instruction, the classroom environment and professional responsibilities (Danielson, 2007[25]). In addition to the core competencies expected from all teachers, the teaching standards also include specific competencies at four levels of the teacher career: novice teacher, teacher, teacher mentor, and teacher adviser (see Box 3.1).

However, a change in government and policy direction in 2015-17 halted the implementation of the teaching standards, which are currently not used to inform teacher appraisal or any other aspect of teacher policy in North Macedonia. This constitutes a major gap in North Macedonia's teacher appraisal framework as there are no common standards used by all actors in the appraisal system to inform their judgement of teaching quality.

Box 3.1. The merit-based career development structure reform proposal

In 2016, the Ministry set up a Working Group including education experts, teachers and representatives from the BDE and the Vocational Education and Training Centre (VETC) to develop a plan for a merit-based career structure based on clearly defined teaching standards. The Working Group also defined standards for the school support staff (i.e. pedagogues, psychologist, etc.) as well as guidelines for teachers on what the expected competencies and criteria are to move up in the merit-based career structure.

The career structure

The merit-based career structure includes four different categories of teachers: novice teacher, teacher, teacher mentor and teacher advisor. To become teacher mentors or advisers, teachers need to demonstrate that they have the competencies required for these positions during an external appraisal for promotion by the BDE or the VETC.

	Level of teacher career			
	Novice teacher	**Teacher**	**Teacher mentor**	**Teacher advisor**
Responsibilities	Teaching students under supervision of teacher mentor.	Teaching students autonomously, participating actively in teacher groups ("Teacher Actives").	Provides guidance and assistance to novice teachers and helps them prepare for the teacher confirmation examination. Also provides support to other teachers. Appraises the novice teacher regularly and provide feedback.	Co-ordinates teacher networks. Monitors and appraises students from teacher training programme during their practicum. Contributes to school self-evaluation and school planning.
Requirement to reach this career level	Successful completion of initial teacher education programme.	Pass confirmation examination (personality test, conducting a lesson, oral test on relevant laws and defending a research project).	External appraisal by BDE advisor or VETC advisor.	External appraisal by BDE advisor or VETC advisor.

Source: Review team's interviews with school staff.

Initial certification does not provide a reliable indicator of teachers' readiness to teach

As is the case in most OECD countries, universities in North Macedonia are responsible for teachers' initial certification (OECD, 2014[6]). Students that validate 240 credits ECTS (four years) during their initial teacher education training become initially certified teachers and can be recruited by schools to begin their probation period (see Table 3.2). However, weak quality assurance and certification requirements mean that there are few mechanisms to ensure that students graduating from initial teacher education are competent to teach. In most OECD countries, teacher standards provide the reference for developing quality assurance mechanisms for initial teacher education programmes and determining the criteria for initial certification.

The above situation means that new teachers might not meet minimum competence requirements to teach. It also means that schools lack transparent and reliable information when selecting candidates, making them more vulnerable to being influenced by clientelism.

A probation period aims to provide important mentorship and feedback, but is rarely implemented in practice

The probation period in North Macedonia lasts a year, at the end of which novice teachers are appraised and take a confirmation examination as part of the probation appraisal to become fully registered teachers. During their probation period, novice teachers are supposed to be mentored by an experienced teacher in their subject or field (see Box 3.1). In 2016, the BDE, with the help of USAID, developed guidelines detailing the mentoring process. According to these guidelines, mentors should develop a plan with their mentee, which includes regular observations of the mentee's teaching, feedback and professional development activities (USAID, 2016[26]).

However, the mentorship guidelines have not been implemented and many trainee teachers never receive a mentor. Moreover, the differentiated teacher career path – on which "mentor" teacher is a step – is not yet implemented which means that there is not currently a pool of teachers who have been formally recognised as mentors. Instead, mentors are chosen by school principals among available teaching staff, and do not receive any training or guidance on how to observe classroom practices or provide meaningful feedback. These teachers undertake mentorship activities on top of their regular teaching responsibilities.

In practice, the probation appraisal is based only on the confirmation examination in many schools

At the end of the probation period, the probation appraisal in supposed to be based on the mentor's report on the trainee teacher that appraises their competencies and a confirmation examination. However, since the mentorship is not fully implemented (and there are no mentor reports for trainee teachers in all schools), for many trainee teachers the confirmation examination currently serves as the main form of probation appraisal.

For the examination, teachers prepare a research project and teach a lesson plan to a jury. The examination is positively designed to assess some important pedagogical knowledge and practice, as well as subject knowledge and motivation to teach. However, alone it is not sufficient for assessing other teaching competencies which are better captured by observing the teachers' interactions in the classroom. Moreover, the vast majority of trainees pass, which given the lack of selection into initial teacher education may suggest

that it is not rigorously controlling the quality of new entrants into teaching. Examinations are rarely used in probation appraisal in OECD countries (OECD, 2013[2]).

North Macedonia has three processes for regular appraisal

Two external agencies, the BDE and the State Education Inspectorate (SEI) appraise teachers and provide feedback for improvement (see Table 3.2). The SEI appraises all the teachers in each school that is evaluated as part of School Integral Evaluations, which are conducted every three years (see Chapter 4). Inspectors observe classroom practices, review the teacher's portfolio and collect information from students, teachers and school principals' questionnaires, provide oral feedback to teachers and give them a mark from 1-5. The BDE's advisors may also visit teachers to observe their teaching practices and provide feedback. Within schools, the school principal and the pedagogue also appraise teachers at least once a year.

Various factors mean that regular appraisal in North Macedonia is failing to effectively support teachers' development. One is that improvement of student-learning outcomes is not a central component of the SEI's guidelines, the BDE's protocol or the school principals' practices. Another is that the externality of SEI and BDE evaluators means that they are not familiar with individual teacher's work and will struggle to create the open, informal atmosphere that is important for regular appraisals. On the other hand, school principals – who are the main actor for regular appraisal in most OECD countries – lack adequate preparation or guidance in how to make an educated judgement about teaching quality. Overall, there is a general lack of training and guidance for all evaluators on how to undertake appraisals. For example, SEI inspectors receive just three days of training at the start of their careers, primarily focused on the legal framework and regulations. While the BDE has developed a classroom observation protocol which provides directions to the advisors on how to undertake such observations, it is not sufficiently detailed to ensure quality and consistency across advisors.

Plans to introduce an external appraisal for promotion purposes remain on hold

At present, North Macedonia does not have a career structure with differentiated roles and responsibilities and an appraisal system to recognise and reward performance. However, the 2016 plans propose that external evaluators from the BDE or VETC undertake appraisals to determine teachers' readiness for promotion to teacher mentor or advisor level. If North Macedonia is to implement these plans, it will need to determine the process for appraisal for promotion in greater detail, such as eligibility requirements and the sources of evidence upon which the appraisal will be based.

Appraisal for reward

Teachers that are training students for academic competitions like Olympiads receive a small financial bonuses. Such a practice incentivises teachers to focus primarily on high achieving students instead of every student in the classroom.

Policy issues

Achieving North Macedonia's goals for raising student achievement and creating more learner-centred instruction will require far greater support for teachers. The teacher appraisal system needs to be revised to better identify teachers' development needs, and

recognise and encourage the teaching practices that will help to improve student learning. As a priority, the ministry should implement its 2016 plans to introduce a performance-based career structure to incentivise good teaching. The latter needs to be complemented by expanding the range of quality professional learning and development opportunities throughout a teacher's career.

Policy issue 3.1. Ensuring that entry into, and progression along the teaching career path is based on professional competence

The ministry should ensure that selection into, and initial certification at the end of teacher education, is more rigorous. This will help to ensure that new teachers start their career with the minimum competence to teach. At the same time, implementing the merit-based career path that was developed in 2016 will help motivate teachers to develop new competencies and take on new roles and responsibilities (Santiago et al., 2013[3]). Many OECD countries are moving towards introducing similar career structures, which serve not only to identify and reward the most effective teachers, but also to leverage their expertise to improve the quality of teaching across the education system. In North Macedonia, teachers who are promoted to advisor and mentor levels will support other teachers. The latter will mean that teachers can receive regular, sustained guidance related to their daily teaching practice. These are some of the features of the most effective models of teacher support, and in North Macedonia will be essential to meet the challenge of improving teaching and learning at the national level.

Recommendation 3.1.1. Introduce the planned performance-based teacher career structure

Before implementing the 2016 plans for a merit-based career structure, the BDE and the ministry will need to clearly define the process of external appraisal. The 2016 plan broadly defines how appraisal for promotion should function (e.g. the responsible body and the pre-requisites for teachers to apply), but it does not spell-out how teachers seeking a promotion will be appraised by BDE advisors and the process of this appraisal. The latter is essential for effective implementation, so that the new appraisal is a professional process that genuinely rewards merit, and is recognised and trusted by teachers as being fair.

The ministry will also need to ensure that BDE and VETC evaluators receive sufficient preparation and guidance for accurate and fair judgements about teaching competence. Finally, the ministry will need to ensure that other teacher policies such as professional development are based on the new teacher standards and are well-aligned with the new career structure.

Focus appraisal on collecting authentic evidence of teachers' readiness to move up the career path

To make a fair judgement on teaching competence, evaluators from the BDE will need to draw on different sources of information. These might include:

- **Classroom observation**: classroom observation is a key component of all types of appraisal since it enables direct observation of the core aspects of teaching (Goe, Biggers and Croft, 2012[9]). To help evaluators conduct this process as consistently and objectively as possible and ensure that it is able to discriminate the competencies required by teachers to move to the next level, further guidance will need to be developed (see below).

- **Teacher portfolio**: BDE advisors might also review teachers' portfolios, since portfolios also provide authentic examples of teaching practices. However, the current design of teacher portfolios in North Macedonia means that they do not currently provide this information. At present, the portfolios include lesson plans and student work, which are a helpful indication of their classroom practices. However, they also include other forms and documents that teachers prepare specifically for the portfolio such as minutes of meetings. This portfolio is checked by the SEI during the School Integral Inspection, but it seems to fulfil a primarily administrative compliance role.

  The portfolios will need to be revised to include more meaningful information about teaching by limiting the documents included in the portfolio to those that teachers produce or collect from students as part of their regular classroom practices. Such documents include samples of lesson plans, student work and student report cards (Santiago et al., 2017[27]). Teachers who are seeking promotion should also be required to include evidence of more complex teaching pedagogical approaches like performance-based assessments. Other documents produced primarily for the purpose of being included in the portfolio such as minutes from teacher-parent meetings can be a source of distraction from a teacher's core functions, reveal little about teaching competence and should be excluded.

  Documents such as activity plans for extra-curricular activities can be considered as optional and left to the discretion of teachers to include in their portfolio. In general, the teacher portfolio should provide a narrative of a teacher's experience in the classroom and his or her aspirations for the future (Tucker, Stronge and Gareis, 2013[28]). Thus, teachers should be given the possibility to add documents that they deem helpful in illustrating their teaching competencies.

- **Interview with the candidate**: an interview between the evaluator and teacher provides the opportunity to discuss how the teacher views the development of their career, their motivation and career maturity. To focus the interview on relevant information for the promotion decision, evaluators should be provided with prompts like " how have you demonstrated aptitudes required for the next teaching level?"

Develop indicators and descriptors of quality teaching

Appraisal for promotion should focus on teachers' readiness to move to the next level in the teaching career path. The appraisal by the BDE or VETC advisors needs to focus on observing teaching practice that demonstrates teachers have developed higher levels of teaching competence. In order to do this, BDE and VETC advisors need greater guidance when undertaking the appraisals. At present, there is a BDE classroom observation protocol for regular appraisal. However, it is not aligned with the 2016 teaching standards. It also does not include descriptors to guide advisors' judgement about the performance of appraised teachers.

Appraisal indicators and descriptors should be developed to guide evaluators when undertaking promotion appraisals. In many OECD countries, frameworks and guidance for appraisal for promotion have been inspired by the four-point performance scale in the Danielson's Framework for Teaching (Danielson, 2007[25]). This includes Chile's Good Teaching Framework indicators that identifies four levels of performance and the criteria required to reach each. North Macedonia might consider these criteria when developing teacher appraisal indicators (see Box 3.2).

Develop BDE and VETC evaluators' capacity for appraisal

The 2016 plans propose that the BDE would be the main institution responsible for appraising teachers for promotion, drawing on advisors from the VETC when appraising vocational subject teachers. However, the BDE has a limited number of permanent advisors (70 advisors for about 25 000 teachers in 2017), who had previously worked as teachers and are well-regarded in the country. The BDE needs to be given the financial resources to hire sufficient advisors for the appraisal for promotion. Evaluators would need to receive training and guidelines on how to appraise teachers' competencies in line with the teaching standards. This step is necessary to ensure that advisors have the professional competence to undertake their new role. This will help to build the trust of the teaching community and limit political interference. In Chile, practising teachers go through selection and training and only those who are rated as outstanding and competent can apply to become peer evaluators (Box 3.2). They receive training in two full-day seminars, during which they learn about the questions to be asked in the peer interview and the rubrics to be applied in assigning performance ratings. The training also includes exercises and feedback to the participants (Santiago et al., 2013[3]).

Box 3.2. Performance criteria and levels in teacher standards

In Danielson's Framework for Teaching, the four main dimensions of the teacher framework (planning and preparation, the classroom environment, instruction and professional responsibilities) relate to further components, (for example, one component of "the classroom environment" is creating an environment of respect and rapport). Each component is related to an element to be evaluated, for example, "creating an environment of respect and rapport" is assessed by evaluating "teacher interaction with students". Each element is accompanied by a brief description of performance according to a four-point scale:

- Unsatisfactory: interaction with at least some students is negative or inappropriate to the age or culture of the students; students exhibit disrespect for the teacher.
- Basic: interaction is generally appropriate but may reflect inconsistencies, favouritism or disregard for students' cultures; students exhibit minimal respect for the teacher.
- Proficient: interactions are friendly, demonstrating warmth, caring and respect, and appropriate to developmental and cultural norms; students exhibit respect for the teacher.
- Distinguished: the teacher demonstrates genuine caring and respect for individual students, and students respect the teacher as an individual.

Chile's Good Teaching Framework

The Good Teaching Framework that guides appraisal in Chile set out four domains of teacher responsibilities (preparation for teaching, creation of an environment favouring the learning process, teaching that allows the learning process of all students, and professional responsibilities). Each domain is linked to a specific set of criteria that teachers should demonstrate within each domain as well as descriptors that set out how teachers can be expected to demonstrate the criteria.

Example of domains and criteria from Chile's Good Teaching Framework

Domains	Criteria (the teachers should be prepared to)	Examples of descriptors
A – preparation for teaching	A1. Master the subject taught and the national curricular framework. A2. Know the characteristics, knowledge and experiences of his/her students. A3. Master the didactics of the subjects or disciplines taught by him/her. A4. Organise the objectives and contents consistently with the curricular framework and the characteristics of particular students. A5. Use assessment strategies that are consistent with the learning objectives, the subject taught, and the national curricular framework, and allow all students to show what they have learnt.	The teacher - knows and understands the core principles and concepts involved in the subject(s) or discipline(s) taught by him/her. - knows the different perspectives and the new developments in the subject(s) or discipline(s) taught by him/her. - understands the relationship between the contents taught by him/her and the contents taught in other subject(s) or discipline(s) - knows the relationships between the contents of the sub-sector taught by him/her and the reality. - masters the principles of the curricular framework and the focus of the sub-sector taught by him/her.

Four levels are used to describe teacher performance against the standards (outstanding, proficient, basic, poor). Examples of performance at each level are provided for each descriptor. The table below sets out the performance levels for descriptor A.1.1. – "the teacher knows and understands the core principles and concepts involved in the subject(s) or discipline(s) taught by him/her":

Outstanding	The teacher shows a wide knowledge of the contents taught by him/her and establishes connections between such contents and the different aspects of his/her subject or discipline and reality, showing a permanent updating of such knowledge.
Competent	The teacher shows a strong knowledge of the contents taught by him/her and establishes connections between such contents and the different aspects of his/her subject by relating them with reality.
Basic	The teacher shows a basic knowledge of the contents taught by him/her, but is unable to establish connections with other aspects of his/her subject, or relate them with reality.
Unsatisfactory	The teacher makes mistakes regarding the contents of the subject taught by him/her, and/or is unable to be aware of the mistakes made by the students.

Sources: (Danielson and McGreal, 2000[29]), *Teacher evaluation to enhance professional practice*, Association for Supervision and Curriculum Development (ASCD), Alexandria, Virginia; (OECD, 2013[2]), *OECD Reviews of evaluation and Assessment in Education, Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en; (Santiago et al., 2013[3]), *Teacher Evaluation in Chile 2013*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264172616-en .

Link career promotion to a salary increase to reward performance

Contrary to practices in most OECD countries, the 2016 career structure plan does not explicitly define how career advancement will be linked to salary progression. The absence of a financial reward in the career advancement plan may discourage many teachers from

applying for a promotion. For instance, in neighbouring Serbia, while a merit-based career advancement plan was introduced in 2011, only a limited number of teachers apply for advanced positions due to the limited financial incentive to do so.

Introducing differentiated salaries for teachers as they move up the career path might be accompanied by a general review of the teacher salary structure in North Macedonia. Aside from linking promotions to higher salaries (which should address the slow salary progression at present), this should also focus on creating a stronger link between performance and salary. At present, salary increases in North Macedonia are based on years of experience. However, in most OECD countries salary progression is also based on good results from regular appraisals to incentive good teaching practices, as well as years of experience (OECD, 2013[2]). In order to implement a similar system in North Macedonia, there needs to be more clarity around the criteria that teachers have to meet for a positive regular appraisal and the steps that should be taken to address underperformance.

Clarify the link between professional development and career advancement

In a merit-based career development structure, teachers need to demonstrate more advanced competencies to move up the career path (OECD, 2013[2]). This often requires professional development to gain new skills and update practices. This is recognised in North Macedonia's 2016 plans, which requires teachers to complete a specified number of professional development credits to qualify for promotion and in the requirement that teachers develop their professional development plan based on the results of their self-evaluation.

However, teachers are not provided with guidance about which professional development training will best help them gain the competencies needed to move up the career path. Without such guidance, the professional development requirement risks becoming a compliance exercise with teachers attending training simply to gain the necessary points for promotion. To ensure that the career structure effectively encourages teachers to improve their skills, the following should be considered:

- **Clearly identifying the competencies targeted by the trainings provided.** As part of its role for accrediting and cataloguing continuous professional development training, the BDE should clearly signal the competencies that are targeted by each accredited training (see Recommendation 3.3.1). It is important that the VETC be engaged when a similar exercise targeted at the vocational education and training sector is undertaken.
- **Ensuring that school principals and pedagogues are able to orient teachers towards the training that will be help them**. To do so, the BDE needs to organise training sessions for school principals, pedagogues, psychologists and SEN specialists on how to help teachers identify their learning needs and relevant professional development that will meet them. Linking teachers' development plans explicitly with the new teacher competencies will also help. The VETC has an important role in helping support school principals and pedagogues in VET institutions.
- **Requiring teachers to demonstrate how they have applied completed professional development to their role.** Teachers should be required to demonstrate how they have integrated what they learn during professional development into their classroom practice as part of the promotion appraisal, to demonstrate increasingly sophisticated teaching knowledge and practice. As part of

the appraisal interview, this might include discussing specific examples of the changes that they have made to their lesson planning, classroom activities and student tasks, demonstrated by items from their portfolio.

- **Developing built-in rewards to incentivise teachers to progress in the career path** by, for example, offering salary progressions or other benefits (e.g. scholarships). Support mechanisms and specific rewards targeted at teachers in less developed regions of the country should be established to ensure that they have the same opportunities to progress as their peers in advantaged regions.

Recommendation 3.1.2. Select the most qualified candidates for teaching and ensure that they receive adequate support during probation

Countries with strong education systems invest significantly in making sure that they attract and select talented and motivated candidates into teaching, and provide them with adequate training to develop the competencies required to be effective teachers (Schleicher, 2015[30]). In North Macedonia, entry into teacher initial education is not selective. A study has shown that the acceptance rate into initial teacher education programmes in universities is almost 100% across the country (Mickovska et al., 2013[19]). Moreover, while there is university accreditation, it is not providing robust quality assurance.

North Macedonia needs be more rigorous in the certification and full registration of new teachers. This will require introducing minimum national standards of quality in the certification process, based on the expected competencies for novice teachers, and enforcing them across initial teacher training providers. The mentorship model developed in 2016 should also be implemented to ensure that all trainee teachers receive the necessary in-school support to become confirmed teachers.

Set higher standards for accreditation of initial teacher education programmes

The ministry is aware that ensuring all teacher candidates meet minimum competence standards at the end of initial teacher education is critical to improve teaching quality in the country. This is reflected in the proposal to create an academy that would introduce an additional year of initial teacher training at the end of a candidate's bachelors, for the purpose of selecting and training teacher candidates.

While the intent of the academy is positive, it will not address the deeper problem of lack of selection and heterogeneity in the quality of initial teacher education programmes. Instead of introducing an additional layer of initial selection, it would be more efficient and effective to make initial teacher education more selective and rigorous. There are currently no common standards and no means to compare the quality of training across initial teacher training providers. The ministry has very weak leverage points on the universities to enforce quality standards. The university programme accreditation system uses similar quality criteria for all tertiary education programmes, which means that it does not provide effective quality control of the content of initial teacher education.

As part of a wider reform of the accreditation of tertiary, North Macedonia needs to ensure that the accreditation of initial teacher education programmes in universities is specific to teacher education and is aligned with the 2016 teaching standards. Along with the standards, the BDE has developed guidelines explaining the competencies that a novice teacher is expected to have. As part of accreditation, universities should be expected to clearly demonstrate how their training programmes will help students meet the

competencies of novice teachers described by the teaching standards in order to be accredited (see Box 3.3).

Box 3.3. Ireland's initial teacher education criteria and guidelines

In 2010, the Teaching Council in **Ireland**, which accredits initial teacher education programmes, established an Advisory Group on Initial Teacher Education as part of the country's efforts to revise initial teacher education by engaging relevant stakeholders and co-ordinating their input. The Advisory Group consisted of representatives of the Teaching Council, Ireland's Department of Education and Skills, initial teacher education providers and schools. Its main responsibility was to advise the Council on new criteria and guidelines to be followed by providers of initial teacher education programmes. The Group also formed a bridge between the Teaching Council's policy and the development and implementation of initial teacher education programmes.

The criteria and guidelines the Teaching Council established emphasise that programmes should prepare teacher candidates "for teaching, learning and assessment" related to the school curriculum. Specifically, a number of criteria and guidelines highlight preparation in classroom assessment. For example, initial teacher education providers must ensure that:

- Teaching, learning and assessment are mandatory elements of the programme.
- School placements provide opportunities for teacher candidates to practice teaching, learning and assessment using a wide range of strategies.
- Graduates of initial teacher education programmes achieve knowledge of key principles of planning, teaching, learning, assessment, reflection and self-evaluation (e.g. knowing the theory, concepts and methods of formative and summative assessment; understanding students as active learners). Graduates should also have developed skills in planning, teaching, learning and assessment (e.g. using a range of strategies to assess students' progress; assessing students' achievement of curriculum objectives and adapting their teaching accordingly).

Source: (The Teaching Council, 2017[31]), *Initial Teacher Education: Criteria and Guidelines for Programme Providers*, http://www.teachingcouncil.ie/en/Publications/Teacher-Education/Initial-Teacher-Education-Criteria-and-Guidelines-for-Programme-Providers.pdf.

Make entry into initial teacher education more selective

As well as addressing accreditation, North Macedonia should prioritise reforming entry into initial teacher education. The current approach, which means that almost all candidates who apply receive a place, has a number of negative consequences for the teaching profession. First, it does not ensure that only candidates with strong academic skills and a clear motivation to teach enter the profession. Second, it is resulting in a significant oversupply of new teachers which undermines the attractiveness of the profession, especially in the absence of fair and consistent information to help schools select new teachers. Finally, it is an inefficient use of government resources (since all initial teacher education places within the quota are subsidised by the government), in an education system where education spending is consistently below international benchmarks.

The current oversupply of teachers, combined with the declining student population creates significant space to be more selective about who enters teacher education. One simple way to do this in the short term is to reduce the quotas for government-funded places. The revised quota would encourage universities to use *matura* results to be more selective about candidates who receive a place. The ministry might also consider introducing minimum marks in core subjects like mother tongue and mathematics for eligibility for teacher education programmes. This would ensure that all teacher candidates have strong core academic skills. In the future, universities might also be encouraged to use interviews to select candidates. An interview provides the opportunity to evaluate a candidate's motivation to teach, as well as socio-emotional skills which are essential for good teaching.

Consider introducing a national qualification exam

The ministry should also consider introducing a national qualification examination at the end of initial teacher education to make sure that all certified teachers meet minimum standards to teach. In OECD countries with similar practices, qualification examinations include an assessment of teachers' subject knowledge, pedagogy and basic numeracy and literacy skills (Hobson et al., 2010[32]). For example, in Germany prospective teachers must pass the Second State Examination after the completion of initial teacher education. The examination assesses candidates' knowledge of their chosen subject, civil service legislation and school administration. In addition, candidates undertake a practical teaching examination (see Box 3.4). An examination will also put pressure on universities to adapt their programmes to meet the standards of the qualification examination. Making the passing rates by university in the national examination public will also help inform the choices of students, and further incentivise universities to invest in the quality of their training. To avoid redundancy and examination burden, the national qualification examination can replace the confirmation examination, currently at the end of the probation period. While an examination gives a good measure of teachers' knowledge, it is not enough to fully certify a teacher. Full registration requires a broader assessment of a teacher's competencies, including classroom practices (Hobson et al., 2010[32]). Appraisal for probation, including classroom observations, is a better method to evaluate a novice teacher's competence.

Box 3.4. Certification examination after ITE in Germany

Following the completion of initial teacher education (a consecutive three-year Bachelor and a two-year Masters' degree, concluded by the First State Examination) and of the preparatory service (that consists of teaching practicum and attendance to teachers' seminars), prospective teachers must pass the Second State Examination ('*Staatsexamen*'). The Second State Examination has to be taken before a State Examination Board or a State Examination Commission.

Although the content varies across *Länder*, the Second State Examination usually consists of four parts (some states only have three components to the examination). The first part consists in the majority of *Lände*r of submitting a major written paper relating to educational theory, pedagogic psychology or the didactics of one of the subjects studied. Second, prospective teachers have to pass an oral practical teaching examination involving demonstration lessons in the chosen subjects. The third part consists of an examination on basic questions of educational theory, educational and civil service legislation and school administration and occasionally on sociological aspects of school education. The fourth

part consists of an examination on didactic and methodological issues in the subjects studied. It generally includes a written thesis, an oral assessment, and a demonstration/evaluation of teaching skills. Nearly all teachers pass this examination. The weighting of each component of the Second State Examination vary across the Länder. The second State Examination is a pre-requisite for, but not a guarantee of permanent employment in the state school sector.

For alternative routes into teaching, candidates must have a master's degree, which must include "at least two teaching-related subjects," and complete the preparatory service and Second State Examination or a state-approved equivalent.

Sources: (NCEE, n.d.[33]), *NCEE | Germany: Teacher and Principal Quality*, http://ncee.org/what-we-do/center-on-international-education-benchmarking/top-performing-countries/germany-overview/germany-teacher-and-principal-quality-2/ (accessed on 14 April 2018); (Eurydice, n.d.[34]), *Initial Education for Teachers Working in Early Childhood and School Education*, Eurydice, https://eacea.ec.europa.eu/national-policies/eurydice/content /initial-education-teachers-working-early-childhood-and-school-education-30_en (accessed on 14 April 2018); (Krueger, n.d.[35]), *Teacher Education in Germany*, Ministry of Education, State of Hessen, http://entep.unibuc.eu/wp-content/uploads/2017/07/NAT_REPORTS_KRUEGER.pdf.

Ensure that all teachers receive quality mentorship during their probation

Mentorship programmes are an effective way to help new teachers learn from experienced peers (OECD, 2010[36]).The existence of a framework for mentorship in North Macedonia is a positive component of the teacher induction process. The country has clear guiding documents defining the role and responsibilities of mentors and mentees, and how the process should be carried out. However, this framework has not been implemented and many trainee teachers do not receive mentorship as part of their probation period.

As part of implementation of the new teacher career structure, the teacher mentor role will be recognised and rewarded as a higher level in the teacher's career path. School principals can then assign mentors to novice teachers from a pool of mentors. To make sure that quality mentorship is effectively taking place in schools, the ministry needs to consider:

- **Ensuring that mentors receive adequate training on how to coach a novice teacher and how to appraise their performance**. Such training should be mandatory for all newly appointed teacher mentors. In developing the training, the ministry and BDE can draw on the experience of countries with well-established mentoring programmes, such as Estonia (see Box 3.5). The mentorship guidelines developed in 2016 by the BDE and USAID should be provided to all mentors.
- **Legally setting the time requirement for mentors.** Effective mentoring requires adequate time and effective preparation. In North Macedonia, teacher mentors should be given significant, dedicated time for mentoring and its preparation, which will mean reducing their teaching time.
- All teachers in North Macedonia would also benefit from greater guidance on how to spend non-teaching time. For example, novice teachers should receive specific time for receiving mentoring.
- **Creating a network of teacher mentors that work with several schools**. Giving the demographic changes in North Macedonia and the need to reduce the number of teachers recruited into the profession, there will not be a need for teacher mentors in every school. Mentors can thus be assigned across several schools and work as

a network to exchange ideas and practices. This might be co-ordinated by the BDE or the municipalities.

Box 3.5. Estonian strategy to further develop school leaders, 2014-20

Plans to strengthen the evaluation of school leader performance

School leaders should be regularly assessed against the competence requirements for the position. The role of a school leader in creating a school's culture is of crucial significance, because the learning environment depends first and foremost on the school leader – whether they value, motivate and support a learner and their developmental potential, whether they support the development of teachers and other school staff members, and whether the school works well with the community and families. In order for Estonian schools to be led by competent and motivated school leaders, who have the determination and ability to carry out the objectives set out in the strategy, the following steps need to be taken:

- Associations of School Leaders of pre-primary institutions, general education schools, vocational schools and institutions of professional higher education, and school owners will develop and the Ministry of Education and Research will implement competence requirements for school leaders. This will be the basis for recruiting school leaders, providing feedback on their performance, as well as offering additional training, which among other things also emphasises the objective of implementing the new approach to learning.
- The Ministry of Education and Research will launch a training programme for future school leaders, from which the best candidates will be chosen through open competition (see below).
- The Ministry of Education and Research, in co-operation with school owners, will develop an external appraisal system for school leaders, through which they will get regular professional feedback about their work and how it relates to the school's results, as well as suggestions for additional training. The quality indicators of the institution will be used as the basis in assessing the results of the work of the school leader.

New professional development programmes for school leaders in 2015

- **School team development programme:** 12-month management training programme with the school leader and two other staff members, covering different school management topics. Each module includes tasks which form the basis of a school development project. There is a follow up six months after the end of the programme to observe how the project is being implemented.
- **School Leader Offspring Programme:** 24-month development programme for future school leaders, open to school staff, plus individuals from other sectors. Participants are selected via a competition. Each participant has a mentor and performs field training in schools. The programme offers different modules, including an introduction to pedagogy and the management of learning for those not in the education sector.

- **Programme for new school leaders:** A programme designed to help new school leaders with implementing their responsibilities and to shorten their introduction period. It provides an overview of legislation, financial management, innovation in education, trends, etc. and provides a co-operation network.

Source: (Santiago et al., 2016[37]), *OECD Reviews of School Resources: Estonia 2016*, OECD Reviews of School Resources, OECD Publishing, Paris, https://doi.org/10.1787/9789264251731-en .

Make BDE advisors the final decision makers for probation appraisal

By ensuring that all novice teachers receive a mentor who develops a report that contributes to their probation appraisal, probation appraisals in North Macedonia will provide a more accurate reflection of a novice's teachers' competencies. However, given the high stakes that probation appraisal carries for a teacher's career and the challenges of ensuring objectivity and independence at the school-level, consideration should be given to strengthening and formalising BDE advisors' involvement in the probation decision. This might follow a similar arrangement as other countries where an external evaluator is involved in probation appraisal, with the BDE advisor responsible for taking the final decision but informed by evidence from the mentor's report. As discussed below, this will need to be accompanied by a revision and reinforcement of the BDE's role (see Recommendation 3.3.3.).

Policy issue 3.2. Developing a culture of learning and feedback in schools

North Macedonia has three processes of regular appraisal – as part of external school evaluations by SEI inspectors, by BDE advisors and school-level appraisal by school leadership. These processes are not co-ordinated, overlap and show little evidence of improving teaching practices.

One reason is that the processes are currently not underpinned by common teaching standards. The BDE, SEI and school leaders use different guidelines and different descriptors of teaching quality (see Table 3.2). Some teachers reported to the review team receiving contradictory feedback from the SEI inspectors and the BDE advisors. Teachers also reported feeling a high level of administrative burden from the required reporting and paperwork for both processes. Another challenge is that two of these processes – by the SEI and the BDE – are external to the school and are led by agencies that do not have the human resources for regular and meaningful classroom observations.

This review recommends that North Macedonia phase out the role of the BDE and the SEI in regular appraisal. Instead, the SEI should focus on undertaking the whole of school evaluations (see Chapter 4). The BDE should become the main external body for teacher appraisal, responsible for appraisal for probation and promotion (see Recommendation 3.1.1.), and for providing guidance and support to the "Teacher Actives" (see Recommendation 3.2.2.). The VETC would continue to play a role in the appraisal of teachers in vocational subjects. This clear definition of roles will help reduce redundancies and improve school evaluation and teacher appraisal practices in North Macedonia.

The review recommends that the ministry focus on developing in-school practices for regular appraisal and support for teachers. Research shows that support at the school level, which is sustained and connected to teachers' daily practices, is the most effective in improving teaching practices. North Macedonia has several in-schools practices to help

teachers – the "Teacher Actives", the multi-professional support team and the regular process of in-school teacher appraisal. However, they are not well-implemented in all schools and there are few external resources to support them. The BDE will need to provide guidance to schools and additional tools to develop these practices into a coherent system of in-school feedback and development. This is particularly important given the fact that North Macedonia has a young teaching workforce that needs support and guidance to develop good teaching practices.

Recommendation 3.2.1. Guide principals and pedagogues to make regular appraisal a more meaningful process

Regular appraisal in North Macedonia already draws on many of the processes and sources of evidence that are recognised to provide some of the most relevant insights into teaching practice. This include classroom observations and teacher portfolios. However, these processes are not effectively focused on the most important aspects of teaching for student learning. They are also disconnected from the fundamental purpose of regular appraisal – to support teachers to consolidate existing skills and acquire new skills, to move up the teaching career path.

Focus regular appraisal on teacher competencies

In order to support teacher development, regular appraisal needs to be clearly connected to the overall competencies that teachers are expected to develop. However in North Macedonia, a third of teachers surveyed for this review reported that they did not know what criteria they were evaluated against during their regular appraisal. Once the new teacher standards are implemented, they should clearly guide the regular appraisal process in North Macedonia. This review recommends that North Macedonia revises regular appraisal to focus on classroom observations for formative feedback, reviewing a teacher's portfolio together and a teacher's self-reflection at the end of the year. This can be followed by a discussion between the evaluator and teacher to identify areas for improvement and establish a development plan for the coming year.

Each of these elements needs to be clearly focused on appraising a teacher against the new teacher standards, and encouraging their further development to higher levels of teaching competence. For example, guidance for principals and pedagogues on how to observe classroom practices should encourage them to look for evidence of the competencies set out in the teacher standards. The standards might be used to develop a report template and a simple appraisal grid.

North Macedonia should ensure that regular appraisal informs individual development plans for all teachers. Development plans provide specific and discrete areas of improvement and set out how the teacher intends to address them during the coming year. Evaluators and teachers being evaluated should work together to establish plans at the end of a regular appraisal, guided by the new teacher standards. For example, if the appraisal has indicated a learning need in one or more competency areas, this should be the focus of the teachers' development plan for the coming year. Principals and pedagogues should also use previous appraisal reports and development plans to guide future regular appraisals. If, for example, a particular area has been flagged as a development need, during the classroom observation the evaluator might focus on this competency area in particular.

Revise teacher portfolios

Teachers' portfolios can be a powerful tool for regular appraisal, as they can provide authentic examples of a teacher's practices. It is also a tool for self-reflection on one's teaching practices (OECD, 2013[2]). However, as North Macedonia's current experience with portfolios demonstrates, it can be difficult to make them effective in this way. At present, the teacher portfolio is not systematically used by principals and pedagogues in regular appraisal to provide feedback, and is perceived by teachers as an administrative burden that distracts them from teaching.

Given that many principals, pedagogues and teachers are not accustomed to using the portfolio in a formative manner, the BDE can develop guidelines on how to meaningfully use it and examples of good practice. One option to help focus portfolios on teachers' growth and development might be to use the new teacher standards to orient the portfolio towards demonstrating competencies. Portfolios might focus specifically on areas for development as set out in a teacher's development plan for the coming year. In this way, the portfolio would provide a record of how the teacher had pursued their development over the year and evidence of this, which can inform their self-reflection as part of the regular appraisal process.

Introduce self-evaluation

Contrary to practices in most OECD countries, teachers in North Macedonia are not required to evaluate their own performance and identify the areas they would like to develop (OECD, 2013[2]). Self-appraisal allows teachers to play a more active role in their professional development, by reflecting on their teaching practices, the personal organisational and institutional factors that may impact this, and how they plan to develop. Self-appraisal can also encourage teachers to set up regular professional development goals for themselves and objectives for their teaching (OECD, 2013[2]).

North Macedonia should consider introducing self-appraisal as part of the in-school regular appraisal process. To support this, teachers should be provided with simple self-appraisal templates that they can use if they need direction. Information from self-appraisal can inform the discussion between the teacher and the school leadership to develop the teacher's professional development plan.

Provide principals and pedagogue with training on teacher appraisal

Principals and pedagogues do not receive the necessary training and technical support to make appraisal a meaningful exercise (Mickovska et al., 2013[19]). In 2005, North Macedonia introduced an initial training programme for principals but it is relatively short (12 days). The programme's main purpose is to prepare principals to take a licensing examination rather than acquiring the skills needed for a pedagogical leader like appraisal techniques. Since initial training has only been recently introduced, the majority of in-service principals have not received any preparation for their role.

It is important that future school principals and pedagogues receive sufficient training in appraisal techniques as part of their initial preparation. This will require lengthening the initial preparation programme for principals, and ensuring that training focuses on practical knowledge for observing teaching and providing feedback for improvement. The initial principal training specifically on appraisal might also be opened up to school pedagogues. In the short term, the BDE can also organise training sessions on appraisal for school principals and pedagogues. These training sessions can be provided by school principal

training providers from other European countries with established programmes for principals' initial preparation.

Recommendation 3.2.2. Develop the "Teacher Actives"

Teachers in North Macedonia have an informal culture of in-school collaboration. They exchange teaching material and discuss students' learning and work with each other as part of in-school teacher subject groups called "Teachers Actives". This kind of in-school collaboration is one of the most effective modes of continuous learning for teachers. It helps teachers better understand and meet students' learning needs, and increases their self-esteem and sense of self-efficacy (Schleicher, 2016[1]). It is unclear however if North Macedonia's "Teacher Actives" are effectively in place in all schools. There is no clear expectation that teachers participate in the "Actives" or dedicated time to devote to it, and the "Actives" lack any external support or funding. Schools need to be provided with more help and guidance to develop the "Teacher Actives" and foster a culture of in-school learning and development.

Give "Actives" a clear mandate for teachers' professional development

The BDE can encourage schools to develop their "Teacher Actives" by giving them an official role in teacher professional development. This might entail:

- In the immediate term, **giving schools examples of collaborative professional development activities that "Teacher Actives" can undertake**. Such activities might include: observing each other's classes and providing feedback, organising in-school training activities by choosing programmes most suited to the needs of teachers from the BDE catalogue; and leading guided collaborative inquiries (Content-Based Collaborative Inquiry) to better understand what changes in teaching practices can help improve students' learning (Kedzior and Fifield, 2004[38]). In Vietnam for example, teachers from the same subject group observe each other's classes and organise in-school professional development activities (see Box 3.6).
- Another immediate step could be **to invite teachers from other European countries with a long experience of in-school teacher collaboration** such as teachers from the Nordic or Baltic countries to visit schools in North Macedonia and share their experiences with collaborative learning. Such activities could be financed by European Union funds as part of Erasmus+.
- **Specifying a minimum number of hours that teachers are expected to contribute to participating and contributing to the "Actives" or other forms of collaborative learning activities at the school level as part of their non-instructional time**. This can support a more effective use of non-teaching time and improve teaching practices.

Box 3.6. Subject groups in Vietnamese schools

Teachers in **Viet Nam** are personally responsible for their professional development. Teachers are expected to design and implement an annual personal professional development plan for the year based on feedback from the performance management system, which is monitored by the school principal.

Informal professional learning takes place through the work of subject groups, a distinctive feature of the Vietnamese education system. Under the co-ordination of the subject lead, teachers from the same subject observe each other, grade each other's teaching and provide diagnostic feedback. As such, subject groups act as an accountability mechanism and a forum for professional development based on classroom-level peer coaching. The regular classroom visits principals make to observe teaching also appear to provide an important form of pedagogical coaching for teachers. As with the subject group, monitoring by principals is about coaching teachers as well as grading teaching quality.

Source: (Mcaleavy, Ha and Fitzpatrick, 2018[39]), *Promising Practice: Government Schools in Vietnam, education Development Trust, Reading*, https://www.educationdevelopmenttrust.com/our-research-and-insights/research/promising-practice-government-schools-in-vietnam.

Train co-ordinators of "Teacher Actives" and ensure that this role is recognised in the merit-based teacher career structure

Within schools the BDE should designate and train co-ordinators of the "Teacher Actives" to ensure that "Actives" are developed across all schools. The ministry can prioritise training for co-ordinators in priority subjects and grades such as reading and mathematics in primary schools, or how to best support students from the Albanian ethnic minority (see Box 3.7 for example of Georgia). Once the merit-based career structure is implemented, teacher advisers should be given a clear mandate to co-ordinate the work of "Actives", with this stated in their responsibilities.

In North Macedonia, the informal teacher groups – the "Teacher Actives" also need to be provided with some small discretionary funds to undertake their development activities. The main cost for "Actives" are the materials used in meetings and training sessions. Funding, can also cover the costs of bringing an external expert to moderate or guide a training session.

Box 3.7. Teacher Learning Circles in Georgia

Launched in 2011, and ending in 2016 the Georgia Primary Education Project (G-PriEd) was programme designed by USAID to provide comprehensive assistance to around 28% of **Georgia**'s public schools to improve the reading and mathematics competencies of students in grades 1-6, and to introduce financial literacy. A major component of the project was supporting teachers to improve reading and mathematics instruction. The emphasis was on creating school-based professional development. In particular, teacher learning circles for mathematics and reading were created for teachers to collectively discuss student achievement and ways to enhance instructional effectiveness through discussion of examples of lesson plans and model classes. G-PriEd trained over 1 000 facilitators for each subject group to take on coaching functions and undertake classroom observation.

Source: (USAID, 2018[40]), *Georgia Primary Education Project (G-PriEd)*, https://www.chemonics.com/wp-content/uploads/2018/07/Georgia-Primary-Education-Project-G-PriEd-Final-Report.pdf.

Recommendation 3.2.3. Review the role of the in-school support team

Schools in North Macedonia fail to meet the learning needs of a majority of students. In 2015, over half of the students participating in PISA failed to reach proficiency Level 2 in science, mathematics and reading – considered the baseline level of skills required for productive participation in society (OECD, 2016[41]). A United Nations Children's Fund (UNICEF) study about inclusive education in North Macedonia showed that teachers were unable to reflect on the quality of their own teaching and how it impacts learning (UNICEF, 2010[42]).

The pedagogue, the SEN advisor, the psychologist and the principal are supposed to help teachers ensure that all students' needs are met. However, the school support staff lack practical training to provide meaningful feedback to teachers. The review team observed that understanding of roles and responsibilities of pedagogues and SEN advisors varied across the sample of schools visited. Moreover, some of the school support staff, in particular SEN advisors and pedagogues, have no practical training or teaching experience, and their initial education focuses on outdated theories of special educational needs that in many respects run contrary to the principles of education inclusion. Significant changes will be required to how support staff work and are prepared if they are to have a positive influence on teachers' classroom practice.

Revise the role of the school support team

The mandate of support staff should be clarified to focus more strongly on providing support to teachers on how to create a more effective and an inclusive learning environment. In some of the schools visited by the review team, pedagogues perceived their role as being limited to helping teachers manage "problem" students at high risk of failure, instead of supporting teachers to understand the learning needs of each student and help them design lesson plans that are adapted to their needs. This narrow definition of support for learning is not wide enough if the education system is to rapidly and significantly improve student learning outcomes. This will require a significant change to the role of the school support team and how they work with teachers.

The ministry should consider introducing a multi-tier support model, similar to that used in OECD countries such as Finland. This provides different "tiers" of support to meet the

different needs of learners both in the classroom and outside through targeted support (Mitchell, 2014[43]). In a multi-tier approach, the school support team works together with teachers and the school principal to make sure that lesson plans effectively address the individual learning needs of students (Tier 1); students at risk of falling behind are provided with additional support in the classroom and through remedial classes (Tier 2); and students with serious learning deficiencies are provided with additional specialised support (Tier 3) (see Box 3.8). In order to introduce such comprehensive approach, the ministry will need to introduce major changes to how the school support team works: the MoES can build on the Guide for School Inclusive Teams developed in 2017 by the BDE in collaboration with UNICEF (BDE, 2017[44]).

- **Meeting regularly as a group to review teachers' learning plans**. Teachers in North Macedonia are required to set medium and long-term plans for their classes. These plans are mainly an administrative requirement with limited impact on teaching and learning practices. Instead, the multi-professional team should review the plans to ensure that teachers have identified the different learning needs of the students in their class (e.g. who is on track to achieve national standards, who needs further support and who needs to be challenged) and put in place differentiated strategies to meet these needs. Teachers should be provided with practical, specific and constructive feedback to help them improve their plans.
- **Meeting regularly with teachers to provide guidance and feedback on classroom practices.** Currently, teachers meet with pedagogues and SEN advisors to discuss specific student cases. As part of the multi-tier approach, the support team should also provide teachers with advice on classroom-wide approaches to improve learning outcomes in addition to helping address specific cases. This kind of support would be particularly valuable at the start of the school year, to help teachers develop effective plans for the coming year, at regular intervals during the year (e.g. end of semester) and at the end of the school year to review how it has gone and discuss strategies for the coming year.

Box 3.8. Multi-tier intervention model in Finland

In 2007, **Finland** introduced a new Special Education Strategy that was fully implemented by 2011. The new strategy was a response to concerns expressed by several municipalities about the increasing number of students referred to SEN support. The new strategy introduced a three-tier level of support to students at risk of falling behind:

- **Tier 1: General support** is accessible to all students and includes further in-class differentiation of learning, remedial teaching, co-teaching with specialised education needs teacher and part-time special education support. Organisation of this support is left at the discretion of the classroom or subject teacher.
- **Tier 2: A learning plan for intensified support** is prepared for students who need additional support. Teachers identify the students at risk through a pedagogical assessment and develop an action plan. The plan is often the same as the Tier 1 support but implemented more intensively. It is left to the school to decide on whether to offer other evidence-based targeted interventions.

- **Tier 3: Special support** is available when Tier 2 has proven ineffective to meet a student's needs. A pedagogical evaluation is conducted by multi-professional team in the school. Access to Tier 3 support requires confirmation by the municipality. The planned actions are specified in an official document the "Individual Education Plan" which has to be monitored and adjusted regularly.

Almost every school in Finland has multi-professional support teams that help teachers implement the multi-tier approach. These teams are led by the school principal and include psychologists, social workers, school nurses, special educators and occasionally speech therapists and medical doctors. The composition of the team and the intensity of the work vary to some extent by school size and location. In bigger cities and towns, the core team is present at school every week, which makes it easy to have regular meeting times. In remote areas, some professionals may be present only once or twice a month and not necessarily at the same time with the other professional groups. In those cases, more responsibility lies with the regular school personnel who need to select more carefully, which topics to discuss with the rarely seen team members.

In the majority of the Finnish schools, the teams meet weekly or bi-weekly to design and co-ordinate school- and class-level preventative work and general interventions. The team also monitors the situation of each class in the school to identify students at risk of falling behind in their learning. In practice, every class teacher or class supervisor attends the team meeting at least once a year to go into detail through the situation of their class and the individual students in it.

This policy was heavily supported by national authorities which provided municipalities with financial support over a period of four years to renew their curriculum, develop guiding documents for schools and train teachers prior to the legislation change.

Sources: (Thuneberg et al., n.d.[45]), *Conceptual change in adopting the nationwide special education strategy in Finland*, http://dx.doi.org/10.1007/s10833-013-9213-x; (Ahtiainen et al., 2012[46])*Tehostettua ja erityistä tukea tarvitsevien oppilaiden opetuksen kehittäminen 2007–2011. Kehittävän arvioinnin loppuraportti [Development of Teaching Improved and Special Needs Students 2007-2011. Final report of the development]* http://julkaisut.valtioneuvosto.fi/handle/10024/79219 (accessed on 27 April 2018).

Ensure that the school support team has the necessary skills and training to work as a multi-tier support team

Revising the role of the current school support team to become a multi-tier support team as outlined above will require a major reskilling of the existing team. In the immediate term, the ministry should provide mandatory training to pedagogues and SEN advisors on how to work with teachers to identify students' needs and how they can be best supported. In the medium term, once the competency standards for school support staff developed in 2016 are implemented, the ministry needs to make sure that initial training of school support staff in universities is aligned with these standards and with modern concepts of SEN and inclusive education.

To make more effective use of the pedagogues, in the future the ministry may consider shifting their role from undertaking classroom observations of individual teachers to supporting the "Teacher Actives" (as well as working in the multi-tier support teams). This kind of support might include reviewing lesson plans in collaboration with other members of the school support team. Moreover, pedagogues should cover several schools in a municipality (as in the Finnish example Box 3.8).

Policy issue 3.3. Strengthening external support for teachers' professional development

While strengthening in-school professional development is important to support teachers in adopting more effective practices, there remains an important role for external training, especially in a context such as North Macedonia, where the gaps in teacher knowledge and skills are significant and genuine pedagogical leadership capacity within most schools remains weak. At present, however, there are concerns with both the availability and the quality of external training courses in the country. The take-up of professional development is relatively low compared to OECD and Western Balkan countries, and schools receive very little financial support to organise in-service training for their staff. Moreover, there is a lack of alignment between the areas of priority for professional development identified by the BDE and the training needs of the teaching profession. As access to official training programmes is limited, teachers in North Macedonia often find and pay for training themselves and through informal teacher networks. To adequately respond to this demand, the BDE need to be provided with the necessary resources to offer quality professional development programmes. North Macedonia should also consider building on the experience of its informal online teacher networks to develop online training tools and resources for teachers.

Recommendation 3.3.1. Ensure that professional development meets teachers' needs

Teachers' participation in professional development is relatively low in North Macedonia, reflecting limited supply and quality. The country has a market-based teacher professional development model, with more than half of required professional development hours administered by external providers such as local non-governmental organisations (NGOs) and universities. While this model can help to provide a range of professional development opportunities, especially when central government's means are limited, it needs to be complemented by mechanisms for quality assurance. In North Macedonia however, the BDE has stopped accrediting professional development programmes. Insufficient financial resources also means that the BDE no longer provides funding to schools to subsidise teachers' professional development.

Accredit training programmes based on teachers' and national priorities

The BDE was responsible for maintaining a catalogue of accredited teacher professional development programmes. Teachers chose their training programmes from the catalogue based on their needs. The BDE needs to ensure that the accreditation process of training programmes is transparent, credible and based on international evidence about effective professional development. Some actors met by the review team questioned the transparency of the criteria used by the BDE to accredit training programmes in the past. A study in 2013 also pointed out that many teachers were unaware of the training programmes included in the catalogue (Mickovska et al., 2013[19]).

The areas of training that are accredited need to be informed by national priorities for learning. These areas can be identified through:

- **Teachers' core competencies defined in the teaching standards**. The training catalogue should be designed so that teachers can develop the full range of expected competencies. For each accredited training programme, the catalogue should clearly state the core competency it targets. This will enable teachers to identify training that will help them progress up the new teacher career path.
- **National priorities for teaching and learning as defined by the Education Strategy 2018-25 and the Action Plan for 2020**. For example, the catalogue should offer training on key reforms such as the on-going curriculum reform.
- **Gaps identified in students' learning.** Effective professional development is informed by students' learning needs. Standardised student assessments are a good source of information to identify areas in which students are facing difficulties (Kedzior and Fifield, 2004[38]). North Macedonia can use data from the proposed national student assessment once implemented to identify areas for training for teachers. Information from or national studies like the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA) can also be used to identify needs for training.
- **Teachers' training needs identified by the appraisal system.** The BDE needs to systematise how information is collected about teachers' training needs through appraisal. The BDE can request that school principals and pedagogues fill a questionnaire regularly about the main needs for training they observe in their schools.

Provide sufficient funding for teacher professional development

Increasing the funding for professional development is necessary to increase take-up and availability. As part of a new multi-year budget for the BDE, the ministry should ensure that the BDE has sufficient resources to fund the ten hours of quality training in national priority areas, which should continue to be provided free of charge to teachers. For the remaining hours of professional development that teachers are required to undertake (50 hours), earmarked subsidies should be given directly to schools as discretionary funding for choosing training that best serve the needs of their teachers.

Recommendation 3.3.2. Develop more digital resources to support continuous professional development

In North Macedonia, like in many other countries, the Internet has made it easier for teachers to collaborate beyond their schools and increased the range and amount of teaching tools that they can access (Schleicher, 2016[1]). It has also filled a gap left by limited investment in more traditional professional development tools. However, teachers' use of the Internet is not supported by the government at present, making it difficult to scale-up in a structured way and ensure that all the content that is exchanged online meets minimum quality standards. The BDE should prioritise developing the online infrastructure for teachers to access tools and ideas and learn from each other. Such a policy would allow for flexibility in how teachers learn.

Make better use of online training and sharing of lesson materials

More than two-thirds of teachers responding to this review's survey indicated that they rely heavily on student assessment tools and lesson plans from the Internet (OECD and UNICEF, 2018[47]). Such an ad-hoc practice can be systematically encouraged by the BDE creating a national repository of lesson plans and assessment tools. A national repository is also a good practice to ensure that teaching materials shared on line meet minimum quality criteria. This can be done by encouraging peer reviews of materials uploaded to the platform. In Moscow, the Russian Federation, for example, teachers upload their lesson plans to a municipal platform; they also review other teachers' lesson plan and provide comments (see Box 3.9). Peer reviewers would need to be complemented by professional staff, perhaps from the BDE, to moderate content and assure quality.

In addition to material uploaded by teachers, the BDE can also develop templates and upload them to the platform to fill some gaps. The BDE can, for example, develop models of diagnostic assessments that teachers can use to better understand the learning needs of their students and upload them to the online repository (see Chapter 2).

Box 3.9. Moscow's online school platform

In 2016, Moscow launched the Moscow Online School (MOS) as a pilot in six public schools, and it was fully rolled out in 2017. By October 2017, more than 90% of schools and 70% of *kindergartens* were using MOS. MOS is an online platform that contains digital textbooks, class registers and online daybook records. Daybooks allow teachers to record lesson content, related materials, home assignments and student's academic performance and attendance that both students and parents can access.

Teachers use the MOS platform during class to upload their lesson plan and resources, which are projected on an interactive white-board. Students may also join through an app from their own personal devices, where they can also access additional information, from either school or home.

MOS also stores over 360 000 ready-made lesson plans and teaching resources, such as student assignments, which teachers can use and adapt accordingly. This platform encourages peer learning and exchanges among teachers. In addition, the system tracks the number of downloads of such materials, thereby encouraging competition among teachers. Moscow officials indicated an improvement in students' grades and savings in administrative costs, since this programme has been adopted by schools.

Sources: (Medium, 2017[49]), *Moscow to Revolutionize School Education with Online School Project*, https://medium.com/smart-city-moscow/moscow-to-revolutionize-school-education-with-online-school-project-4cf131a8a386 (accessed on 4 May 2018), (MOS, 2016[50]), *Moscow Online School, Instructions for use*, https://www.mos.ru/en/news/item/16981073/ (accessed on 5 May 2018), (MOS, 2016[50]), *Moscow Online Schoo*l, Official Website, https://www.mos.ru/city/projects/mesh/ (accessed on 5 May 2018).

Develop online teacher networks

Collaborative learning and exchange of good practices in a teacher network are among the most effective modes of professional development. These forms of professional development tend to respond more closely to the needs of teachers in terms of learning (Schleicher, 2016[1]). In North Macedonia, as is the case in OECD countries, teachers are

making use of new technologies and social media to exchange ideas with other teachers and learn from each other. This practice should be formalised and encouraged by building on pre-existing ad-hoc online platforms or creating an official online forum, perhaps as part of the new online platform for sharing teaching resources, where teachers can collaborate and solve problems that they face in their teaching practice.

Recommendation 3.3.3. Strengthen the role of the BDE

While North Macedonia has undertaken a number of policies in recent years to better develop the teaching profession, the approach has not been comprehensive. Policies and programmes are also not consistently supported – like the development of teacher standards and a performance-based career path, which remains unimplemented. Resourcing for the teaching profession is also not managed efficiently, while funds are being channelled into preparing new teachers despite an oversupply, professional development is not adequately funded.

The teaching profession needs to be recognised as a political priority and adequately resourced. One reason this is currently not the case is that there is no organisation with pedagogical expertise and a strong voice to represent the profession's needs during the policy-making process. While the BDE has a number of functions that support the teaching profession, such as providing professional development and undertaking regular appraisals, lack of resources mean that neither is fully implemented. This reflects a wider issue with the BDE, which is expected to perform many roles, but is not adequately resourced to perform any effectively.

This review recommends that the BDE be formally recognised as the key government body that is responsible for supporting the teaching profession. While the minister and ministry would remain responsible for final decision making regarding teaching policy, the BDE would be responsible for formulating policy recommendations and advising the minister. More broadly, the BDE would be responsible for key areas of teacher policy. The BDE might be redefined and restructured along the following lines, to support this change in function:

- One unit focused on external appraisal.

  As discussed above, the BDE will no longer undertake regular appraisals, but provide external evaluators for probation and promotion appraisals. As suggested in Chapter 4, it should also contribute evaluators to support the evaluation of teaching and learning as part of school inspections and undertake a new appraisal for school principals. As well as taking on these appraisal responsibilities the BDE will need to oversee in-school appraisal activities, for example by developing guidance and training for principals to undertake regular appraisals.

  In order to take on these functions, the BDE will need to ensure that it has sufficient evaluators. For example, the BDE has only one advisor for Albanian language, which is sufficient to cover all of its appraisal responsibilities.

- One unit focused on teachers' professional development

  This would include the BDE's existing activities to accredit and catalogue training programmes. In addition, it should also include support for professional development more widely, including at school level. For example, the BDE would help to develop the new multi-tier support teams and support the "Teacher Actives". The BDE should also receive resources for developing tools

and training for identified gaps in teachers' skills and knowledge, as it recently did with its initiatives to support formative assessment. It is important that the BDE consult with the VETC and the NEC to identify gaps and overlaps.

The existing functions in the BDE for the curriculum and research would continue but need to be adequately resourced; creating separate units within the BDE should help to ensure the latter. The restructuring would need to be accompanied by other steps to professionalise the BDE (see Chapter 5).

Conclusion

North Macedonia has the foundations to create a professional, well-skilled, motivated teaching profession. The 2016 plans for a merit-based career structure are a major step towards creating a profession that is supported and incentivised to grow professionally. There are also strong informal activities among teachers – the "Teacher Actives" and sharing of teaching materials online – for professional learning. The ministry now needs to take a clear decision to implement these plans, and formalise these important informal practices. Explicitly mandating and adequately resourcing the BDE as the country's main institution for teacher policy will also help to ensure that this central area of education policy receives the recognition that it deserves.

Box 3.10. Recommendations

Ensuring that entry into, and progression along the teaching career path is based on professional competence

3.1.1 Introduce the planned performance-based teacher career structure. Issues like how teachers seeking a promotion will be appraised and the impact on teacher salaries were not addressed in the 2016 plans, so the first step for the ministry and the BDE will be to clearly define the process for the new external appraisal. This should include developing guidance for evaluators on the kinds of evidence they should collect to determine teachers' readiness for promotion (e.g. classroom observations, reviewing teachers' portfolios, and interviews with the candidate). Indicators and descriptors of quality teaching should also be developed to orient evaluators towards what they should focus on when observing teaching practices. The above will need to be accompanied by training for evaluators on how to appraise teachers' competencies in line with the teaching standards.

The ministry will also need to determine how the new appraisal will impact other aspects of teacher policy, including linking career promotion to a salary increase to reward performance. Teachers will need to be supported to identify and undertake professional development that will help them advance up the new career path. One way to support this is by clearly identifying the teaching competencies targeted by accredited training programmes in the new professional development catalogue (Recommendation 3.3.1). Another way is by providing school principals and pedagogues with training on how to orient teachers towards professional development that best meets their needs.

3.1.2 Select the most qualified candidates for teaching and ensure that they receive adequate support during probation. Greater selection of aspirant teachers into teacher education programmes could be achieved by reducing the quotas for government-funded tertiary places and requiring that candidates attain minimum *matura* marks in core subjects such as mother tongue and mathematics. In the future, universities may also be encouraged to also evaluate a candidate's motivation and their socio-emotional skills, for example, through interviews. The ministry needs to introduce programme-specific accreditation criteria aligned with the 2016 teaching standards to help ensure that all accredited initial teacher education programmes provide quality theoretical and practical training.

The ministry should also consider more robust mechanisms for initial and full licensing of new teachers. One option is to introduce a national qualification examination at the end of initial teacher education so that all selected teachers meet minimum requirements. This new examination might replace the confirmation examination at the end of the probation period to avoid redundancy. It would also need to be accompanied by a stronger probation appraisal to evaluate classroom practice and other attributes that are hard to assess in an examination. BDE evaluators might become the final decision maker for probation appraisal, given the high stakes that this decision carries for a teacher's career. All novice teachers should also receive a mentor who can report on their performance across the year, both as input to their probation appraisal and to provide more formative feedback. Ensuring that all new teachers receive quality mentorship during their probation is important to support novice teachers in developing their pedagogical knowledge and skills, recognising that many have not benefited from a quality practicum.

Developing a culture of learning and feedback in schools

3.2.1 Guide principals and pedagogues to make regular appraisal a more meaningful process. Given the redundancies and overlap created by three different regular appraisal processes, this review recommends phasing out the role of the BDE and the SEI in regular appraisal. Instead, regular appraisal would be led solely at the school level by principals and pedagogues. This is in line with international practices and research which highlight the value of in-school appraisers leading regular appraisal as they have a more accurate understanding of a teacher's performance and can create more open conversations that are conductive to the developmental objectives of regular appraisal (OECD, 2013[2]).

Principals and pedagogues will need support to focus regular appraisal on evaluating teachers against the country's new teacher standards (when they are introduced), and encouraging development towards higher levels of teaching competence through:

- Guidance on how to observe evidence of the new teacher competencies.
- Suggestions on how to use teacher portfolios more meaningfully, for example, by focusing on a teachers' learning goals in their development plan.
- Introducing teacher self-evaluation to encourage teachers to reflect on their teaching practices and development objectives.
- Establishing a development plan that identifies specific, discrete areas for learning and improvement for the coming year.

The school principals and pedagogues that undertake regular appraisals also need to receive training in appraisal techniques. Practical guidance on how to observe teaching and provide formative feedback should be included in principals' initial preparation. Training sessions should be developed for this purpose for in-service principals and pedagogies.

3.2.2 Develop the "Teacher Actives" by giving them an official role in teacher professional development. For example, the BDE might provide examples of collaborative professional development activities that "Teacher Actives" can undertake like peer classroom observations and organising in-school training. The BDE should also designate and train co-ordinators of the "Teacher Actives" to ensure that "Teacher Actives" are developed across all schools. The "Actives" might be provided with some small discretionary funds to undertake their development activities.

3.2.3 Review the role of the in-school support team to focus on helping teachers to create an effective, inclusive learning environment. One option is to introduce a multi-tier support model to provide different "tiers" of support to meet learners' different needs, similar to the approach used in Finland (Mitchell, 2014[43]). The support team might meet regularly as a group to review teachers' learning plans to ensure that teachers have identified the different learning needs of the students in their class (e.g. who is on track to achieve national standards, who needs further support and who needs to be challenged) and put in place differentiated strategies to meet these needs. As well as helping teachers to address specific cases of struggling learners, they would also provide teachers with advice on classroom-wide approaches to improve learning outcomes, such as at the start of the school year to help teachers develop effective plans for the coming year and at the end to discuss strategies that have been more or less effective. These new roles should be reflected in the competency standards for school support staff, as part of implementation of the performance-based career structure (Recommendation 3.1.1). The ministry will also need to make sure that the initial training of school support staff is aligned with these standards and with modern concepts of SEN and inclusive education, and that mandatory training requirements are set for existing pedagogues, SEN advisors and psychologists to help them understand and apply new methods.

Strengthening meaningful external support for teachers' professional development

3.3.1 Ensure that professional development meets teachers' needs. In the past, the BDE was responsible for maintaining a catalogue of accredited teacher professional development programmes. This role should be re-established so that teachers receive professional development that meets minimum quality criteria. The accreditation process should check that programmes are targeting teachers' core competencies as defined in the new teaching standards and aligned with the national priorities for teaching and learning set out in the Education Strategy 2018-25.

The ministry also needs to review both the scale and the way professional development is funded. The BDE requires significantly more resources if it is to provide the established ten hours of free training in national priority areas that all teachers are required to take every three years. In addition, earmarked subsidies should be given directly to schools as discretionary funds for them to use to choose training in line with their own needs and interests.

3.3.2 Develop more digital resources to support continuous professional development. Since more than two-thirds of the country's teachers already rely heavily on student assessment tools and lesson plans from the Internet (OECD and UNICEF, 2018[47]), the BDE could create a national online repository to build on this practice. The BDE could complement teacher-provided materials where there are gaps and ensure that materials meet minimum quality criteria. Material can also be peer reviewed. To encourage teacher collaboration, the repository might include an online forum where teachers can collaborate and solve problems that they face in their teaching practice.

3.3.3 Strengthen the role of the BDE. A broader concern for teaching in North Macedonia is the lack of a comprehensive approach to develop the profession. Recent policies and programmes have not been consistently supported – like the development of teacher standards and a performance-based career path which remains unimplemented. Strengthening the BDE so that it is formally recognised as the key government body for supporting the teaching profession would help to ensure that teaching is recognised as a political priority. The reformed BDE would be responsible for key areas of teacher policy, formulating policy recommendations and advising the minister.

Notes

[1] The Eurydice data collection on teachers' salaries and compensations covers the 28 European Union member countries and Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of North Macedonia, Serbia and Turkey.

References

Ahtiainen, R. et al. (2012), "Tehostettua ja erityistä tukea tarvitsevien oppilaiden opetuksen kehittäminen 2007–2011: Kehittävän arvioinnin loppuraportti [Development of Teaching Improved and Special Needs Students 2007-2011. Final report of the development]", http://julkaisut.valtioneuvosto.fi/handle/10024/79219 (accessed on 27 March 2019). [46]

Barber, M. and Mourshed, M. (2007), *How the world's best-performing school systems come out on top*, McKinsey, https://www.mckinsey.com/industries/social-sector/our-insights/how-the-worlds-best-performing-school-systems-come-out-on-top. [5]

BDE (2017), *Guidebook for School Inclusive Teams*, Bureau for Development of Education, Skopje, https://www.unicef.org/northmacedonia/reports/guidebook-school-inclusive-teams. [44]

Cooc, N. (2018), "Who Needs Special Education Professional Development?: International Trends from TALIS 2013", *OECD Education Working Papers*, No. 181, https://www.oecd-ilibrary.org/education/who-needs-special-education-professional-development_042c26c4-en (accessed on 11 March 2019). [22]

Danielson, C. (2007), *Enhancing Professional Practice: A Framework for Teaching*, Association for Supervision and Curriculum Development (ASCD), Alexandria. [25]

Danielson, C. and T. McGreal (2000), *Teacher evaluation to enhance professional practice*, Association for Supervision & Curriculum Development, https://eric.ed.gov/?id=ED446099 (accessed on 27 March 2019). [29]

European Commission (2013), *Teacher Education and Training in the Western Balkans*. [18]

European Commission/EACEA/Eurydice (2016), *Teachers' and School Heads' Salaries and Allowances in Europe – 2015/16*, http://dx.doi.org/10.2797/10844. [15]

Eurydice (n.d.), *Initial Education for Teachers Working in Early Childhood and School Education | Eurydice*, https://eacea.ec.europa.eu/national-policies/eurydice/content/initial-education-teachers-working-early-childhood-and-school-education-30_en (accessed on 11 March 2019). [34]

Goe, L., K. Biggers and A. Croft (2012), *Linking teacher evaluation to professional development: Focusing on Improving Teaching and Learning*, National Comprehensive Center for Teacher Quality, Washington DC, https://gtlcenter.org/sites/default/files/docs/LinkingTeacherEval.pdf. [9]

Hobson, A. et al. (2010), "International Approaches to Teacher Selection and Recruitment", *OECD Education Working Papers*, No. 47, OECD Publishing, Paris, http://dx.doi.org/10.1787/5kmbphhh6qmx-en. [32]

Kedzior, M. and S. Fifield (2004), "Teacher Professional Development", *Education Policy Brief*, No. 15, University of Delaware Education Research and Development Center, http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=95DA9BF53FB43EB66B0CF4D2E6DCA0BF?doi=10.1.1.622.3559&rep=rep1&type=pdf. [38]

Kitchen, H. et al. (2017), *Romania 2017*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264274051-en. [11]

Krueger, M. (n.d.), *Teacher Education in Germany*, Ministry of Education, State of Hessen, http://entep.unibuc.eu/wp-content/uploads/2017/07/NAT_REPORTS_KRUEGER.pdf (accessed on 11 March 2019). [35]

Louden, W. (2000), "Standards for Standards: The Development of Australian Professional Standards for Teaching", *Australian Journal of Education*, Vol. 44/2, pp. 118-134, http://dx.doi.org/10.1177/000494410004400203. [4]

MAKStat Database (n.d.), *Education and Science*, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat__ObrazovanieNauka__OsnovnoObrazovanie (accessed on 27 March 2019). [13]

Mcaleavy, T., T. Ha and R. Fitzpatrick (2018), *Promising practice: government schools in Vietnam*, Education Development Trust, http://www.educationdevelopmenttrust.com (accessed on 27 March 2019). [39]

McKenzie, P. and P. Santiago (2005), *Teachers matter : attracting, developing and retaining effective teachers*, OECD Publishing, Paris, https://doi.org/10.1787/9789264018044-en (accessed on 21 November 2018). [17]

Medium (2017), "Moscow to Revolutionize School Education with Online School Project", https://medium.com/smart-city-moscow/moscow-to-revolutionize-school-education-with-online-school-project-4cf131a8a386 (accessed on 27 March 2019). [49]

Mickovska, G. et al. (2013), *Policy and Practice Analysis of the Teacher Professional and Career Development in The Republic of Macedonia*, USAID, Skopje, http://www.mcgo.org.mk/wp-content/uploads/2013/12/Policy-and-Practice-Analysis-of-the-Teacher-Professional-and-Career-Development.pdf (accessed on 13 July 2018). [19]

Mitchell, D. (2014), *What really works in Special and Inclusive education: Using Evidence-based Teaching Strategies (2nd ed.).*, Routledge, London. [43]

MoES (2018), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje. [24]

MOS (2016), "Moscow Online School: instructions for use", https://www.mos.ru/en/news/item/16981073/ (accessed on 27 March 2019). [50]

NCEE (n.d.), *NCEE | Germany: Teacher and Principal Quality*, http://ncee.org/what-we-do/center-on-international-education-benchmarking/top-performing-countries/germany-overview/germany-teacher-and-principal-quality-2/ (accessed on 11 March 2019). [33]

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2018-en. [14]

OECD (2017), "Do new teachers feel prepared for teaching?", *Teaching in Focus*, No. 17, OECD, Paris, https://read.oecd-ilibrary.org/education/do-new-teachers-feel-prepared-for-teaching_980bf07d-en#page1. [7]

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2017-en. [16]

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266490-en. [41]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en. [21]

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en. [8]

OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2014-en. [6]

OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264196261-en. [10]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en. [2]

OECD (2011), *Lessons from PISA for the United States*, OECD Publishing, Paris, http://www.oecd.org/education/school/programmeforinternationalstudentassessmentpisa/strongperformersandsuccessfulreformersineducationlessonsfrompisafortheunitedstates.htm. [48]

OECD (2010), *Improving Schools: strategies for actions in Mexico*, OECD Publishing, Paris, https://doi.org/10.1787/9789264087040-en. [36]

OECD (2008), *Students with Disabilities, Learning Difficulties and Disadvantages: Policies, Statistics and Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264027619-en. [23]

OECD and UNICEF (2018), *OECD-UNICEF survey of teachers and principals in North Macedonia*. [47]

Santiago, P. et al. (2013), *Teacher Evaluation in Chile 2013*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264172616-en. [3]

Santiago, P. et al. (2017), *OECD Reviews of School Resources: Chile 2017*, OECD Reviews of School Resources, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264285637-en. [27]

Santiago, P. et al. (2016), *OECD Reviews of School Resources: Estonia 2016*, OECD Reviews of School Resources, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264251731-en. [37]

Schleicher, A. (2016), *Teaching Excellence through Professional Learning and Policy Reform: Lessons from Around the World*, OECD, http://dx.doi.org/10.1787/9789264252059-en (accessed on 30 January 2018). [1]

Schleicher, A. (2015), *Schools for 21st-Century Learners: Strong Leaders, Confident Teachers, Innovative Approaches*, International Summit on the Teaching Profession, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264231191-en. [30]

The Teaching Council (2017), *Initial Teacher Education: Criteria and Guidelines for Programme Providers*, https://www.teachingcouncil.ie/en/Publications/Teacher-Education/Initial-Teacher-Education-Criteria-and-Guidelines-for-Programme-Providers.pdf. [31]

Thuneberg, H. et al. (n.d.), "Conceptual change in adopting the nationwide special education strategy in Finland", *Journal of Educational Change*, Vol. 15/1, pp. 37-56, http://dx.doi.org/10.1007/s10833-013-9213-x. [45]

Tucker, P., J. Stronge and C. Gareis (2013), *Handbook on teacher portfolios for evaluation and professional development*, https://books.google.fr/books?id=eSSPAQAAQBAJ&pg=PR15&lpg=PR15&dq=Handbook+on+Teacher+Portfolios+for+Evaluation+and+Professional+Development&source=bl&ots=6zp2lFyHjg&sig=QMA0kEBPhWBirL6lasBLY2Rjclk&hl=fr&sa=X&ved=2ahUKEwjI3ubNsJncAhWEtRQKHQH3CgQQ6AEwA3oECAQQAQ#v=onepage&q&f=false (accessed on 12 July 2018). [28]

UNICEF (2010), *Inclusive education as part of a child-friendly schools framework. Results and recommendations from a study in North Macedonia*, http://www.eenet.org.uk/resources/docs/INCLUSIVE_REPORT_ENG.pdf. [42]

USAID (2018), *Georgia Primary Education Project (G-PriEd)*, https://chemonics.com/wp-content/uploads/2018/07/Georgia-Primary-Education-Project-G-PriEd-Final-Report.pdf (accessed on 26 October 2018). [40]

USAID (2016), *Guideline on the Manner and Form of Providing Mentoring Support to Novice Teachers and Novice Student Support Staff in Primary and Secondary Schools*, Macedonian Civic Education Center, http://www.mcgo.org.mk/wp-content/uploads/2016/07/USAID_TPCD_Guideline-for-Mentor-Support-to-Novice-Teachers-and-SSstaff_Macedonia.pdf (accessed on 27 March 2019). [26]

World Bank (2013), *Teachers - SABER Country Report - FYR Macedonia*, http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/TCH/SABER_Teachers_FYRMacedonia_CR_Final_2013.pdf (accessed on 10 August 2018). [20]

World Bank (forthcoming), *North Macedonia: Public Finance Review*, World Bank, Washington D.C. [12]

Chapter 4. Aligning school evaluation with its core purposes of accountability and improvement

This chapter looks at how the Republic of North Macedonia can align school evaluation with its core purposes of accountability and improvement. The country has developed a robust school evaluation framework, however it has not been fully implemented or appropriated by stakeholders. Rather than encouraging a culture of reflection in the country, school evaluation focuses largely on compliance. This is exacerbated by a useful, yet complicated evaluation framework, which inspectors and schools find difficult to apply, and little support to schools to use evaluation results to lead improvements. North Macedonia should take steps to bridge the gap between the purpose of school evaluation and its perception among stakeholders. Another key priority is to make the process more manageable and provide schools with greater support to ensure that they appropriate evaluation and direct improvement.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

The core purpose of school evaluation is to help schools improve their practices and keep them accountable for the quality of the education that they provide to students. Over the past ten years, the Republic of North Macedonia (referred to as "North Macedonia" hereafter) has developed a school evaluation framework that covers the key areas that are important for an effective school evaluation system, in particular the quality of teaching and learning practices.

However, this framework has not been fully implemented or appropriated by stakeholders. Both external and self-evaluation focus largely on ensuring compliance with the framework, rather than encouraging a culture of reflection and improvement in schools. Fundamentally, this reflects a disconnect between the aims of the framework – to enhance school quality and school-led improvement – and the perception of evaluation among inspectors and schools as an administrative requirement. This is exacerbated by a useful, yet complicated evaluation framework, which inspectors and schools find difficult to apply, and by the lack of support to schools on how to use evaluation results to inform improvements efforts.

The State Education Inspectorate (SEI) needs to be urgently reformed to take on a role of leadership and responsibility for the quality of the country's schools. This role will need to be matched by far greater scrutiny and accountability of the inspectorate, so that it is accountable for the quality of its work. Another priority is to better support schools – through evaluation follow-up, training, data and adequate financial resources – so that they can appropriate evaluation to direct improvements. Finally, small changes to the evaluation framework and process will help to better orient evaluation towards improvement and create a more manageable process for schools and inspectors.

Key features of an effective school evaluation system

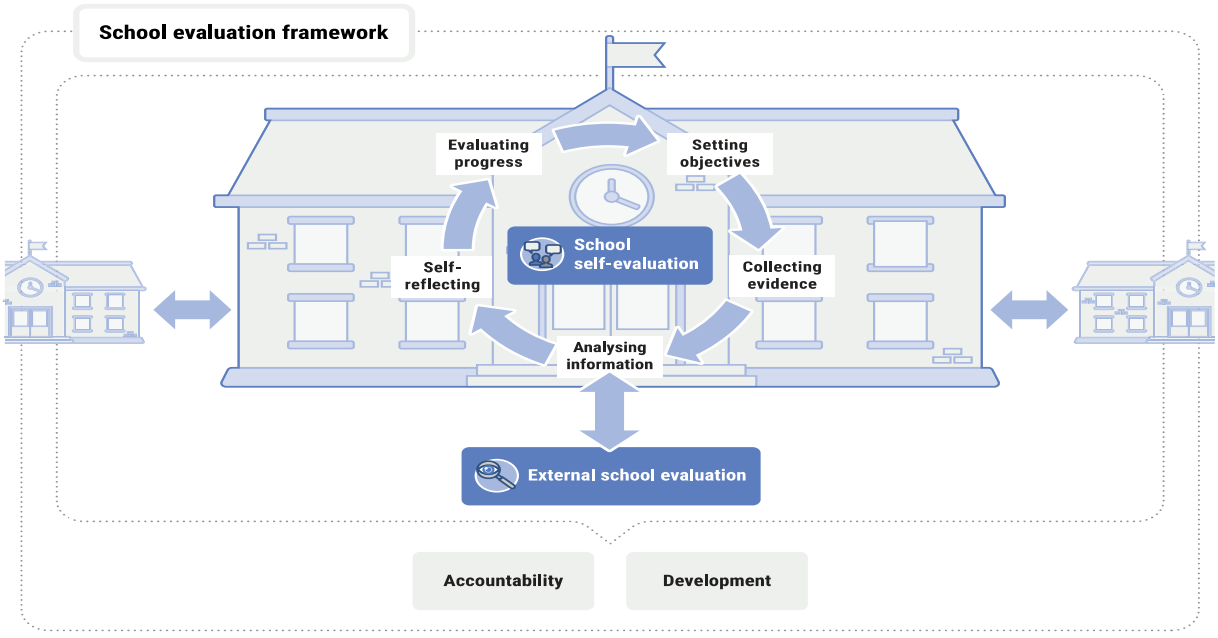
In most OECD countries, school evaluations ensure compliance with rules and procedures, and focus increasingly on school quality and improvement (see Figure 4.1). Another recent trend has been the development of school self-evaluation, which has become a central mechanism for encouraging school-led improvement and objective setting. Internationally, strengthened systems for external and school-level monitoring and evaluation are seen as essential complements to the increasing decentralisation of education systems to ensure local and school accountability for education quality.

Frameworks for school evaluation ensure transparency, consistency and focus on key aspects of the school environment

Frameworks for school evaluation should align with the broader aims of an education system. They should ensure that schools create an environment where all students can thrive and achieve national learning standards. As well as ensuring compliance with rules and procedures, effective frameworks focus on the aspects of the school environment that are most important for students' learning and development. These include the quality of teaching and learning, support for teachers' development, and the quality of instructional leadership (OECD, 2013[1]). Most frameworks also use a measure of students' educational outcomes and progress according to national learning standards, such as assessments results or teachers' reports.

A number of OECD countries have developed a national vision of a good school (OECD, 2013[1]). The vision guides evaluation, helping to focus on the ultimate purpose of ensuring that every school is good. Visions are often framed around learners, setting out how a good school supports their intellectual, emotional and social development.

Figure 4.1. School evaluation framework



Countries' external evaluations balance accountability and improvement

The vast majority of OECD countries have external school evaluation (see Table 4.1). Schools tend to be evaluated on a cyclical basis, most commonly every three to five years. (OECD, 2015[2]). Within the broad purpose of evaluating school performance, some countries emphasise accountability for teaching quality and learning outcomes. In these countries, national assessment data, school ratings and the publication of evaluation reports play an important role. In contrast, in countries that place greater emphasis on improvement, evaluations tend to focus more on support and feedback to schools. They also place strong emphasis on helping schools develop their own internal evaluation and improvement processes.

Evaluations aim to establish a school-wide perspective on teaching and learning

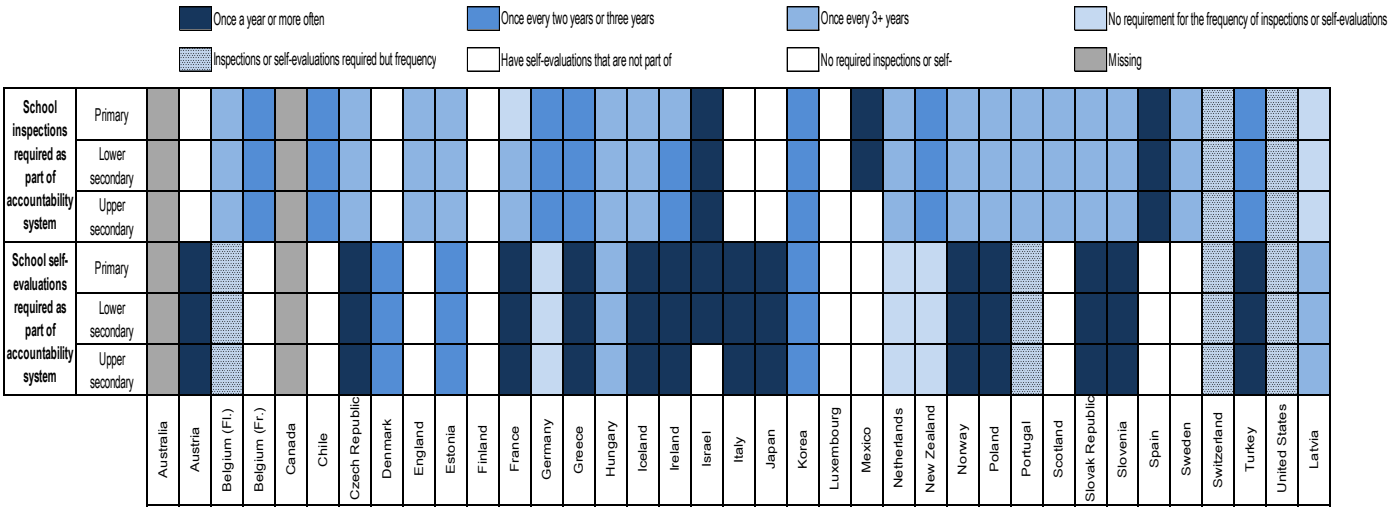
Administrative information for compliance reporting is a standard source of information for evaluations, although it is now collected digitally in most countries (OECD, 2015[2]). This frees up time during school visits to collect evidence of school quality. Most evaluations are based on a school visit over multiple days. Visits frequently include classroom observations. Unlike for teacher appraisal, these observations do not evaluate individual teachers but rather aim to cover a sample of classes across different subjects and grades to establish a view of teaching and learning across the school. Inspectors also undertake interviews with school staff, students and sometimes collect the views of parents. Since much of this information is qualitative and subjective, making it difficult to reliably

evaluate, countries develop significant guidance such as rubrics for classroom observations to ensure fairness and consistency.

Many countries have created school inspectorates in central government

External evaluations are led by national education authorities, frequently from central government (OECD, 2013[1]). Across Europe, most countries have created an inspectorate that is affiliated to, but frequently independent of government. This arrangement ensures integrity and enables the inspectorate to develop the significant professional expertise necessary for effective evaluation. School inspectors may be permanent staff or accredited experts contracted to undertake evaluations. The latter provides flexibility for countries, enabling them to meet the schedule of school evaluations and draw on a range of experience, without the costs of maintaining a large permanent staff. Inspectors across OECD countries are generally expected to have significant experience of the teaching profession.

Figure 4.2. School evaluation in OECD countries



Source: (OECD, 2015[2]), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en.

The consequences of evaluations vary according to their purpose

To serve improvement purposes, evaluations must provide schools with clear, specific feedback in the school evaluation report, which helps them understand what is good in the school, and what they can do to improve. To follow-up and ensure that recommendations are implemented, countries often require schools to use evaluation results in their development plans. In some countries, local authorities also support evaluation follow-up and school improvement. Around half of OECD countries use evaluation results to target low-performing schools for more frequent evaluations (OECD, 2015[2]).

In most countries, evaluations also result in a rating that highlights excellent, satisfactory or underperforming schools. To support accountability, most OECD countries publish evaluation reports (OECD, 2015[2]). Public evaluation reports can generate healthy competition between schools and are an important source of information for students and parents in systems with school choice. However, publishing reports also risks distorting

school-level practices such as encouraging an excessive focus on assessment results or preparation for evaluations. This makes it critical that evaluation frameworks emphasise the quality of school-level processes, and an inclusive vision of learning where all students, regardless of ability or background, are supported to do their best. Evaluation systems that emphasise decontextualised outcome data like assessment results are likely to unfairly penalise schools where students come from less advantaged backgrounds, since socio-economic background is the most influential factor associated with educational outcomes (OECD, 2016[3]).

Self-evaluation is an internal tool for improvement

Most OECD countries require schools to undertake self-evaluations annually or every two years (see Figure 4.2). Self-evaluations encourage reflection, goal setting and inform school development plans (OECD, 2013[1]). To be an effective source of school-led improvement, many countries encourage schools to appropriate self-evaluation as an internal tool for improvement rather than an externally imposed requirement. In some countries, schools develop their own frameworks for self-evaluation. In others, they use a common framework with external evaluation, but have the discretion to add or adapt indicators to reflect their context and priorities.

The relationship between external and internal evaluations varies across countries. In general, as systems mature, greater emphasis is placed on self-evaluation while external evaluation is scaled back. Most OECD countries now use the results from self-evaluations to feed external evaluations, with, for example, inspectors reviewing self-evaluation results as part of external evaluations. However, the relationship is also shaped by the degree of school autonomy – in centralised systems, external evaluations continue to have a more dominant role, while the reverse is true for systems that emphasise greater school autonomy.

Effective self-evaluation requires strong school-level capacity

Effective self-evaluation requires strong leadership, and strong processes for monitoring, evaluating and setting objectives (SICI, 2003[4]). Many OECD countries highlight that developing this capacity in schools is a challenge. This makes specific training for principals and teachers in self-evaluation – using evaluation results, classroom and peer observations, analysis of data and developing improvement plans – important (OECD, 2013[1]). Other supports include guidelines on undertaking self-evaluations and suggested indicators for self-evaluations.

While a principal's leadership plays a critical role in self-evaluation, creating teams to share self-evaluation roles is also important. The most effective self-evaluation team involves a range of staff that are respected by their colleagues and have a clear vision of how self-evaluation can support school improvement. In order to support collective learning, self-evaluation should engage the whole school community. This includes students, who have a unique perspective on how schools and classrooms can be improved (Rudduck, 2007[5]). Students' views also help to understand how the school environment impacts students' well-being and their overall development. This is important for evaluating achievement of a national vision focused on learners.

Data systems provide important inputs for evaluation

Administrative school data – like the number of students, their background and teacher information – provides important contextual information for internal and external

evaluators. Increasingly, countries use information systems that collect information from schools for multiple purposes including evaluation and policy making.

Most countries also collect information about school outcomes. Standardised assessments and national examinations provide comparative information about learning to national standards. Some countries also use this information to identify schools at risk of low performance and target evaluations (European Commission/EACEA/Eurydice, 2015[6]). However, since assessment results do not provide a full picture of a school, they are often complemented by other information like student retention and progression, student background, school financial information and previous evaluation results. A number of countries use this data to develop composite indicators of school performance. Indicators frequently inform evaluation and support school accountability.

Principals must be able to lead school improvement

Strong school leadership is essential for effective school self-evaluation, and school improvement more generally. Principals support evaluation and improvement through a number of leadership roles – defining the school's goals, observing instruction, supporting teachers' professional development and collaborating with teachers to improve instruction (Schleicher, 2015[7]). This diversity points to a major shift in the principal's role in recent years, with principals increasingly leading instructional improvement.

Principals need a deep understanding of teaching and learning, and strong leadership skills to become instructional leaders

Most principals bring significant experience of the teaching profession – among the countries participating in the OECD Teacher and Learning International Survey (TALIS), the average principal has 21 years of teaching experience. Teaching experience alone however is not sufficient, and the ability to demonstrate strong leadership of the school community is particularly important. Nearly 80% of principals in TALIS participating countries reported that they received training in instructional leadership either before or after taking up their position, or both (OECD, 2014[8]).

Principals' initial training must be complemented by opportunities for continued professional development once in post. One of the most effective types are collaborative professional learning activities, where principals work together to examine practices and acquire new knowledge (DuFour, 2004[9]). In countries where international assessment results suggest that learning levels are high like Australia, the Netherlands and Singapore, more than 80% of principals reported participating in these kinds of activities in the last 12 months (OECD, 2014[8]).

Professionalising school leadership – standards, selection and appraisal

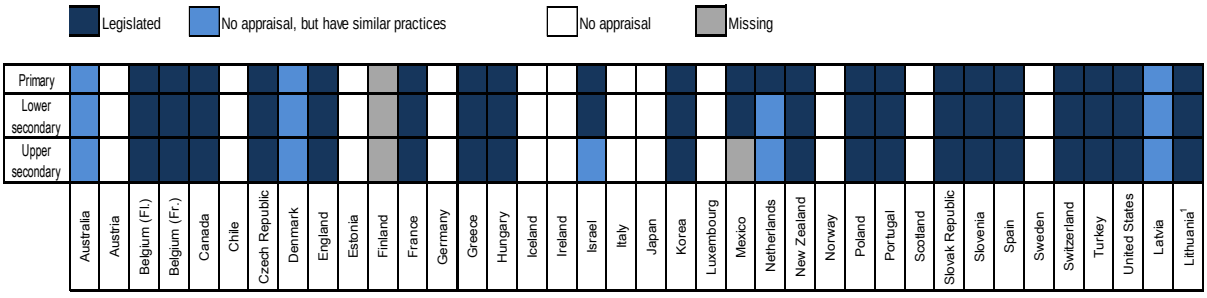
Given the important role that principals occupy, OECD countries are taking steps to professionalise the role. A number of countries have developed professional principal standards that set out what a school leader is expected to know and be able to do. Principal standards should include how principals are expected to contribute to self-evaluation and improvement. Similar to teachers, principal standards guide the recruitment of principals, their training and appraisal.

Around half of OECD countries have legislated appraisal of school leaders (see Figure 4.3) (OECD, 2015[2]). These kinds of appraisals hold principals accountable for their leadership of the school, but also provide them with valuable professional feedback and support in

their demanding role. Responsibility for principal appraisal varies. In some countries, it is led by central authorities, like the school inspectorate or the same body that undertakes external teacher appraisals. In others, it is the responsibility of a school-level body, like the school board. While the latter provides the opportunity to ensure that appraisal closely reflects the school context, boards need significant support to appraise principals competently and fairly.

Figure 4.3. Existence of school leader appraisal in OECD countries (2015)

In general programmes



Notes: Data for Lithuania are drawn from (European Commission/EACEA/Eurydice, 2015[6]) *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe*, The European Union, Luxembourg, https://publications.europa.eu/en/publication-detail/-/publication/4a2443a7-7bac-11e5-9fae-01aa75ed71a1/language-en (accessed on 15 June 2018).
Sources: OECD (2015[2]), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2015-en and European Commission/EACEA/Eurydice (2015) *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe*, The European Union, Luxembourg, https://publications.europa.eu/en/publication-detail/-/publication/4a2443a7-7bac-11e5-9fae-01aa75ed71a1/language-en (accessed on 21 June 2018).

School governance in North Macedonia

The school leadership function is relatively underdeveloped in North Macedonia. Principals receive little training or guidance to lead the school, and limited support from school boards. In recent years the Ministry of Education and Science (MoES) has taken some steps to address these concerns. In 2016, a new training and licensing process was introduced to ensure that new principals receive minimum preparation in core aspects of school leadership. However, the principal role remains primarily administrative, and principals' capacity to steer teaching and learning and set goals for improvement remain relatively limited. In addition, the politicisation of the appointment process and high turnover rate make it difficult to develop a corps of professional school principals with experience and competence.

Principals receive little training in instructional leadership and school management

As is the case in most European countries, school principals in North Macedonia are required to have a Bachelor's degree and some teaching experience (at least five years) (Eurydice, 2013[10]). However, the Law on Principles envisages that principal candidates must undertake 192 hours of mandatory training over a year provided by the National Examination Centre (NEC) since 2016. Contrary to training programmes in many

OECD and European countries, the training in North Macedonia is primarily theoretical and does not include practical training, where new school principals or candidates can observe the work of an experienced principal (Eurydice, 2013[10]). At the end of the training, candidates take the school principal certification and licensing examination, also administered by the NEC (60% in 2018). The examination is organised at least twice a year and consists of three parts: practical test of computer skills, test to assess the candidates' theoretical knowledge and a presentation of a seminar paper, including a case study. After passing the certification exam, new principals need to find a school placement within five years.

Once in school, principals receive very limited in-service training (four days a year) and there are no specific modules for vocational education and training (VET) schools. The principals have to find and pay for the professional development programmes they undertake themselves.

The hiring of school principals is highly politicised

School boards are responsible for selecting principals. The board issues a call for application and selects a candidate from a pool of licensed principals. However, there are no national guidelines or criteria to guide the board in the selection process. Municipalities are responsible for validating the board's choice for secondary education institutions. The municipality can only refuse a board's nomination once. This rule was introduced in 2004 to try to curb municipal political interference in school appointments. However, it was reported to the OECD team that in practice, political influence means that principals often continue to be selected from candidates of the same party in power at the municipal level.

High turnover make it difficult to develop a professional school leadership body

The school board is also responsible for renewing principals' appointments at the end of their four-year mandate, but most principals are not renewed and go back to being full-time teachers. For example, principals surveyed for this review reported being a principal for four years on average. This is short compared to the average years of experience that principals in OECD countries report - nine years) (OECD, 2014[8]). It was reported to the review team that one reason for such frequent change is that principals are rarely renewed when the party in power at the municipal level changes. In addition, the SEI, the body in charge of school external evaluation in North Macedonia, is sometimes requested to conduct ad hoc school inspections to justify a political decision to dismiss a principal.

School boards are involved in key strategic decisions, but lack training and independence

School boards are also responsible for validating school self-evaluation reports and schools' annual work plans, and indicating the school's budget needs to the municipality. The board comprises 9 members in primary schools and 12 members in secondary schools representing the teacher council, the parent association, students and the local community, elected for 4 years.

Despite their important responsibilities, boards receive limited national support. For example, there are no national guidelines for boards. While there are manuals and workshops available, the board members that the review team met had not received any training. Political interference in the boards' decisions regarding principal hiring and firing, and their general functioning further hinder their capacity to steer decisions at the school level.

There are few formal school roles or bodies that support the principal

Principals are not supported by any administrative staff, and do not have a deputy to share leadership responsibilities. There is no formal practice of experienced teachers taking on leadership for their subject or for teaching more broadly across the school. While there is a proposal to define clearer pedagogical leadership for teachers as part of a differentiated career structure, this has yet to be implemented (see Chapter 3).

The main support for principals comes from the multi-actor team of a pedagogue, psychologist and special needs teacher. However, there are a number of issues which hinder the team's capacity to support teaching and learning effectively. Notably, their lack of practical teaching experience and predominant focus on identifying special learning needs, rather than being driven by a more inclusive approach for adapting learning to the individual needs of all students (see Chapter 3).

School evaluation in North Macedonia

North Macedonia has well-established practices for school evaluation. In 2011, an external evaluation process, called the School Integral Evaluation carried out by the State Education Inspectorate, was introduced. The process aims to evaluate the quality of schools to inform improvement by providing formative feedback to stakeholders. Since 2008, schools have also been required to undertake self-evaluation every two years (Table 4.1). However, in reality, both school external and self-evaluation focus primarily on compliance with regulation and administrative processes, and do not give schools specific, high quality feedback to improve learning and teaching practices.

Table 4.1. School evaluation in North Macedonia

Types of school evaluation	Reference standards	Body responsible	Guideline documents	Process	Frequency	Use
School external evaluation	The School Performance Quality Indicators (SPQI) framework	State Education Inspectorate	School Integral Evaluation Handbook	1. Preparatory phase (inspectors check school documents and schools complete a questionnaire. 2. Implementation phase (3 days visit by three inspectors for interview, classroom observations and check additional documents). 3. Reporting phase (draft the school report).	Every three years	Provide feedback to the school on its performance. A follow-up school visit is organised 6 months after the evaluation to check if recommendations were effectively implemented.
School self-evaluation		The school	Rulebook for school self-evaluation in secondary schools	The guidelines define that the school self-evaluation should include three phases (preparatory phase, implementation phase and dissemination and action plan adoption phase).	Every two years	Used to inform the school action plan.

Source: (MoES, 2018[11]), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

School performance quality indicators set expectations for school evaluation but gaps remain

The School Performance Quality Indicators (SPQI) framework developed in 2011, and refined in 2014, is the key reference document for school evaluation in North Macedonia. The SPQI framework was modelled on indicator frameworks in countries with long standing traditions of school evaluation such as Scotland in the United Kingdom and the Netherlands. It includes seven areas of evaluation, which are common to both the external evaluation carried by the State Education Inspectorate and schools' self-evaluations (see Table 4.2).

These areas cover most of the main factors that research suggests are important for school quality such as teaching and learning practices, school environment, school planning and management. Each area includes several indicators to measure school performance. The descriptors include both qualitative descriptions of school practices like teaching and learning practices (see example in Table 4.3), and administrative compliance descriptors. However, there are some notable gaps such as the absence of indicators on school principals' pedagogical leadership and the quality of school self-evaluation. For each indicator, schools receive a rating of: very good, good, satisfactory, or not satisfactory. They also receive an overall rating. It was reported to the OECD that most schools get a good rating, but less than 1% received a very good rating (MoES, 2018[11]).

While it has an established school evaluation framework, North Macedonia does not have a national vision of a good school. An increasing number of OECD countries have developed a vision of a good school to guide evaluation. The vision helps focus evaluation on accountability for school quality and improvement, to avoid that evaluation becomes a check box exercise. North Macedonia could build on the SPQI when developing its national vision. Countries frequently use national consultations including teachers and principals to develop the national vision, creating opportunities to build national understanding of the purpose of school evaluation for educational improvement. Countries may also choose to include additional criteria specific to vocational schools to acknowledge their different mandate.

Table 4.2. North Macedonia's School Performance Quality Indicator Framework

Area	Indicators
School curriculum	• Completion of teaching plans and programmes • Quality of the teaching plans and programmes • Extra-curricular activities
Student outcomes	• Student performance • Student retention • Grade retention
Teaching	• Teachers' plans • Teaching process • Students' learning experience • Meeting students' needs • Continuous assessment • Reporting on student progress
Student support	• General care for students • Health • Educational guidance and advice • Monitoring student progress
School environment	• School climate • Promoting student attainment • Equality and equity • Partnerships with parents and the local communities
Resources	• Accommodation and premises • Tools used in the educational process • Provision of the teaching staff • Monitoring the professional development needs of teaching staff • Financial administration of the school
Management, governance and policy making	• Management and governance of the school • Objectives and development of school policy • Development planning

Source: (State Education Inspectorate, 2014[12]), *Indicators of school quality*, http://dpi.mon.gov.mk/images/pravilnici/IKRU-MAK.pdf.

Table 4.3. Examples of descriptors for the indicator "teaching process" in the SPQI framework

Area	Indicators	Examples of descriptors of a "very good" school
Teaching	Teaching process	• Most teachers use a variety of teaching methods, adapted to the needs and abilities of students and their learning styles. Teachers use well-planned and appropriate methods for working with students either individually, in pairs, in groups or in whole class setting. • Most classrooms are equipped with functional network-connected computers. A large number of teachers are trained in ICT and new educational technologies and use them in their teaching. • Homework done in school or at home is planned and related to what students learn during the class. The choice of tasks and activities (at different levels of complexity) is adapted to the individual educational needs of students. Teachers use different resources and approaches to learning and teaching, not limited to textbooks only. Students work at their own pace. Children who entered the education system later than others are provided with tailored programmes and activities. • Teachers regularly share the teaching and learning objectives and learning outcomes with students and make sure these are clear to all students at every stage of learning. Teaching is clear and understandable, adapted to students' age, potential and pre-requisite learning. A large number of teachers use various interactive methods and all students are encouraged to actively participate in teaching. Different methods are used to promote learning and building trust between teachers and students.

Source: (State Education Inspectorate, 2014[12]), *Indicators of school quality*, http://dpi.mon.gov.mk/images/pravilnici/IKRU-MAK.pdf.

School external evaluation does not fulfil its school improvement purpose

The School Integral Evaluation is carried out in all schools every three years, to evaluate the quality of school practices and inform improvement (Government of the Republic of North Macedonia, 2015[13]). During the evaluation, the inspection team collects data and school documents like the school plan, observes the classroom practices of all teachers and interviews school staff, the school board, representatives of the parent council and students. At the end of the visit, the inspectors discuss the results with the principal and submit a written report to the school within two weeks. The evaluated school then sets an action plan detailing how it intends to implement the recommendations from the evaluation, and submits it to the SEI (see Table 4.1).

The process and tools for evaluation do not reflect its intended purpose

There is a perception throughout the SEI that the primary role of evaluation is to monitor schools' compliance with the law and regulation. Moreover, the tools for evaluation focus primarily on checking whether the school has documented its processes (e.g. recorded minutes of council meetings or the availability of a school plan), and not as extensively on a qualitative assessment of teaching and learning practices. This is apparent when looking at the limited time allocated for classroom observations (one-fifth of the evaluation visit time) which is mostly used to check classroom documents (e.g. student portfolios and teacher plans), leaving little time for observing classroom teaching and stakeholder interviews. In contrast, the quality of instruction is a central component of external evaluations in 22 out of 35 OECD countries (OECD, 2015[2]).

School integral evaluation reports are provided to the school and made public

Schools receive written reports detailing their strong points and areas for improvement across the seven areas of the school evaluation framework. While schools are given a descriptive mark overall and for each of the seven areas, these scores are not accompanied by descriptions of performance justifying the score. The Handbook for School Integral Evaluation provides detailed guidelines for inspection teams about how to draft the report,

such as making it clear and writing in an accessible manner. The school reports are made public and available on the State Education Inspectorate's website.

Evaluation is perceived to be high stakes by school actors

School staff reported to the OECD team feeling that the significant number of documents produced and kept for the integral evaluation distracts them from their core mission and responsibilities. This perception may be due to the fact that they often prepare all the documentation in few days, before the integral evaluation, rather than regularly throughout the year. Teachers and students reported feeling stressed and under pressure to perform well during the evaluations. The introduction in 2014 of individual teacher appraisals as part of integral evaluations might have contributed to teachers' perception of evaluation as high stakes, as every teacher is scored. However, the grade has no impact on a teachers' career and teachers do not receive written feedback on their performance (see Chapter 3).

The State Education Inspectorate lacks professional independence

The State Education Inspectorate that leads integral evaluations is a separate body, but remains part of the ministry. The SEI is strongly influenced by the ministry, which manages its budget annually and selects its director. On occasion, the SEI's work has been subject to political influence, such as when the inspectorate has been requested to undertake inspections to justify principal dismissals. Unlike in many OECD and other European countries, integrity and professional independence are not sufficiently emphasised as expectations for the SEI's director's role, even though staff are required to adhere to a code of conduct.

Another reason that the SEI lacks professional independence is its limited accountability. Like the other ministry agencies in North Macedonia, there are few mechanisms to ensure that the inspectorate is effectively fulfilling its mandate. In contrast, most OECD countries have statutory requirements to keep inspectorates accountable for the quality of their work. This includes annual reports, parliamentary hearings, and performance reviews.

Inspectors receive little training or guidance on how to undertake evaluations

As is the case in most European countries, state inspectors in North Macedonia are former teachers with a minimum of five years of experience (European Commission/EACEA/Eurydice, 2015[6]). However, contrary to practices in most European countries, they receive little preparation – just three days – for the role of inspector. This is far less than new inspectors commonly receive in most European countries, which varies from several months to one year (European Commission/EACEA/Eurydice, 2015[6]). In North Macedonia, there is also no regular professional development for inspectors once they are in post. Inspectors may occasionally take part in training on new reforms organised by non-governmental organisations (NGOs) and donor institutions. Unlike the practice in a number of OECD countries, the inspectorate relies solely on a corps of permanent inspectors.

The lack of preparation and training that inspectors receive significantly limits their capacity to provide meaningful feedback to schools. It also undermines their authority in schools.

The quality of school self-evaluation varies

Almost all (99%) of students participating in the OECD Programme for International Student Assessment (PISA) in 2015 were in schools that conduct self-evaluations (OECD, 2016[3]). During the preparatory phase of self-evaluation, the school board forms an ad hoc, self-evaluation committee that leads the evaluation. School principals are responsible for establishing the committees, but are not themselves a member of it. The self-evaluation committee includes teachers, students, school support staff, parents and the local and business community (European Commission/EACEA/Eurydice, 2015[6]). The committee assesses the school's performance in the seven areas specified by the SPQI indicators and drafts a self-evaluation report that is submitted to the school board and principal. The reports are also made available online for the wider public.

Schools receive limited guidance and tools to undertake self-evaluations, resulting in considerable heterogeneity in practices and quality. A rulebook for self-evaluation defines the areas that schools need to look at, which are the same seven domains as in the SPQI framework. However, the rulebook does not define the indicators that schools should use to evaluate quality or possible sources of evidence. As evaluation systems mature, they frequently provide schools with considerable autonomy to determine self-evaluation procedures. However, at the beginning, when effective self-evaluation is still being established, some guidance is important. The absence of such guidance in North Macedonia risks that evaluations do not consistently address key issues of school quality, and that conclusions are not based on valid evidence. The review team analysed four school self-evaluation reports and found that while all four reports included an analysis of strengths and weaknesses, in most cases very little evidence was given to explain the choices of priority actions.

Self-evaluations may also not be consistently drawing on a broad range of evidence. Classroom observations, discussions with school staff, data analysis and discussions with students are all important sources of evidence to understand overall school quality. However, in only one of the four reports that the review team read were the opinions of students and parents reflected.

Schools' capacity for self-evaluation is limited

School principals and other staff receive no mandatory training in school self-evaluation as part of their initial training or while in-service. In contrast, in most OECD countries, principals' initial training include modules on school self-evaluation and planning (OECD, 2013[1]). Some NGOs and donor organisations have taken the initiative to provide training to improve the school capacity for self-evaluation, but this remains occasional.

Schools use evaluation results to draft their school action plan, which is developed every four years. The State Education Inspectorate uses self-evaluation results to inform external school evaluations. Although the inspectorate reviews the quality of the self-evaluations by reviewing the report and interviewing school staff, it does not systematically provide schools with feedback on the quality of their self-evaluations.

Other forms of school evaluation and quality assurance

In addition to integral evaluations, the SEI carries out frequent ad-hoc inspections of school practice or individual practices following a formal complaint from parents, parent councils, school staff or other citizens. Municipalities can also carry out audits of schools to monitor compliance with regulation and finances.

Policy issues

While North Macedonia has the foundations for an effective school evaluation system, a number of factors are currently preventing the latter from coming to fruition. A major issue that requires immediate attention is creating an inspectorate with the integrity, independence and capacity to act with professional authority. Simple changes to the evaluation framework and process will help to create a more manageable system that schools and inspectors can apply more easily to evaluate school quality. Finally, schools will need more direct support and resources, so that they can fully use external evaluation results, and adopt self-evaluation as an internal tool for their own improvement.

Policy issue 4.1. Professionalising the State Education Inspectorate

External school evaluation in North Macedonia does not yet fulfil its stated core functions of ensuring school accountability and helping them improve. The process is focused heavily on ensuring schools' compliance with regulations and administrative processes, and the SEI lacks the technical capacity and independence to lead a meaningful school evaluation system.

To make external evaluation more effective, North Macedonia needs to invest in professionalising the SEI. The inspectorate needs to be reformed so that it undertakes its role with independence and integrity and is accountable for the quality of its work. This needs to be accompanied by building professional capacity for school evaluation within the SEI.

Recommendation 4.1.1. Guarantee the independence and integrity of the inspectorate

The stated purpose of evaluation in North Macedonia is to improve school quality. However, the overwhelming perception of evaluation – external and internal - as reported to the review team by the inspectorate, principals and teachers, was as a process to ensure compliance with regulations and the evaluation framework. Creating more meaningful school evaluation requires a shared national understanding of the important role that it is expected to play for school improvement. A number of steps are important to create this understanding.

First, the head of the SEI needs to be appointed based on demonstrated competence in school improvement. Second, increased professional independence of the SEI needs to be balanced by greater oversight of, and accountability for, the inspectorate's work. Accompanying these measures with a national consultation to create a vision of a good school will encourage national understanding and ownership of evaluation as a means to support school improvement. Developing a national vision will also help to keep evaluation focused on its core purpose of school improvement.

Ensure the integrity and professional competence of the SEI's director

Leadership of the SEI is key for shaping how staff within the SEI and schools understand the role of school evaluation. The SEI's director must combine a deep understanding of school improvement, strong leadership skills and integrity. As well as being responsible for the quality of the country's schools, the director should hold a senior leadership position within a country's education system, regularly advising the ministry and minister directly, on issues of school quality.

At present however in North Macedonia, the director of the SEI is not expected to occupy this leadership role. The minimum eligibility requirements for the director are similar to those of other inspectors (e.g. five years of teaching experience, having at least a bachelor's degree). In contrast, Education Scotland, a country where school evaluation has a major role in school improvement, defines the role of the Director of Inspection as "a member of the senior management team [of Education Scotland] with appropriate experience, stature and credibility in relation to Scottish education, quality evaluation and improvement" (Education Scotland, n.d.[14]).

The ministry should revise the selection criteria and recruitment process for the director of the SEI, to focus on demonstrating significant professional expertise in school improvement. The selection process should also require candidates to demonstrate their strong understanding of the role of evaluation, and how it impacts school quality.

Ensure that inspectors undertake their role with utmost integrity

One step to ensure that inspectors carry out their role with integrity and independence is to encourage the widespread use of the existing code of practice that sets out how inspectors are expected to perform their duties. North Macedonia's codes of practice – including one currently being developed – should provide inspectors with a practical handbook that sets out the ethical values and principles they are expected to follow. It should also explicitly indicate practices which are considered unethical.

Another important step is to ensure, given the inspectorate's influence, that all stakeholders – principals, teachers, students and parents – have clear and fair opportunities to redress any grievances. For example, all actors should clearly understand how to make a complaint about an evaluation. As well as having a clearly stipulated internal complaints and review process, most countries also have parliamentary ombudsmen, to deal fairly with complaints about public organisations.

Create a board to oversee the SEI's work

Given the powerful influence that inspectorates have on schools' work, a number of countries have boards, composed of respected educationalists that help to maintain the inspectorate's independence and integrity. In North Macedonia, such a board could also play an important oversight role – monitoring the work of the inspectorate to ensure that it is focused on school quality and improvement and does not veer into administrative compliance checks again.

The independent advisory board should be composed of education professionals with significant experience in school improvement. Given North Macedonia's ethnic composition, the board might also include representatives from the country's main communities, Macedonian, Albanian and possibly others. North Macedonia might also consider inviting one or more international representatives to provide an external perspective and guidance. One option is a representative from a country with an established tradition of school evaluation – such as the Netherlands or Scotland (United Kingdom). Alternatively a country that has relatively recently established school evaluation – such as Romania – could be invited to provide practical advice in addressing common challenges.

Make the SEI accountable for the quality of its work

The SEI is legally required to produce annual, public reports on the inspectorate's work and the quality of the education system based on the integral evaluation results. To ensure

that these reports produce valuable information for the system, North Macedonia can look to the many examples of inspectorate reports from other countries. In England for example, the state inspectorate Ofsted, produces an annual report on its performance, governance, and finances. In the report, Ofsted reports its performance against key objectives, including how far schools perceive the inspectorate to be a force for improvement, and ensuring that inspections focus on learning standards for all groups of students (Ofsted, 2018[15]).

In North Macedonia, as in other countries, the ministry should also consider requiring that the inspectorate's annual report be debated in parliament. In England, the senior leadership of Ofsted is required to attend a hearing of the investigative parliamentary committee on education. This kind of public reporting and debate in North Macedonia will create impetus within the inspectorate to better understand its role, and the accountability to encourage each inspector to focus on achieving it. Over time, public reporting and debate will educate the wider education system and the public on the role of the inspectorate.

Develop a national vision of a "good school"

While the overall framework for school evaluation in North Macedonia focuses on many of the important aspects of school quality, it is not guided by an overall vision of schooling. This vision is important to avoid that evaluation becomes focused on mechanically complying with individual descriptors in the evaluation framework. Instead, it helps to focus teachers, schools and evaluators on the fundamental purpose of evaluation – to create schools where all students can learn and thrive.

In general, visions are often short and simple (see Box 4.1). Avoiding long, complicated descriptive text helps to ensure that schools and evaluators do not become distracted interpreting what the vision means. It also makes the vision easier for schools to appropriate as a goal that guides their own planning and self-evaluation, and for external evaluators to reflect upon during school evaluations.

Box 4.1. Defining "good schools" at the national level

Education systems develop a definition of a "good school" at the national level in order to provide standard quality criteria for the evaluation of educational processes and outcomes. This common definition of effectiveness often includes several characteristics, including the quality of teaching and learning, how teachers are developed and made more effective, the quality of instructional leadership, the use of assessment for learning, the rate and equity of student outcomes and progress, setting the school's vision and expectations, self-evaluation practices and factors concerning the curriculum.

A shared, future-focused and compelling vision at the national level can provide direction and steering to an educational system, bringing key actors together to work towards achieving the vision. It should be shared across all levels of the education system, while allowing space for interpretation based on local or regional differences. A clearly communicated and shared vision can also help ensure reforms continue in the long-term, particularly when faced with challenges or obstacles.

- **Ontario's (Canada)** vision for education explicitly incorporates goals:

  Ontario's vision for education is focused on four core goals: achieving excellence, ensuring equity, promoting well-being and enhancing public confidence.

- In 2008, the government of **Japan** developed the *Basic Plan for the Promotion of Education*, in which it set out a ten-year education vision:

  1) To cultivate, in all children, the foundations for independence within society by the time they complete compulsory education.

  2) To develop human resources capable of supporting and developing our society and leading the international society.

- In **Estonia**, the *Lifelong Learning Strategy 2020* guides the formal education system, as well as in-service, non-formal and informal education and retraining. The vision for 2020 is:

Learning is a lifestyle. Development opportunities are noticed and smart solutions are pursued.

In order to develop their national vision, many countries undertake a consultation process. Such a strategy helps to gather input, engage stakeholders and build consensus. Moreover, when education stakeholders, including teachers, support the vision it is more likely they will dedicate time and energy to their roles. Indeed, effective policy implementation requires a shared vision, and the acceptance, ownership and legitimacy of a policy's plan and purpose and the process of change must be developed among actors in order to move toward the vision (Burns, Köster and Fuster, 2016[16]).

Sources: (OECD, 2013[1]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Publishing Paris, https://dx.doi.org/10.1787/9789264190658-en; (Kitchen et al., 2017[17]), *Romania 2017*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264274051-en; (OECD, 2018[18]), *Developing Schools as Learning Organisations in Wales*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264307193-en; (Ontario Ministry of Education, n.d.[19]), Education in Ontario, https://www.ontario.ca/page/education-ontario; (MEXT, 2008[20]), *Basic Plan for the Promotion of Education (Provisional translation)*, http://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373797.htm; (Ministry of Education and Research, n.d.[21]), *The Estonian Lifelong Learning Strategy 2020*, https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf; (OECD, 2018[22]), *Education for a Bright Future in Greece*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264298750-en; (Burns, Köster and Fuster, 2016[16]), *Education Governance in Action: Lessons from Case Studies, Educational Research and Innovation*, https://dx.doi.org/10.1787/9789264262829-en.

The process of developing the national vision can be almost as important as the final vision itself. Many countries use its development as an opportunity to undertake a national consultation that involves students, teachers and schools, asking them what they consider the most important characteristics of a good school. This process would be particularly valuable in North Macedonia, since the school evaluation framework and national strategy were developed in the absence of wide consultation. An inclusive process, similar to that undertaken for the development of the Comprehensive Education Strategy 2018-25, would also help promote awareness of the role of evaluation in school quality, and create a sense of ownership of the standards among school actors.

Recommendation 4.1.2. Build the professional capacity of the State Education Inspectorate

Another issue that currently undermines the SEI professional authority is its lack of technical capacity. Inspectors' initial training is too short and inadequate to enable them to carry out meaningful school evaluations. To build capacity for evaluations, the inspectorate should consider revising the content and length of inspectors' training, and include other actors from outside the inspectorate in the evaluation teams.

Reinforce the training of school inspectors

The SEI first priority should be to ensure that its current staff have the necessary knowledge and skills to carry out the integral evaluations. Inspectors' training needs to focus on the major knowledge gaps that are currently preventing inspectors from undertaking evaluations that support school improvement, such as understanding how evaluation supports school accountability and improvement. Training should provide inspectors with practical examples of how school evaluation supports these functions, illustrated by specific evaluation practices that best support accountability and improvement. Training should also help inspectors to identify evaluation practices that only focus on ensuring administrative compliance. Other important areas to address include how to evaluate teaching and learning and how to provide formative feedback.

The ministry should also ensure that the SEI has enough resources to cover regular training of its staff on key priority areas such as curriculum reform, student assessment, and inclusive education and any new reform affecting teaching and learning in schools.

An overriding concern in developing all training should be to ensure that it provides inspectors with practical learning opportunities. For example, inspectors should have the opportunity to try out new techniques and receive feedback, and to participate in an evaluation visit. Practical training on how to conduct meaningful classroom observations will also be essential. Such a model would be similar to the one currently in place in Lithuania, which has also recently introduced school evaluation. In Lithuania, external evaluators complete 80 hours of theoretical training and 45 hours of practical training (European Commission/EACEA/Eurydice, 2015[6]). This training should be provided to full-time inspectors and to the pool of licensed part-time evaluators.

To accommodate the above, the initial training period of inspectors needs to be increased. The current initial training lasts three days which is short compared to initial training of inspectors in other European countries, which in most cases lasts at least several months (European Commission/EACEA/Eurydice, 2015[6]). The limited time is primarily used to review the laws, regulations and the evaluation process. The inspectorate should consider increasing the initial training period.

Create a roster of licensed inspectors to undertake school integral evaluations

The SEI should consider training and licensing experts as external consultants that can join the evaluation teams on an ad hoc basis to contribute different experience and perspectives. This would also be an important learning opportunity – inspectors can learn from other educationalists with different skills and experience, while school leaders that participate in the evaluations of other schools can learn from their practices.

Several inspectorates in OECD countries use similar practices. School inspection teams in Scotland include full-time inspectors as well as high- performing school practitioners such as school principals and deputy school principals from other schools and other non-education profiles that are contracted as external experts for school evaluations (e.g. doctors, psychologists etc.) (European Commission/EACEA/Eurydice, 2015[6]). The SEI should consider recruiting external inspectors with the following profiles:

- **Experienced teachers from other schools**: when the new teacher career development structure is implemented, the SEI can hire ad hoc inspectors from the pool of expert teachers. Expert teachers will have experience observing classroom practices and providing feedback to their peers (see Chapter 3). As the practice

becomes more established, prior participation in an integral evaluation could be a pre-requisite for teachers who want to apply to become permanent inspectors.

- **Advisors from the Bureau for the Development of Education (BDE) and the Vocational Education and Training Centre (VETC):** the Law on the State Education Inspectorate states that BDE advisors and VETC experts can be invited to join evaluations to lead the classroom observation component. Both agencies have some experience in classroom observation and provide closer pedagogical support to schools than the inspectorate. However in practice, the BDE and the VETC are rarely able to join the inspection teams. Including BDE and the VETC experts more regularly will help improve the quality of the classroom observations and ensure alignment in classroom observation practices between the agencies. Advisors from the BDE and the VETC might be given an explicit role to lead or co-ordinate classroom observations during evaluations.

The inspectorate might also invite other types of experts to join the inspection team based on the focus of the evaluation (e.g. school health, infrastructure, resources, etc.).

Policy issue 4.2. Ensuring that integral school evaluations focuses centrally on improving school quality

There are many aspects of North Macedonia's school evaluation process that are positive, and reflect the practices used in many OECD countries. Professionalising the SEI and investing in its capacity will help to ensure that it is better equipped to undertake evaluations so that they reflect their intended purpose. However, this review suggests that this will be complemented by a few revisions to the school evaluation framework, so that it becomes a more manageable tool for inspectors to implement. Refocusing follow-up support, so that those schools in greatest need receive proportionally more support, will help to ensure a fairer, more efficient model of follow-up.

Recommendation 4.2.1. Revise school integral evaluation to focus more centrally on the quality of teaching and learning

While the framework for school evaluation in North Macedonia focuses on many important aspects of school quality, it can be difficult for inspectors to implement. With nearly 30 indicators, it can seem overwhelming for schools and inspectors. Revising the framework to prioritise core indicators will help better orient inspectors in their work. This will be complemented by one important change, which will be to give more space to meaningful evaluation of teaching and learning across the school.

Revise the School Performance Quality Indicators (SPQI) framework to focus on core teaching and learning areas

The School Performance Quality Indicators (SPQI) provides a relatively complete framework, including indicators of school quality and descriptors of the practices and behaviours expected from schools. It is also very positive that the majority of school principals interviewed by the review team were aware of the seven areas of evaluation, which shows that the SPQI is a well-established reference framework.

However, the framework is very dense compared to indicator frameworks used by OECD countries. The SPQI framework includes seven areas, 28 indicators and 99 parameters detailing further the indicators. In contrast, the indicator framework of Education Scotland,

which was used as a model for the SPQI, only includes three areas – Leadership and Management, Learning Provision and Successes and Achievement – and 15 quality indicators (Education Scotland, 2015[23]). A long list of indicators can encourage evaluation to become a checkbox exercise. Internationally, as many countries have implemented their school evaluation frameworks, they have found that it has been important to simplify their frameworks to focus on key aspects of school quality. This is important to move evaluation from a checkbox exercise, to a more focused, in-depth review of the quality of school practices and how they can be improved.

Given that school evaluation in North Macedonia frequently emphasises compliance with descriptors, rather than evaluation of quality, reviewing the evaluation framework to simplify it would be helpful. The number of indicators in the framework should be reduced to around 10 to 15 indicators to make it more manageable for inspection teams and give them more time to focus on key indicators of teaching and learning quality.

The SPQI can be revised to distinguish between a set of core indicators evaluated in each integral evaluation and a set of secondary indicators evaluated on a rotating basis or when a problem arises. The indicators that have a direct and proven impact on improving learning and teaching in schools such as “teaching process” and “students’ learning experience” should be prioritised as core indicators. Indicators related to the quality of the school environment such as “health”, “school climate” and “accommodation and premises” could be evaluated on a rotating basis. The rotation of indicators will also allow the inspectorate to go deeper in investigating the non-core areas and produce thematic reports to inform national policies.

As part of this review, some gaps in the existing framework should also be addressed. The framework should include school pedagogical leadership as an indicator under teaching and learning. The SPQI framework should also include the quality of self-evaluation and schools’ capacity to reflect on its processes. This might be addressed in an indicator on schools’ capacity for improvement.

Streamline and reduce administrative reporting

Schools in North Macedonia spend considerable time preparing and submitting many administrative documents and data to the SEI. As well as distracting schools from their core role, some of the documents reported to the inspectorate are already reported to other parts of the ministry. For instance, schools provide inspection teams with data on retention rates and students’ attendance, information about the school principal and teacher. While this information is already available in the ministry’s Education Management and Information System (EMIS), but it is not shared with the SEI.

The SEI should simplify and digitalise the collection of administrative data as the majority of OECD countries have. (OECD, 2013[1]). The SEI should try to retrieve as much administrative data as it can (such as grade retention rates, school staff profiles and student attendance rates) directly from the EMIS database. The SEI should also work with the EMIS unit to ensure that administrative data needed for the evaluation are adequately reported and included in EMIS in the future (see Chapter 5). It is also recommended that the SEI stop requesting and collecting some documents produced specifically for the inspection and which do not provide valuable information about the quality of the school practices, such as minutes of school board meetings and teacher council meetings.

Revise classroom observations to focus on teaching and learning across the school

The individual teacher appraisals as part of school evaluations in North Macedonia play a limited role in supporting school improvement. Teachers do not receive written feedback or their scores from the classroom observation. Given the limited time available for observing all teachers, individual classroom observations are often very short, just ten minutes, during which inspectors will simply check documents such as students' portfolios and lesson plans.

While the teacher appraisal component has no consequences for teachers' career or salaries, teachers feel under pressure to perform well during the classroom observation. It even leads to some distortive teaching behaviour, such as only calling on the best students in the class to respond to questions, or providing students with the answers to the questions in advance.

The SEI should replace the individual teacher appraisals with more extended classroom observations of a sample of classrooms to gain a deeper understanding of instruction across the school. Inspectors should plan to visit a range of classrooms across different subjects and grades. The focus of these classroom observations would be to develop a general overview of teaching and learning across the school. Instead, individual teacher appraisals will be led by the school principal and the BDE (see Chapter 3).

Develop guidance on how to observe teacher practice and student-teacher interactions

The classroom observation protocol included in the evaluation handbook specifies expectations for inspectors' conduct and the documents they need to look at. However, it does not help inspectors understand how to meaningfully observe teacher practice. The inspectorate should consider introducing a set of qualitative measures for classroom observations to help inspectors evaluate teaching practice in a structured way, since by its very nature, it is subjective and difficult to evaluate.

In this exercise, the inspectorate might draw on the classroom observation indicators developed by the International Comparative Analysis of Learning and Teaching (ICALT). The ICALT indicators are based on teaching and learning practices with a proven impact on student learning (see Box 4.2).

Box 4.2. Example of classroom observation indicators to evaluate the quality of teaching and learning

Guidelines should explain clearly the purpose of the classroom observation and list the indicators and descriptors that will be used. The International Comparative Analysis of Learning and Teaching (ICALT) was a collaboration among European external school evaluation bodies to develop an instrument to observe and analyse the quality of teaching and learning in primary schools.

The study found that the following five aspects could be compared in a reliable and valid way and that these were positively correlated with student involvement, attitude, behaviour and attainment: efficient classroom management, safe and stimulating learning climate, clear instruction, adaptation of teaching, and teaching-learning strategies. The final observation instrument was adopted for use by external school evaluation bodies in five European countries: Belgium (Flemish Community), Lower Saxony (Germany), the Netherlands, the Slovak Republic, and Scotland (United Kingdom). Below are a subset of the observation indicators:

Indicators	Good practice descriptors
Safe and stimulating learning climate (five indicators)	
The teacher ensures a relaxed atmosphere	The teacher addresses the children in a positive manner The teacher reacts with humour and stimulates humour The teacher allow children to make mistakes The teacher demonstrates warmth and empathy towards all students
The teacher shows respect for the students in behaviour and language use	The teacher allows students to finish speaking The teacher listens to what students have to say The teacher makes no role-confirming remarks
The teacher promotes the mutual respect and interest of students	The teacher encourages children to listen to each other The teacher intervenes when children are being laughed at The teacher takes (cultural) differences and idiosyncrasies into account The teacher ensures solidarity between students The teacher ensures that events are experienced as group events
The teacher supports the self-confidence of students	The teacher feeds back on questions and answers from students in a positive way The teacher pays students compliments on their results The teacher honours the contribution made children
The teacher encourages the students to do their utmost	The teacher praises students for efforts towards doing their utmost The teacher makes clear that all students are expected to do their utmost The teacher expresses positive expectations to students about what they are able to take on

Involvement of students (three indicators)	
There is good individual involvement of students	The students are attentive The students take part in learning/group discussions The students work on the assignments in a concentrated and task-focused way
Students are interested	The students listen to the instructions actively The students ask questions
Students are active learners	The students ask deeper questions The students take responsibility for their own learning process The students work independently The students take initiatives The students use their time efficiently

Source: (OECD, 2013[1]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en.

Recommendation 4.2.2. Make sure that integral evaluations deliver constructive feedback to schools

For school evaluations to lead to school improvement, they need to help schools understand what they do well, and where improvements can be made. At present however, schools in North Macedonia do not feel that evaluations help them to do this. The review team's interviews revealed that schools largely perceive evaluation to be an externally imposed process that is disassociated from their own planning and development efforts.

This concern will be addressed by enhancing the SEI's professional authority and capacity, and re-orienting the process to focus more centrally on school quality (Recommendations 4.1.1., 4.1.2. and 4.2.1.). However, another important dimension is ensuring that evaluations result in more useful, actionable feedback, complemented by greater follow-up support where necessary.

Improve the quality of feedback to schools

Precise and actionable feedback to schools following evaluations is important to help them understand their strengths, where improvement is needed and how to take action to achieve this (Faubert, 2009[24]). This is even more important in education contexts like North Macedonia where school leaders receive limited support – in terms of training or other support roles across the school – to become instructional leaders.

According to the SEI's guidelines, the school report should include feedback to schools on the seven areas evaluated, highlighting strengths and weakness, and providing examples of good practices to help schools improve. These guidelines are in line with the approach to reporting results of external evaluations in OECD countries (OECD, 2013[1]). However, teachers reported to the review that they found that the report's recommendations on teaching processes of little value.

The SEI might review the feedback that is provided to schools, to ensure that it is easily understood and useful. This might include reviewing a sample of reports nationally,

conducting interviews with schools and looking at international practices. The review would result in recommendations for improvements in written and oral feedback. In the future, schools should continue to be surveyed periodically to make sure that reports are useful, with revisions made to the school report format as necessary.

Create a more meaningful follow-up process, focused on schools in greatest need of improvement

The SEI should consider reviewing the evaluation follow-up process so that schools with a "non-satisfactory" rating receive sufficient support. Currently, follow-up mainly plays a compliance function – to make sure that schools have implemented the evaluation's recommendations. However, no external support is provided to help schools implement the recommendations. Moreover, the timing of the follow-up visit (six months after an evaluation) does not leave enough time to schools to put in place significant changes that may be necessary. Instead, the SEI should consider:

- **Gradually introducing a risk-based approach to evaluation and follow-up:** meaningful follow-up is demanding in terms of technical expertise and time-consuming. Given the limited resources available at the BDE and the municipal level, North Macedonia might consider introducing a risk-based approach to follow-up. Such an approach prioritises follow up with schools at greater risk of not meeting evaluation recommendations and low performance more generally. In North Macedonia, a result of "not satisfactory" in the integral evaluation might trigger follow-up for a school, while those that receive a "very good" grading do not. In the latter case, the SEI will simply check implementation of the recommendations during the next evaluation.
- **Replacing the follow-up visit with more continuous support**: the SEI is too remote from schools to provide meaningful follow-up. In most OECD countries, follow-up to external evaluation is not carried out by the external evaluator but by agencies closer to the school (see examples in Box 4.3). While municipalities in some countries perform this role, the very limited capacity of municipalities in North Macedonia (1-2 education officers per municipality) and their large number (81) make it unfeasible to provide support within each municipality. Instead, North Macedonia might consider establishing support improvement officers that work across multiple municipalities; developing a separate unit dedicated to school improvement within the inspectorate.

Box 4.3. Local follow-up to external evaluation in OECD countries

Wales (United Kingdom)

External evaluation in schools is conducted by Estyn, the Office of Her Majesty's Inspectorate for Education and Training in Wales. When a school is found not to be performing at the level defined in Estyn's standards, the school may be classified into one of four categories. In three of the categories, Estyn itself monitors and revisits the school. In the fourth category, the classification for schools of least concern, schools are monitored by the local authority.

The local authority meets with Estyn every term and produces a report on the school's progress in improving and implementing Estyn's inspection recommendations. Estyn uses the report to decide on the extent to which Estyn itself must monitor the school. When Estyn has serious concerns about a school, local authorities are expected to intervene, as they are responsible for standards. For example, local authorities might address issues of staff performance and professional competence, school governance, resources and training.

Scotland (United Kingdom)

Education Scotland is responsible for conducting inspections of schools in Scotland. A school that is inspected will receive one of four ratings - innovative practice, no continuing engagement, additional support and further inspection – each of which includes follow-up by local authorities :

- In the case where Education Scotland identifies "innovative practice" in the school, Education Scotland works with the local authority to create a record of and disseminate the practice.
- When a school receives the "no continuing engagement" designation, Education Scotland conducts no further follow-up visits in relation to this inspection and the local authority reports to parents on the progress of the school.
- An "additional support" designation engages Education Scotland in providing support alongside the local authorities to improve the school.
- If a school is in need of "further inspection," Education Scotland, via an Area Lead Officer who oversees all scrutiny and capacity building activity in a particular local authority, will work with the local authority to identify the supports needed to improve the school. In this case, the Area Lead Officer monitors progress via the local authority and Education Scotland returns at a later date to evaluate progress and improvement.

Source: (European Commission/EACEA/Eurydice, 2015[6]), *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe*, The European Union, Luxembourg, https://publications.europa.eu/en/publication-detail/-/publication/4a2443a7-7bac-11e5-9fae-01aa75ed71a1/language-en.

Communicate and educate the school community on the purpose of school evaluation

Given the mistrust associated with school evaluation, and the distortive influence it has had on practices in some schools, the SEI should invest in communication materials to explain clearly its purpose teachers, other school staff, students and parents. For instance, the external school evaluation agency in England, United Kingdom, Ofsted, has developed a guideline called "Ofsted inspections: myths" that debunk some of the most common misconceptions about the inspection process (Ofsted, 2018[15]).

Similar brochures should be developed in North Macedonia and given to schools. They should address clearly a number of common concerns by clearly explaining for example that: school evaluation carries no consequences for individual teachers; no information on individual teachers, classes or students is made publicly available in the report; and that the school evaluation results cannot directly lead to a school principals' dismissal.

Policy issue 4.3. Developing schools' capacity to carry out meaningful self-evaluation

While most schools in North Macedonia undertake regular self-evaluations and develop school action plans, few have appropriated these processes as internal tools to improve the quality of their practices. An overriding reason is that the improvement function of school evaluation is not well embedded in the country. Steps to professionalise the inspectorate and create a national vision of a good school will engage schools in a conversation about what school evaluation means, and its role for school improvement (see Recommendation 4.1.1.).

The above will need to be accompanied by more practical steps to provide schools with greater support for self-evaluation. At present, school actors with a leading role in self-evaluation in schools do not receive any training or guidance to implement an effective self-evaluation process that is embedded in school planning activities. Steps also need to be taken to develop principals' capacity to become instructional leaders in schools. Principals play an essential role in engaging the whole of a school community in self-evaluating and galvanising the school behind the self-evaluation process.

Recommendation 4.3.1. Provide support and training for school actors on self-evaluation

There needs to be greater national investment in improving school-level capacity for self-evaluation, and helping to develop a culture of improvement in schools. This will include more practical guidance for schools – through self-evaluation guidance and by promoting the exchange of good practices across schools. Actors with a key role in self-evaluation – school principals, boards and teachers – need far more support and training so that they can undertake their roles effectively.

Revise school self-evaluation guidance

Schools in North Macedonia need clear guidance and direction to understand the process of school self-evaluation and embed it in their planning process. To do so, the SEI should consider revising the self-evaluation supporting documents so that self-evaluation becomes a more meaningful tool for schools. Options include:

- **Review schools' experience of self-evaluation over the past ten years**. The SEI should lead a review of this experience to understand how schools are using self-evaluation and what practical changes to the self-evaluation manual and process would help make it more useful for them. This can be done by focusing one three year round of integral evaluations on observing self-evaluation in schools.
- **Include guiding questions and a simplified list of indicators.** Schools would benefit from a short list of simple guiding questions to drive their self-reflection and objective setting.

  For instance, research and experience suggests that self-evaluations should aim to answer simple questions focused on improving teaching and learning, such as: "how good is our school"; "how can we make it better"; "are teachers' skills being put to good use"; and "how good is learning and teaching in our school?" (Riley and Macbeath, 2000[25]). This list of questions should be complemented by a short list of examples of good practices to help schools understand how to make an educated judgement about their practices. The ministry can prioritise some indicators from the SPQI framework to include in the Manual.

In 2008, as part of the Education Modernisation Project, a school self-evaluation manual was developed to provide schools with guidance on how to implement the then new self-evaluation process. However, the schools visited by the review team were unaware of this resource and rely solely on the rulebook for school self-evaluation. The manual has not been updated over the past decade. Steps to encourage greater use of the manual include:

- **Develop a comprehensive self-evaluation manual and include examples of good self-evaluation practices**: the self-evaluation manual should be updated to reflect new policies and practices. This development process could also draw on the school improvement manual, the multicultural education self-evaluation manual developed by the United States Agency for International Development (USAID) and UNICEF's self-evaluation manual focused on efficiency and inclusiveness, developed as part of the Child Friendly School programme. The ministry should consider including examples of good school self-evaluation practices observed by the inspectorate in the self-evaluation manual.
- **Make sure that schools are aware of the manual and encourage its use**: all actors responsible for school quality need to inform schools about the available manual. The SEI could check for example if schools are aware of these manual during the evaluations. Similarly, the BDE and the VETC advisors can inform schools about their availability.

Provide more training for school actors on self-evaluation

Developing school capacity for self-evaluation takes time and requires considerable external support, especially in the first years of implementation (OECD, 2016[26]). In North Macedonia, teachers, members of the professional support and school principals that are tasked with undertaking self-evaluation do not receive sufficient training in this area. In particular, school principals, who play a leadership role in self-evaluation in many OECD countries, do not receive any dedicated preparation for this role. Their initial training is short compared to other European and OECD countries. Principals' initial training does not provide time to train principles in practices for school evaluation and classroom observation. The ministry might commission the BDE to provide more support to develop school-level capacity for self-evaluation by:

- **Creating a mandatory, practical module on self-evaluation in school principals' initial education**: as a core instructional leadership responsibility, school self-evaluation is included in school principals' training in most OECD and European countries (OECD, 2013[1]; European Commission/EACEA/Eurydice, 2015[6]). As part of a longer initial training, including content on how to lead self-evaluations (see Chapter 3), principals could be given a case study about a school and asked to interpret and analyse evidence about the schools' practices and provide recommendations for improvement.
- **Offering regular training to school staff involved in school self-evaluation**: to make training in key areas of self-evaluation available (e.g. use and interpretation of data and classroom observation). Take-up can be incentivised by subsidising schools' participation. Most European countries offer training for school principals already in service. In some countries, such training is mandatory.
- **Offering training to the school boards**: regular training is made available to the school board in other countries where boards monitor the quality of school self-evaluations (European Commission/EACEA/Eurydice, 2015[6]). While school

boards in North Macedonia are tasked with approving the results and findings of school self-evaluations, its members do not receive any training on how to interpret results and judge the quality of the process. In practice, this means that their role is limited to administrative validation. In 2012, USAID organised training for boards on how to interpret the results of school self-evaluations, but given the high turnover rates in board members (who are replaced every four years), such training needs to be more systematic and regular to have an impact.

- **Providing technical assistance to schools that struggle with undertaking a meaningful self-evaluation:** the ministry might also consider training the BDE advisors to assist schools that are facing difficulties in evaluating the quality of their practices and identifying areas for improvement. These specialists can join school self-evaluation committees to help guide their work. Similar models are used in Poland and Slovak Republic to help schools improve their self-evaluation practices (European Commission/EACEA/Eurydice, 2015[6]). The ministry can also bring experts from other European countries to train this new corps on how to provide support to schools.

Review and provide feedback on self-evaluation during integral evaluations

School external evaluation is used in a growing number of OECD countries to monitor schools' capacity for improvement and provide schools with feedback on how to improve their self-evaluation practices (OECD, 2013[1]). In North Macedonia, as part of integral evaluations, the State Education Inspectorate checks schools' self-evaluation processes, but does not review the quality.

To make more effective use of external evaluation for building schools' self-evaluation capacity, the inspectorate should consider introducing an indicator in the SPQI framework that looks at how far school self-evaluation practices are informing improvement (e.g. quality of reflection on practices, pertinence of recommendations and follow-up actions). This indicator should also include descriptors with schools' expected behaviours and practices, including the diversity and quality of sources of information used in self-evaluations process, and engagement of the whole school community. In New Zealand for example, the Education Review Office describes a school with "very good" self-evaluation capacity as a school that convincingly demonstrates "a school-wide culture of rigorous critical reflection and self-review is contributing to sustaining the school's positive performance and continuous improvement" (Nusche et al., 2012[27]).

In the medium to long term, as the quality of self-evaluation improves across schools, the inspectorate can start relying on self-evaluation reports as a key source of information on school performance and practices. SEI inspectors report that self-evaluation reports seldom reflect schools' actual performance.

Create an online portal for schools to share their experience with self-evaluation

In addition to external support from experts, schools need more opportunities to learn from each other. Disseminating best practices, for example on engaging the whole of the school, undertaking classroom observations or analysing data provides schools with inspiration about how they can improve their practices. Showcasing good practices also provides important recognition to encourage schools. To support this, the ministry might consider providing specific recognition to schools that have exceptional self-evaluation practice, like a "good improver" title.

The ministry can develop an online platform where schools can exchange self-evaluation practices (e.g. how they conduct interviews and classroom observations), surveys and tools used to collect information. The platform might also provide the space for schools to ask questions to the platform community so that they can receive advice from other schools.

Recommendation 4.3.2. Develop school principals' instructional leadership skills

As well as developing principal's skills for self-evaluation, it is important to develop their overall instructional leadership capacity. This will help to ensure that school evaluation feeds into other aspects of school leadership such as setting a vision for the school and planning for improvement (Ingersoll, Sirinides and Dougherty, 2017[28]).

In North Macedonia, principals currently receive limited training and support for leadership tasks. Moreover, political interference and the high level of turnover among principals make it difficult to build a professional school principal corps that is recognised for their expertise. Instead, school leadership is perceived as a temporary occupation carried out by teachers for a short period.

Create a leadership academy for principals' initial training and continuous professional development

Increasingly, OECD countries are establishing master's programmes on school leadership or leadership academies to improve principals' capacity (OECD, 2014[8]). In North Macedonia, school principals' initial training is short, and once in-service there are limited programmes for regular principals' professional development. In the majority of school principals in OECD countries (80%) participate annually in some form of professional development programme (i.e. courses, mentorship or professional network) (OECD, 2014[8]).

North Macedonia needs to make sure that school principals are adequately trained before entering schools, and that they are encouraged to continue pursing professional development throughout their career, for example by:

- **Creating a leadership academy for initial training and continuous professional development:** the responsibility for training school principals should be moved to a dedicated body. The National Education Centre (NEC) does not have the experience or sufficient staff numbers to provide training to principals and needs to focus on its core mission of assessment and examinations. Moreover, the body responsible for teachers' professional development, the Bureau for Development of Education (BDE), does not have the technical capacity or the financial resources to provide training to school principals.

  Leadership academies in OECD countries develop tools and guidelines on school leadership and provide training to principals. They also contribute to improving research on school leadership and provide more visibility for the profession (see Box 4.4).

- **Introducing competency standards for school principals:** North Macedonia is currently developing competency standards for school principals. This is an important effort and it will be key that such standards provide a clear list of the knowledge, skills and behaviour expected from school principals. Standards will help provide guide principals in their job. They should also inform the preparation, licensing and selection process by the school board. The SEI should also refer to the standards when evaluating school leadership during the integral evaluations.

The content of standards varies across OECD countries but usually covers the core instructional leadership and managerial competencies (Pont, Nusche and Moorman, 2009[29]).

- **Introducing a mentorship programme:** while it is not the majority, there are some experienced school principals who could be appointed to coach newly appointed principals during their first year on the job. They can provide support and guidance to new principals on how to meaningfully undertake their instructional leadership duties and provide regular feedback. Similar to teacher mentors, school principals' mentorship role should be recognised and compensated and, selected mentors adequately trained on how to provide guidance and feedback. In Estonia, coaches are selected among school principals with at least five years of experience. They also need to demonstrate high level of motivation and pass a mandatory training course on communication, need analysis, coaching and feedback skills (Education and Training 2020 Working Group, 2018[30]).
- **Ensure the certification exam assesses principals' management and leadership skills:** these skills can be tested through case studies in which school principals need to demonstrate their capacity to use information about the school to develop an improvement plan.
- **Ensuring participation in quality and relevant professional development training for principals who wish to renew their mandate:** the ministry should ensure that mandatory professional development is of high quality and relevant to those who wish to renew their mandate or apply to another school.

Box 4.4. School leadership academies in Austria and Ireland

Austria

Founded in 2004, the Leadership Academy provides training to improve the qualifications of executive-level personnel in schools, targeting leaders, directors and managers of and within education institutions in Austria. The training focuses on several elements of leadership, including leadership for learning, dialogue, shared leadership, innovation and the capacity to improve the quality of education.

Every year a new cohort or "generation" participates in a series of four three-day fora and works toward meeting certain certification criteria in order to be admitted into the Leadership Academy network. These criteria include participating in the four fora and other regional network meetings; presenting development issues during collegial team coaching workshops; coaching colleagues; and leading a participative development project in the home education institution and documenting and presenting progress and results. Certification occurs during the fourth forum and membership in the Leadership Academy is decided upon by the Leadership Academy directors.

The first "generation" of the Leader Academy served 300 participants, and roughly 3 000 school leaders have participated as of 2017. The programme has been noted for its high degree of engagement among participants and its positive impact on leadership practice, particularly in the areas of providing direction, demonstrating strength of character and community-building and creating a culture of achievement.

Ireland

In September 2015, the Centre for School Leadership (CSL) was established under a partnership between the Department of Education and Skills (DES), the Irish Primary Principals' Network and the National Association of Principals and Deputy Principals. A variety of functions and objectives were set forth for the CSL, including supporting, leading, co-ordinating and delivering leadership professional development programmes for primary and post primary schools, which includes a programme for newly appointed principals, coaching for active principals and other activities along a continuum of continuous professional development. Additionally, CSL was to develop a strategic framework for a continuum of leadership professional development and a quality assurance framework for its provision, as well as to advise DES on leadership professional development policy.

An evaluation of the CSL's first two years of operation identified several of the organisation's achievements. For example, the CSL has been able to open a discussion about the concept of school leadership, including its strategic role and importance. The evaluation also found that the comprehensive draft continuum of leadership professional development has been well-received by practitioners and providers, and while informed by similar frameworks from other countries, it has been designed for the context in Ireland. Furthermore, a mentoring programme developed for new principals was found to be rated highly by mentees and mentors alike, and a coaching programme for experienced teachers was also very highly regarded. While the evaluation found the pilot to be a success, it notes that the CSL, the leadership professional development system and associated policies will need to be further developed in order for the CSL and its programmes to become fully operational and deliver on its objectives in the long term.

Sources: (Pont, Nusche and Moorman, 2009[29]), *Improving School Leadership, Volume 2: Case Studies on System Leadership*, OECD Publishing, Paris, https://doi.org/10.1787/9789264039551-en; (BMBWF, 2018[31]), *Leadership Academy*, https://www.leadershipacademy.at/ (accessed on 14 April 2018); (Schratz and Hartmann, 2009[32]) *Innovation an Schulen durch Professionalisierung von Führungskräften Studie zur Evaluation der Auswirkungen der Leadership Academy an Schulen*, https://www.leadershipacademy.at/downloads/LEA_Kurzfassung_Studie.pdf; (Fitzpatrick Associates, 2018[33]), *School Leadership in Ireland and the Centre for School Leadership: Research and Evaluation Final* Report, https://cslireland.ie/images/downloads/Final_CSL_Research_and_Evaluation_Final_Report__Feb_2018_.pdf; (Education and Training 2020 Working Group, 2018[30]), *Teachers and school leaders in schools as learning organisations Guiding Principles for policy development in school education*, https://ec.europa.eu/education/sites/education/files/teachers-school-leaders-wg-0917_en.pdf.

Make school principals' appointment transparent and solely based on merit

Improving instructional leadership in schools will also require making sure that the best candidates, according to their professional competence, are selected and that there is trust in the integrity of the appointment process. North Macedonia should consider revising the appointment process to make sure it is impermeable to political interference. School boards should be provided with clear guidelines on how to select suitable candidates. In their note on new principal appointments to the ministry, school boards should justify their selection of a candidate vis-à-vis nationally defined competence standards and minimum eligibility criteria. To limit political interference, municipalities' role in validating school principals' appointment and renewal might be abolished. It could be replaced by a validation process by the State Education Inspectorate (SEI) or another independent external body who would check that the selected candidate meets the minimum requirements for the position.

Ensure that school principals' renewal and dismissal are based on independent and external appraisal

North Macedonia needs to depoliticise decisions about the renewal and dismissal of principals, while ensuring that principals are accountable through an independent process of performance appraisal. Unlike in most OECD countries that have processes of appraisal, school principals' performance is only appraised in North Macedonia as the consequence of a formal complaint (OECD, 2013[1]).

North Macedonia should consider introducing an external appraisal for principals led by the inspectorate and based on the new principal standards. The principal appraisal system would play the dual role of keeping principals accountable for their performance, while identifying areas for professional development and improvement. The school board should then be required to justify decisions of dismissal based on the results of external appraisals. For this accountability process to work, the integrity and independence of the SEI needs to be guaranteed (see Recommendation 4.1.1.).

Policy issue 4.4. Providing schools with greater resources to enhance the quality and impact of school evaluation

Schools in North Macedonia will need more resources to appropriate evaluation as a tool to drive their own improvement. Better access to their own data will allow schools to analyse and monitor their performance and, compare themselves to others. Second, schools need predicable, adequate financial resources to introduce quality improvements. The current absence of a school funding formula – or any established funding rules – to distribute funds from municipalities to schools vastly limits schools' ability to plan and implement changes.

Recommendation 4.4.1. Provide schools with indicators and tools to measure their performance

For school evaluation to inform improvement, it needs to provide a fair and comparative view of schools' practices and outcomes, and how they compare to practices in other schools with similar contexts (MacBeath, 2008[34]). One source of data that many countries use to inform this are standardised assessment and examination results. At present in North Macedonia however, data from the national examination at the end of upper secondary – the state *matura* – are not used as a measure of student performance during evaluations, and there is no national assessment.

Strengthen the use of standardised measures of learning outcomes in school evaluations

The SPQI framework for school evaluation includes few indicators on student learning outcomes limiting schools' and the inspectorate's capacity to evaluate how far learning outcomes in a given school compare to national or local benchmarks.

In the immediate term, the State Education Inspectorate should ensure that results from the State Matura examination are used as a measure of learning outcomes in the SPQI framework. The ministry and the NEC should also make sure that schools have access to national and local averages to benchmark their performance (see Chapter 5). In the medium term, schools and the inspectorate can use results from the planned national student assessment as a reliable measure of learning during schooling (see Chapter 5).

Rethink plans to rank schools based on students' performance in the national assessment

To monitor learning outcomes nationally, the ministry is planning to introduce a new national assessment. One planned use of the results that was under discussion was to develop a school ranking system. Staff in schools at the top of the ranking will receive financial bonuses. While the introduction of a national assessment is a great step forward in improving monitoring of learning outcomes in North Macedonia, using assessment results alone to rank schools and reward certain teachers is unfair and does not accurately reflect school quality. Assessment results need to be contextualised to avoid unfairly rewarding schools with students from more advantaged backgrounds.

The ministry should reconsider the planned school ranking. Integrating the assessment results in the SPQI framework will ensure that via self-evaluation, assessment results are used to encourage schools to reflect on how they are supporting students' learning outcomes. While using the results in external evaluations will ensure that they support school accountability.

In the medium term, once the EMIS system is further developed and data collection improved, the ministry could consider developing a school index to provide schools with a simple tool to compare their performance to that of other with similar levels of inputs and socio-economic contexts. The ministry could use the Romanian school efficiency index presented in Box 4.5 as an example. Romania's school efficiency index looks at both the inputs and outputs of a school and is used to inform external evaluation and internal school evaluations (Kitchen et al., 2017[17]). The index will complement the qualitative school evaluation system. Qualitative measures of school quality should continue to be given priority as they capture better the processes and practices associated with quality learning and teaching.

Box 4.5. School efficiency index in Romania

In 2009, **Romania**'s Agency for Quality Assurance in Pre-University Education (ARACIP) began developing a contextualised attainment model to take account of the factors that may have a strong influence on students' learning outcomes. The data are collected directly from the schools by ARACIP, and since 2014, the collection has taken place exclusively on line. The index was first piloted in 2011 in 1 023 schools across all levels - kindergartens, primary, gymnasium and high school. The methodology was further revised and the index was applied to another 1 300 schools in 2014. In 2016, a ministerial decision confirmed the intention to extend the index to the remaining schools that have not yet been included in the pilot index.

The index is calculated at the school level and currently incorporates input indicators for:

- **Family background**: for example, the percentage of children from families with low income, parents' education in number of years and the average commute time between home and school.
- **Education environment**: for example, if the school is located in a socio-economically disadvantaged area, the number of school shifts and the average number of pupils per class.

- **Infrastructure**: for example, the availability of basic utilities such as water and electricity, and the availability of classroom furniture such as desks.
- **Equipment and teaching aids:** for example, the number of books in the school library, the number of computers, and the number of computers with Internet connection per 100 pupils.
- **Information communication technology (ICT):** the level of ICT use in the school.
- **Human resources**: for example, the percentage of qualified teachers, new teachers, and the average teacher-pupil ratio.

Expected and actual results are measured through the following indicators:

- **Participation:** the average number of absences per pupil, the percentage of students dropping out and the percentage of students repeating a grade.
- **Results**: the distribution of average classroom assessment marks at the end of the school year, the average results in the grade 8 and baccalaureate national examinations, and average results in the competence certification exam for vocational schools.

When a school receives its quality certificate following an ARACIP evaluation, it also receives its performance against the efficiency index criteria and its overall "index" of efficiency. Where this value is higher than 1, it indicates that a school is achieving better results than other schools functioning in similar conditions and with similar resources.

Source: (Kitchen et al., 2017[17]), *OECD Reviews of Evaluation and Assessment in Education: Romania*, OECD Publishing, Paris, https://doi.org/10.1787/9789264274051-en.

Simplify schools' access to data and indicators

The ministry should simplify schools' access to data so that they can monitor their learning outcomes, student completion and drop-out rates. Currently, schools need to take the initiative and contact two different units in the ministry to receive national or regional data on student retention, enrolment and examination results, which they can use as benchmarks in their self-evaluations. The review team's discussions with the EMIS unit indicate that few schools, if any, request this data.

As the ministry develops its EMIS system (Chapter 5), it should consider including a school "view" that captures all the key data on individual schools, and provides national and regional benchmarks. The ministry can also choose to make this information available to the larger public to educate parents and citizens about what school quality means and create a demand for improvement. As mentioned above, such information needs to be presented in a way that takes into account school context.

Recommendation 4.4.2. Provide schools with adequate financial resources to implement their improvement plans

While schools in North Macedonia have significant discretionary power over the use of their resources, decades of underfunding and lack of transparency in the distribution of financial resources mean that they have few financial resources to implement improvements. The ministry needs to revise how funds are distributed to schools to ensure transparency, fairness and efficient use of resources. The ministry also needs to ensure that

all schools have minimum funding levels so that they can act upon the recommendations of school evaluations.

Ensure that school resources are allocated fairly and transparently

In North Macedonia, school funding is distributed from the ministry to municipalities according to a clear funding formula. However, municipalities are not required to follow any specific approach or formula when they allocate central funds to schools. A few municipalities, including the City of Skopje, use a funding formula to distribute funding to schools. Most municipalities use a historic funding model and there is a general lack of transparency in how funds are distributed. In some municipalities, funds are withheld from schools for political reasons or to pay the debts that they have built up (see Chapter 1). This means that schools may not receive funding that is adequate for their needs and they have limited ability to plan ahead.

Most OECD countries use funding formulas to ensure that schools receive funding that is adequate to implement their programmes. Funding formulas also ensure transparency and fairness. Formulas are often based on per student funding and control for contextual variables such as the socio-economic background of students, the localisation of the school (i.e. rural or urban) and other relevant equity variables for the country (i.e. ethnicity or language of instruction) to make sure that schools with a large share of disadvantaged students receive additional support (OECD, 2017[35]).

The ministry should consider making it mandatory for municipalities to use funding formulas and provide clear guidelines on the variables to be included. For instance, given the high level of disparities in learning outcomes factors like urban and rural schools and students' socio-economic background should be taken into account when determining funding levels. As discussed in Chapter 5, oversight of municipal use of funds also needs to be significantly strengthened.

Provide schools with discretionary funds to implement their school plan

Improvements in transparency and fairness of funding will however not be enough. Schools in North Macedonia need access to additional funds to implement their school plans. Current school budgets are insufficient to cover recurring costs, leaving school with little additional budget to introduce new projects or programmes (World Bank, forthcoming[36]). This makes it almost impossible for many schools to set and implement meaningful plans for improvement. The ministry should consider providing schools with small discretionary grants directly from central funding for professional development or projects in their action plan. This would help to incentivise schools to take the improvement function of school self-evaluation seriously. The use of this grant can be monitored by the municipal audit inspection, which already oversees school spending of funds.

To make such funds available for schools, the ministry will need to profoundly review the use and allocation of resources to free up funds for school improvement. As shown in Chapter 1, considerable gains are possible from rethinking the school network.

Conclusion

North Macedonia has invested significantly in developing a modern framework for school evaluation, based on research about what matters for school quality. A decade after it was implemented however, this framework has had limited impact. Professionalising the inspectorate, providing greater support for school level capacity, and making small changes so that the evaluation framework is more operational could result in a major change. The result will be a school evaluation framework that provides far more effective support to help schools raise the quality of their learning environments.

Box 4.6. Recommendations

Professionalising the State Education Inspectorate

4.1.1 Guarantee the independence and integrity of the SEI. The appointment requirements for the SEI's director should focus on demonstrated competence in school improvement and a strong understanding of how evaluation impacts school quality. Adherence to national codes of conduct should also be enforced, with any violations resulting in dismissal.

Increased professional independence of the SEI will need to be balanced by greater oversight of, and accountability for, its work. All stakeholders should have clear and fair opportunities to redress any grievances. A board of respected national education experts could also be formed to help maintain the SEI's independence and oversee the quality of its work. The role and prominence of the SEI's annual report could also be reinforced by focusing explicitly on the quality of the organisation's work (and not merely reporting activities undertaken), and debating its contents in parliament.

Accompanying the above measures with a national consultation to determine a shared vision of "a good school" in North Macedonia would help in developing greater national understanding and ownership of the role of evaluation in supporting school improvement and better student outcomes.

4.1.2 Build the professional capacity of the SEI. New inspectors currently receive only three days of initial training, which is inadequate to develop the skills needed to evaluate schools in a way that is consistent and valid. As an immediate priority, the SEI should design and deliver a set of training courses for existing inspectors with a focus on explaining the purpose of school evaluation and developing key evaluation competencies, such as how to conduct a classroom observation and report back to schools. The training should provide inspectors with practical opportunities to try out new techniques and receive feedback, and to participate in an evaluation visit. In the medium term, the ministry will need to revise inspectors' initial training to bring it more into line with the duration, structure and depth of well-established programmes in OECD and EU countries.

To expand the breadth and depth of the SEI's experience and expertise, it should consider training and licensing experts as external consultants that can join the evaluation teams on an ad hoc basis. Possible external consultants might include experienced teachers from other schools and advisors from the BDE and the Vocational Education and Training Centre (VETC).

Ensuring that integral school evaluation focuses centrally on improving school quality

4.2.1 Revise school integral evaluation to focus more centrally on the quality of teaching and learning. The indicators in the School Performance Quality Indicators (SPQI) framework that guide evaluation should be reduced to around 10 to 15 and revised to distinguish between a set of core indicators to be evaluated in every cycle and secondary indicators to be evaluated on a rotating/discretionary basis. This will make the framework more manageable for inspection teams and give them more time to focus on key indicators of teaching and learning. There are also gaps in the existing framework that need to be addressed. For example, indicators on school pedagogical leadership, the quality of self-evaluation and schools' capacity to reflect on its practices should be included as part of the core indicators evaluated by the SEI.

In order to create more time to meaningfully evaluate teaching and learning, the individual teacher appraisals that are currently part of the integral evaluation should be replaced with more extended classroom observations of a sample of classrooms to gain a deeper understanding of instruction in the school. Individual teacher appraisals should instead be led by the school principal and the BDE (Recommendation 3.2.1). To reduce the administrative burden that integral evaluations place on schools, the SEI should simplify and digitalise the collection of administrative data.

4.2.2 Make sure that integral evaluations deliver constructive feedback to schools. The SEI needs to make sure that recommendations in the school evaluation reports are clear, specific and actionable. The SEI can start by reviewing a sample of national reports and interviewing schools to understand how feedback is used. It should also look at international practices on reporting. Low-performing schools will likely require additional assistance to act on feedback, and the ministry should explore ways to concentrate external support on where it can make the most difference. Towards this end, the country should consider gradually introducing a risk-based approach to school evaluation and follow-up that prioritises schools at risk on core indicators. As part of this new model, the follow-up visits by inspectors to all schools might be replaced by more sustained support for select schools that is led by the regional or municipal level. North Macedonia will need to consider the best structure to provide such support – for example, whether to create a body of school improvement officers that work across multiple municipalities or develop a separate improvement unit within the SEI.

Developing schools' capacity to carry out meaningful self-evaluation

4.3.1 Provide support and training for school actors on self-evaluation, by considering the following actions:

- Revising self-evaluation guidance. As a first step, the country might review schools' experience of self-evaluation to understand what a new comprehensive self-evaluation manual should include.

- Providing more training for school actors on self-evaluation. A mandatory, practical module on self-evaluation could be added to school principals' initial preparation. Regular training should be offered to school staff involved in self-evaluation and school boards. Schools that struggle the most with undertaking meaningful self-evaluation might be offered technical assistance from BDE advisors.
- Reviewing and providing feedback on self-evaluation during integral evaluations, by adding an indicator on the quality of self-evaluation practices to the integral evaluation framework.
- Creating an online portal for schools to share their experience with self-evaluation. The ministry might also recognise schools with exceptional self-evaluation practices through a title like "learning organisation" or "excellence in using evidence" and share these examples of good practice on the online portal.

4.3.2 Develop school principals' instructional leadership skills. North Macedonia should consider creating a leadership academy to help professionalise the principal role. This academy would be in charge of providing initial preparation and in-service professional development for principals. As a first step, the academy should co-ordinate the finalization and introduction of competency standards for principals, which would be used to inform their selection and training, and the evaluation of school leadership during school evaluations.

Protecting the principal appointment process from political interference will be essential to ensure that principals are selected based on their professional competence. Ways to achieve this include providing school boards with clear selection guidelines and ending municipalities' role in validating principal appointments and renewals. The municipalities' validation process should be replaced by validation by an external and independent body, such as the SEI. Decisions about principal renewal and dismissal should also be depoliticised by introducing a principal performance appraisal to provide a fair and independent measure of performance.

Providing schools with greater resources to strengthen the quality and impact of school evaluation

4.4.1 Provide schools with indicators and tools to measure their performance, for example, by using results from the State Matura as a measure of students' learning outcomes in the school evaluation framework. The ministry should also make data more accessible to schools so that they can monitor key outcome indicators such as students' learning outcomes, completion and drop-out rates. One option is to develop a school portal or "view" on EMIS that gives individual schools access to their own data and provides national and regional benchmarks.

North Macedonia's plans to introduce a national assessment are very positive and will provide essential data for monitoring learning outcomes nationally (see Policy issue 5.2). However, the intention to use the results for school ranking should be reconsidered. Using assessment results alone to rank schools and reward certain teachers is unfair as it does not control for the school's socio-economic profile. Instead, the assessment results can be included in the school evaluation framework to encourage schools to reflect on how they support students' learning outcomes and school accountability. In the medium term, the

ministry might consider developing a school index that contextualises school performance including factors such as financial inputs and socio-economic context.

4.4.2 Provide schools with adequate financial resources to implement their improvement plans. The ministry should consider making it compulsory for municipalities to use funding formulas and provide clear guidelines on the variables to be included (e.g. urban/rural, students' socio-economic background). The ministry should also consider providing schools with small discretionary grants from central funding for professional development or implementing projects under their improvement plan.

References

BMBWF (2018), *Leadership Academy*, Bundesministerium für Bildung, Wissenschaft und Forschung, https://www.leadershipacademy.at/ (accessed on 7 March 2019). [31]

Burns, T., F. Köster and M. Fuster (2016), *Education Governance in Action: Lessons from Case Studies*, Educational Research and Innovation, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264262829-en. [16]

DuFour, R. (2004), "What Is a Professional Learning Community?", *Educational Leadership*, Vol. 61/8, pp. 6-11, http://www.ascd.org/publications/educational-leadership/may04/vol61/num08/What-Is-a-Professional-Learning-Community%C2%A2.aspx. [9]

Education and Training 2020 Working Group (2018), *Teachers and school leaders in schools as learning organisations Guiding Principles for policy development in school education*, The European Commission, Brussels, https://ec.europa.eu/education/sites/education/files/teachers-school-leaders-wg-0917_en.pdf (accessed on 7 September 2018). [30]

Education Scotland (2015), *How good is our school? (4th edition)*, http://www.educationscotland.gov.uk/resources/h/hgios4/ (accessed on 23 August 2018). [23]

Education Scotland (n.d.), *Framework document*, https://education.gov.scot/Documents/EducationScotlandFramework.pdf (accessed on 27 March 2019). [14]

European Commission/EACEA/Eurydice (2015), *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe*, Publications Office of the European Union, Luxembourg, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/178en.pdf. [6]

Eurydice (2013), *Eurydice Highlights: Key Data on Teachers and School Leaders in Europe*, http://eacea.ec.europa.eu/educa (accessed on 7 February 2018). [10]

Faubert, V. (2009), "School Evaluation: Current Practices in OECD Countries and a Literature Review", *OECD Education Working Papers*, No. 42, OECD Publishing, Paris, http://dx.doi.org/10.1787/218816547156. [24]

Fitzpatrick Associates (2018), *School Leadership in Ireland and the Centre for School Leadership: Research and Evaluation Final Report*, https://cslireland.ie/images/downloads/Final_CSL_Research_and_Evaluation_Final_Report__Feb_2018_.pdf (accessed on 7 March 2019). [33]

Government of the Republic of North Macedonia (2015), *Law on educational inspection ("Official Gazette of the Republic of Macedonia" No. 52/2005, 81/2008, 148/2009, 57/2010, 51/2011, 24/2013, 137/2013, 164/2013, 41/2014, 33/2015 and 145/2015)*, http://www.mon.gov.mk/images/documents/zakoni/zakon-za-prosvetna-inspekcija-2015.pdf (accessed on 27 March 2019). [13]

Ingersoll, R., P. Sirinides and P. Dougherty (2017), "School Leadership, Teachers' Roles in School Decisionmaking, and Student Achievement", *CPRE Working Papers*, Consortium for Policy Research and Education, https://repository.upenn.edu/cpre_workingpapers/15 (accessed on 5 September 2018). [28]

Kitchen, H. et al. (2017), *Romania 2017*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264274051-en. [17]

MacBeath, J. (2008), "Leading learning in the self-evaluating school", *School Leadership and Management*, Vol. 28/4, pp. 385-399. [34]

MEXT (2008), *Basic Plan for the Promotion of Education (Provisional translation)*, http://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373797.htm. [20]

Ministry of Education and Research (n.d.), *The Estonian Lifelong Learning Strategy 2020*, https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf. [21]

MoES (2018), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje. [11]

Nusche, D. et al. (2012), *OECD Reviews of Evaluation and Assessment in Education: New Zealand*, https://www.oecd-ilibrary.org/docserver/9789264116917-en.pdf?expires=1535964711&id=id&accname=guest&checksum=548FB833921B2C149A6722114C665722 (accessed on 3 September 2018). [27]

OECD (2018), *Developing Schools as Learning Organisations in Wales*, Implementing Education Policies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264307193-en. [18]

OECD (2018), *Education for a Bright Future in Greece*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264298750-en. [22]

OECD (2017), *The Funding of School Education: Connecting Resources and Learning*, OECD Reviews of School Resources, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264276147-en. [35]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en. [3]

OECD (2016), *What makes a school a learning organisation?*, http://www.oecd.org/education/school/school-learning-organisation.pdf (accessed on 24 October 2018). [26]

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en. [2]

OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264196261-en. [8]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en. [1]

Ofsted (2018), *Ofsted inspections: myths*, https://www.gov.uk/government/publications/school-inspection-handbook-from-september-2015/ofsted-inspections-mythbusting (accessed on 24 August 2018). [15]

Ontario Ministry of Education (n.d.), *Education in Ontario*, https://www.ontario.ca/page/education-ontario. [19]

Pont, B., D. Nusche and H. Moorman (2009), *Improving School Leadership: policy and practice*, OECD Publishing, Paris, http://www.sourceoecd.org/education/9789264044678 (accessed on 7 September 2018). [29]

Riley, K. and J. Macbeath (2000), *Putting self-evaluation in place*, The World Bank Group, Washington DC, http://www.woddbank.orq (accessed on 31 August 2018). [25]

Rudduck, J. (2007), "Student Voice, Student Engagement, And School Reform", in *International Handbook of Student Experience in Elementary and Secondary School*, Springer Netherlands, Dordrecht, http://dx.doi.org/10.1007/1-4020-3367-2_23. [5]

Schleicher, A. (2015), *Schools for 21st-Century Learners: Strong Leaders, Confident Teachers, Innovative Approaches*, International Summit on the Teaching Profession, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264231191-en. [7]

Schratz, M. and M. Hartmann (2009), *Innovation an Schulen durch Professionalisierung von Führungskräften Studie zur Evaluation der Auswirkungen der Leadership Academy an Schulen*, Bundesministerium für Unterricht, Kunst und Kultur, https://www.leadershipacademy.at/downloads/LEA_Kurzfassung_Studie.pdf. [32]

SICI (2003), *Effective School Self-Evaluation*, Standing International Conference of Inspectorates, Belfast. [4]

State Education Inspectorate (2014), *Indicators of school quality*, http://dpi.mon.gov.mk/images/pravilnici/IKRU-MAK.pdf. [12]

World Bank (forthcoming), *North Macedonia: Public Finance Review*, World Bank, Washington D.C. [36]

Chapter 5. Creating a stronger framework to monitor and evaluate national progress in education

The system evaluation of the Republic of North Macedonia is at a nascent stage of development and, despite progress, still lacks basic components, such as clear objectives for improving learning outcomes and a national assessment that would support efforts to raise achievement. This chapter suggests that North Macedonia enhance its data collection and management to provide timely and high quality data with which to feed information into decision-making. The chapter also suggests how the assessment can be developed to monitor educational progress and provide formative information for improvement. Another priority is to elevate system evaluation to a key function in North Macedonia's education system, by creating greater institutional capacity.

Introduction

System evaluation is central to education reform. It is important for holding the government and other stakeholders accountable for meeting national education goals. It also provides the information needed to define better policies and make sure that they have their intended impact. In the Republic of North Macedonia (referred to as "North Macedonia" hereafter), system evaluation is at a nascent stage of development. Recent years have seen some important steps towards establishing the institutions and instruments that can support system evaluation. However, many basic components are still lacking, and data systems and the processes for feeding information into decision-making are weak. Among the significant gaps are the absence of clear objectives for improving learning outcomes and a national assessment that would support efforts to raise achievement. These are notable gaps in a context where over half of 15-year-old students in North Macedonia lack the baseline level of skills required for productive participation in society (OECD, 2016[1]).

This chapter suggests several measures that North Macedonia can take to build stronger foundations for system evaluation. It suggests how data collection and management can be enhanced. Reliable, timely and high quality data provide the foundations for understanding what is happening in the education system and where improvements can be made. A central focus of this chapter is a discussion on how the country might develop its new national assessment. The chapter suggests how the assessment can be developed to monitor educational progress and provide formative information for educational improvement. Finally, the chapter looks at how system evaluation can be elevated to a key function in North Macedonia's education system, by creating greater institutional capacity for this function.

Key features of effective system evaluation

System evaluation refers to the processes that countries use to monitor and evaluate the performance of their education systems (OECD, 2013[2]). A strong evaluation system serves two main functions: to hold the education system, and the actors within it, accountable for achieving their stated objectives; and, by generating and using evaluation information in the policy-making process, to improve policies and ultimately education outcomes (see Figure 5.1). System evaluation has gained increasing importance in recent decades across the public sector, in part because of growing pressure on governments to demonstrate the results of public investment and improve efficiency and effectiveness (Schick, 2003[3]).

In the education sector, countries use information from a range of sources to monitor and evaluate quality and track progress towards national objectives (see Figure 5.1). As well as collecting rich data, education systems also require "feedback loops" so that information is fed back into the policy-making process (OECD, 2017[4]). This ensures goals and policies are informed by evidence, helping to create an open and continuous cycle of organisational learning. At the same time, in order to provide public accountability, governments need to set clear responsibilities – to determine which actors should be accountable and for what – and make information available in timely and relevant forms for public debate and scrutiny. All of this constitutes a significant task, which is why effective system evaluation requires central government to work across wider networks (Burns and Köster, 2016[5]). In many OECD countries, independent government agencies like national audit offices, evaluation agencies, the research community and sub-national governments, play a key role in generating and exploiting available information.

A national vision and goals provide standards for system evaluation

Like other aspects of evaluation, system evaluation must be anchored in national vision and/or goals, which provide the standards against which performance can be evaluated. In many countries, these are set out in an education strategy that spans several years. An important complement to national vision and goals are targets and indicators. Indicators are the quantitative or qualitative variables that help to monitor progress (World Bank, 2004[6]). Indicator frameworks combine inputs like government spending, outputs like teacher recruitment, and outcomes like student learning. While outcomes are notoriously difficult to measure, they are a feature of frameworks in most OECD countries because they measure the final results that a system is trying to achieve (OECD, 2009[7]). Goals also need to balance the outcomes a system wants to achieve, with indicators for the internal processes and capacity throughout the system that are required to achieve these outcomes (Kaplan, R.S. and D.P. Norton, 1992[8]).

Reporting against national goals supports accountability

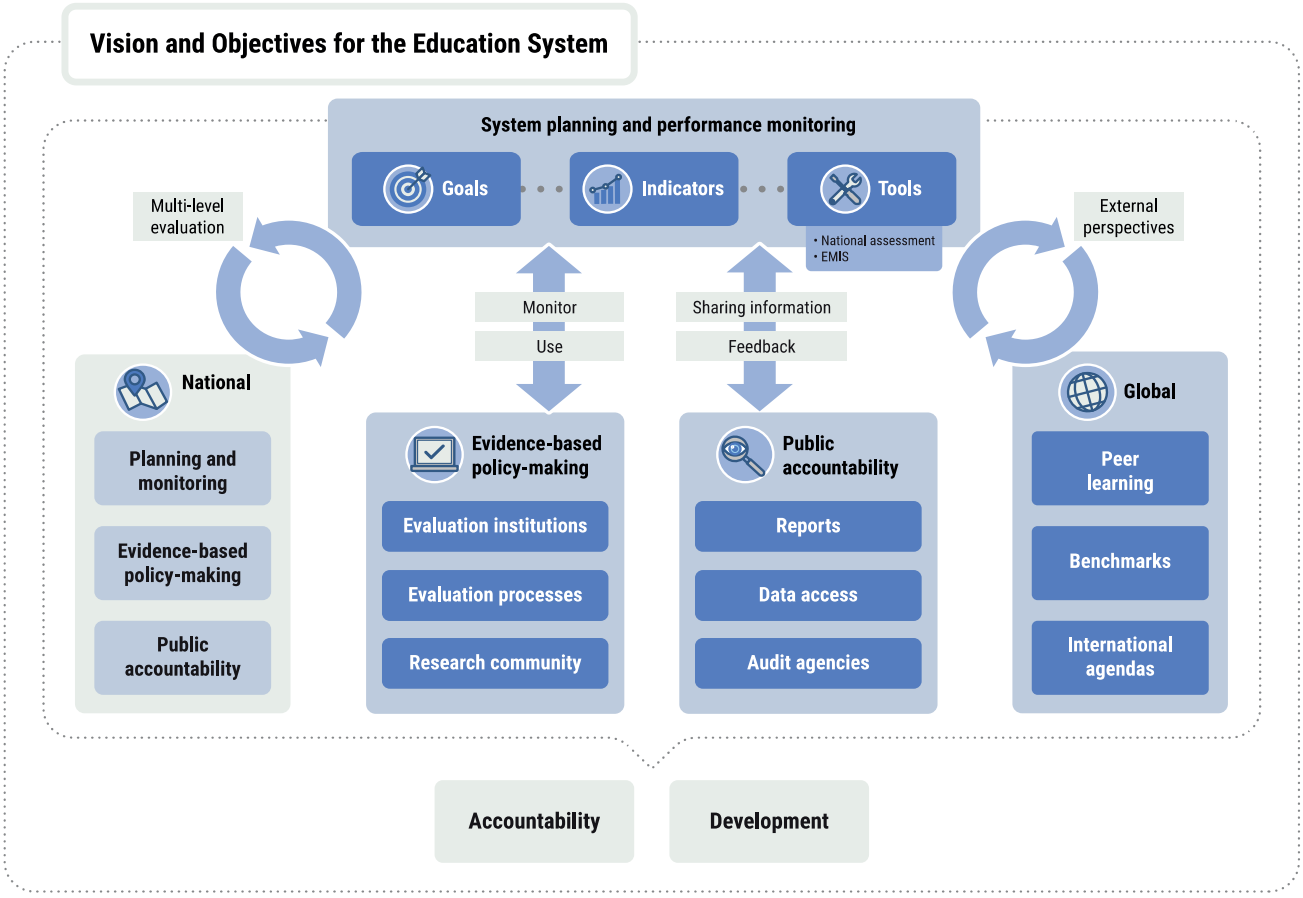
Public reporting of progress against national goals enables the public to hold government accountable. However, the public frequently lacks the time and information to undertake this role, and tends to be driven by individual or constituency interests rather than broad national concerns (House of Commons, 2011[9]). This means that objective and expert bodies like national auditing bodies, parliamentary committees and the research community play a vital role in digesting government reporting and helping to hold the government to account.

An important vehicle for public reporting is an annual report on the education system (OECD, 2013[2]). In many OECD countries, such a report is now complemented by open data. If open data is to support accountability and transparency, it must be useful and accessible. Many OECD countries use simple infographics to present complex information in a format that the general public can understand. Open data should also be provided in a form that is re-usable, i.e. other users can download and use it in different ways, so that the wider evaluation community like researchers and non-governmental bodies can analyse data to generate new insights (OECD, 2018[10]).

National goals are a strong lever for governments to direct the education system

Governments can use national goals to give coherent direction to education reform across central government, sub-national governance bodies and individual schools. For this to happen, goals should be specific, measurable, feasible and above all, relevant to the education system. Having a clear sense of direction is particularly important in the education sector, given the scale, multiplicity of actors and the difficulty in retaining focus in the long-term process of achieving change. In an education system that is well-aligned, national goals are embedded centrally in key reference frameworks, encouraging all actors to work towards their achievement. For example, national goals that all students reach minimum achievement standards or that teaching and learning foster students' creativity are reflected in standards for school evaluation and teacher appraisal. Through the evaluation and assessment framework, actors are held accountable for progress against these objectives.

Figure 5.1. System evaluation



Tools for system evaluation

Administrative data about students, teachers and schools are held in central information systems

In most OECD countries, data such as student demographic information, attendance and performance, teacher data and school characteristics are held in a comprehensive data system, commonly referred to as an Education Management Information System (EMIS). Data are collected according to national and international standardised definitions, enabling data to be collected once, used across the national education system and reported internationally. An effective EMIS also allows users to analyse data and helps disseminate information about education inputs, processes and outcomes (Abdul-Hamid, 2014[11]).

National and international assessments provide reliable data on learning outcomes

Over the past two decades, there has been a major expansion in the number of countries using standardised assessments. The vast majority of OECD countries (30), and an increasing number of non-member countries, have regular national assessments of student achievement for at least one level of the school system (OECD, 2015[12]). This reflects the global trend towards greater demand for outcomes data to monitor government effectiveness, as well as a greater appreciation of the economic importance of all students mastering essential skills.

The primary purpose of a national assessment is to provide reliable data on student learning outcomes that are comparative across different groups of students and over time (OECD, 2013[2]). Assessments can also serve other purposes such as providing information to teachers, schools and students to enhance learning and supporting school accountability frameworks. Unlike national examinations, they do not have an impact on students' progression through grades. When accompanied by background questionnaires, assessments provide insights into the factors influencing learning at the national level and across specific groups. While the design of national assessments varies considerably across OECD countries, there is consensus that having regular, reliable national data on student learning is essential for both system accountability and improvement.

An increasing number of countries also participate in international assessments like the OECD Programme for International Student Assessment (PISA) and the two programmes of the International Energy Agency (IEA), Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS). These assessments provide countries with periodic information to compare learning against international benchmarks as a complement to national data.

Thematic reports complement data to provide information about the quality of teaching and learning processes

Qualitative information helps to contextualise data and provide insights into what is happening in a country's classrooms and schools. For example, school evaluations can provide information about the quality of student-teacher interactions and how a principal motivates and recognises staff. Effective evaluation systems use such findings to help understand national challenges – like differences in student outcomes across schools.

A growing number of OECD countries undertake policy evaluations

Despite an increased interest across countries in policy evaluations, it is rarely systematic at present. Different approaches include evaluation shortly after implementation, and *ex ante* reviews of major policies to support future decision-making (OECD, 2018[13]). Countries are also making greater efforts to incorporate evidence to inform policy design, for example, by commissioning randomised control trials to determine the likely impact of a policy intervention.

Effective evaluation systems requires institutional capacity within and outside government

System evaluation requires resources and skills *within* ministries of education to develop, collect and manage reliable, quality datasets and to exploit education information for evaluation and policy-making purposes. Capacity *outside* or at arms-length from ministries is equally important, and many OECD countries have independent evaluation institutions that contribute to system evaluation. Such institutions might undertake external analysis of public data, or be commissioned by the government to produce annual reports on the education system and undertake policy evaluations or other studies. In order to ensure that such institutions have sufficient capacity, they may receive public funding but their statutes and appointment procedures ensure their independence and the integrity of their work.

System evaluation in North Macedonia

North Macedonia has established several components that are integral to perform system evaluation. For example, several independent bodies collect valuable data and the Ministry of Education and Science (MoES) has developed an EMIS in order to store information related to students, teachers and schools. Nevertheless, many of these components and processes are not fully exploited, and other aspects of the evaluation framework are still in latent stages of development. As a result, evaluation in the country does not provide the information and analysis that are essential for better understanding and improving the education system. Table 5.1 shows some of the basic components of system evaluation in North Macedonia and main gaps.

Table 5.1. System evaluation in North Macedonia

References for national vision and goals	Tools	Body responsible	Outputs
No measureable targets Law on primary and secondary education Comprehensive education strategy 2018-25 Government programme 2017 - 20	Administrative data	Department of informatics (EMIS) State Statistical Office (SSO)	Unpublished, ad hoc reports from EMIS. Annual statistical releases.
	National assessment	Still under development	-
	International assessments	National Examination Centre (NEC)	National reports.
	School evaluations	State Education Inspectorate (SEI)	Annual report on the quality of the education process in schools.
	Policy evaluations	No established process	-
	Thematic reports and research		No national, annual report on the education system.
		Bureau of Education Development (BDE)	Limited outputs due to insufficient resources. Recent outputs include surveys of student views and work on inclusivity.
		Donors and non-governmental organisations	Important providers of research and analysis.

Source: (MoES, 2018[14]), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje.

There is a national vision for education, but goals should be more specific and measurable

The Comprehensive Education Strategy 2018-25 provides a vision for education that is inclusive, focused on the student and aims to enable future generations to acquire the necessary competencies to meet the needs of a modern, global society (MoES, 2018[15]). The strategy also sets out important policy objectives to improve teaching and learning in North Macedonia, such as reforming curricula, expanding infrastructure and improving teaching quality.

While the strategy sets concrete actions and specifies indicators to measure the outcomes, the indicators are not sufficiently specific, nor are they accompanied by quantifiable targets that can allow for effective monitoring. Given the low performance of students in North Macedonia compared to their international peers (see Chapter 1), the absence of measurable student learning goals is notable. Many countries make learning outcomes a

prominent focus of national education goals because this creates a strong lever to direct the system towards improving student achievement.

There are also concerns with how the strategy is being used. Few actors that the review team met perceived the strategy to be a central reference for policy. This may reflect the fact that it does not draw clearly on evidence and evaluations of previous reforms; for example, there is no explicit link to the previous strategy documents from 2005-15 (MoES, 2004[16]) and from 2015-17 (MoES, 2014[17]). The strategy is accompanied by an annex that sets out expected outcomes, indicators of implementation, the year of implementation and the body responsible. However, the document does not provide greater precision on resourcing, implementation steps and detailed timeline delineating how the strategy will translate into action.

The strategy was developed in broad consultation with key stakeholders in the sector, including national and international actors. However, further stakeholder engagement is necessary to advance implementation of the strategy. It seems that the strategy's development was influenced by the change in administrative sectors and European Union's (EU) requirements for accession.

Tools to collect evaluation information are unco-ordinated

The country has tools to collect data about the education system, but the collection is unorganised and some instruments, in particular a national assessment, are still being developed. This situation creates overlapping data collection in some domains and no data collection in other crucial areas.

Administrative data collection does not always follow standard definitions and unified procedures

The State Statistical Office (SSO) has started to align collection with international standards set by the joint United Nations Educational, Scientific and Cultural Organization (UNESCO), OECD and the European Statistical Office (Eurostat) data collection. However, international reporting of North Macedonia's data reveals key gaps, notably on education expenditure, suggesting incomplete national administrative data. In comparison with other countries in the Western Balkans, North Macedonia has more data gaps than others, signalling significant challenges around the quality and availability of data.

In 2010, North Macedonia launched its EMIS, which holds data about students (enrolment, attendance), teachers (employment history, professional development) and schools (maintenance, funding). EMIS does not hold data on the national examination - the state *matura* - that are stored separately by the National Examination Centre (NEC). Schools are responsible for entering their own data into EMIS. Currently, roughly 1 000 people in the country are authorised to access EMIS. These individuals include school staff who input the data and government officials who might need to view the data.

The quality of data stored in EMIS is sometimes an issue. For example, the review team was told that, in the past, unique student identification numbers were not generated according to the agreed upon format. Instead, schools generated the numbers randomly, making retrieving data difficult and inaccurate. In addition, despite EMIS's official status as a central source of education data, parallel data collections exist. The information collected by the SSO and reported internationally is requested directly from schools, and it was reported to the review team that MoES staff often bypass EMIS and conduct their own data collections. The parallel data collections do not always follow nationally agreed

definitions, creating inconsistencies. For example, how a satellite school is classified (as an individual school or not) according to the SSO and EMIS might differ. This not only leads to problems regarding data accuracy, but also creates an unnecessary administrative burden for schools.

Public reporting of education data are limited

The SSO website offers electronic access to education indicators, which can be downloaded, analysed and re-used. However, the public has little access to EMIS data, as it cannot access and retrieve data from EMIS. Currently, the only front-end portal that allows the public to view portions of EMIS data is *e-dnevnik*, an electronic gradebook service that mirrors EMIS data and presents student marks. Authorised EMIS users can access EMIS through a back-end interface, but the review team was told that this interface is not user-friendly and even authorised users have difficulties finding data.

A new national assessment is being developed

National assessments in North Macedonia were first introduced in 2001 in the form of a large-scale, sample-based test. The purpose was to identify how students performed compared to established performance standards prescribed in the subject curricula at the end of the grades 4 and 8 in mother language (Macedonian and Albanian) and mathematics (UNICEF, 2017[18]). Sciences and humanities (grade 4) and civic education (grade 6) were also assessed in grade 4. The assessment was implemented until 2006, when it was ended by a new administration.

From 2013 to 2017, a new assessment was administered annually in every grade in randomly selected subjects from grade 4 until the end of secondary school. The purpose of the assessment was to compare teachers' internal classroom marks with student results on the assessment. Teachers were supposed to be ranked based upon how closely their internal marks corresponded to students' assessment results (see Chapter 3). The initial intent was that those who ranked highly would receive a financial bonus, while teachers at the bottom would lose some of their salary. However, this reward system was never implemented, and the assessment was abolished, largely on the grounds that it placed too much pressure on teachers and had a negative impact on teachers' classroom activities.

Currently, North Macedonia is not administering a national assessment, but plans to introduce a new assessment for system monitoring soon. The MoES has established an independent group to develop the assessment, however final decisions such as the subjects and grades to be assessed had not been made at the time of the review team's visit. According to the newest draft Law on Primary Education, currently under discussion, the assessment will be a sample-based national assessment, with no stakes for student progression or teachers. However, it is suggested that results will be used to rank and reward participating schools.

North Macedonia participates intermittently in international assessments

North Macedonia has participated in TIMSS (1999, 2003, 2011 and 2019), PIRLS (2001 and 2006) and PISA (2000, 2015 and 2018). The country has produced national analysis and reports on the results – most recently in 2016, which was developed by the NEC in collaboration with the World Bank. – but they have not been shared with the public. This kind of national analysis provides the opportunity to exploit the rich datasets that international assessments offer. The experience of administering international assessments

has also helped build national expertise that the country can draw on as it develops its own national assessment.

However, the ministry could make greater use of results by communicating them more widely and using them for national goal setting to help galvanise change. It will also be important to ensure more consistent participation to ensure reliable trend data.

Evaluation and thematic reports

There is no annual report on the education system

The MoES does not publish regular reports about the education system. However, the SSO has recently started to release statistical education information at the beginning and end of academic years (State Statistical Office, 2017[19]; State Statistical Office, 2017[20]). On occasion, the MoES also sends data to the SSO for reporting. For example, in 2016 the SSO has published an ad hoc report about the condition of schools in the country (State Statistical Office, 2016[21]). However, the SSO reports do not provide disaggregated data, for example by students' ethnicity.

Some information from school evaluation is made available for system evaluation

The SEI produces annually a "Report on the quality of the education process in schools" that aggregates information from all integral evaluations (State Education Inspectorate, 2017[22]). This report identifies general trends gathered through school external evaluations, such as what common school needs are and the state of facilities, but the report does not focus strongly on student learning or system-level factors (e.g. what might be associated with common challenges). The review team was told that this report is rarely made public.

As part of integral school evaluations, satisfaction and perception surveys are administered to the students, parents, teachers and support staff. However, the data are not entered into EMIS and thus cannot be accessed by individuals outside of SEI. Consequently, these data, which contain valuable information about the conditions of schools and the attitudes of students and parents, cannot be used for system evaluation purposes.

Donors and non-governmental organisations have undertaken valuable analysis

Donors and non-governmental organisations (NGOs) have, on occasion, provided valuable analysis that has contributed to system evaluation. For example, in 2016 Step-by-Step, an NGO undertook the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) in grades 2 and 3, providing reliable information about learning outcomes in the early grades (see Chapter 1). In 2015, the World Bank undertook analysis of North Macedonia's PISA data, as part of a regional review. While the work of external actors can provide important insights, it can also direct national capacity away from national bodies and focus on priorities determined by external actors.

Evaluation institutions

North Macedonia does not have an agency dedicated to research and analysis of the entire education system. The Bureau of Education Development (BDE) has an explicit research role, but it does not have a mandate to conduct comprehensive system evaluation. The BDE also lacks access to the data that it would need to develop evidence-based policy recommendations as the NEC does not grant it direct access to its databases. The NEC has staff with research capacity, but they also serve other functions within the NEC and their

research roles are primarily limited to responding to ad hoc requests for information. Within the ministry, there is limited analytical capacity to evaluate education information and exploit it for policy-making purposes. Notably there is currently no unit or staff dedicated to this purpose.

Outside government, there are no well-established national research organisations that study the education system. The ministry does establish periodic relationships with higher education institutions to analyse policy reforms. For example, as part of the on-going pilot of the new curriculum in grades 1-3, the ministry is working with higher education institutions to develop an evaluation tool. However, higher education institutions do not have a permanent relationship with the ministry to analyse data. It was reported to the review team that this is in part because of the difficulty in acquiring data from the ministry. The absence of research activity makes it difficult to ensure that education policy is informed by a strong evidence base.

There is little oversight of how municipalities use resources and no evaluation of how they set and achieve education goals

Municipal governments are responsible for allocating funds from the central government to schools and for overseeing the hiring of school staff. However, there are no systematic mechanisms for reviewing or auditing these activities. Little oversight of school funding at the municipal level means that it is not possible to ensure that resources are used efficiently. Despite their role in education delivery, municipal governments are not expected to set objectives or evaluate their performance.

Policy issues

The primary obstacle to developing system evaluation in North Macedonia is the absence of high quality data that is accessible from a unified source. This review strongly recommends that collecting and accessing education data be centralised around EMIS and that EMIS itself be further developed to meet the evaluation needs of the country. A second priority for the country is to design a national assessment system that collects information about student learning, which can then be stored in EMIS alongside student and school contextual data. Finally, with these components in place, the country can work towards institutionalising system evaluation such that research and analysis of education data become established practice and government officials rely on evidence to inform their policy making.

Policy Issue 5.1. Centralising the use of EMIS and improve its capacity

As data are integral to system evaluation, the ministry must ensure that EMIS has the capacity to support all evaluation efforts. The regulations and processes around data collection and access also need to ensure that EMIS is the central, unified source for all education data and that relevant information can be extracted easily. Without greater functionality and a stronger mandate for EMIS, the country will not have the systems in place to study and improve its education system.

Recommendation 5.1.1. Formalise EMIS as the central source of data

EMIS has been operational since 2010 and contains data about students, teachers and school staff. However, despite holding this information, EMIS is not used by North Macedonian policy makers to its full extent. When the ministry's Sectors of Primary

and Secondary Education require data about the system for example, instead of retrieving the information from EMIS they contact schools directly to collect data themselves. Several departments within MoES engage in this type of data collection on a regular basis and compile their own databases, usually stored in spreadsheets, at the beginning of each academic year.

From the perspective of the schools, providing data to numerous requestors, often the same data, can be burdensome and detract from other responsibilities. Furthermore, multiple data collection endangers the quality of data as different data might be provided to different requestors. Especially in the absence of a national indicator framework, this situation might create confusion around what the "true" information is. To alleviate the repetitive data reporting requirements on schools and ensure consistent data collection, EMIS should be recognised and used as the primary source of education data. Secondary data collection should be discontinued and those requestors should instead look to EMIS for their education data needs.

Raise the prominence of EMIS by positioning it closer to central leadership

Administration of EMIS is currently the responsibility of a small team of two individuals in the Department of Informatics in the ministry. These individuals are not involved in the policy-making processes or in systems to regularly report and monitor education data. That EMIS does not have a prominent role within the organisational structure of the ministry likely contributes to its under-utilisation by policy makers and other actors.

The ministry should consider making EMIS more prominent by moving it to the research unit that this review recommends North Macedonia establish (see 0). A stronger institutional position for EMIS would give it greater authority to mandate who can collect data from schools and deter ministry staff from its bypassing rules. Furthermore, the director of EMIS, or the director of the agency responsible for EMIS, should be involved in policy-making processes, which would help solidify the relationship between data and its use in policy making.

Improve staff capacity

A staff of two individuals is likely insufficient to manage a fully functioning EMIS and does not convey a position of organisational significance. In Georgia, for example, EMIS employs five statisticians solely for responding to data and research requests, in addition to department leadership, administrative support and software developers who manage the system. In Fiji, a far less developed country, EMIS employs eight full-time staff and two part-time staff who are responsible for producing training materials and procedural manuals (World Bank, 2017[23]). North Macedonia's EMIS would be well served by employing additional staff who could help the current two individuals develop the system, respond to data analysis requests and systematise rules and procedures.

Specific capacities that would have to be recruited or developed include software development for maintaining and improving EMIS and quantitative analysis skills for processing data and creating thematic reports. EMIS would also be well served by having permanent leadership that liaises between EMIS and other departments and agencies within ministry. Having more and better-trained staff work in EMIS would help communicate the message that EMIS is an important entity that should be used properly and relied upon.

Establish protocols for data definition, collection and retrieval from schools

Many countries have established strict protocols regarding the definition of data points and who can retrieve data from schools. In the United States, for instance, each state has developed and oversees its own education database and schools are required to enter information directly into this database. To ensure consistency for national-level reporting and analysis, the United States Department of Education has created the Common Education Data Standards that defines education data around the country (Department of Education, n.d.[24]). By implementing common data standards, national education policy makers can be confident that data from different states have the same meaning and can be relied upon to inform federal decision making.

In addition to commonly defining data, the United States also regulates who can collect data from schools. For example, if government parties wish to contact schools to collect information, they must undergo a rigorous screening process that is regulated by data sharing legislation (US Department of Education, 2018[25]). These procedures help restrict outside access to school information, funnel data retrieval to the education database and limit direct collection from schools to data that cannot be found in the education database (e.g. interviews with teachers or students).

In North Macedonia, such data definition and collection protocols have not been created. The result is that schools might have different definitions for indicators or data points (e.g. how student identification numbers are created). They are also forced to exercise discretion about to whom they provide information. While schools could deny third party requests, if a government body contacts a school for information, school leaders might not feel they have the mandate to refuse, though the data they supply might not even match a common definition. A formal data dictionary and sharing protocol would provide schools with guidance on how to define data and give them the mandate to reject external requests, thus encouraging the requestors to turn to EMIS for their desired information. Ensuring that data definitions are consistent with international definitions would help to fill the gaps in North Macedonia's internationally reported data.

Standardise the collection of data across agencies and link those data to EMIS

Storing different types of data in different places, as is the case in North Macedonia between EMIS and the NEC, without a common linkage also presents problems. While some countries do hold data in different locations, these data are easily linked by a common variable, usually unique identifications numbers for students, teachers and schools (Abdul-Hamid, 2017[26]). This allows for seamless integration and analysis of data across several sources, such as student demographic information vis-à-vis their assessment results. In North Macedonia, such integration is currently not possible because not only are student's demographic data stored in EMIS while test results are stored in NEC, but student identification numbers are not consistent across the systems. In-depth analysis using these two valuable sources of data, therefore, is also not possible.

Most EMIS systems do not create student identifiers, but instead use the students' national/civil identification numbers (Abdul-Hamid, 2014[11]). Using this identification has several advantages. It is inherently standardised and therefore will follow a standard structure across all education databases. Moreover, because it exists at the national level, it can be used to conduct research across different sectors (e.g. if one wishes to study education outcomes and labour market success). Finally, by using this identifier, much student information can be retrieved automatically into EMIS by linking EMIS with the national registry, which greatly improves data quality and reduces the data entry burden on

schools. Box 5.1 describes how EMIS in Georgia identifies students, regulates data entry procedures and makes data accessible.

Data collection in North Macedonia exists across several databases. In addition to EMIS, the NEC collects data from the state *matura* and SEI inspectors use forms to collect information during integral evaluations. These systems, however, are not interoperable. The unique identification of each student in EMIS is their national/civil identification number, but NEC's database identifies students differently. SEI inspection forms are currently organised and filed, but their data are not always entered into a digital format. When they are, the data are stored locally at the SEI. Data from these different systems, therefore, cannot be easily retrieved or analysed in conjunction with each other.

Standardising government data collection would allow for greater interoperability between databases. Two key actions to enable this will be to use the students' national identification in all databases, perhaps by passing a regulation, and to ensure that all data are digitised.

Box 5.1. EMIS in Georgia

Georgia's EMIS was created in 2012 with significant financial investment. Currently, two data centres store all data related to education in Georgia. The main databases themselves are administered internally by EMIS staff. All students are identified using their civil identification numbers and their personal demographic information is automatically populated in EMIS from the national civil registry. Examinations data are collected and stored separately at the office of the National Assessment and Examinations Centre, but these two databases are linked through the students' identifiers.

Data entry is conducted directly by schools. School staff were trained by EMIS staff in how to enter data properly. EMIS staff have also created monitoring procedures that are used to perform quality checks on the data. The parties responsible for conducting these checks are education resource centres that are located throughout the country and have close relationships with the schools themselves. Within the Ministry of Education, Culture, Science and Sport, EMIS has established data sharing agreements with other departments and agencies, who must abide by the agreements in order to access EMIS data. Through these agreements, schools are protected from having to respond to unauthorised data requests because the data sharing agreements expect requestors to access data directly through EMIS.

Two front-end portals allow users to interact with information stored in EMIS. E-School provides immediate access to data about students, teachers and schools according to an individual's user level (e.g. a principal can only view his/her school while ministry staff can view more). Another portal, E-Flow, operates as the primary mode of communications for all staff affiliated with the ministry. When sending a message through E-Flow, users can immediately see the school affiliation of recipients and information about their schools.

Sources: (Ministry of Education/UNICEF, 2015[27]), *Country Background Report: Georgia*, and OECD review team interviews in Georgia.

Establish quality assurance procedures to verify the accuracy of data that is entered

Internationally, countries implement strict data validation and auditing procedures to ensure that data are of the highest quality (Abdul-Hamid, 2014[11]). In North Macedonia, these types of quality assurance procedures are not fully developed. While ad hoc validation, such as validating student identification numbers has occurred, these mechanisms have not been systematised.

Creating regular quality assurance procedures for EMIS data would help to verify its accuracy and encourage more individuals to use the system. Such procedures could include visiting a sample of schools to check if independent data collection aligns with the school's data collection, and if the school's data collection aligns with the information they input into EMIS (Mclaughlin et al., 2017[28]). These procedures would not only improve the data found in EMIS, but also increase the level of trust in EMIS. This role should be undertaken by a national or central government body. One option would be for the State Audit Office to take on this role. In the past, the national audit body conducted a performance audit of EMIS, however there are questions on whether it has the capacity and resources to do so on a regular basis. Another would be to create a small team within the SEI, separate from school inspections, with a specific mandate for quality assurance of EMIS data.

Recommendation 5.1.2. Enhance the functionality of EMIS

One reason why EMIS is not used more widely is that its functionality is limited to data entry and storage. Effective EMIS systems also have strong analysis and reporting functionalities that can aid research and inform policy making (Villanueva, 2003[29]). These features should be available to all interested parties, and not just the small number of users who currently have accounts. Without this critical functionality, EMIS cannot be used to its full capacity.

Create regular reporting procedures

Reporting is one of the integral features of an EMIS. It is the vehicle through which the system transforms from being a receptacle of data to a provider of information. All EMIS systems have the inherent capability to generate reports using their stored data. It is the responsibility of administrators, however, to instruct EMIS how to process raw data, create reporting templates that display processed data and regularise reporting procedures (Abdul-Hamid, 2014[11]).

In North Macedonia, EMIS administrators have created some data processing instructions and reporting templates. However, they have not created regular reporting procedures, such as an annual statistical report at the end of each school or calendar year. Instead, EMIS reporting occurs in an ad hoc manner, mainly in response to individual requests. This system can be inefficient as requests for information tend to be submitted at similar times (around reporting deadlines) and thus require time to fulfil. This also limits the use of information, since it requires that users know what data are contained in EMIS and take the initiative to request it.

It would be helpful if EMIS administrators identified the most commonly used templates (e.g. data related to participation and completion), created a timetable for regular production of the reports and made those reports publically available. Interested parties can then retrieve the data instantly without needing to request the information from EMIS. After the most commonly used templates start to be reported regularly, EMIS staff can then turn

their attention to producing regular reports on specific themes of national interest, such as the education of linguistic minorities (see 0). These procedures would further encourage policy makers to rely on EMIS as a data source and make fuller use of the data in setting goals and designing policy interventions.

Develop a user-friendly portal to quickly retrieve contextual data

In addition to regular reporting, real-time access to data through a web portal is a common method of extracting information from EMIS and presenting it in an accessible manner. At the most fundamental level, users will be able to learn how many students attend a school and how they perform on a national assessment. More sophisticated systems aid research and analysis by facilitating comparison across schools, aggregation at different levels (e.g. regional or national) and providing a set of data visualisation tools (Abdul-Hamid, Mintz and Saraogi, 2017[30]). Box 5.2 explains the functionality of the Florida's PK-20 Education Information Portal, an online EMIS portal from the Florida Department of Education, United States.

Box 5.2. Florida's PK-20 Education Information Portal, a data access portal from the United States

In Florida, United States, the Florida's PK-20 Education Information Portal provides access to public schools from kindergarten through grade 12, public colleges and universities, a statewide vocational and training program and career and adult education. Through an online interface, any individual can view data that are aggregated at school-, district- and state-levels. Comparisons can be made across different schools and districts.

The Florida's PK-20 Education Information Portal is powerful in that it allows data to be organised not only to the level of governance, but also subject matter. Florida's state assessments test students in English, mathematics and science, with further delineation of different mathematics and science domains. Users who navigate the portal can choose to view all data according to a single domain (instead of viewing all data according to a single school) and make further contextualised comparisons according to the domain. This saves users from having to navigate to through different schools or districts in order to find the same indicator for each one of those entities.

Along with providing access to data, the portal provides simple tools for users to perform their own analysis. Users can, for example, format the data into tables that they define themselves (some standard tables are already provided). Custom reports that contain several tables can then be generated according to users' specifications. The portal also has a strong data visualisation component. Different types of graphs and charts can be created based on the data. District-level analysis can even be plotted as maps that display indicators according to the geographic location of the districts within the state.

Source: (FL Department of Education, n.d.[31]), *Florida Department of Education – PK-20 Education Information Portal*, https://edstats.fldoe.org/SASPortal/main.do (accessed on 12 July 2018).

In North Macedonia, the *e-dnvenik* service was created to allow teachers, parents and students to view, through an online portal, relevant data that is stored in EMIS in addition to student grades. However, *e-dnevnik* is primarily used as a student monitoring service, not to access EMIS data for broader, analytic purposes. Users of *e-dnevnik* cannot, for

instance, look at schools across the country and filter those schools by certain characteristics. Furthermore, access to *e-dnevnik* is limited to individuals with direct interaction in the education system, such as parents of students and school staff. Research organisations or higher education institutions cannot access *e-dnevnik*.

The ministry should create an online platform that allows public access to EMIS data through a dashboard interface. All users of the platform would be able to browse national education data and select schools and municipalities for comparison based upon chosen criteria (for example, location or language of instruction). The platform should also contain features to create dynamically generated charts and figures and export data for further analysis. Importantly, the online platform must be user-friendly such that members of the public can easily navigate it and use these features. Creating such a platform would help schools benchmark their performance in a contextualised manner, assist researchers in analysing system information and help policy makers base their decisions on stronger evidence.

Recommendation 5.1.3. Improve the articulation of national education goals and align future EMIS development with them

In North Macedonia, national education goals could be more clearly expressed and accompanied by clear targets. The Comprehensive Education Strategy 2018-25 lists some national objectives in terms of activities to be undertaken, but these are difficult to distil into a small number of high priority goals. Furthermore, the wording of the objectives is not specific enough, making measurement difficult. An EMIS system is designed to support the monitoring of national goals through the collection and reporting of data. Without measurable goals, however, EMIS cannot accomplish this task and the country cannot achieve accountability for education outcomes and the system. The lack of clear goals with measureable objectives also risks policy misalignment and unco-ordinated policy initiatives, reducing the impact of reforms.

Clarify national goals and create measureable targets

The Comprehensive Education Strategy 2018-25 is focused on achieving outputs, such as curriculum reform and textbook usage. It does not however focus on outcomes, notably improvement in student learning. Internationally, countries use national goals and targets to give visibility to national priorities and direct the education system towards their achievement. Given the evidence that the majority of students in North Macedonia do not master basic competencies, setting an ambitious target to raise learning outcomes would help to ensure that the education system and society in general, recognises this as a national and urgent priority.

This chapter strongly recommends that the government establish specific goals for improving student achievement and associates those goals with measurable, achievable targets. Since the national assessment is still in development, using data from international assessments such as PISA to monitor student performance over time would be an effective method to track changes in student learning. For example, reducing the share of low performers in PISA to below 15% by 2020 in line with European Union (EU) targets (European Commission, 2018[32]). The government can also consider setting interim benchmarks to ensure that the country is progressing towards the long-term goal. Given the evidence of inequity in learning outcomes, such as the gap between rural and urban students, or between students of Macedonian, Albanian and other ethnicities, other goals to improve equity might also be included. For example, goals might be set to reduce the

performance difference between different groups of students by 10 score points in all three core domains. North Macedonia could then use these targets to steer attention and accountability towards student learning.

To support the achievement of these student-learning goals, the ministry will need to make sure that it develops clear plans that set out how its goals will be supported. Critically, this should include plans for establishing a new national assessment and prioritise consistent participation in international assessments to provide trend data.

Develop a national indicator framework and use it to co-ordinate data collection and reporting procedures

The absence of a national indicator framework is inhibiting systematic data collection, reporting and monitoring of student outcomes in North Macedonia. A national indicator framework not only specifies the measurable targets associated with goals, but also the data sources that will be used to measure progress and the frequency of reporting around the indicator. Without this valuable document, system evaluation in North Macedonia loses co-ordination around what data points to pay attention to, which results in a general loss of systematic direction and fragmented goal setting.

Developing an indicator framework would not only support accountability vis-à-vis national learning goals, but would also help orient the future development of EMIS. Through the national indicator framework, data gaps can be easily identified. If, for example, a target is to improve the retention of students from ethnic minority groups, the national indicator framework would indicate that EMIS is the data source to be used to monitor this indicator, and that it would need to collect data about students' ethnicities. If EMIS currently does not hold such data, or if such data are poorly collected, EMIS staff would prioritise developing capacity and data collection procedures to support the monitoring of this indicator. Reporting against indicators from the framework in an education report would also support public accountability and create pressure to ensure that any data gaps are addressed.

Policy Issue 5.2. Designing a national assessment that supports national learning goals

Currently, there is no national assessment administered in North Macedonia. In the past, the country has used national assessments to monitor learning outcomes, from 2001 to 2006, and more contentiously for teacher accountability, from 2013 to 2017. Using national assessment results for teacher accountability is very difficult to do fairly and accurately because students' learning outcomes are influenced by a range of factors beyond an individual teacher's control (such as previous learning, home environment, motivation, ability, etc.) (OECD, 2013[2]). As a result, very few OECD countries use national assessment results for individual teacher accountability.

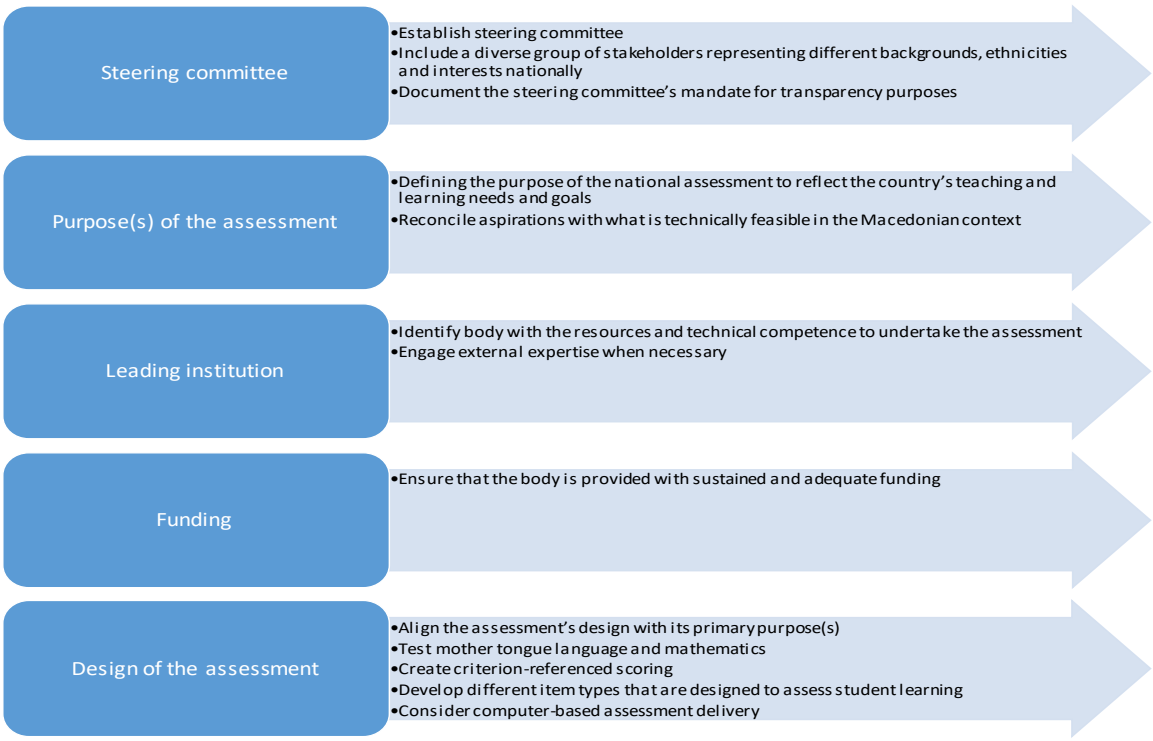
In North Macedonia, a well-designed, national assessment would provide valuable information to monitor student performance at key stages of their education against national goals (see 0). The results can also be used to inform policies and future system planning and help to improve the quality of teachers' professional judgement at the classroom level as well. The extent to which the assessment might be used for school accountability, another common use of national assessment data in OECD countries, is currently under discussion in North Macedonia. This review provides suggestions of how school-level outcome data can be employed to support constructive reflection on school quality, while

avoiding the high stakes that might undermine effective teaching and learning practices and have a negative impact on teacher and school behaviour.

Recommendation 5.2.1. Determine the purpose of the national assessment and align its design to the purpose

According to the draft Law on Primary Education, the purpose of the new national assessment in North Macedonia is to assess the quality of education and the results are to be used by schools in their development plans. The Law also foresees using the assessment results to rank participating schools according to student performance (0). The government might also consider whether the national assessment should provide formative feedback, so that teachers can better tailor teaching and learning to student needs. The purpose that is decided for the assessment will closely impact its design and implementation. The following section discusses the key decisions that North Macedonia is facing as it develops its national assessment.

Figure 5.2. Key steps in developing the national assessment



Establish a steering committee to define the purpose of the assessment

Carefully defining the purpose of the national assessment to reflect the country's teaching and learning needs is critical. It will also be important that the MoES take steps to achieve systemic buy-in, so that the results are trusted and used. Towards this end, this review recommends establishing a steering committee comprising a diverse group of stakeholders representing different backgrounds, ethnicities and interests nationally. This should include, for example, representatives from the Vocational Education and Training Centre

(VETC). The steering group should also include technical expertise on the development and use of national assessments.

The steering committee will need to take into account not only the goals of the education community, but those of the political administration and reconcile these aspirations with what is technically feasible in the North Macedonian context. International experts can be enlisted to lend a global perspective to the steering committee's deliberations.

The MoES has recently created an independent group to review Slovenian's National Assessment of Knowledge (NAK), with a view to incorporating elements into North Macedonia's national assessment (see Box 5.3). If practical, the steering committee can be formed by building upon the membership of this group. However, it will be important that the mandate of the current group be clearly documented and that transparency around its activities increased, if it is to become an official steering committee that guides the development of the national assessment. During the OECD review visit, many important stakeholders remained unclear as to the purpose of group, creating some concern and potential mistrust in the process.

Box 5.3. The National Assessment of Knowledge of Slovenia

To inform the development of its new national assessment, North Macedonia is currently studying the Slovenian example. The official objective of the National Assessment of Knowledge (NAK) is to improve the quality of teaching and learning in Slovenia. As such, the NAK is low-stakes and does not affect students' marks or their progression into higher levels of education. A notable exception to this regulation is that student results can be used to determine secondary school enrolment if spaces are limited at certain schools.

As of 2006, the NAK is administered annually to students in grade 6 and grade 9. Students in grade 6 take mother tongue, mathematics and a foreign language, while students in grade 9 take mother tongue, mathematics and a subject selected by the minister from a pre-defined list. The Slovenian National Examinations Centre is responsible, through various committees, for creating the guidelines, items and materials of the assessment. A separate organisation, the National Education Institute, is responsible for creating the marking procedures, training the markers and performing research and analysis using the results.

Results from the NAK are reported at the student-, school- and national-levels. Students receive an individual report that can be accessed electronically. The report identifies the student's performance in terms of how many questions were answered correctly, the percentage of questions that were answered correctly and classifies students into one of the four proficiency levels. Students' results are compared to his/her school average and the national average. Item-level analysis, showing how the student performed on different types of questions, is also provided.

Schools receive a report that shows the average performance of the students in their school compared to regional and national averages. At the national level, a report that summarises the results of the country is produced every year. The results are disaggregated by grade, subject, gender and region. All annual reports are published on line. National surveys reveal that over 90% of head teachers consider their students' national assessment results in their

future work, and over 80% of all teachers believe that the assessment results give them useful information about their work.

The review team believes that the regularity, grade levels and subjects assessed by Slovenia's national assessment would transfer well to the North Macedonian environment. Furthermore, Slovenian reporting procedures around its national assessment are comprehensive and the review team supports efforts to adopt a similar reporting scheme in North Macedonia. However, the use of the assessment as a criteria for selection into secondary school, even in limited circumstances, would not be advised in the North Macedonian context given the aforementioned need to separate the national assessment from student consequences.

Sources: (Eurydice, n.d.[33]), *Assessment in Single Structure Education – Slovenia*, https://eacea.ec.europa.eu/national-policies/eurydice/content/assessment-single-structure-education-35_en (accessed on 10 January 2018); (Brejc, Sardoc and Zupanc, 2011[34]), *OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes: Country Background Report Slovenia*, OECD Publishing, Paris, http://www.oecd.org/education/school/48853911.pdf, (RIC, n.d.[35]), *Državni Izpitni Center* (RIC), [National Examinations Centre], https://www.ric.si/ (accessed on 13 November 2018).

Determine who will be responsible for the national assessment

One of the first decisions for the steering committee is who will be responsible for the national assessment. In the past, responsibility for national assessments has moved between the BDE and the NEC. Above all, it is important that the responsible organisation has the technical competence and resources to undertake the assessment.

This review recommends that, as the NEC has experience in administering the *matura* and international assessments, it is best positioned to be responsible for the new national assessment. It already has test administration, marking infrastructure and staff who are familiar with these processes. In order to take on this new task, the NEC will need sustained and adequate funding. In the short term, this may require drawing on an external source. One possible source discussed with the review team is the European Commission. This could provide essential support for the assessment's design and development in the early stages. However, it will be important that North Macedonia plans for the assessment's sustainability well before such external funding ends.

Consider making formative feedback to educators the primary function of the assessment

This review recommends that North Macedonia's national assessment serve primarily a formative function. In other words, it should provide detailed information on how students are performing vis-à-vis the nation's learning standards and this information should be used by the education system to improve student learning.

Using the national assessment in this way would help to address key teaching and learning challenges in North Macedonia. International data suggests that national outcomes are low and not improving (see Chapter 1). The review team's interviews suggested that teachers' classroom assessments are not always an accurate indication of what students know and can do, which is essential to improve learning (see Chapter 2).

At the same time, North Macedonia is progressively implementing a more competency-based curriculum. International experience shows that teachers require significant guidance to adapt teaching to this approach, so that students are assessed in

ways that are valid and reliable according to new benchmarks for learning. In this context, the country will require meaningful assessment results about student learning that can help teachers better understand where students are in their learning and tailor teaching to students' individual needs.

If the ministry decides to use the assessment for primarily formative purposes, care will need to be taken in terms of how results are used for accountability purposes. While all national assessments provide a broad accountability function for the education system overall – by monitoring learning outcomes nationally against standardised expectations – using results for accountability purposes at the level of individual schools and teachers can encourage schools and teachers to attach stakes to an assessment. This can result in distortive practices like teaching to the test, which involves disproportionally focusing on assessed content or repeated assessment practice (OECD, 2013[2]). Such stakes would also undermine the assessment's formative purpose that this review recommends. The education system in North Macedonia is even more vulnerable to these tensions, given the recent practice of using the national assessment for teacher accountability. Careful steps will need to be taken to avoid that the assessment is perceived to carry high stakes (0).

Align the assessment's design with its primary purpose(s)

Once North Macedonia has agreed on the assessment's primary purpose(s), this should guide subsequent decisions on key aspects of the assessment's design. Table 5.2 illustrates several components about national assessments that will need to be decided upon. The suggestions in the discussion below are intended to support a prominent formative function.

Table 5.2. Key decisions regarding North Macedonia's national assessment

Topic	Options	Advantages	Disadvantages
Subjects	Many	Broader coverage of skills assessed	More expensive to develop; not all students might be prepared to take all subject
	Few	Cheaper to develop; subjects are generalisable to a larger student population	More limited coverage of skills assessed
Target population	Sample	Cheaper and faster to implement	Results can only be produced at high, aggregate levels
	Census	Results can be produced for individual students and schools	More expensive and slower to implement
Grade level	Lower	Skills can be diagnosed and improved at an early stage of education	The length of the assessment and the types of questions that can be asked are limited
	Upper	More flexibility with respect to the length of the assessment and the types of questions that are asked	Skills cannot be evaluated until students are in later stages of education
Scoring type	Criterion-referenced	Results are comparable across different administration	Results require expertise to scale and are difficult to interpret
	Norm-referenced	Results are easier to scale and interpret	Results are only comparable within one administration of the assessment
Item type	Closed-ended	Cheaper and faster to implement, items are more accurately marked	Can only measure a limited amount of skills

	Open-ended	A broader set of skills can be measured	More expensive and slower to implement; marking is more subjective in nature
Testing mode	Paper	The processes are already in place and the country is familiar with them; requires no additional capital investment	Results are produced more slowly; seen as more old-fashioned
	Computer	Results are produced more quickly, more cost effective in the long-term; seen as more modern	New processes have to be developed and communicated; requires significant initial capital investment

Sources: Adapted from (DFID, 2011[36]), *National and international assessment of student achievement: a DFID practice paper*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67619/nat-int-assess-stdnt-ach.pdf.

Combine census and sample-based testing

National assessments can be census-based, in which all students from the population of interest are tested, or sample-based, in which a representative sample of the population is assessed. A census-based design yields more accurate results, can be used for monitoring individual students and can be aggregated into higher-level results, such as school and municipality. Given concerns around teaching and learning in North Macedonia, a census assessment would be particularly valuable since it could provide formative information to help all teachers adapt instruction to their students' needs.

However, census assessments can easily acquire high stakes, and this risk needs to be addressed. Census assessments are also considerably more expensive to implement and require more time to ensure that all students are tested and all tests are marked. To manage these costs in the immediate to medium term, North Macedonia might consider implementing a hybrid model in which both census- and sample-based testing designs are used in different grades. This review recommends the following configuration:

- Census assessments in grades 3 and 6

  Currently, there is no standardised measure of performance in the early grades of school. Having more information about student learning and school performance at this level would allow for the identification of struggling schools and students, and the provision of more relevant support to them. An assessment at this stage is important since children who do not master basic competencies, like reading in early grades, are more likely to struggle later on (National Research Council, 2015[37]). At the same time, support to address difficulties or learning needs is more effective the earlier it begins. These considerations are especially important in North Macedonia, given the evidence from EGMA and EGRA that suggests that younger students lack essential literacy and numeracy competencies.

  Once the new curriculum is piloted for grades 1 through 3, the MoES could use student performance data at the end of grade 3 to help decide whether, and how, to expand the adoption of the new curriculum. Grades 3 and 6 are also the end of the first and second curriculum cycles, so the assessments would provide information about student performance at key stages.

- Sample assessment in grade 9

  Grade 9 represents the end of the third curriculum cycle and would be a logical point to re-administer the national assessment. Since grade 9 also marks the transition to high school, to avoid confusing the national assessment with an entry

examination (which North Macedonia had in the past), this review recommends that the national assessment be administered in grade 9 as a sample.

As a sample-based assessment is quicker and cheaper to administer, it can also be used for experimental and research purposes. For instance, the MoES could introduce new domains into the grade 9 assessment in order to assess student performance in subjects outside those that appear in the grade 3 and 6 assessments. Sample-based assessments do not provide sufficient information on each school to provide statistically robust and reliable school-level results that are comparable.

Recording student results using the student identity document (ID) would make it possible to link the assessment results to students' background data in EMIS (such as their mother tongue language, gender, etc.). This would enable initial analysis of how contextual factors impact student-learning outcomes. In the future, once the national assessment is well developed, North Macedonia might consider developing background questionnaires in order to enable further analysis of the contextual factors shaping learning.

Test mother tongue language and mathematics

Among OECD countries with national assessments at the primary level, a third (ten) assess just mathematics, and reading and writing in the national language, which represent core skills (OECD, 2015[12]). Focusing on these two subjects in the assessments at the primary level (grades 3 and 6) would be especially constructive in North Macedonia given the EGRA and EGMA results.

In grade 9 and even perhaps grade 6, additional subjects, e.g. science and/or national history, may be added to the core of language and mathematics. For students whose first language is not Macedonian, Macedonian as a second language could be added given the equity concerns with respect to outcomes by ethnicity (see Chapter 1).

Create criterion-referenced scoring

The vast majority of OECD countries with national assessments use criterion-referenced scoring. For example, among 27 countries with a national assessment in lower secondary, 21 reported using criterion-referenced tests (OECD, 2015[12]). A criterion-referenced test assesses the extent to which students have reached the goals of a set of standards or national curriculum, while a norm-referenced test compares students' results to each other (OECD, 2011[38]).

Results from criterion-referenced tests are preferred for national assessments because they produce results that are comparable over time. As the purpose of North Macedonia's national assessment is to understand what students are learning linked to national learning expectations and to monitor progress over time, the assessment should be created as a criterion-referenced test. North Macedonia's national learning standards represent natural reference points for the assessment.

Develop different item types that are designed to assess student learning

In OECD countries, the most popular types of items that appear on national assessments are multiple-choice responses and closed-format, short answer questions (e.g. true/false, selecting a word of providing a solution to a mathematics problem) (OECD, 2013[2]). These item types are the most common because they are easier and quicker to develop and administer. Moreover, their marking and scoring is more reliable, and therefore test results are more comparable (Hamilton and Koretz, 2002[39]; Anderson and Morgan, 2008[40]).

Less frequently used item types include open-ended questions, performing a task, oral questions and oral presentations. Though less common, these types of items are increasing in use due to their ability to assess a broader and more transversal set of skills than closed-ended items (Hamilton and Koretz, 2002[39]).

In interviews with education stakeholders, the review team learnt that one of the primary concerns with the national assessment conducted between 2013 and 2017 was that the questions encouraged memorisation. Therefore, a key consideration for the new national assessment is to ensure that concerns about cost and reliability are balanced with the national need to assess learning in ways that do not encourage memorisation.

Given these trends and considerations, this review recommends that the:

- Grades 3 and 6 assessments consist primarily of multiple-choice and closed-format responses. These are the most common types of questions among OECD countries with assessments at this level of education (OECD, 2015[12]). While there are natural limitations to multiple-choice and closed-format responses, these types of items, when developed well, do have the capacity to assess complex student learning (Anderson and Morgan, 2008[40]). The majority of questions from both PISA and TIMSS represent these two types. Care will need to be taken to ensure that these items are measuring student learning instead of memorisation, and that proper item-writing convention is followed, such as reviewing items for potential bias and varying the placement of distractor choices (Anderson and Morgan, 2008[40]). In grade 3, North Macedonia can also draw on international models for assessing literacy and mathematics in the early grades of school, such as EGRA and EGMA.
- Grade 9 assessment includes multiple-choice questions, closed-format responses and can begin to incorporate more open-format questions. At this age, students are more capable of responding at length, and the sample-based nature of this test produces fewer responses to mark, thus limiting the added costs that these items would create.

Consider computer-based assessment delivery

In most OECD countries, the delivery of the national assessment is through a paper-and-pencil format. Nevertheless, this trend is changing and computer-based administration is becoming more common, particularly in countries that introduced a national assessment relatively recently (OECD, 2013[2]).

Compared to paper-based delivery, computer-based testing has several advantages. It tends to be cheaper to administer (aside from the initial capital investment), less prone to human error in the administrative procedures and the results are delivered more quickly. Given these advantages, and because the ministry in North Macedonia is already dedicated to enhancing the use of technology in education, this review recommends that the national assessment be delivered as computer-based assessments. Importantly, given the intent of the assessment to provide meaningful, formative information to teachers and schools, the faster speed with which results can be delivered through a computer-based test would certainly support this aim.

Recommendation 5.2.2. Pay careful attention to the dissemination and use of national assessment results to enhance their formative value

How the results of the national assessment are reported is critical to achieving the purpose of the assessment. According to the draft Law for Primary Education, schools are to be ranked according to their students' results on the assessment. Such a measure, however, would make teachers and schools fearful that the assessment be used for disciplinary purposes and discourage them from embracing it as a tool for learning. Therefore, North Macedonia should abstain from using the test results for ranking schools and ensure that the reports generated from the national assessment contain detailed information that is to be used to improve student learning.

Avoid decontextualised ranking of individual schools and any judgements on individual teachers

Research shows that concentrating excessively on numerical ranks with respect to students, teachers and schools can have negative consequences on teaching and learning. Especially when coupled with punitive consequences, such a system encourages educators to focus on reporting high marks as opposed to focusing on student progress (Harlen and James, 1997[41]) (OECD, 2013[2]).

The ministry's intent to hold schools accountable for their assessment results is positive in some respects, since it reflects a desire to encourage schools to focus more on the quality of the teaching and learning environment they provide. Nevertheless, in North Macedonia the history of using assessment data to penalise teachers and principals is fresh in the memory of the education community. Furthermore, international evidence shows that student learning outcomes are influenced by a range of factors that are beyond the control of the individual school or teacher, the most influential of which is a student's socio-economic background (OECD, 2013[2]). Ranking schools by assessment results alone risks that schools with the greatest concentration of students from more advantaged backgrounds are continually being ranked at the top.

Based on the body of international evidence and the education environment in North Macedonia, this review recommends that schools are not ranked according to their results on the national assessment or any other decontextualised criteria. Such a measure would not provide an accurate judgement of quality or educationally valuable information and would undermine the assessment's formative function. Instead, information about schools can be presented according to several educational indicators (see Box 5.4). These might include a school's results on the national assessment, the socio-economic status of a school's students and their linguistic background. Using this information, the ministry could even publicly recognise schools whose students are performing well in the face of difficult circumstances. Given the recent experience of national assessments, it will be important to communicate clearly that the new assessment will not be used to form a judgement on individual teachers and it will not carry any consequences for them.

Box 5.4. Presenting contextualised assessment results in Sweden and Australia

Sweden

In Sweden, an online portal, with data from the SIRIS (Swedish abbreviation for a database called "Information System on Results and Quality" [Skolverkets Internetbaserade Resultat- och kvalitetsInformations System]) and SALSA (Swedish abbreviation for a database called "Local Relationship Analysis Tool" [Skolverkets Arbetsverktyg för Lokala Sambands Analyser]), operated by the National Agency for Education provides contextualised data on student and school performance. Along with results from grade 9 national tests and upper-secondary course examinations, SIRIS provides basic statistical figures of schools, such as numbers of students and teachers, student-teacher ratios, teacher qualification levels and spending, as well as figures on grades and promotion, such as the number of students achieving the basic level and eligible for admission into upper secondary schools.

SALSA, a statistical model, provides performance data on specific schools and municipalities through the calculation of an "expected value" of the proportion of pupils who have passed the minimum level in 9th grade. This is displayed alongside the actual value and allows for an estimate of the value added performance for a given municipality or school with data from grade 9. SALSA uses and displays certain background information utilised in the calculation of the "expected value": parents' level of education, the percentage of students who are boys and the percentage with foreign background.

Australia

In December 2008, all Australian Education Ministers committed to a variety of goals and actions under the Melbourne Declaration on Educational Goals for Young. In the area of national public reporting, the Declaration noted the need to provide information on the performance of schools, as well as information regarding a school's enrolment profile and contextual information. The Declaration sought to ensure that public reporting would focus on improving performance and student outcomes, be locally and nationally relevant and be timely, consistent and comparable.

The Declaration was followed by the release of protocols and eight guiding principles on the use of data and reporting. The protocols are designed to promote meaningful and comparable reporting across Australia and to provide safeguards against simplistic comparisons being made among schools, in particular by providing contextual information. The principles underscore, among other aspects of quality reporting, the need for using data that is valid, reliable and contextualised, including school and student outcome and performance data.

Sources: (Skolverket, n.d.[42]), *Statistik*, https://www.skolverket.se/skolutveckling/statistik; *OECD Reviews of Evaluation and Assessment in Education: Sweden 2011*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264116610-en; (MCEETYA, 2008[43]), *Melbourne Declaration on Educational Goals for Young Australians*, http://www.curriculum.edu.au/verve/_resources/national_declaration_on_the_educational_goals_for_young_australians.pdf; (MCEETYA, 2009[44]), *Principles and protocols for reporting on schooling in Australia*, http://scseec.edu.au/site/DefaultSite/filesystem/documents/Reports%20and%20publications/Publications/Measuring%20and%20reporting%20student%20performance/Principles%20and%20protocols%20for%20reporting%20on%20schooling%20in%20Australia.pdf; (OECD, 2013[2]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Publishing, Paris, http://www.oecd.org/edu/school/synergies-for-better-learning.htm.

Create reporting structures to maximise the formative value of the national assessment

To meet the purpose of providing formative information on all students, the national assessment will test all students in grades 3 and 6. How results are reported, and to which audiences will need to be decided. Adequate financial resources for these reports would need to be considered in central planning, and budgeted and resourced accordingly.

- School-level reports might present the performance of the individual school with benchmarks for comparisons (e.g. a national average or a municipal average). They should also show how schools are doing in relation to their context (e.g. student socio-economic background and language). Individual school reports on assessment results should not be made public. However, this review recommends that school evaluation reports (that are already public) include school outcomes data on national assessments, but as part of a holistic, contextualised quality assessment of the school (see Chapter 4).
- Reports for teachers should contain item-level analysis with information about how their students performed on each item. This information should be presented alongside contextualised comparison groups, such as gender, linguistic minorities and municipalities, as well as the country as a whole. Providing these data to teachers is vital to help them engage with the results in a formative manner to help improve student learning. The results might also analyse common errors that students made, with suggestions on how to improve teaching of the same content in the future.
- The ministry would receive an aggregate report that summarises and analyses the results of the entire country. Results should be disaggregated by several demographic characteristics, such as gender, language of instruction, school type, municipality, student socio-economic status and whether the school is a satellite school. Reporting according to these factors (among many others) would represent the minimum level of analysis that would be required to inform policy making.

  Analysis of individual questions, topics or skills would also be important for the ministry to identify at a national level if students in North Macedonia tend to struggle more with certain areas of knowledge or skills. This information would reveal the need to identify how teaching in certain parts of the curriculum can be improved.

Since the main purpose of the assessment is to provide formative feedback to schools and teachers, care should be taken about how results are provided to students and parents, to avoid the perception that the results carry stakes. Students and parents might be informed about individual student results as part of regular parent-teacher meetings. Teachers might be provided with national guidance on how to provide the results – for example, reporting results within broad categories of meeting or not meeting national expectations, rather than individual scores. In New Zealand, for example, the asTTle (Assessment Tools for Teaching and Learning) allows teachers to identify individual and group strengths and weaknesses, gauge progress, monitor patterns and trends, and to compare these with national standards (Nusche et al., 2012[45])

Reporting assessments results to the public

Making assessment date publicly available promotes transparency and government accountability. However, there are also risks that external bodies and the media may use results to produce decontextualised school rankings, which can encourage that stakes become attached to the assessment. North Macedonia will need to carefully assess the potential risks and benefits of publishing assessment data, especially given how assessment results have been used in the past in the country. Many OECD countries make all results publicly available on request – for research purposes and government accountability – and aggregated school-level data publicly available on the EMIS portal.

North Macedonia should present school "raw" data in a column alongside school contextualised data (e.g. students' socio-economic background). Including the latter should encourage the media or other bodies that produce a ranking to provide more contextualised information about schools.

Policy Issue 5.3. Institutionalising system evaluation

System evaluation requires the support of a thriving research community that analyses information and draws conclusions that can be used by policy makers to inform system planning and goal setting. Such analysis also helps the public and other non-governmental actors evaluate how the education system is performing, supporting transparency and accountability. At present however, North Macedonia lacks a culture of research, analysis and evaluation in education. There is no unit responsible for guiding the research agenda of the ministry, nor is there an education research institution that conducts intensive analysis of education data at a national level. Without consistent evaluation and reporting, policy making and legislation may be performed without reviewing key evidence. This also risks that valuable resources are allocated inefficiently. This reviews provides suggestions as to how North Macedonia can develop a culture of education research, with a view to improving decision making and raising the overall quality of public debate on education.

Recommendation 5.3.1. Build support for system evaluation through the creation of a policy analysis and research unit within the ministry

Education policy making should draw on national information about how the system is currently operating, and international research about what factors contribute to effective teaching and learning. In North Macedonia, however, decision-making is not always based on the available evidence, risking that political considerations are prioritised above what is most important for teaching and learning. This can mean that the system's limited resources are not used as efficiently as they could be – for example, teacher numbers have consistently increased in past decades despite a falling student population (see Chapter 3). It can also result in policies with negative consequences for teaching and learning, such as the intention to use the previous national assessment results to reward or penalise teachers (see Policy Issue 5.2).

This situation reflects the fact that currently, monitoring and evaluation do not appear to be prioritised. Equally, professional competence in the ministry in these areas is limited. While some bodies, such as the BDE, have research responsibilities, their expertise is not drawn upon as strategically as it might be. Establishing a dedicated policy evaluation unit within the ministry would help to bring more evidence into policy making, as part of a wider review of the mandates and capacities of existing specialised institutions (Recommendation 5.3.2).

Set up a research and analysis unit and clearly define its purpose

The review team understands that the ministry is considering setting up its own research unit, with support from UNICEF. This OECD review strongly supports this proposal. Among the important responsibilities of the research unit would be improving and centralising data access, evaluating the effectiveness of education policy, measuring progress towards strategic goals and promoting the use of evidence to inform policy making. The research unit would not necessarily perform research and evaluation work itself, but could prioritise and help commission it from other bodies and actors. Such an approach would have the value of strengthening demand for evidence and catalysing the development of education research capacity more widely.

These are significant responsibilities, which can be assumed progressively. This review suggests the unit starts with addressing some important gaps in the monitoring and evaluation system. One immediate task would be to work with EMIS to create a national indicator framework. This would provide information for the government to evaluate future major reforms, such as the new curriculum and reshaping the state *matura* (see Chapter 2). Another task that the research unit would direct is the development of an annual national education report, which could be written by the unit itself (see Recommendation 5.3.3). The unit might initially be staffed by two to three members of staff with experience in quantitative analysis, use of evidence in policy making and delivery of policy.

Ensure the new unit has a prominent role in policy making

For the research unit to achieve its objectives, it must be prominently situated within the ministry for example, by directly supporting and reporting to the minister and being involved in regular meetings with the ministry's leadership to contribute to policy making. This governance structure would provide the research unit with recognition and prominence to guide different parts of the ministry institutions in a common direction. One of its first priorities might be to ensure that all parts of the ministry use common data systems and adopt data common procedures. The latter would be supported by moving EMIS close to this unit. The unit should be given a dedicated budget line so that it has a predictable, secure finding base.

Recommendation 5.3.2. Develop a wider network of research entities that contribute to system evaluation

While creating a policy analysis unit would help build the ministry's capacity for evidence-based policy making, strengthening the country's nascent evaluation system will also require other efforts to build a culture for evaluation and evidence-use across the education sector. To support this, it is critical that the existing institutions, such as BDE, SEI and NEC, that have data and expertise are given a clear mandate, as well as adequate resources, for analysis and evaluation. For example, teacher assessment data are held by BDE, school inspection data are held by the SEI and the state *matura* data are held by NEC. These data could all be analysed, either by the agencies themselves or in conjunction with external and independent organisations, to identify common trends and challenges.

Currently, however, these organisations do not have an explicit mandate for comprehensive analysis of the data that they hold or sufficient resources to devote to this task. There is also little demand for such research and analysis, which means that when these organisations do undertake such work, it may remain isolated from system-level evaluation processes. For instance, it was reported to the review team that NEC staff have conducted internal analysis of *matura* data, but that neither the results of these analyses nor the data itself are

always shared with other agencies, which means that they cannot inform policy making more broadly.

Clearly define the roles of the specialised agencies and ensure that they have consistent leadership

During its review visit, the OECD was told that the responsibilities of specialised agencies (NEC, BDE and SEI) that are affiliated to, but separate from the ministry can fluctuate greatly. The NEC, for example, has taken on a principal training role, despite being formally tasked with administering national examinations and assessments. Meanwhile, the BDE, despite being explicitly charged with developing curricula, has not been involved in developing the new curriculum that is now being developed by a group formed within the ministry.

The unstable mandate of these agencies is partially due to unstable leadership. At the time of the OECD's review visit, the NEC did not have a director (though it has had ten in the past ten years). It was reported to the review team that political affiliations are often a prominent consideration in leadership appointments, above professional competence. It is difficult for these organisations to assert themselves and assume responsibility for long-term projects without consistent, professional leadership.

To help these agencies fulfil their duties, the ministry should ensure that their roles are well defined and do not change in response to political considerations. Some ways that this might be achieved include:

- Developing mandates enshrined in legislation. For example, the mandate of the BDE should clearly specify that it has a role in curriculum development, while the NEC is responsible for national examinations and assessments.
- Agreeing a multi-year activity programme and related budget for each agency. This would help to ensure that important activities, like research and evaluation, are valued and undertaken, while protecting these agencies from being expected to undertake activities that are ancillary to their core functions.
- Explicitly setting out the appointment process for directors within each organisation. This should include the technical and professional competencies directors are expected to have, and their appointment length. In the future, a merit-based appointment process should be implemented.

Finally, these bodies need consistent and qualified leadership. Staffing senior management positions in these agencies should be made a priority such that vacancies do not remain unfilled for long periods of time, which can damage their credibility and effectiveness. Having stable leadership would also help fill the resource and capacity gaps that exist in these agencies, such as psychometric and statistical expertise in the NEC and funding for the BDE to provide professional development to teachers.

Formalise the BDE as the research arm of government

The BDE carries several responsibilities, including developing the curriculum, providing professional development to teachers, and undertaking research. This latter role is the least well defined, likely due to the overall lack of focus on system research in North Macedonia and lack of adequate resources. For example, despite having a research responsibility, the BDE does not produce regular analytic reports about education. For system evaluation to

become embedded in ministry processes, the research function of the BDE needs to be better articulated and formalised.

Many countries have an organisation that is explicitly responsible for conducting research into the education system. In the United States, for example, the Institute for Education Sciences is tasked with collecting statistics and carrying out rigorous research and evaluation related to education (US Department of Education, n.d.[46]). In some countries, similar organisations have a multi-faceted role that includes research responsibilities and educational development responsibilities. For instance, Slovenia's National Education Institute is charged with producing educational materials, delivering professional development and conducting research on education in the country (National Education Institute Slovenia, n.d.[47]).

To establish the BDE's national research role, it must have the necessary capacity. Interviews conducted by the review team suggest that resources and responsibilities are often diverted away from the BDE, such as curriculum development and principal training, which limits what the organisation can do. The ministry should endeavour to bolster the position and capacity of the BDE by promoting merit-based appointments and hiring and ensuring that the organisation is fully staffed, particularly with researchers and individuals with statistical backgrounds, which the review team observed are particularly lacking across central government institutions in North Macedonia. Furthermore, like the other agencies, the BDE's research function needs to be systematically planned and documented such that it can be held accountable for meeting goals and producing key deliverables. In developing a process for this, the BDE could look to the examples of how similar bodies in other countries do this (see Box 5.5 which describes how Romania's Institute of Educational Sciences operates and plans its activities).

Box 5.5. Romania's Institute of Educational Sciences

The Institute of Educational Sciences (IES) is a quasi-independent organisation that is located within Romania's Ministry of National Education and Scientific Research (MNESR). The purpose of the IES is to produce educational research and analyse the performance of the education system. It is also responsible for co-ordinating the country's participation in international assessments, analysing the data collected through these surveys, and has recently had a role in leading the development of the country's new curriculum.

IES's capacity is enhanced by its autonomy. While part of MNESR, it is situated outside of the direct hierarchy and thus enjoys some distance from political decision-making. It can, therefore, conduct rigorous analysis of the education system without being influenced by political considerations or pressures.

As an independent agency, the IES is led by a director and a deputy director and overseen by a board of directors. Due to its role as a research organisation, it is also guided by a Scientific Council. The IES creates a research plan every three to four years that identifies its key objectives and goals over the next period. At the end of every year, it publishes an activity report that summarises its most recent accomplishments. Its 2017 activity report notes that the IES completed studies about teacher education in Romania, and the status of the implementation of the Erasmus programme and violence in schools.

Sources: (IES, 2018[48]) *Institutul de Ştiinţe ale Educaţiei*, http://www.ise.ro/ (accessed on 12 July 2018); (IES, 2017[49]), *Raport de Activitate 2017*, Institute of Educational Sciences, http://www.ise.ro/wp-content/uploads/2017/06/Raport-de-activ-ISE_2017.pdf. (accessed on 12 July 2018).

Define the research and evaluation functions of the NEC and the SEI

Within the institutional architecture recommended by this review, the research unit within the ministry would guide research and evaluation efforts, and the BDE would become the main research arm of the ministry. However, the NEC and the SEI would still have complementary research functions in the evaluation of the education system that need to be defined and supported. Importantly, these agencies independently collect and hold data that are not immediately accessible to external individuals. School inspection and state *matura* data are critical for comprehensive system evaluation and these two agencies require staff who are capable of working with the research unit, the BDE, and the independent researchers who analyse these data.

The mandates and multi-year plans of both agencies should clearly specify expectations for the research that they are expected to undertake. Developing these plans with the MoES will also help to educate the ministry on the possibilities of further research that the NEC and the SEI could provide. Over time, this should create stronger demand for data and research within the ministry. As discussed above, the multi-year plan for each agency should be accompanied by a multi-year budget to ensure sufficient, protected resources for the work that is expected to be undertaken.

The NEC currently employs staff with research and data analysis capacity. The SEI does not and will need to recruit staff with experience in these areas. With adequately trained staff, the NEC and the SEI both need to clearly delineate the responsibilities of their researchers to ensure that they efficiently support system evaluation efforts without

duplication of work. Their tasks would include processing the data, manipulating it to be interoperable with each other and EMIS data, and responding to data requests. SEI researchers would have the added responsibility of digitising its data collection procedures as much information is still contained on paper and stored in filing cabinets.

Recommendation 5.3.3. Promote the sharing and use of evaluation results

In addition to ensuring that there is capacity to undertake research and analysis, the ministry will need to create a framework to ensure evaluation results are made available in timely, relevant and accessible forms. This will support evidence-based decision making – enabling schools, municipalities and central government to use evidence about current performance to inform future decisions. Sharing evaluation information will also support accountability within the education system and to the public. Over time, making more and better-quality evaluation information available will help the education community in North Macedonia to become more sophisticated and demanding consumers of evidence.

Annually publish an analytical education report

Most OECD countries regularly publish an analytical report on education (OECD, 2013[2]). The content of this report is guided by national policy goals and priorities. Reports typically report on progress against the national indicator framework (see Recommendation 5.1.3), and explain the strengths and challenges of the system by studying the inputs, processes, outputs and outcomes that are related to the indicators. For example, an analytical report might first describe the overall performance of students on a national assessment, and examine this performance in relation to changes in the teacher profession and school resource allocation. The report might also discuss future policies or activities intended to address certain challenges.

In North Macedonia, some education indicators are reported by the SSO in an annual publication and the SEI produces annual reports based on results from the integral evaluation, but these reports do not offer further analyses. Furthermore, the reports are not prominent documents or an important vehicle for public reporting on government progress or education quality more generally. To support the creation of the new report, the ministry should draw on the research being carried out in external bodies and by independent researchers. The ministry might consider creating the following expectations for the report:

- Prominently reporting against key national goals. For example, the annual report might report on progress against short-and long-term goals for improving learning outcomes.
- The report should be made publicly available. It should be easily accessible for the general public. In the future, the data that is reported should also be downloadable in a format where it can easily be re-used to facilitate secondary analysis by the research community.
- There should be dedicated time for parliamentary debate of the report. The country should consider giving the parliamentary education committee the opportunity to organise committee hearings with the ministry's senior leadership to discuss the contents. In many OECD countries, these mechanisms provide important means to hold the government accountable.
- Including analysis of progress, and why progress in certain areas may have been quicker or slower than expected. For example, when reporting data on student-learning outcomes, this kind of analysis would help policy makers

understand not just how students perform, but why they perform that way and what can be done to improve performance at the national level. These reports can also be used by the wider research community to direct secondary analysis into key issues that affect the system.

The new research and analysis unit might also examine, or commission specific, thematic issues that are important at the national level. For example, is there an association between student learning and double- or triple-shift schools? What is the difference in student performance between schools that instruct in Macedonian and those that instruct in other languages? What can be learnt about the system by studying student results longitudinally, from the grade 3 national assessment, to the grade 6 national assessment to the state *matura*?

Reinforce processes to embed the use of evidence in the policy-making process

Research on effective policy making emphasises the importance of evidence-based analysis and advice (OECD, 2017[50]). For over a decade, the European Commission has urged member countries to use evidence-based policy and practice and robust evaluation instruments in order to identify the most effective policies and practices (European Commission, 2007[51]). Evidence-based policy making means that before policy and major legislation is introduced, available evidence is studied and possible policy options openly discussed. Governments may also request expert committees that are independent of political affiliation to comprehensively study an issue before making a recommendation to policy makers.

In a legislative context that is heavily politicised like in North Macedonia, it is even more crucial that non-partisan evidence review become an integral part of the policy-making process. For example, the government can establish the guideline that all major changes should first be piloted, and the pilot studied, before full-scale implementation. Major programmes should also be systematically evaluated to determine their effectiveness and inform future reforms.

Having such regulations in place could have benefited previously enacted policies and reforms. For instance, the Cambridge curriculum was neither fully piloted nor evaluated before the new curriculum was developed and set to be introduced. Consequently, it will not be possible to know how effective the Cambridge curriculum is and what benefit the new curriculum in grades 1-3 will provide in comparison. The One Laptop per Child programme has also not undergone systematic evaluation. Having data about this programme, in particular the value for money that it represents, would help inform future policy making regarding technology in the classroom.

Recommendation 5.3.4. Strengthen local accountability

With decentralisation, two important tasks have been delegated to municipalities – resource allocation to schools and staff recruitment. Execution of these tasks, however, is generally conducted with little formal oversight. Municipal governments create their own school funding schemes and have their own criteria for staffing schools, but these procedures are not reviewed at the central level. Without a strong accountability mechanism, the ministry cannot be fully aware of what municipalities are doing and if they are acting in the best interests of students.

International evidence highlights the risks of decentralisation if local political dynamics are able to undermine accountability, local governments have weak capacity or weak

incentives to ensure good performance (Smoke, 2015[52]). These risks are apparent in North Macedonia. The experience of decentralisation in developing countries has shown that in order to produce better outcomes, local governments need a framework to follow and to be held accountable (World Bank, 2006[53]). This review recommends that North Macedonia consider much stronger mechanisms for both.

Establish clear procedures for municipalities

Municipal governments in North Macedonia are not well resourced for education delivery. Each municipal government has just one or two members of education staff. It was reported to the review team that the municipalities do not come together to share good practices or experiences. In this context, municipal governments need far more central guidance and support. Internationally most sub-national governments are expected to follow clear rules and procedures. For example, while state governments in the United States have considerable autonomy, this is balanced by strong internal control according to federal standards for accounting and reporting. In the Slovak Republic, while regions and municipalities are mostly responsible for the provision of public education services, the central government serves an important regulatory role in areas such as student-learning objectives, levels and terms of funding, requirements for the competence of educational staff, salaries of teachers and the management of the register of schools and school facilities (Santiago et al., 2016[54]).

The government in North Macedonia should consider setting out clearer expectations for how municipalities are expected to perform their role for education delivery. While it is important that the central government does not inhibit local autonomy, setting out the principles for important functions, like school funding or staffing, would help guide municipalities. These principles would also provide the basis for local audit. For example, the ministry could set out the principles that should govern local school funding mechanisms. Many municipalities would also be helped by the ministry providing them with an example of a funding formula that they might adopt if they wish.

In undertaking this work, the government would need to understand more clearly the current flow of funds at the local levels. Research suggests that education funding in North Macedonia is not used efficiently at present (World Bank, n.d.[55]). For example, countries with similar levels of education expenditure achieve much better results in terms of student enrolment in upper secondary and learning outcomes (see Chapter 1). North Macedonia should evaluate education resource allocation to understand how it is being used, what impact is being achieved with the resources that are spent and use the results to inform the development of a more efficient resource allocation policy. Special attention should be paid to small, rural schools, as these have been identified as being some of the least efficient and lowest performing in the country. Questions to consider might include: Are there examples of municipalities where schools are more successful than others? What is their resource allocation scheme? Is there a relationship between how they allocate resources and their students' outcomes? Can these lessons learnt be generalised to other municipalities in similar situations?

Consider establishing a local audit function to oversee municipal functions related to education

In many OECD countries, where sub-national government has significant responsibilities for public service delivery, there are dedicated institutions or officials to audit their activities. In federal countries like the United States or Mexico, these systems are very

developed. For example, in Mexico, the country's independent governments each have their own State Audit Institution (OECD, 2017[56]). Many unitary countries with decentralised responsibilities have also established frameworks for local audit. In Sweden the local assembly elects local auditors, whose role is regulated by national legislation (World Bank, 2006[53]). In England, while there is no longer a national auditing body for local government, local authorities must follow the national framework for the regulation of auditors of local bodies when appointing their own auditors (House of Commons, 2016[57]).

In the Slovak Republic, municipal auditors audit municipal schools, and there is local transparency of school spending due to the small number of schools per founder and the presence of community members on school boards. Schools and municipalities also publish invoices of their purchases on their websites. Meanwhile, the Slovak State Schools Inspectorate, a body at the national level, is responsible for monitoring schools and school facilities and checking the conditions and results of the education they provide, the quality of their management, the efficiency of their use of resources and their compliance with binding regulations (Santiago et al., 2016[54]).

North Macedonia should consider what mechanisms could be established for auditing the activities of its municipal governments. Given the very small size of each municipality, a separate function within the national auditing body might be established for this purpose. Local audits in North Macedonia should be responsible for *ex post* compliance and financial audits in the short to medium term. In the longer term, reflecting the changing role of audit bodies internationally, they could also be expected to take on a performance auditing role – in order to hold municipalities accountable for the quality of local education too.

Conclusion

The government's intention to introduce a new national assessment, and the established agencies and units with a role in research and evaluation – EMIS, SEI, NEC and BDE – create a strong basis to strengthen system evaluation. In order to achieve this potential, it will be important that the tools for system evaluation and the institutions that support it are prioritised and receive adequate resources. Providing investment in system evaluation will provide North Macedonia with a robust framework to steer the country towards improved educational outcomes.

Box 5.6. Recommendations

Centralising the use of EMIS and improve its capacity

5.1.1 Formalise EMIS as the central source of data. The ministry should consider moving the EMIS unit closer to the ministry's central leadership to give it greater authority over the collection of school-level data. Staff capacity in the EMIS unit should also be bolstered, by adding more staff and addressing current skill and position gaps including strong leadership, software development and quantitative analysis.

Establishing data definition and collection protocols would also help to clarify to whom schools are required to provide data and ensure that standard data definitions are applied across different schools and the education system overall. The country should also consider using students' national identifications in all its databases and ensure that all data are digitised to allow for greater interoperability between databases, notably EMIS and the NEC database containing *matura* results. Finally, introducing regular quality assurance procedures for EMIS data (e.g. visiting a sample of schools to check data collection) would help to verify data accuracy and encourage more individuals to use the system.

5.1.2 Enhance the functionality of EMIS by introducing regular reporting procedures to help EMIS users make greater use of the system's data. For example, regular reports of the most commonly used data (e.g. on participation and completion) could be made publicly available so that users can automatically retrieve data. Developing a user-friendly public data portal would enable users such as schools, researchers and national policy makers to browse national education data and select schools and municipalities for comparison (e.g. by location or language of instruction).

5.1.3 Improve the articulation of national education goals and align future EMIS development with them. To help direct the country towards national priorities, the government will need to establish specific goals for improving student achievement, associated with measurable, achievable targets. Targets could be based on data from international assessments (e.g. reducing the share of low performers in PISA in line with European Union targets), and the national assessment when it is developed. Given the evidence of disparities in learning outcomes, other goals to improve equity might also be included, such as to close the performance difference between urban and rural areas and/or different ethnic groups. New goals and targets will need to be accompanied by the development of a national indicator framework to collect data and monitor progress publicly. The development of an indicator framework would also help to orient the future development of EMIS by easily identifying data gaps.

Designing a national assessment that supports national learning goals

5.2.1 Determine the purpose of the national assessment and align its design to the purpose. The ministry should first create a steering committee to make key decisions on the assessment's development and build national support. The steering committee can help to determine which organisation will be responsible for the new assessment. Given the NEC's experience in administering the *matura* and international assessments, it is best positioned to take on this responsibility. Next, the committee will need to determine the assessment's primary function. This review recommends that the latter be focused on providing formative feedback to teachers and schools to help address key challenges in the

country, such as low learning outcomes and little support for teachers' assessment capacity (see Policy issue 2.2), in addition to monitoring learning outcomes at the system level.

Once the assessment's primary purpose has been determined, this should closely influence its design. The following points suggest how the assessment could be designed to best support a primarily formative purpose:

- Combine census (i.e. all students from a population of interest) and sample-based (i.e. a representative sample of students from the population) testing. A census assessment could provide formative information to help teachers adapt instruction to their students' needs. However, census assessments can easily acquire high stakes, and are expensive and time-consuming to implement. To manage these costs, North Macedonia might implement a hybrid model of census assessments in grades 3 and 6 so that support can be directed towards struggling students and schools; and a sample-based assessment in grade 9 to avoid confusing the national assessment with a high school entry examination.
- Test mother tongue language and mathematics since they represent core skills. Additional subjects, e.g. science and/or national history, could be added in grade 9.
- Ensure that items assess learning rather than memorisation by following proper item-writing convention (e.g. reviewing items for potential bias and varying the placement of distractor choices (Anderson and Morgan, 2008[40])). Multiple-choice and closed-format responses can be used in grades 3 and 6, and more open-format questions added in grade 9.
- Consider computer-based delivery as it tends to be cheaper to administer (aside from the initial capital investment), less prone to human error and the results are delivered more quickly.

5.2.2 Pay careful attention to the dissemination and use of national assessment results to enhance their formative value. Different reports can be developed for individual schools and teachers, as well as a national public report. Each report should contain information to help the specific audience to use the information to understand current performance and make improvements in the future. For example, reports for teachers can include item-level analysis to help them improve the teaching and assessment of similar content in the future. The national report should disaggregate results by demographic factors (e.g. gender, language of instruction, school type, municipality, student socio-economic status) to inform policy making.

Institutionalising system evaluation

5.3.1 Build support for system evaluation through the creation of a policy analysis and research unit within the MoES. This review strongly supports the current ministry initiative to develop its own research unit, which will help to ensure information is used more systematically for policy making. In order for the new unit to guide different parts of the MoES and its associated institutions, it must be prominently situated within the ministry (e.g. by directly reporting to the minister and regularly attending meetings with the ministry's leadership).

5.3.2 Develop a wider network of research entities that contribute to system evaluation. For the specialised agencies like the BDE, the NEC and the SEI to fulfil their duties, they need clearly defined roles that do not change in response to political considerations. This can be supported by developing mandates for each agency that are

enshrined in legislation, agreeing a multi-year activity programme and related budget for each agency, and explicitly setting out the appointment process for directors for each agency to ensure candidate's technical and professional competencies.

The research function of the individual agencies should also be carefully reviewed. The BDE should be formalised as the research arm of government and provided with the necessary resources and responsibilities, as part of a broader reinforcement of its role in supporting instructional improvement (see Recommendation 3.3.3). Given the extensive information that the NEC and the SEI collect, both should continue to have complementary research functions, with the necessary resources and staff skills that these functions require.

5.3.3 Promote the sharing and use of evaluation results, by annually publishing an analytical, public, education report to help hold the government accountable for educational improvement. The report might include prominent reporting against national goals and targets, accompanied by analysis of progress. These reports can also be used by the wider research community to direct secondary analysis into key issues that affect the education system.

Another measure to ensure that non-partisan evidence review becomes an integral part of the policy-making process could be to introduce a government guideline that all major policies and programmes should first be piloted, and the pilot studied, before full-scale implementation. Major programmes should also be systematically evaluated to determine their effectiveness and inform future reforms.

5.3.4 Strengthen local accountability. The government in North Macedonia should consider setting out clearer expectations for how municipalities are expected to perform their role for education delivery (e.g. by setting out the principles that govern school funding or staffing). These principles would also provide the basis for local audit. Given the current opacity of local school funding arrangements and the evidence that funding is currently not efficient, the country should evaluate education resource allocation and use the results to inform the development of a more efficient resource allocation policy (see also Recommendation 4.4.2).

References

Abdul-Hamid, H. (2017), *Data for Learning: Building a Smart Education Data System*, The World Bank, http://dx.doi.org/10.1596/978-1-4648-1099-2. [26]

Abdul-Hamid, H. (2014), *What Matters Most for Education Management Information Systems*, World Bank, http://www.worldbank.org (accessed on 16 July 2018). [11]

Abdul-Hamid, H., S. Mintz and N. Saraogi (2017), *From Compliance to Learning: A System for Harnessing the Power of Data in the State of Maryland*, The World Bank, http://dx.doi.org/10.1596/978-1-4648-1058-9. [30]

Anderson, P. and G. Morgan (2008), *Developing tests and questionnaires for a national assessment of educational achievement*, https://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-7497-9 (accessed on 3 August 2018). [40]

Brejc, M., M. Sardoc and D. Zupanc (2011), *OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes: Country Background Report Slovenia*, http://www.oecd.org/education/school/48853911.pdf (accessed on 13 November 2018). [34]

Burns, T. and F. Köster (eds.) (2016), *Governing Education in a Complex World*, Educational Research and Innovation, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264255364-en. [5]

Department of Education (n.d.), "Common Education Data Standards (CEDS)", https://ceds.ed.gov/ (accessed on 1 August 2018). [24]

DFID (2011), "National and international assessment of student achievement: a DFID practice paper", https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67619/nat-int-assess-stdnt-ach.pdf (accessed on 13 July 2018). [36]

European Commission (2018), *Basic Skills*, http://ec.europa.eu/education/policy/school/math_en (accessed on 28 March 2018). [32]

European Commission (2007), *Towards more knowledge-based policy and practice in education and training*, http://ec.europa.eu/dgs/education_culture/publ/pdf/educ2010/sec1098_en.pdf. [51]

Eurydice (n.d.), *Assessment in Single Structure Education - Slovenia*, https://eacea.ec.europa.eu/national-policies/eurydice/content/assessment-single-structure-education-35_en (accessed on 13 November 2018). [33]

FL Department of Education (n.d.), *Florida Department of Education - PK-20 Education Information Portal*, https://edstats.fldoe.org/SASPortal/main.do (accessed on 12 July 2018). [31]

Hamilton, L. and D. Koretz (2002), "Tests and their use in test-based accountability systems", *JSTOR*, https://www.jstor.org/stable/pdf/10.7249/mr1554edu.9.pdf (accessed on 3 August 2018). [39]

Harlen, W. and M. James (1997), "Assessment and Learning: differences and relationships between formative and summative assessment", *Assessment in Education: Principles, Policy & Practice*, Vol. 4/3, pp. 365-379, http://dx.doi.org/10.1080/0969594970040304. [41]

House of Commons (2016), "Local audit in England", *Briefing paper* 07240, https://researchbriefings.files.parliament.uk/documents/CBP-7240/CBP-7240.pdf. [57]

House of Commons (2011), "Accountability for public money, Twenty-eighth Report of Session 2010-11", *Committee of Public Accounts*, http://www.parliament.uk/pac. [9]

IES (2018), *Institutul de Ştiinţe ale Educaţiei [Institute of Educational Sciences]*, http://www.ise.ro/ (accessed on 12 July 2018). [48]

IES (2017), *Raport de Activitate 2017*, Institute of Educational Sciences, http://www.ise.ro/wp-content/uploads/2017/06/Raport-de-activ-ISE_2017.pdf (accessed on 12 July 2018). [49]

Kaplan, R.S. and D.P. Norton (1992), "The Balanced Scorecard: Measures that Drive Performance", *Harvard Business Review* (January-February), pp. 71-79. [8]

MCEETYA (2009), "Principles and protocols for reporting on schooling in Australia", http://scseec.edu.au/site/DefaultSite/filesystem/documents/Reports%20and%20publications/Publications/Measuring%20and%20reporting%20student%20performance/Principles%20and%20protocols%20for%20reporting%20on%20schooling%20in%20Australia.pdf;. [44]

MCEETYA (2008), *Melbourne Declaration on Educational Goals for Young Australians*, http://www.curriculum.edu.au/verve/_resources/national_declaration_on_the_educational_goals_for_young_australians.pdf. [43]

Mclaughlin, P. et al. (2017), *Assignment Title: Data Verification and Quality Assessment Education Management Information System Afghanistan II Chief of Party*, USAID, https://pdf.usaid.gov/pdf_docs/PA00MTBN.pdf (accessed on 12 July 2018). [28]

Ministry of Education/UNICEF (2015), "Country Background Report: Georgia". [27]

MoES (2018), *Comprehensive Education Strategy 2018 - 2025*, Ministry of Education and Science, Skopje. [15]

MoES (2018), *Republic of North Macedonia - Country Background Report*, Ministry of Education and Science, Skopje. [14]

MoES (2014), *Strategic Plan 2015 - 2017*, Ministry of Education and Science, Skopje, http://fvm.ukim.edu.mk/documents/Strateshki%20Plan%20MON%202015-2017.pdf (accessed on 12 July 2018). [17]

MoES (2004), *National Strategy for the Development of Education in the Republic of Macedonia*, Ministry of Education and Science, Skopje, http://pso.mon.gov.mk/wp-content/uploads/2017/01/National-Strategy-for-the-Development-of-Education-2005-2015-2004-EN.pdf (accessed on 12 July 2018). [16]

National Education Institute Slovenia (n.d.), *National Education Institute Slovenia*, https://www.zrss.si/en/ (accessed on 13 November 2018). [47]

National Research Council (2015), *Committee on the Science of Children Birth to Age 8: Deepening and Broadening the Foundation for Success*, National Academies Press (US), Washington DC. [37]

Nusche, D. et al. (2012), *OECD Reviews of Evaluation and Assessment in Education: New Zealand*, OECD publishing, Paris, https://www.oecd-ilibrary.org/docserver/9789264116917-en.pdf?expires=1535964711&id=id&accname=guest&checksum=548FB833921B2C149A6722114C665722. [45]

OECD (2018), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264301528-en. [13]

OECD (2018), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, OECD Digital Government Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264305847-en. [10]

OECD (2017), *Mexico's National Auditing System: Strengthening Accountable Governance*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264264748-en. [56]

OECD (2017), *Policy Advisory Systems: Supporting Good Governance and Sound Public Decision Making*, OECD Publishing, Paris, https://doi.org/10.1787/9789264283664-en. [50]

OECD (2017), *Systems Approaches to Public Sector Challenges: Working with Change*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264279865-en. [4]

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266490-en. [1]

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2015-en. [12]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en. [2]

OECD (2011), *Education at a Glance 2011: OECD indicators*, OECD Publishing, Paris, https://doi.org/10.1787/eag-2011-en (accessed on 3 August 2018). [38]

OECD (2009), *Measuring Government Activity*, OECD Publishing, Paris, https://www.oecd-ilibrary.org/docserver/9789264060784-en.pdf?expires=1539857706&id=id&accname=ocid84004878&checksum=50FFFE642692824D66D1DE143A215EA7. [7]

RIC (n.d.), *Državni Izpitni Center (RIC) [National Examinations Centre]*, https://www.ric.si/ (accessed on 13 November 2018). [35]

Santiago, P. et al. (2016), *OECD Reviews of School Resources: Slovak Republic 2015*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264247567-en. [54]

Schick, A. (2003), "The Performing State: Reflection on an Idea Whose Time Has Come but Whose Implementation Has Not", *OECD Journal on Budgeting*, Vol. 3/2, http://dx.doi.org/10.1787/budget-v3-art10-en. [3]

Skolverket (n.d.), *Statistik*, https://www.skolverket.se/skolutveckling/statistik. [42]

Smoke, P. (2015), "Accountability and service delivery in decentralising environments: understanding context and strategically advancing reform", in *A Governance Practitioner's Notebook: Alternative Ideas and Approaches*, OECD Publishing, Paris, http://www.oecd.org/dac/accountable-effective-institutions/Governance%20Notebook.pdf (accessed on 25 October 2018). [52]

State Education Inspectorate (2017), *Report on the Quality of the Education Process in Schools 2016 - 2017*. [22]

State Statistical Office (2017), *Primary, lower secondary and upper secondary schools at the beginning of the school year, 2017/2018*, http://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=42 (accessed on 31 July 2018). [20]

State Statistical Office (2017), *Primary, lower secondary and upper secondary schools at the end of the school year, 2016/2017*, http://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=41 (accessed on 31 July 2018). [19]

State Statistical Office (2016), *School premises of primary, lower secondary and upper secondary schools*, http://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=81 (accessed on 31 July 2018). [21]

UNICEF (2017), *UNICEF Project for Capacity Building in Literacy and Numeracy to Improve Student Learning Outcomes*, https://www.mcgo.org.mk/uncategorized/unicef-project-for-capacity-building-in-literacy-and-numeracy-to-improve-student-learning-outcomes/ (accessed on 20 July 2018). [18]

US Department of Education (2018), *Privacy and Data Sharing*, https://studentprivacy.ed.gov/privacy-and-data-sharing (accessed on 13 July 2018). [25]

US Department of Education (n.d.), *Institute of Education Sciences (IES)*, https://ies.ed.gov/ (accessed on 13 November 2018). [46]

Villanueva, C. (2003), *Education Management Information System (EMIS)*, UNESCO, http://unesdoc.unesco.org/images/0015/001568/156818eo.pdf (accessed on 1 August 2018). [29]

World Bank (2017), *SABER EMIS Country Report Fiji*, http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/EMS/SABER_Report_EMIS_FIJI_2017.pdf (accessed on 24 July 2018). [23]

World Bank (2006), *Keeping an eye on subnational governments: internal control and audit at local levels*, World Bank, Washington D.C., http://web.worldbank.org/archive/website01006/WEB/IMAGES/INTERN-2.PDF. [53]

World Bank (2004), *Ten Steps to a Results-Based Monitoring and Evaluation System*, World Bank, Washington D.C., https://www.oecd.org/dac/peer-reviews/World%20bank%202004%2010_Steps_to_a_Results_Based_ME_System.pdf. [6]

World Bank (n.d.), "North Macedonia: Public Finance Review", World Bank, Washington D.C. [55]

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
ISBN 978-92-64-84412-4 – 2019

OECD Reviews of Evaluation and Assessment in Education

NORTH MACEDONIA

How can assessment and evaluation policies work together more effectively to improve student outcomes in primary and secondary schools? The country reports in this series analyse major issues facing evaluation and assessment policy to identify improvements that can be made to enhance the quality, equity and efficiency of school education.

The Republic of North Macedonia has made remarkable progress in expanding access to education and strengthening institutional capacity. Yet, the majority of young Macedonians leave school without mastering the basic competencies for life and work and students' background continues to influence performance. This review, developed in cooperation with UNICEF, provides North Macedonia with recommendations to help strengthen its evaluation and assessment system, by moving towards a system where assessment provides students with helpful feedback to improve learning. It will be of interest to North Macedonia, as well as other countries looking to make more effective use of their evaluation and assessment system to improve quality and equity, and result in better outcomes for all students.

Consult this publication on line at ***https://doi.org/10.1787/079fe34c-en***.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases. Visit ***www.oecd-ilibrary.org*** for more information.

unicef | for every child

2019

OECD*publishing*

www.oecd.org/publishing

ISBN 978-92-64-84412-4