Reviews of National Policies for Education

Education in Thailand
AN OECD-UNESCO PERSPECTIVE

OECD

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Cultural Organization

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Foreword

Thailand's education system stands at a crossroads. As the country aims to move beyond the "middle-income trap", it needs to build a highly skilled workforce, able to compete in the ASEAN economic community. Significant investment has widened access to education and Thailand performs relatively well in international assessments compared to its peers. However, the benefits have not been universally distributed and Thailand has not received the return on its investment in education that it might have expected. Too many poor children do not attend school altogether, and too many fail to reach the minimum standards needed for full participation in society. Thailand risks developing a two-tier education system – leaving children in poorer rural households behind.

Thailand has embarked on an ambitious series of reforms which go some way towards addressing these challenges. It has modernised its curriculum from a content-based one with an emphasis on rote learning, to a standards-based one describing what students should be able to know and do in each subject. Schools and teachers, however, have not always been given the support and skills they need to implement this new approach. The country has a comprehensive system of standardised national assessments but lacks the capacity to ensure that its national tests reinforce the aims of the curriculum and support reform efforts rather than undermine them. It has raised the qualification levels of its teachers and school leaders, yet questions on the quality of their training and ongoing development remain. It has also invested heavily in rolling out digital devices into schools but seen little improvement in computer literacy as a result.

This OECD-UNESCO report offers insights on how Thailand can overcome these policy and implementation gaps. It identifies the strengths and weaknesses of Thailand's basic education system and makes a number of recommendations for further reform, drawing on international experience

and best practices from high-performing systems around the world. The report encourages Thailand to focus on four priority areas to prepare students from all backgrounds for a fast-changing world:

- Conduct a thorough and consultative review of the curriculum, documenting clearly the common standards students should meet, which can be used to drive reform in the rest of the system.

- Build the capacity – at all levels of the education system – to reliably assess students for the full range of competencies identified in the revised curriculum, ensuring that a range of tests are used to generate the information needed to support individual student progress.

- Develop a holistic strategy to prepare teachers and school leaders to deliver education reform, including implementing the revised curriculum, and to tackle teaching shortages in the most deprived areas.

- Create a comprehensive information and communications technology strategy to equip all of Thailand's students for the 21st century, with an emphasis on improving teachers' skills to make the best use of technology in the classroom and improving rural Internet access.

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

Qian TANG
Assistant Director-General
for Education
UNESCO

Acknowledgements

This report is the result of a review of the Kingdom of Thailand's policies and practices in the field of education, informed by international experience and best practices. The review process draws from various sources, including a background report prepared by the Office of the Education Council of Thailand, a pre-review visit to Thailand to help define the actors and main policy issues, and a main review visit by a team of OECD, UNESCO and international experts in February 2015.

The OECD-UNESCO review team is indebted to the government of the Kingdom of Thailand which has graciously supported this review. Special words of appreciation are due to the Secretaries-General of the Office of the Education Council who have co-ordinated Thailand's involvement in the review process. We are especially thankful to Panthep Larpkesorn for his constant support and to the authors of the Country Background Report, which was helpful for our work. The review team would also like to convey our sincere appreciation to the many participants in the review visits who gave time from their busy schedules to share their views, experience and knowledge. A range of actors at all levels of government and from non-governmental and international organisations provided insights in the course of site visits to Bangkok, Chang Mai and Kanchanaburi. Notwithstanding such support, the OECD-UNESCO team encountered difficulties in accessing some information; these limitations affect the comprehensiveness of this report.

The members of the OECD-UNESCO review team were Francesc Pedró (UNESCO), Joint Team Leader; Elizabeth Fordham (OECD), Joint Team Leader; Eduardo Cascallar (external expert, United States); Kirsteen Henderson (external expert, Canada); Jan Hylén (external expert, Sweden); Francesc Masdeu (UNESCO); Sara bin Mahfooz (UNESCO); Andrew McQueen (OECD), Nyi Nyi Thaung (UNESCO) and Phil Stabback (external expert, Australia). The OECD took primary responsibility for Chapters 1, 4 and 5; UNESCO took primary responsibility for Chapters 2, 3 and 6.

The review team acknowledges the support from Andreas Schleicher, Director of the Directorate for Education and Skills (OECD); Richard Yelland, Head of the Policy Advice and Implementation Division (OECD); Qian Tang, Assistant Director-General for Education (UNESCO); and David Atchoarena,

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Acronyms and abbreviations

ASEAN	Association of Southeast Asian Nations
B-NET	Buddhism National Educational Test
BYOD	Bring your own device
CDC	Constitutional Drafting Committee
CEFR	Common European Framework of Reference for Languages
ESA	Educational Service Area
ETS	Educational Testing Service (United States)
GAT	General Aptitude Test
GDP	Gross domestic product
GERD	Gross expenditure on research and development
HR	Human resources
I-NET	Islamic National Educational Test
IBE	International Bureau of Education
ICILS	International Computer and Information Literacy Study
ICT	Information and communication technology
IPST	Institute for the Promotion of Teaching Science and Technology
IRT	Item response theory
ISCED	International Standard Classification of Education
KIDS-D	Knowledge, Imagination, Discover and Sharing - Digital project
LAO	Local administration organisation
LCR	Learner-to-computer ratio
MOE	Ministry of Education
MOI	Ministry of the Interior
N-NET	Non-Formal National Educational Test
NCPO	National Council of Peace and Order
NEA	1999 National Education Act
NESDB	National Economic and Social Development Board
NGO	Non-governmental organisation
NIDTEP	National Institute for Development of Teachers, Faculty Staff and Educational Personnel
NIETS	National Institute of Educational Testing Service
NQF	National qualifications framework
NRC	National Reform Council
NRSA	National Reform Steering Assembly

O-NET	Ordinary National Educational Test
OBEC	Office of the Basic Education Commission
OEC	Office of the Education Council
OER	Open educational resources
OHEC	Office of the Higher Education Commission
OLPC	One Laptop Per Child
ONESQA	Office for National Education Standards and Quality Assessment
ONIE	Office of Non-Formal and Informal Education
OPEC	Office of the Private Education Commission
OPS	Office of the Permanent Secretary
OTEPC	Office of the Teacher Civil Service and Educational Personnel Commission
OVEC	Office of the Vocational Education Commission
OTJ	Overall teacher judgement
OTPC	One Tablet Per Child
PAT	Professional and Academic Aptitude Test
PD	Professional development
PISA	OECD Programme for International Student Assessment
SAR	Self-assessment report
SBA	School-based assessment
SEAMEO INNOTECH	Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology
SITES	Second Information Technology in Education Study
STEM	Science, technology, engineering and mathematics
TCT	Teachers' Council of Thailand
THB	Thai baht
TIMSS	Trends in International Mathematics and Science Study
TVET	Technical and vocational education and training
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VET	Vocational education and training
V-NET	Vocational National Educational Test

Executive summary

Thailand finds itself at a crossroads. In less than a generation, it has moved from a largely agrarian low-income society to an upper middle-income country and a key contributor to the economic growth of the Southeast Asian region. At the same time, Thailand has enacted major education reforms and invested a significant proportion of its national wealth into educating its youngest citizens. Overall participation rates in the school system are now high, particularly at the pre-primary and primary levels, and a large number of youth continue on to higher and professional education. However, not all sections of society have benefited equally from this expansion. Access and performance are particularly poor among children from disadvantaged backgrounds and those who live in rural areas. Moreover, half of Thai students in school are not acquiring the basic skills required for their own success and the country's continued development. Thailand will need to significantly enhance the effectiveness, equity and efficiency of its education system in order for students to achieve positive outcomes that match the country's investment in education and socio-economic aspirations. This review addresses four policy areas where reforms can have a transformative impact on learning: curriculum, student assessment, teachers and school leaders, and the use of information and communication technology (ICT) in education.

Curriculum

A clear, coherent and relevant curriculum is at the heart of any good education system. With reforms in 2001 and 2008, Thailand shifted its content-based curriculum to a modern standards-based approach describing what students should know and be able to do in each subject. The new curriculum is intended to support more learner-centred teaching strategies rather than focus on information retention. Implementation has been challenging. The decentralisation of responsibility inherent in a standards-based approach has not been matched by adequate support to local officials and teachers. The curriculum document provided schools and teachers with little guidance, and it lacks common student performance standards to serve as the basis for assessments of students' progress. Thailand will need to

conduct a thorough and consultative curriculum review process to address these issues and to provide a grounding for changes to teaching and learning practices in order to improve student outcomes.

Student assessment

A well-balanced, high-quality student assessment framework yields data that allow policy makers to continuously improve the education system, inform teachers' pedagogical strategies and help individual learners improve their own learning. Thailand makes extensive use of standardised tests in its assessment system but these are only useful if they are methodologically sound. It is therefore essential that Thailand add rigour to its test development process. Moving forward, Thailand will need to focus on building capacity to support the effective design and implementation of assessment procedures at all levels of the education system. The country should also balance its use of standardised tests by supporting the development of a broad range of student assessments at the school and classroom level.

Teachers and school leaders

Teachers and school leaders are at the heart of any education reform. Thailand has a large, dedicated teaching workforce. However, Thai teachers are not being prepared well enough through initial teacher education or continuing professional development to support the country's education reform efforts. Thailand should create a nationwide professional development strategy to ensure teachers make effective use of student-centred teaching strategies and formative assessments. To reduce inequities across the education system, Thailand needs to do much more to attract, retain and support educators in disadvantaged rural schools. This will require improvements to ensure labour market planning is based on solid data, and changes to reduce the rigidities of the country's centralised deployment procedures. In rural and urban schools alike, Thailand's teachers need to be able to spend more of their time actually teaching, rather than performing administrative duties. Above all, they require the support of a more professionalised school leadership.

The use of ICT in education

The success of Thailand's education system will increasingly depend on how well it uses the potential of ICT to support students' acquisition of 21st century competencies and, on a system-wide level, better manage schools. Like many countries, Thailand has implemented hardware-focused

initiatives that have met with only mixed success. In fact, a recent international assessment revealed that Thai students' ICT proficiency levels were low and that Thai teachers lacked confidence in their own ability to use ICT. Thailand will need to develop a coherent and evidence-based ICT strategy in order to ensure that all key areas, in addition to hardware, are sufficiently addressed. This strategy should focus first on the important role of the teacher by building educators' capacity to use ICT in their teaching repertoire and to foster students' development of computer skills. It should also ensure that schools' Internet access in all regions of the country is more stable and responsive.

A long-term strategy for education reform

In order to make real progress in these four areas of the education system, Thailand should address a number of broad systemic issues. The country needs to make greater use of evidence to inform policy decisions. This should involve the development of co-ordinated statistical-gathering mechanisms to address data gaps and the establishment of a systematic process to evaluate and refine new policies and programmes after implementation. Thailand also needs more coherent, inclusive processes to govern educational administration. At present, the governance system is multi-layered and institutionally complex with a lack of clear roles and responsibilities. Implementing processes to better co-ordinate central and regional bodies will improve the efficiency and effectiveness of the education system as a whole. Finally, the country needs to develop a new long-term strategy for education reform. This strategy should span political cycles and engage stakeholders in working towards the attainment of a small number of key goals connected to student outcomes. Through these efforts, Thailand will help students reach their full potential and strengthen its human capital base to achieve broad social and economic growth.

Assessment and recommendations

Introduction

Over the past several decades, Thailand has moved away from a largely agrarian society, and become a middle-income nation with a relatively diversified economy. Education played an important role in this transformation. In recent years, Thailand has made sweeping reforms to its education system, notably with the 1999 National Education Act, in an effort to adapt to domestic and global changes and to support sustained economic growth. The country has also invested a comparatively large proportion of its national wealth in primary education, resulting in near universal access at that level.

However, Thailand's recent investments in education and its high student participation rates are not resulting in the expected outcomes. The country's results on international tests, such as the OECD Programme for International Student Assessment (PISA), are below those of many peer countries; within Thailand there are significant disparities in student performance between socio-economically disadvantaged and advantaged schools and across rural and urban areas. At the same time, Thailand is facing political uncertainty and the challenges of a shrinking working-age population and slow GDP growth compared to many of its neighbours in the Association of Southeast Asian Nations (ASEAN) Economic Community. Thailand needs to continue to improve the effectiveness, efficiency and equity of its education system to ensure it does not fall behind other countries in this dynamic region.

For this review, OECD-UNESCO analysed four areas of Thailand's education system that are critical for progress: curriculum, student assessment, teacher and school leader policies, and the use of information and communication technologies (ICT) in education. Successful reform in these areas will support a high-quality education system that drives social and economic development:

- A clear and coherent curriculum that sets out what students will learn in school, spells out student performance standards, reflects an overall vision for education, and promotes the acquisition of knowledge, competencies and values that are crucial for success in the 21st century.

- An effective student assessment framework that provides data to inform improvements to teaching and learning in the classroom and across the education system.

- Policies that develop and support teachers, who represent the most important school-related factor that shapes student outcomes, and principals, who play a vital role as instructional leaders in their schools.

- The integration of ICT in education, which is increasingly necessary for the success of individual students and, more broadly, national economies.

This review of Thailand's education system was based on an analysis of the policies, programmes and practices in these four areas. It drew on available data, research literature, and information gathered from interviews with government officials, policy makers and key education stakeholders in the country. This analysis led to the identification of practical recommendations for action in both the short and long term, with emphasis on effective practices in comparable countries. Real progress in each of the four areas depends on Thailand's ability to address a number of broad systemic issues and create an enabling context for reform. This means making greater use of evidence to inform policy decisions, ensuring more coherent, inclusive governance and developing a unifying long-term strategy for education in the country.

Thailand's education curriculum

A good school curriculum is underpinned by a recognised philosophy of teaching and learning, identifies a range of learning areas (i.e. core subjects) and promotes cross-curricular learning on topics considered important for the social, cultural and economic development of a given jurisdiction. It also sets out both "content" standards, describing what students should learn, and "performance" standards, which support teachers' assessment practices (IBE, 2013; UNESCO, 2012; UNESCO, 2015).

A curriculum can be characterised by the fundamental concept underlying its structure and philosophy (e.g. content-based, outcomes-based, or standards-based curricula). In 2001, Thailand replaced its content-based curriculum, which focused on the retention and recall of information, with one that was meant to be more learner-centred and standards-based. The new curriculum outlined predetermined standards for what students should know and be able to do in each subject. This shift in curricular philosophy and structure gave educators a significant amount of responsibility to determine how and what students should be taught – a shift which mirrored

the decentralisation taking place across the education system. Teachers found this change confusing. They received inadequate, poorly sustained support to help them with curriculum implementation.

The current curriculum was developed in 2008. It improved upon the 2001 curriculum, but left a number of issues unresolved. Efforts to review the curriculum in 2011 stalled, due in part to a challenging political context. In 2015, Thailand reportedly began to revise the curriculum to better support school-to-work transitions, but the extent to which a clear review agenda has been developed is unclear.

To improve teaching and learning and to align the curriculum with broader social and economic development goals, Thailand should as a first step implement a thorough and consultative curriculum review and revision process. As part of this process, curriculum and student assessment developers should work together, with input from stakeholders, to create common student performance standards. Efforts should then be made to ensure that supports are in place to enable the effective implementation of the curriculum, and to help evaluate its impact through improved student assessments.

Revise the curriculum to improve clarity, consistency and relevance

A standards-based curriculum document (i.e. the written or "intended" curriculum) should provide educators with clear direction about the purpose of the curriculum and how it should be implemented. Thailand's curriculum document lacks this guidance in a number of key areas. For example, it does not provide a clear theoretical underpinning for the curriculum nor does it offer information about what effective pedagogy means in a standards-based environment. This essential information should be added as part of a curriculum review and revision process.

Recommendations

- Resume the process of curriculum reform as soon as possible based on a comprehensive evaluation of the 2008 Curriculum.

- In revising the written or "intended" curriculum:
    - provide clearer direction and advice to teachers about their responsibilities in a standards-based curriculum context;
    - provide a sound and clearly expressed philosophy and theory of learning;

− place increased and more consistent emphasis on the development of key competencies for the 21st century.

Support effective curriculum implementation

A standards-based curriculum allows for greater autonomy in implementation, but this places significant demands on educators. In Thailand, educators have found the implementation of the curriculum confusing. This has led to inconsistencies in teaching and learning across the education system, and it points to the necessity of professional development and supports. Conditions should be put in place to enable all actors to understand the new curriculum paradigm - especially school staff, but also school inspectors, developers of standardized student assessments, and pre-service programme providers.

Recommendations

- Ensure that all parts of the education system with curriculum-related responsibilities (e.g. school inspectors, student assessment developers, providers of pre-service and continuing professional development programs for educators) understand the curriculum and align their activities to support its implementation.

- Provide targeted professional development and support (such as appropriate learning materials) to teachers and school leaders to guide the implementation of the curriculum.

Strengthen capacity to assess how well students are learning

Education systems depend on valid and reliable information to assess whether students are learning successfully. Thailand needs to describe, in the basic education curriculum, common student performance standards at different stages of the learning process, and use these standards as the basis for different types of assessment. This will make assessments more consistent across the education system, and yield data that can be compared and used to inform teaching strategies, policies and programmes.

Recommendation

- Develop common student performance standards to guide assessments at all levels of the education system.

Improve curriculum development procedures

The quality of a curriculum depends to a significant extent on the quality of processes employed to produce it. These need to be carefully planned and administered. In the past, Thailand has implemented robust, systematic curriculum evaluation and development processes. However, the country needs to make strategic improvements to increase the likelihood that the outcomes of these processes – the curriculum itself and, ultimately, student learning – will be of high quality.

Recommendations

- Establish effective, efficient and transparent curriculum review and revision processes that are cyclical, led by experts and informed by research and data as a key strategy within the education reform agenda.

- Optimise opportunities for consultation with all stakeholders, in the interests of equity and transparency.

Student assessment in Thailand

Sound student assessment, guided by a well-designed and implemented curriculum that identifies common student performance standards, is an essential part of any high-performing education system. A good assessment system serves not only to measure but also to improve students' acquisition of skills and knowledge. It provides teachers and policy makers with essential information to support their decisions.

Since the 1999 National Education Act, Thailand has made significant progress in developing an assessment framework. For instance, in 2005 the country established a dedicated assessment body, the National Institute of Educational Testing Service (NIETS), to conduct the majority of the country's standardised student assessments. The most important of these is the Ordinary National Education Test (O-NET), which is taken by students in Grades 6, 9 and 12 (P6, M3 and M6) each year. Despite this progress, it is evident that Thailand faces challenges in the area of assessment.

As an initial measure, Thailand needs to ensure the methodological integrity of its national-level assessments. This is of utmost importance, given the impact these assessments can have on students' academic future, as well as the weight they carry in decisions about policies, programmes and teaching strategies. Thailand should ensure that the curriculum review process produces measureable student performance standards, and that these inform enhancements to the assessment framework to improve student learning. At the same time, Thailand should focus on building capacity to support effective use of assessment procedures at all levels of the system.

Build capacity to develop and use student assessments

Building capacity for an effective student assessment system is a complex, resource-intensive but essential endeavour. Like many countries around the world, Thailand has systemic gaps in capacity, with actors at different levels of the education system unable to make the most effective use of assessments for teaching, learning and policy development. Thailand needs to provide professional development and supports in order to address these gaps and improve the effectiveness of its assessment framework.

Recommendations

- Strengthen teacher training and support in the area of assessment.

- Implement policies and programs to develop professionals in the measurement and psychometric field.

- Strengthen the capacity of policy makers in the Ministry of Education and in local government (i.e. Education Service Areas) to use data and research generated by student assessments to inform decision making.

Ensure student assessments are methodologically sound

In order to yield accurate data that meaningfully contribute to an education system, student assessments must meet standards of methodological rigour. Thailand is not currently taking the necessary steps to ensure its high-stakes tests, including O-NET and the General Aptitude Test and the Professional and Academic Aptitude Test for university admission, meet such standards. This is a significant issue given the importance the Thai education system places on the results of these tests.

Recommendations

- Conduct validity studies for all standardised student assessment instruments, with particular focus on O-NET and the tests for university admission.

- Implement international best practices in equating all forms of an assessment in the same year, as well as year-to-year. This will help ensure, among other things, that students' scores can be compared across testing conditions and over time.

- Develop and analyse assessments and conduct item bank calibration using a modern psychometric methodology, such as Item Response Theory, and implement a rigorous policy that supports the comparability of results for each of the assessment programmes.

Develop the right mix of assessments to meet broad development needs

Education systems need to make use of a diverse range of assessments to accurately monitor and improve student learning. These include formative and summative classroom assessments, local and national assessments (based on common student performance standards), and international assessments. At present, Thailand places too much weight on standardized tests rather than using a broad range of student assessments.

Recommendations

- Examine the education system's overall framework for assessment and evaluation to ensure that its various components, including student, school, teacher and school leader performance assessments, are well balanced, and that they work together effectively to support teaching and student learning.

- Broaden the range of student assessments by supporting the development of school-based and district-based assessments, reducing the weight placed on national assessments.

- Support the development of assessments of greater complexity to enable the sound evaluation of higher-order competencies for the 21st century identified in the curriculum.

- Use international tests as a guide to improving standardised testing in Thailand – including using the results of those tests to gauge concerns surrounding the results of its own standardised tests.

Thailand's teachers and school leaders

Thailand recognises the crucial role teachers play in student learning. Since the early 2000s, the country has implemented a number of reforms to raise the quality of the teaching profession. Key changes have included a longer pre-service teacher education programme, a teacher certification system and, more recently, a new teacher induction programme. While Thailand has worked to reform the teaching profession, the country has also

decentralised educational governance. This has significantly increased the administrative and instructional management responsibilities of school leaders.

Thailand's most recent reform agenda has called for additional improvements to the training, development and deployment of teachers. These reforms need to be pursued, with more sustained attention given to improving the pedagogical skills of teachers so that they can help meet Thailand's learning goals. As a priority, Thailand needs to build a holistic professional development strategy that ensures that teachers and school leaders are prepared to effectively implement the basic education curriculum and assessment strategies and work towards system-wide education reform goals. The curriculum review and revision process will inform this work, as will the development of new standards for teachers and school leaders. As a second priority, Thailand needs to reduce inequities across the education system by attracting, retaining and supporting educators in schools serving students from disadvantaged backgrounds.

Strengthen teacher preparation to support education reform

Teacher preparation can be a powerful vehicle for education reform if pre-service education programmes admit the best candidates and prepare them to drive that reform forward. In Thailand, pre-service programmes lack minimum requirements for admission and they do not provide solid preparation in the basic education curriculum or other key areas. Changes in this area will help Thailand build a well-prepared high-quality teaching workforce.

Recommendations

- Establish minimum criteria for entry into teacher preparation in consultation with pre-service programme providers.

- Strengthen teacher preparation in areas key to learning goals (e.g. the basic education curriculum, assessment, teaching students with special needs, 21st century competencies and ICT). Improve the practicum component by, among other things, ensuring that it is conducted throughout the pre-service programme rather than just at the end.

- Streamline and strengthen the pre-service accreditation process by having one organisation take primary responsibility for the process, and by making the accreditation requirements more thorough.

Develop a holistic professional development strategy

Standards describing what teachers should know and be able to do are at the heart of a high-quality teaching profession, which is essential for high-quality student learning. Research recommends that these standards be used to inform and align teacher preparation, performance appraisal and continuing professional development. Thailand plans to update its existing teacher standards. As it does so, it should develop a systematic appraisal process to assess teachers' performance and encourage their participation in ongoing professional development. Training in key reform areas, including the curriculum, assessment and ICT, will be essential.

Recommendations

- Establish a nationwide strategy for professional development to support the country's education reform. It should include a catalogue of professional development opportunities which are:

  - relevant to educators at all stages of their careers

  - aligned with teacher standards

  - focused on the core competencies needed to deliver the curriculum, assess students and support system-wide reforms

  - delivered whenever possible within schools.

- Update and amend the standards for teaching and establish an authentic process to assess whether teachers are meeting those standards and have access to ongoing professional development to support student learning.

Allow teachers to focus on student learning in the classroom

Teacher workload is associated with the quality of teaching and learning. Teachers who feel overburdened are generally less satisfied with their jobs. This has implications for their sense of self-efficacy, which, in turn, can affect student outcomes (OECD, 2014a). In Thailand, teachers' high level of administrative tasks (in particular the paperwork associated with school assessments) prevents them from focusing on student learning. Educators in disadvantaged areas need more support to improve the outcomes of students who are at the greatest risk of falling behind.

Recommendations

- Make efforts to reduce the workload that is taking teachers' attention away from the classroom, notably the paperwork associated with external school assessments.

- Reduce inequities by supporting rural schools in their efforts to improve students' learning outcomes, for example by providing financial and nonfinancial incentives to attract, retain and support staff, and by funding targeted in-service professional development such as mentoring and collaborative inter-school networks.

- Conduct ongoing dialogue with teachers' associations to ensure teachers' voices are heard.

Support and empower school leaders to improve teaching and learning

Like teaching, school leadership is a key factor that policy makers can influence to enhance student learning. In recognition of principals' important role – particularly in driving education reform – high-performing jurisdictions are now developing leadership standards and using them to inform school principals' preparation, performance appraisal and ongoing development. Thailand has developed standards for school leaders but they are based closely on the country's teacher standards, despite differences in the two roles. To better support principals and build their capacity to lead reform, revised standards should be used to develop other key components of a leadership framework.

Recommendation

- Develop a leadership framework to improve and support school leadership in the country, using amended standards for principals as the basis for the development of succession planning procedures, pre-service training, professional development and performance appraisal.

Make teacher deployment procedures more efficient and equitable

There is a clear link between the quantity and quality of teachers in an education system. Subject-matter expertise is one aspect of teaching that improves student learning, and a shortage of teachers is likely to increase out-of-field teaching. In Thailand, out-of-field teaching is also commonly the result of rigid teacher deployment procedures that fail to take into account schools' actual needs. The country is currently producing more new

teachers than its education system needs, but there is reportedly a shortage of teachers for certain core subjects, in rural areas and along the country's southern border although gaps in the data make it difficult to accurately gauge its extent. A co-ordinated data management system would allow Thailand to track and respond to teacher supply and demand.

Recommendations

- Develop a co-ordinated data gathering mechanism to support decision making about current and future teacher supply needs.

- Review hiring and transfer processes to ensure their fairness, reduce unnecessary rigidities and enable greater responsiveness to local needs. This could be done, for example, by opening up vacant positions for competition by new or transferring teachers, and by involving schools in hiring decisions.

- Use teacher placement policies as a tool to reduce inequities in the education system. This would involve an evaluation of the impact of existing scholarships and incentive programmes and the development of new policies as needed (e.g. to expand incentives to teachers in more regions of the country).

Thailand's information and communication technology in education

Information and communication technology plays a key role in exchanging knowledge around the world. The ability to use ICT is now vital for citizens' – and countries' – full participation in modern society and a globalised economy. The acquisition of ICT competencies has thus become a major component of education curricula. ICT has also become a valuable teaching tool and a means for education systems to better manage schools.

Over the past ten years, Thailand has enacted a number of measures to promote ICT use to support the country's economic expansion. It has made substantial investments in hardware, software, "people-ware", and infrastructure. It has made significant efforts to improve the ICT skills of both teachers and students through government-initiated programmes, as well as public-private partnerships and ICT initiatives aimed at rural schools and disadvantaged students. Despite Thailand's investment in ICT for education, a recent major International Computer and Information Literacy Study found that Thai students have not yet fully attained the levels of computer, information processing, and communication skills required for the 21st century, and that Thai teachers are less confident than their peers in other countries in their ability to use ICT (Fraillon et al., 2014). All of this

suggests the need for improvements in how Thailand's basic education system uses ICT for teaching and learning.

Thailand needs to create a coherent national strategy aligning policies to enhance the use of ICT in education. Informed by a review of the basic education curriculum, this strategy will ensure that all key areas for investment are given sufficient attention. It should focus first on the essential role teachers play in improving students' ICT proficiency by identifying the ICT competencies teachers need, and then developing relevant and effective professional development to help them acquire those competencies. The strategy should also prioritise the expansion and improvement of Internet access in all regions of the country in order to improve equity across the education system and spur Thailand's broader social and economic development.

Provide all schools with a reliable ICT infrastructure and Internet access

In order to make full use of ICT for teaching and learning, educators and students need both digital devices and access to the Internet. Thailand has made significant investments in school hardware in recent years. As a result, the number of computers available to students in Thai schools is high compared to other countries in the region. However, the use of ICT is impeded by a lack of stable high-speed Internet across the education system. Particular attention should be paid to expanding Internet access in rural areas.

Recommendations

- Address the need for a stable, responsive and widely available ICT infrastructure by setting clear, long-term goals to expand Internet access backed by adequate funding to cover devices, connectivity and maintenance.

- Prioritise investments in ICT infrastructure and connectivity in remote areas to ensure equity of access.

Invest in digital learning materials

Digital learning resources (e.g. audio or video files, images or software) are important teaching and learning tools in today's classrooms. They are increasingly used to help students master subject matter and develop 21st century competencies. Thailand has made investments in this area, but has not developed digital learning materials for all subjects and grades of the basic education curriculum. The quality and availability of existing

resources is unclear. Their use depends to a large extent on teachers' ability to easily access them. The best way to ensure this is to provide a national repository, or one-stop shop, for digital learning materials.

Recommendation

- Develop a national strategy for developing digital learning materials, and create a common national repository where such materials can be accessed. To reduce costs and improve teachers' digital competency, Thailand should explore the role teachers could play in developing these materials.

Develop teachers' confidence and capacity to use ICT

Teachers' attitudes about ICT and their confidence in their ability to use ICT affect students' own ICT competency (Fraillon et al., 2014). Thailand currently provides teachers with pre-service and in-service training on ICT, but Thai teachers are still less confident and use ICT less frequently than their peers in other countries. To increase Thai students' ICT proficiency, Thailand needs to provide more effective preparation, professional development and support to its teachers. This would represent one essential component of a holistic professional development strategy to help educators work towards system-wide education reform goals.

Recommendations

- Define the ICT competencies teachers need and provide relevant high-quality teacher preparation and professional development based on these competencies.

- Invest in equipment, Internet access and on-line services to support teachers' use of ICT as a pedagogical tool.

Monitor and assess ICT use in schools

Education systems need to gather solid evidence about what is happening in their schools and how initiatives are affecting teaching and learning in order to develop policies that have the greatest chance of improving student outcomes. At present, Thailand's ability to develop evidence-based ICT policies is limited by a lack of sufficient mechanisms to monitor and assess ICT use in schools.

Recommendations

- Put in place a centralised system for periodic (annual or biannual) collection and publication of statistics, fed by school-level data regarding infrastructure, equipment, training and use of ICT.

- Complement the gathering of statistics with evaluations (qualitative data) and continued participation in international surveys to enable a deeper understanding of the issues at hand and a comparative perspective on how Thailand is progressing.

Create a coherent ICT policy strategy

Countries need to develop policies that are aligned towards the attainment of shared goals in order to successfully reform their education systems (see below). Over the years, Thailand's initiatives to integrate ICT in education have been fragmented and have not focused equally on all areas of key importance. To improve the information literacy skills of all students, it is crucial that Thailand develop a coherent and balanced approach to ICT in education.

Recommendation

- Develop a coherent national strategy to further integrate ICT into pedagogy, ensure equity of Internet access for Thai students across the country, improve students' ICT competencies, and use ICT to support educational administration.

Moving forward

Real progress in the four areas explored in this chapter – the curriculum, student assessment, teacher and school leader policies, and ICT in education – depends in large part on three broader enabling factors that Thailand needs to address:

More coherent, inclusive governance of the education system

Thailand's education system is multi-layered and institutionally complex. Policy implementation is challenged by heavy bureaucracy and administrative bottlenecks. Decentralisation, with the creation of over 180 Education Service Areas, seems to have exacerbated this policy-practice gap instead of closing it. Although moves have been made to streamline educational administration, the system is still characterised by multiple offices and agencies with overlapping responsibilities and weak

accountability. This has inhibited efficiency and effectiveness. A lack of co-ordination across institutions was an important factor behind the stilted implementation of the 2008 curriculum. Moreover, governance of the education system in Thailand is not inclusive, with teachers, principals and other key stakeholders reportedly feeling disengaged from reform efforts.

There are various means by which Thailand can create more coherent, inclusive governance. Establishing a clear strategic vision for the education system will be an important first step to streamlining the work of different agencies and stakeholders. Education systems also require well-functioning, day-to-day co-ordination mechanisms in order to ensure different actors work together in the design and implementation of policies. In Thailand, this includes, importantly, creating a space for stakeholders to influence policy. Such co-ordination can be established in the form of clear guidelines and mandates for the key agencies involved in the system. The Ministry of Education might also consider ensuring one of its current divisions acts as a co-ordinator to ensure more transparency and efficiency. However, more important than the co-ordination structure itself, is creating the processes and working practices that will encourage actors in the system to collaborate actively and break free from administrative silos (Burns and Köster, 2016).

The complex nature of Thailand's decentralisation calls for particular efforts to improve co-ordination between central and local government, and strengthen the capacity of the Education Service Areas. Lack of local understanding and ownership has impeded progress in implementing the 2008 curriculum and other major reform policies. Each education system must strike its own balance between central leadership and local initiative. However, international experience shows that there is no way around strong local engagement on the path to school improvement and better student outcomes.

Increased capacity for evidence-based policy development

A solid evidence base, including effective mechanisms for data collection and usage, is essential for informed and effective management and timely decision making. It is also critical for accountability, trust and transparency in the education system. Thailand faces significant challenges in this regard. There are data gaps and uncoordinated data gathering mechanisms in critical areas such as the teacher labour market and the availability and use of ICT in schools. There are also serious weaknesses in its standardised student assessments, limiting their potential to drive successful reform efforts. Educational data are not regularly updated, and schools are unable to use the information system as planned. There are only limited efforts to monitor and develop data quality, and to use data in

administration and service delivery. Indeed, the capacity of educators and policy makers to use technical assessment appears limited. Thailand also lacks a systematic process to evaluate and refine new policies and programs once they are implemented – a practice which is a hallmark of effective policy development and successful reform.

Addressing these gaps will demand significant increased investment in Thailand's data and information system. As a first step, Thailand should set higher standards for data collection and usage, including protocols for sharing and reporting information. At present, each agency is largely responsible for collecting its own data, according to its own definition and standards, with limited co-ordination and information sharing. Capacity needs to be strengthened across the system and at each stage of the information pipeline, from data collection to analysis and dissemination. To establish its commitment towards more evidence-based policy making, the Thai government should ensure that new policies are grounded in an analysis of available evidence, both national and international, and set clear objectives in terms of expected outcomes and reporting on results.

A long-term strategy for education, aligning reform efforts and uniting stakeholders to work towards the achievement of a high-quality school system

Thailand's 15-year National Education Plan and the Ministry of Education's Four-Year Action Plan are both set to expire in 2016. Since the military took power in May 2014, the government has established several committees and boards to develop a new education reform agenda. Proposed revisions to the curriculum, student assessment and students' classroom hours have been announced, and some new policies are already being implemented. However, without a renewed, comprehensive and broadly endorsed long-term strategy for education, there is a real risk that the policy fragmentation and misalignment highlighted by this review will continue, if not deepen, reducing the scope for improvement that Thailand's education system needs.

An essential component of an effective education strategy is a compelling vision to drive forward change. This is important for any education system, but particularly Thailand's, where a long-term vision could help ensure continuity and prevent unnecessary changes of direction when a new government takes office. Such a vision should provide a galvanising description of how the education system can support Thailand's social and economic development for the benefit of all citizens. To give coherence to reform policies and guide the actions of different stakeholders, this vision needs to be built around a small number of clear objectives.

These objectives should relate to both the quality and equity of the education system and be focused on student outcomes. To ensure the entire system is motivated to attain these objectives, educators, teachers' associations, parents and other key education stakeholders must be engaged in their development (OECD, 2010, 2014b).

Once a coherent long-term vision has been developed, implementation requires an evidence-based strategy that sets out a sequence of coherent initiatives to meet the identified objectives. Such a strategy needs to focus on improving teaching and learning, and not be distracted by reforms to other elements of the education system that may have less impact on student outcomes. This means prioritising revisions to the curriculum and related supports for schools to drive improvements to learning; standards and assessment practices (relating to students', schools' and educators' performance) to align and monitor efforts; and professional development for teachers and school leaders to target areas needed to support the reform. Given that large-scale education reform requires time to take effect, it is important that interim benchmarks are established to steer progress towards the overall objectives over time (OECD, 2010, 2014b). The expiry of current planning cycles provides an opportunity for Thailand to re-focus policy initiatives behind core priorities and bring institutions and stakeholders together behind a united reform effort that delivers real change in Thailand's schools.