Reviews of National Policies for Education

Education in Saudi Arabia

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Foreword

With Vision 2030, Saudi Arabia has committed to an ambitious cross-sectoral reform agenda. The education system is at the forefront of the country's effort to diversify its economy. Focusing on developing human capital is crucial if Saudi Arabia is to transition to a balanced and sustainable economy that is less dependent on fossil fuels and public sector employment.

While impressive progress has been made in achieving universal education access, significant additional improvements will be required if Saudi Arabia is to achieve its aim of developing a high-quality education system. Results from international assessments show that there is still room for progress, and an emphasis must now be placed on learning outcomes.

Saudi Arabia has already committed to implementing important education reforms to help raise learning outcomes. A new school evaluation system that focuses on student learning has been introduced, a teacher career path based on performance has been developed, and the curriculum and methods of assessment have been revised. There has also been a strong focus on early learning to ensure that all students enter school with the skills needed to excel.

Focused on the assessment and evaluation system for schools, this review offers recommendations to help Saudi Arabia capitalise on the positive practices and policies that are being put in place. This review considers the local context and draws upon international evidence, policy lessons and practical examples to guide reform efforts. It encourages Saudi Arabia to put student learning at the heart of evaluation and assessment. This means that student assessments, teacher appraisals and both school and system evaluations will all contribute to the ultimate goal of helping students learn.

Above all, we hope that the recommendations in this report will be a useful resource for Saudi Arabia as it implements the reforms needed to develop a coherent evaluation framework and achieve the aspirations of Vision 2030.

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Acronyms and abbreviations

ECEC	Early childhood education and care
ECERS	Early Childhood Environment Rating Scale
EMIS	Education Management Information System
ETEC	Education and Training Evaluation Commission
GAT	General Aptitude Test
HCDP	Human Capability Development Programme
ITP	Initial Teacher Preparation
KSA	Kingdom of Saudi Arabia
MENA	Middle East North Africa
MoE	Ministry of Education
NAEYC	National Association for the Education of Young Children
NAP	National Assessment Programme
NIPED	National Institute for Professional Education Development
NTP	National Transformation Programme
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
SAAT	Scholastic Achievement Admission Test
SEGRA	Saudi Early Grades Reading Assessment
SELS	Saudi Early Learning Standards
TIMSS	Trends in International Mathematics and Science Study

Executive Summary

Saudi Arabia has achieved universal access to education for a large and geographically dispersed school-age population. With its impressive gains in enrolment, however, Saudi Arabia has stretched the capacity of educators and administrators to deliver and assure high-quality learning. The advances in participation will now need to be matched with equivalent progress in student learning and skills if the Kingdom is to achieve the ambitious development goals outlined in Vision 2030.

To support Saudi Arabia in its on-going education reform, this OECD country review draws upon international research and experience to examine four key policy issues:

1. Improving school quality through better governance, leadership and support
2. Strengthening the quality of the teaching profession
3. Modernising the curriculum and assessment practices
4. Strengthening the foundations for learning

Improving school quality through better governance, leadership and support

While Vision 2030 has aligned education actors around key objectives for the education sector, Saudi Arabia's overarching reform agenda has not yet been translated into a clear vision of quality schooling. The new school evaluation framework has the potential to address this gap and strengthen school accountability and support systems. It also provides a reference for rethinking the role of school leaders, who should be empowered as the most important actors in leading school improvement.

School system governance

Although the national education management structure is decentralised, decision-making authority is centralised within the Ministry of Education (MoE). This contributes to a lack of coherence in the oversight and support provided to schools. The government should clarify the mandates and responsibilities of key actors across the system, including ETEC, with the aim of giving stronger direction to schools as collective agents of change. This would include developing a vision of good schooling and creating a set of associated performance targets focused on key challenges, such as reducing gender and geographical inequities and developing foundational skills. The creation of a delivery unit within the MoE and stronger central research capacity would help to drive change and scale-up good practices.

Reforming school evaluation and quality assurance

Though strict guidelines govern how supervision is carried out, supervisors are not always equipped to evaluate schools or provide meaningful support to them. ETEC's new school evaluation framework provides an opportunity to rethink school accountability in

Saudi Arabia and provide a more consistent focus on teaching and learning quality. A limited set of school evaluation indicators and more granular good practice descriptions should be developed to accompany school evaluation standards. Saudi Arabia will need to build staff capacity and develop resources to assist schools in understanding these new expectations. The planned roll-out of external evaluations rightly focuses on incentives rather than sanctions, but needs to give priority to weaker schools.

Leadership

Principals and teacher leaders are central to school improvement but these functions are weakly developed and under-supported. To ensure the success of ETEC's new principal standards, both pre-service and in-service training should be strengthened. Educational leadership programmes with competitive entrance criteria can be established with scholarship programmes that select and train the most qualified potential principals. One way to elevate the profile and skills of schools leaders would be to create a dedicated School Leadership Academy, potentially housed within the National Institute for Professional Educational Development.

Strengthening the quality of the teaching profession

Saudi Arabia has introduced ambitious initiatives to improve the quality of teaching and the professional status of teachers. These include developing new Teacher Standards and Professional Pathways, a new post-graduate initial teacher preparation (ITP) programme and reconfiguring the role of teacher supervisors. Such efforts have the potential to develop a more skilled, motivated teacher workforce, provided there is sustained follow-through on implementation and genuine engagement of teachers in reform decisions.

Teacher standards

At the time of writing, Saudi Arabia had not implemented professional teacher standards (these were released in 2020). Instead, the main reference for teaching practice were, and still largely are, are the "grids" that teacher supervisors use to evaluate teachers. ETEC's new standards are promising, but should place more emphasis on pedagogical content knowledge as one of the strongest predictors of student achievement. Most importantly, Saudi Arabia should devise a clear strategy to guide the implementation of the new standards and communicate expectations to teachers.

Priority should be given to certifying teachers at the Practitioner level, with a staggered promotion of Advanced and Expert teachers to guarantee trust, rigour and equitable distribution across the Kingdom. The strategy should also include options to manage out under-performing teachers from the system, for example, through financial incentives ("golden handshakes"). Engaging teachers in the development of a Code of Conduct to accompany the standards would help to create buy-in and ensure fairness.

Initial teacher preparation

The requirement that future teachers have a post-graduate diploma could improve the selectivity and quality of ITP in Saudi Arabia. Several steps will be important to the success of this reform. There is an urgent need to improve manpower planning in order to set the right entry and graduation thresholds. The employment placement system for (Jadarah) also needs to be revised to prioritise ability over seniority in job placements.

Testing subject-matter knowledge on entry to ITP could also help to further raise standards, and if complemented by more generous but selective scholarships, could boost the status and attractiveness of a teaching degree. To ensure the quality of ITP programmes, clear accreditation standards should be developed in accordance with internationally benchmarked practices. A strategic partnership between the MoE, ETEC and education faculties will be critical to the quality of the practicum, which is the lynchpin of effective teacher preparation. Strengthening the existing probation system through greater externality would help to make sure that all graduates are competent to teach before they are fully licensed.

In-service appraisal and teacher professional growth

While Saudi Arabia has a well-established system for appraising in-service teachers, its administration by external supervisors renders its formative value relatively weak and difficult to co-ordinate in a large country. Regular teacher appraisal should be redefined as a process of professional growth and principals should be trained to help teachers develop. The role of current teacher supervisors can be redefined to provide professional development support after implementation of the new teacher standards. To build trust in the new system, Saudi Arabia could select also and train respected educators to be competent and impartial assessors.

A combination of Qifayat and regular appraisal can then be used to inform the content and delivery of targeted professional development. Online professional development can be offered to expand access to training opportunities. Teacher-leaders could be deployed in other parts of the education system to allow for idea exchanges and encourage deeper professional learning.

Modernising the curriculum and assessment practices

Historically, Saudi Arabia has relied on textbooks to determine what to teach and assess. Recently, it has developed a national curriculum framework that focuses on skills and competences and a National Assessment Programme that assesses student learning against these new learning expectations.

Intended curriculum

The new curriculum framework that ETEC has developed is broadly aligned with standards for teachers and schools. It has the potential to align subject curricula around common goals and direct the development of learning materials. The new curriculum framework, however, lacks some internal coherence and might be difficult for users to understand. The education resources that Tatweer has developed might also be insufficient given the variation in teacher capacity.

To address these issues, the new curriculum framework should be reviewed and made more internally coherent before its release. To ensure the success of its implementation, teachers should be consulted extensively on the new curriculum and on the development of effective classroom instructional materials. Over time, the curriculum should also be subject to periodic review to reflect the latest developments in education and evolving skills needs.

Implemented curriculum

Despite efforts to modernise teaching and learning, teachers continue to rely heavily on the resources they are given – especially textbooks – to plan their lessons with little adaptation

of materials to students' needs. This is largely due to the current teacher appraisal structures, which evaluate teachers on how much of the curriculum they have covered.

To address this, teacher appraisal processes that are aligned with the new curriculum's pedagogical expectations should be developed. The reformed, school-based regular appraisal should be designed to reinforce instructional practices outlined in the new curriculum. Similarly, teacher continuous professional development should be aligned with the new curriculum and its emphasis on modern teaching and learning.

Assessed curriculum

The absence of a national assessment framework has meant that both the MoE and ETEC set assessment policy, and their activities are not co-ordinated. To create a common, coherent vision for student assessment, a national assessment framework should be created that clarifies the purpose, methods and relationships between classroom assessments, national assessments and examinations.

Classroom assessment

At the level of the classroom, teacher assessment is predominantly summative and assessment materials strongly feature memorisation and closed-ended item types. Teacher professional development does not strongly emphasise improving assessment practice, and teachers' assessment judgement lacks accuracy and reliability, with no moderation practices in place.

To strengthen classroom assessments, teacher appraisal and school evaluation should be used to promote more diverse – especially formative – assessment practices. To reduce the amount of testing that occurs, the time that students spend on tests should be studied and adjustments made based upon the results of that study. A diagnostic assessment could be created, and the stage assessments administered by supervisors could be eliminated.

New teacher standards could set clear expectations for the assessment literacy of teachers at different levels of the professional pathways. These should support the assessment of complex and higher-order skills. Moderation programmes could be created to improve teachers' assessment judgements, and targeted pre- and in-service development could be provided to enhance teachers' assessment capacity.

National standardised assessments

At the national assessment level, ETEC has created a sample-based National Assessment Programme (NAP) intended to monitor student attainment nationally. Concurrently, the MoE developed a census-based assessment for school accountability purposes. The MoE's supervisor assessments similarly serve a Directorate-level monitoring function.

To reconcile the two national assessment systems in Saudi Arabia, NAP could be extended to a census-based assessment to provide schools and teachers with reliable information on how well their students perform with respect to the curriculum's expected learning outcomes. The assessment should be aligned with the new curriculum and reporting on the assessment could be used to build understanding of the new curriculum's standards. As the national testing agency, ETEC should be responsible for developing and overseeing the expanded NAP, but it needs to receive adequate, sustained support.

National examinations

Saudi Arabia currently has two national examinations that are administered at the end of upper secondary school to help determine entrance into tertiary institutions. These,

however, are not fully aligned with the curriculum, which prevents the examination system from supporting the implementation of the curriculum. The items on the exams test a limited range of skills and are sometimes internally incoherent. The exams also generally have very high success rates, which might prevent them from motivating students to apply themselves.

To strengthen national examinations, Saudi Arabia should aim, in the medium-term, to develop an examination that is aligned with the curriculum and both certifies completion from upper secondary school and selects students for entrance into tertiary education. While this is being developed, a range of assessment experts could undertake a thorough review of the GAT and Scholastic Achievement Admission Test (SAAT) tests and make adjustments accordingly.

Strengthening the foundations for learning

While Saudi Arabia has seen a rapid expansion of educational access in primary and secondary school, enrolment in early childhood education lags behind international benchmarks. In response, it is now investing heavily in the sector, and the importance of early childhood education is recognised in national strategic documents. The Kingdom has created the Saudi Early Learning Standards, is constructing new facilities and is expanding the early education cycle to include what is now Grades 1 through 3 of primary education.

Sector governance and leadership

While early education governance has become integrated in the MoE under the Early Childhood General Department, responsibilities are still split depending on whether facilities are publicly or privately managed. Sub-national entities also have significant autonomy, which can lead to variations in service provision. Formal strategies related to early childhood education are also not always the central reference points for policy-making.

To strengthen the status of the sector, a formal central strategy for early childhood education should be developed and launched for ages 0 to 8. National goals on enrolment and outcomes in literacy should be established that reflect the new strategy's aims. To fund the expansion of quality early learning, more funding should be earmarked for early childhood education. To use data to strategically allocate resources, regulatory materials and procedures would need to be updated to collect more accurate data.

The General Department of Kindergartens could also be elevated to the level of Deputy Ministry to create an adequate governance platform that gives early childhood education sufficient focus. Within Directorates, the Departments for Early Childhood could also be elevated to the level of Assistant Directorship with mandated multi-year plans.

Quality assurance

No central set of standards exist that define basic minimum requirements for early childhood institutions in Saudi Arabia. There are instead several reference points, including pieces of legislation and the organisational manual for kindergartens and nurseries. As a result, licensing and monitoring of kindergartens is not comprehensive or integrated.

To enforce quality assurance, Saudi Arabia could develop a single set of standards for different types of early childhood education settings in the public and private sectors. Based on these standards, an inspection framework can be created that covers all types of settings

and focuses heavily on the private sector. Inspections would consist of both regular self-evaluation and external inspection. System-level monitoring responsibility can be shared between the General Department of Kindergartens and ETEC.

Curriculum and the workforce

To guide improvements in learning outcomes, the Saudi Early Learning Standards (SELS) have been developed. It is still unclear how SELS will relate to the new curriculum standards being developed by ETEC. Saudi Arabia should carefully monitor the implementation of SELS to understand their impact on teacher practice and student learning.

Many teachers in Saudi Arabia lack the effective instructional resources to teach young children. Existing resources on literacy do not guide teachers to develop literacy in an integrated manner, nor do they help teachers assess student progress. Teachers' approach to literacy is oriented more towards learning linguistic mechanics and grammar than reading for meaning and understanding.

To strengthen the early years workforce, the learning resources available to kindergarten and early years primary teachers should be improved, especially those intended to develop literacy. Assessment materials that help teachers determine student literacy levels should be provided – in accordance with SELS – and their use reinforced in classrooms through the inspection framework. To strengthen school readiness, the MoE should also provide general curricular expectations that are informed by SELS and vary by type of setting.

Workforce competencies

Saudi Arabia is well placed to train qualified teachers. Universities provide competent education for early childhood staff. Dedicated training centres also have concentrated expertise and can provide effective professional development. The expansion of early childhood education, however, has led to a decrease in the quality of early childhood education staff, and the training capacity cannot meet the country's professional development needs.

To address this divide, partnerships can be established with universities to expand the pool of training resources, and work with the "leadership academy" to deliver targeted training to kindergarten principals. Digital training options can also be mobilised to extend the reach of kindergarten training centres. To alleviate some of the strain on teachers, teacher assistant positions can be developed and qualified candidates trained to fill the role.

Home learning environment

National and sub-national initiatives to incorporate parents more strongly into their children's education have been launched, but overall engagement remains low. With initiatives mostly concentrated in kindergartens, there are few interventions targeting families outside of the system.

To highlight the importance of the home learning environment to a child's development, initial and in-service staff preparation should include trainings on how to engage parents effectively in their children's education. Kindergartens, primary schools and other communal areas can also serve as community centres to provide resources to families. For the families that cannot be reached through these physical centres, home visits can be conducted.

Chapter 1. Introduction

Since 2016, Saudi Arabia has embarked on an unprecedented cross-sectoral reform agenda known as Vision 2030 (Kingdom of Saudi Arabia, n.d.[1]). The goal of Vision 2030 is to reduce the country's dependence on fossil fuels and create a diverse, dynamic and sustainable economy. To achieve these ambitions, Saudi Arabia has introduced 13 programmes, including the Human Capability Development Program (HCDP), which aims to improve the country's education system in order to create a highly-skilled and productive population that can meet the needs of a 21st century, knowledge-based labour market.

Saudi Arabia has been investing heavily in its education sector for several decades. In 2015, expenditure on education represented 7.8% of the country's gross domestic product (GDP), considerably higher than the average across OECD countries (5.2%) (World Bank & Education Evaluation Commission, 2016[2]) (UNESCO Institute for Statistics, 2020[3]). This investment has helped achieve tremendous success in expanding access to education, with present enrolment rates in primary and secondary education being nearly universal (UNESCO Institute for Statistics, 2020[3]).

However, these gains in participation have not yet been matched by equivalent progress in learning and skills. To better understand the quality of education outcomes, Saudi Arabia participates in several international surveys, such as the Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS) and most recently the OECD Programme for International Student Assessment (PISA). Results from these surveys show that there has generally been a low return on educational investment in terms of the country's learning outcomes. According to PISA 2018, students in Saudi Arabia consistently scored lower than in reading, mathematics and science compared to OECD countries and lower in mathematics and science compared to other participating countries in the Middle East and North Africa region (MENA)[1] that participated in PISA. Over half of students from Saudi Arabia were unable to achieve the baseline level of reading proficiency needed to participate fully in society, compared to less than a quarter across OECD countries (OECD, 2019[4]) (Figure 1.1). These results suggest that improving the learning outcomes of students is urgently needed if Saudi Arabia is to achieve the economic goals set out in Vision 2030.

Figure 1.1. PISA 2018 results
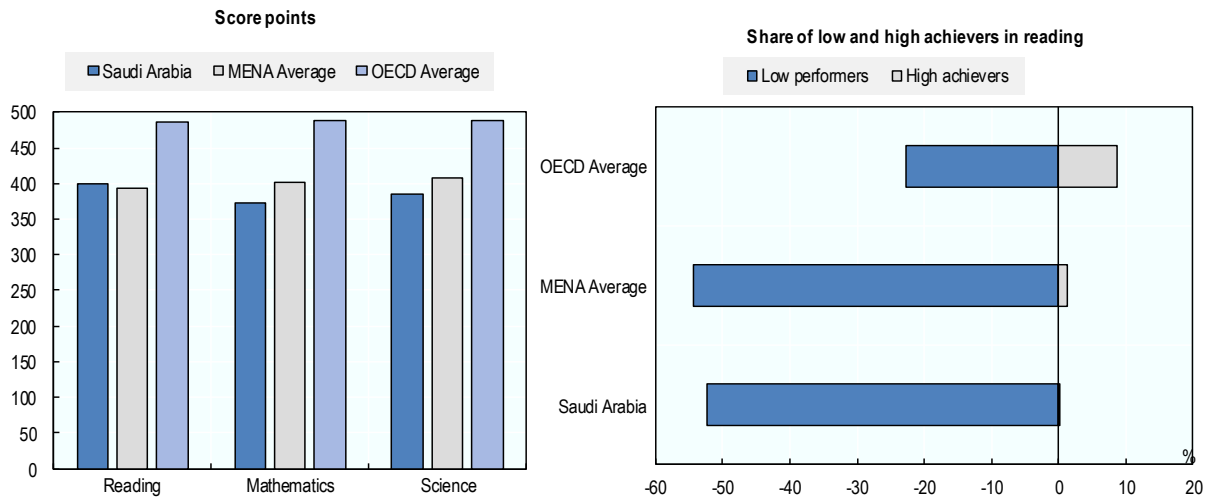
Source: PISA 2018 database.

Improving overall outcomes in Saudi Arabia will require reducing inequities in the country's education system. In PISA 2018, students from urban schools scored on average 415 points on reading, while students from rural schools had an average score of 356 points. Similarly, the bottom quarter of students in terms of socio-economic background scored 74 points lower than the top quarter of students in terms of socio-economic background, a difference equivalent to roughly three years of schooling. Importantly, student background in Saudi Arabia is more closely associated with performance than in other MENA countries. In Saudi Arabia, 12% of the variance in reading performance is explained by socio-economic status, compared to 9% across MENA countries.

The nature of Saudi Arabia's learning outcomes can be partly explained by demographic trends. The rapid expansion of access to education has coincided with high population growth and increasing urbanisation. In 2018, over 25% of the country was under the age of 15, compared with 18% across OECD countries. As of 2017, three out of the country's 13 regions (Riyadh, Makkah and the Eastern Region) enrol over 60% of all general education students. These circumstances have contributed in an unbalanced school network. Schools in wealthier, urban cities are becoming overcrowded, while universal access to education has led to a proliferation of small schools in poorer, rural areas. Figure 1.2 shows the difference in school-level performance between students in rural areas and students in large cities.

Figure 1.2. School-level reading performance in Saudi Arabia in PISA 2018
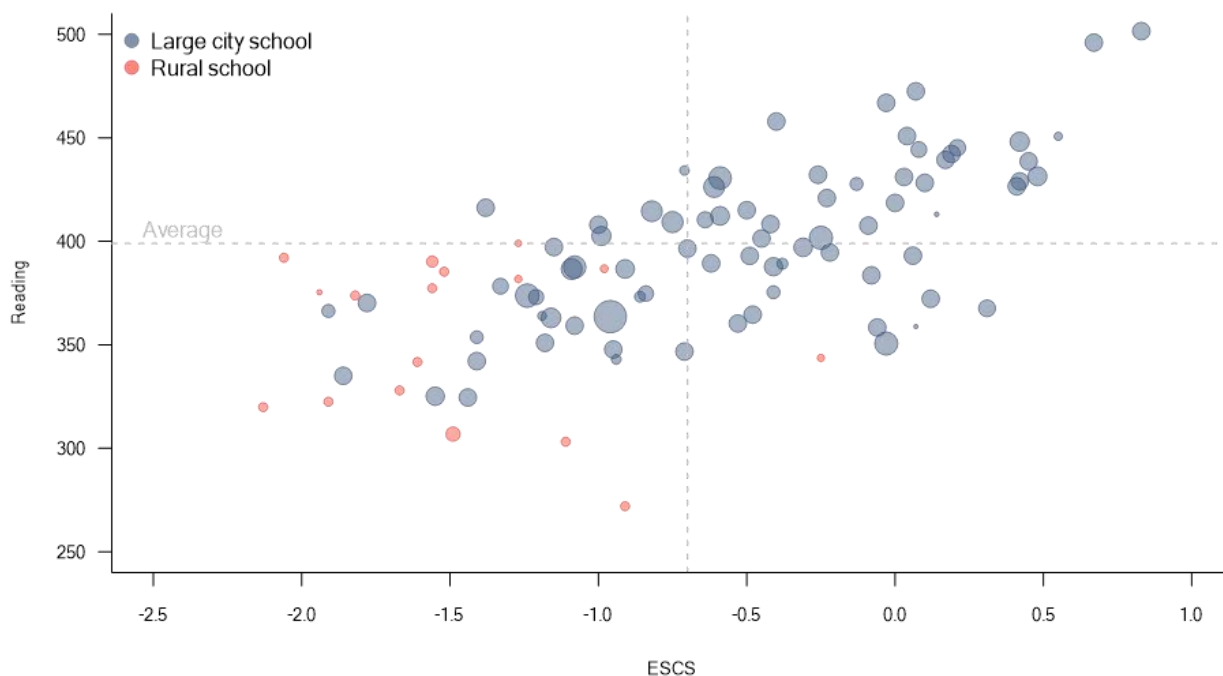
Note: Bubbles on the chart represent the average for selected schools, while lines represent the average for all students in the country.
Note: The size of the bubbles represent the size of the school.
Note: ESCS refers to the PISA index for socio-economic and cultural status.
Source: PISA (OECD, 2019[4]).

Nevertheless, demographic factors alone do not fully explain the differences in student learning. How education policy supports schooling in different environments also contributes to the observed outcomes in Saudi Arabia. Given their circumstances, rural schools tend to need more support and the support that is provided should be relevant to their environments. However, in PISA 2018, 30% of schools in rural areas in Saudi Arabia report that instruction is hindered by a lack of infrastructure, compared to 21% in large cities. Almost 40% reported that instruction is hindered by a lack of educational materials, compared to 20% in large cities.

To improve student outcomes across the country, Saudi Arabia has launched an ambitious set of educational reforms. These include introducing a new school evaluation system that focuses on student learning, developing a teacher career path based upon performance, revising the curriculum and methods of assessment to focus on the most important skills and strengthening early learning so all students can enter school ready to succeed. Successfully conceptualising and rolling out these reforms could greatly aid Saudi Arabia in its mission to develop human capital and build a modern, knowledge-based economy. On the other hand, introducing these reforms also pose challenges to the system. They will require that all components of the system be aligned around common goals and that the technical capacity to implement the reforms be built.

This OECD country review was conducted to help Saudi Arabia effectively reform its education policies in order to help raise learning outcomes for all students. In doing so, this review draws upon international research and experience while recognising the unique

context of Saudi Arabia. Specifically, this review examines four policy issues that Saudi Arabia can address to help its educational goals. These issues, and how the review was conducted, are explained in Box 1.1.

Box 1.1. The OECD's country review of the education system of Saudi Arabia

This policy perspective is one of four such perspectives that draw on OECD reviews of education policies in over 60 education systems around the world. Each policy perspective in this series addresses a different educational policy issue in Saudi Arabia:

- Improving school quality through better governance, leadership and support

- Strengthening the quality of the teaching profession

- Modernising the curriculum and assessment practices;

- Strengthening the foundations for learning

The evidence upon which this review is based consists of national information that Saudi Arabia provided to the OECD, background research and data collected during three visits to different parts of the country, all of which was completed in 2018. Specifically, the OECD visited Riyadh, Jeddah and Al Lith and met with over 200 different people, including ministry leadership, the Education Evaluation and Training commission, Tatweer for Education, universities, and teachers and principals from eight schools.

Since this report was published in 2020, some policies have changed between the time of writing this report and the time of publication. Other policies that are discussed as planned in the report have since been implemented. Where relevant, this report indicates these developments, though the subsequent analysis is based on the educational landscape in 2018.

Notes:

[1] The countries from MENA that participated in PISA 2018 are, in addition to Saudi Arabia, Jordan, Lebanon, Morocco, Qatar and the United Arab Emirates

Chapter 2. Improving school quality through better governance, leadership and support

This chapter looks at how Saudi Arabia manages its schools and supports them to improve. Historically, schools in Saudi Arabia have been overseen and supported by a large body of supervisors who use centrally produced rating tools to evaluate the effectiveness of schools. These procedures tend to focus on school compliance with regulations and do not always capture the extent to which schools help students learn. Supervisors themselves, who are often responsible for more schools than they can handle, are not always well positioned to help schools improve. These circumstances contribute to an environment in which the neediest schools are neither identified accurately nor supported adequately, which affects student learning across the country. To address these issues, Saudi Arabia is developing a modern and comprehensive school evaluation framework that relies on expert, external inspectors to evaluate schools. This chapter suggests that this framework become the country's reference point for high-quality schooling and that supervisors adopt (and be trained in) a purely supportive role. While the school evaluation framework and supervisors will provide important guidance about school improvement, the most important actors in leading school improvement in Saudi Arabia are school leaders. Currently, however, school leaders are seen as administrators, not instructional leaders. They will need to be supported to become agents of change in order for Saudi Arabia to achieve its school reform goals.

Main features of school accountability and improvement in Saudi Arabia

The school sector in Saudi Arabia is at a turning point. Achieving universal access to education for a large, geographically dispersed school-age population represents an important accomplishment. However, it has also severely stretched the capacity of educators and administrators to deliver and assure high-quality schooling. Principals are hired with little preparation to lead their schools, and structures that evaluate and support schooling increasingly struggle to meet the growing demands placed upon them.

The planned introduction of a new school evaluation framework provides an opportunity for Saudi Arabia to fundamentally review and revise how the school system is managed in order to improve the quality of schooling around the country. To this end, this chapter analyses and makes recommendations in three key areas of the education management system. The first area is school system governance. Currently, a multi-layered bureaucracy of the Ministry of Education, Directorates and Education Offices focuses strongly on overseeing schools and need to be reoriented to helping them improve. The second area is reforming school evaluation and quality assurance. While current plans are well aligned with good practice internationally, they need to be buttressed by a clear vision for the new Saudi Arabian school and core performance indicators. The third is school leadership. Principals and teacher leaders are central to school improvement but these functions are weakly developed and under-supported in Saudi Arabia.

Background

Saudi Arabia has a wide-ranging but unequal system, which creates implications for the allocation of school resources. A large number of principals have to be deployed across the country in order to operate small, remote schools. Similarly, a large number of administrative staff are needed to oversee the network at all levels of governance. These staffing needs create tremendous challenges related to capacity. There are often insufficient qualified persons to fill vacant posts, particularly in less attractive isolated areas, so selection requirements must be ignored in order to employ underprepared candidates. This applies not only to school principals, but also to supervisors who are responsible for helping them develop and improve their schools.

From the perspective of the central Ministry of Education (MoE), the size and fragmentation of the education system makes it very difficult to provide effective supports and assure quality. Currently, a large network of roughly 10 000 supervisors deployed across the country are responsible for evaluating schools and helping them improve. However, these supervisors are not always well prepared to assume their duties and cannot efficiently support all schools in the country, which results in the overall supervision system being more focused on bureaucratic compliance than school improvement.

School system governance

School system governance refers to the vision for schooling - why, where and how a country aspires to improve school outcomes - and how responsibilities for achieving this vision are allocated at different levels of government. Effective governance requires clear objectives to align the efforts of different actors and high-quality data to track and sustain progress.

How responsibilities for school improvement are allocated varies significantly across countries (OECD, 2016[1]). However, there is increasing evidence that, when combined with strong leadership capacity and clear accountability frameworks, decentralising

decision-making to the school level, in particular decisions relating to pedagogy and the curriculum, is associated with better student outcomes (Burns, Filmer and Patrinos, 2011[2]).

MoE manages the education system through a system of Directorates and Education Offices

MoE oversees education in Saudi Arabia and is responsible for executing the aims of Vision 2030 and achieving the goals of the National Transformation Program (NTP), which measures Ministry-level progress towards achieving the goals of Vision 2030. MoE decentralises management responsibilities to 46 Directorates across the country and, depending upon the size of the Directorate, each Directorate might be further disaggregated into Education Offices, of which there are 240 in total. Each Directorate and Education Office is organised very similarly to the national MoE, with the same departments, sub-divisions and reporting hierarchies.

Although the management structure is decentralised, decision-making authority is very much centralised. MoE is responsible for almost all policy making in the country and its decisions are disseminated to lower levels of governance, which are expected to execute MoE's directives. For example, school evaluation guidelines, teacher policies and learning expectations are all set at a national level and applied almost uniformly across the country.

Management reporting structures are top-down with little horizontal collaboration

Directorates and Education Offices have clear vertical leadership structures, which enables policy initiatives to flow consistently across the country. However, these top-down channels of communication also create challenges of co-ordination at the local level. For example, a teacher training department in an Education Office often reports directly to the training department in its corresponding Directorate, which then reports to the National Institute for Professional Educational Development (NIPED) via the general manager of the Directorate. Other departments and leadership from the Education Office or Directorate are often not included in this information exchange, even though their responsibilities - for example, for the delivery of the curriculum and assessments - cover areas central for teacher professional development. From the perspective of schools, this means that they do not interact with their Education Office through a single point of contact, but through different departments of the Education Office, such as supervisors, teacher allocation and student affairs. This structure creates several layers of bureaucracy, which reduces responsiveness, and isolates different departments within the same governing body from each other, which reduces co-ordination and increases the risk that efforts are duplicated.

Education system data is managed through the NOOR and FARES databases

Education data systems house and provide access to administrative data about students, teachers and schools. These systems are integral for facilitating oversight of an education system and tracking its performance. In Saudi Arabia, education data is managed primarily through NOOR. This database holds information related to demographics and performance at the student-, teacher-, school- and system-levels. An accompanying database, FARES, holds human resources data pertaining to the education system, such as salaries. Data in these two databases are accessed by all actors in the system, who use them for management and monitoring purposes. However, while these systems are comprehensive, there is little

support provided to principals and teachers about how to use them for school improvement purposes.

School evaluation and quality

School evaluation refers to the ways in which education systems evaluate the quality of school practices and outcomes and ensure compliance with related rules and procedures. The OECD defines three major components to school evaluation:

- External school evaluation or inspection, which is the structured review of the quality of school processes and outcomes as conducted by an external body in accordance with standards and procedures;

- School self-evaluation, which is the process whereby school staff review the quality of their own processes and outcomes, usually in relation to external standards but with space for local adaptation;

- School benchmarking, which is the comparison of schools according to different standardised measures of performance, such as national data on student learning outcomes (OECD, 2013[3]).

In Saudi Arabia, the Education Training and Evaluation Commission (ETEC), a national standards-setting, accreditation and assessment organisation, is presently creating a new school evaluation framework that will establish for the first time clear national standards for schooling and procedures for both school external and self-evaluation. To accompany the framework, ETEC is also examining new ways to benchmark school performance (see the section titled "Main policy initiatives underway").

External evaluation is conducted primarily through a system of supervisors

The new school evaluation framework marks a significant departure from established practices of school quality assurance in Saudi Arabia. Currently, the main mechanism for evaluating the quality of school processes and outcomes in Saudi Arabia is the system of "supervision". This system comprises two main bodies of supervisors, teacher supervisors and principal supervisors. They are managed at the Directorate or Education Office level but follow a set of supervision standards that are defined nationally by the Directorate General for Educational Supervision in the MoE. There are approximately 10 000 supervisors in service (most were teachers or principals), but, because they hold the same civil service status as current teachers and principals, it is difficult to determine how they are allocated across the country.

Teacher supervisors are responsible for evaluating teachers with the help of school principals (see Chapter 3). Principal supervisors are responsible for evaluating the principal him/herself. While neither supervisor is responsible for evaluating schools as a unit (only individual staff within schools), the data they collect as part of their activities form the basis for school quality reviews by Directorates and Education Offices. Both supervisors have an explicit support role to the school staff they supervise. Key aspects of this system are highlighted below.

Supervision is conducted according to strict central guidelines with standardised tools, but there are few means to help ensure that supervisors' judgement is consistent

In addition to the supervision standards, the Directorate General for Educational Supervision also creates supervisory grids that must be completed by supervisors during their visits to schools. These grids are used by supervisors across the country and there is very limited scope for them to be adapted to regional or local needs. Teacher supervisor grids collect data about student achievement and teacher practices, while principal supervisor grids collect information about school management processes. To gather this information, supervisors test students directly, observe classrooms, look at documents and observe school functions. While supervisor tools and guidelines are created centrally, Directorates and Education Offices do not appear to have processes to help maintain consistency across supervisor judgements. Supervisors themselves receive little to no preparation for their role, beyond the various templates and guidelines that they use and follow.

Supervisor ratings do not accurately reflect the teaching and learning that is occurring within schools

Following their school visits, supervisors enter the data they collect into NOOR. Education Offices and Directorates create a report for each school and then rank the schools according to the data to identify schools that require support. Schools are classified at one of three levels, roughly equivalent to effective, average and needs improvement.

Teachers and principals are not confident that their schools' ratings accurately reflect the work that they are doing. When asked by the OECD how they know if their school is a "good school," they did not mention their supervisors' ratings. Instead, they told the review team that they rely on word of mouth and social media. If, for example, parents say online that a specific school is good, that opinion is considered potentially more valid than the school's rating by supervisors or ranking vis-à-vis other schools.

Part of the reason that school staff do not trust supervisor ratings is that supervisors only evaluate a limited range of teacher and principal activities. The centrally produced grids are inflexible, compliance driven and do not always focus on student learning. For example, the teacher supervisor grid asks supervisors to rate how much teachers progress through the curriculum (see Chapter 3), while the principal supervisor grid asks supervisors to rate how well school resources, such as chalkboards, are used. Another reason is that supervisors, while usually former teachers, do not have professional experience or formal training in evaluating the performance of school staff.

Interventions following external evaluation do not follow a systematic approach

Even though there are strict guidelines that govern how supervision is carried out, there are far fewer regulations around what happens after supervision is complete and schools receive their supervision reports. For example, Directorates are not required to review schools' supervision reports to determine if their schools face common challenges. Similarly, Directorates are not required to develop a set of solutions in response to common issues.

Some Directorates have implemented ad hoc initiatives following receipt of their supervision reports, such as facilitating peer learning between schools that receive high ratings and those that receive low ratings. Reacting in this manner, however, was borne out

of individual Directorate motivation and not in response to central directives to engage with supervision results.

Efforts have been made to introduce alternative evaluation models

There is general awareness of the limitations of the current supervision system. Concerns that schools lack strong reference points and support for quality improvement has led some Directorates to encourage its best performing schools to seek international accreditation. The government has also piloted a new national school model through Tatweer for Education (Tatweer), an executive arm of MoE that is responsible for executing Ministry projects and programmes. The Tatweer school model includes a set of modern school performance standards that focus centrally on student learning and emphasise the importance of building school capacity for instructional leadership. Tatweer has trained supervisors in Directorates and Education Offices in how to evaluate schools against the Tatweer quality framework.

Roughly one thousand schools across the country have adopted Tatweer's school model and the original intention was to reach all schools (Meemar, 2014[4]). However, it appears that full expansion is no longer a priority and it is unclear whether the project will continue once the new school evaluation framework is rolled out. Interviews conducted by the OECD review team suggest that schools have found the Tatweer model to be a useful framework that was more improvement focused and less compliance-based than traditional school supervision. However, the OECD review team was told that schools that have adopted the Tatweer model continue to be subject to regular supervisions, in addition to the Tatweer specific evaluations, which represents an administrative burden and can result in contradictory advice.

Self-evaluation is not systematically performed except in Tatweer schools

Historically, schools in Saudi Arabia have not been required to undertake self-evaluation and MoE has not produced guidelines on school self-evaluation. However, schools that have adopted the Tatweer school model do perform self-evaluation and this is a central pillar of the Tatweer quality framework and external review procedures.

In these schools, the principal is expected to form a committee that is responsible for overseeing school quality and progress towards achieving learning outcomes. The principal and committee must complete a self-assessment study based on five sources of evidence: students' assessments, quality feedback from the Directorate and surveys for parents, students and teachers. Based upon the results of the self-assessment study, the principal and committee create a school development plan with targets for improvement and propose initiatives to address the issues identified.

National benchmarking is difficult to perform because neither national assessments nor national examinations are administered in every school

One of Saudi Arabia's most important national assessments of student learning is the National Assessment Programme (NAP) (see Main policy initiatives underway). This assessment was developed by ETEC and uses sophisticated methodology to produce nation wide results of student achievement in relation to national standards in several domains on a cyclical basis. Nevertheless, it is administered on a sample basis and does not produce school-level data.

The General Aptitude Test (GAT) and Scholastic Achievement Admission Test (SAAT) are examinations that students take in order to enter tertiary education institutions. Based upon students' results on these exams, school results are produced and published on the ETEC/QIYAS website. While the GAT and SAAT are taken by all students who wish to enter university, their use in monitoring school achievement is limited. These tests only measure the performance of Grade 12 students and not every Grade 12 student takes these tests. Furthermore, for reliability and privacy reasons, results are published only for schools that have had at least 10 students take the tests in three consecutive years. There is no guarantee, however, that the students who voluntarily take the tests are representative of their schools.

Without nationally comparable data at the school level, schools are unable to compare themselves against relevant benchmarks and understand where their relative strengths and weaknesses lie. External evaluation also lacks objective metrics to inform subjective measures of performance.

Directorates use test data to compare schools, but the tests are not clearly linked to national standards

At the Directorate level, supervisors directly administer two types of tests to students. The first are tests that are used to inform teacher appraisal and the second are stage assessments that are meant to monitor student performance over time. The results of these tests contribute to the development of intra-Directorate school rankings.

Both tests use items that are developed within each Directorate, but these items are not clearly linked to national standards. This makes it difficult to interpret a school's results. Further, although the items used to test different schools within the same Directorate might have some consistency, the administration of the test is not standardised and therefore the results are not reliable and comparisons are not trustworthy.

School leadership

International evidence highlights the importance of skilled and motivated school leadership (Greany, 2018[5]; Robinson, Lloyd and Rowe, 2008[6]). While principals are clearly important in this endeavour, they also rely on wider leadership teams to create and implement their vision for a successful school. Importantly, they also need to be empowered to make the changes necessary to improve their schools and receive continuous development to support their efforts.

Saudi Arabia has no principal standards and the limited selection criteria for principals are not always employed

In Saudi Arabia, there are currently no standards that govern the expectations of the principal profession. Without principal standards, Saudi Arabia also lacks criteria to use when selecting principals (Almudarra, 2017[7]). Currently, the only requirement to become a principal is passing a national exam administered by ETEC/QIYAS. However, the review team was told that this requirement is not always enforced.

In Saudi Arabia, principals and teachers occupy the same civil service status and payscale. As a result, there is little motivation for talented potential leaders to become principals. The decision of who will become principal is often reached in consensus with other teachers at the school. This means that there is only one candidate for the position, which prevents rigorous selection criteria from being applied.

Principals in Saudi Arabia undergo little training

In the NTP, increasing the number of hours that principals spend on professional development is a primary goal. The baseline measure is five hours annually, indicating that Saudi Arabian principals receive hardly any training. The target is 20 hours by the year 2020. In comparison, across Teaching and Learning International Survey (TALIS) participating countries in 2013, principals that took part to professional networking, mentoring or research spent on average 19.6 days on those activities in the past 12 months, while principals who participated in courses, conferences or observation visits spent on average 11.5 days on this activity the 12 past months to the survey (the same indicator was not produced for TALIS 2018) (OECD, 2013[8]).

Local training centres are responsible for providing professional development to all school staff, including teachers and principals. These centres, however, are overstretched and cannot deliver all the training that is requested of them, which partly explains the low amount of training the principals receive in Saudi Arabia.

Principals have limited responsibility for teacher appraisal and development

Principals in Saudi Arabian schools contribute to teacher appraisal activities. They decide if teachers have successfully completed their probationary periods and work with teacher supervisors to regularly appraise teachers. As part of this latter process, they test students directly in order to form an opinion as to what extent teachers are helping their students learn. However, formal teacher appraisal responsibilities rest with the teacher supervisors, especially as concerns teacher practice. Teacher supervisors are also responsible for supporting teachers and helping them improve. Based upon the results of their appraisal, teacher supervisors will recommend specific training needs and provide resources to help teachers develop.

This reliance on external actors to provide regular feedback to teachers is not consistent with international research evidence, which suggests that school-level actors, such as principals or lead teachers, are best positioned to conduct formative teacher appraisals. These persons can observe more closely the quality of teaching practice and also connect individual staff development needs with overall school goals for instructional improvement (OECD, 2013[3]).

Schools in Saudi Arabia have principals and deputy principals, but no other formal leadership roles

Many school systems have worked to distribute leadership roles and responsibilities within schools. One mechanism for this is to formalise the roles and responsibilities of deputy heads, heads of department and other "teacher leaders" (Spillane, 2005[9]). These roles help create a shared culture of leadership within schools by expecting school principals to consult staff on key decisions and holding staff accountable for their actions.

In Saudi Arabia, formal school leadership positions exist for principals and deputy principals, who together form a school management team. This team is responsible for overseeing student, teacher and school affairs. Presently, there are not formal leadership positions for classroom teachers. Schools do not have, for instance, official heads of department. The review team was told that some schools have informally given their most experienced teachers leadership responsibilities, but that this is not documented or reflected in MoE systems.

Main policy initiatives underway

A new national school evaluation framework is under development

ETEC is developing a new framework for school evaluation that proposes to replace all current school evaluation models. The OECD was unable to review the final version of the new evaluation framework, but was able to study a summary of it. Underpinning the model is a set of school standards that cover four areas-school environment, learning outcomes, teaching and learning and school leadership. ETEC is also developing a range of evaluation tools to support the self and external evaluation of schools against these standards. These tools will be made available on a digital platform that will be developed in co-operation with the Ministry.

ETEC evaluators will be responsible for school external evaluation

The framework proposes to remove school evaluation responsibilities from supervisors and place them in the hands of a new, independent body of evaluators, which will be hired and trained by ETEC. ETEC is developing external evaluation guidelines to regulate this process. While not finalised, procedures and tools are expected to include classroom observation, principal interviews, student interviews, teacher questionnaires, parent questionnaires and student questionnaires. Each external evaluation visit is expected to take two or three days.

To calibrate their instruments and rating system, ETEC will first test their external evaluation processes on a representative sample of schools and all schools will be rated on a scale of one to four, with one representing the lowest rating. The OECD was told that the data produced by this test will act as a baseline against which future external and self-evaluation (see below for the section about "School self-evaluation") results will be compared and calibrated. After the instruments and procedures have been finalised, ETEC will implement a staggered roll out of its external evaluation model. Around 700 to 1 000 schools will be selected every two years. Some of these schools will be selected through representative sampling to provide a national picture of schooling and ensure instruments are relevant across different school contexts, while the rest will be chosen only among schools who rated themselves a three or a four during self-evaluation. After the external evaluation is complete, evaluators will deliver an evaluation report to the school with detailed findings and recommendations about how to improve.

School self-evaluation will feature prominently in the new school evaluation framework

The new school evaluation framework will require that all schools undertake self-evaluation, though it is unclear what the frequency will be. Using self-evaluation guidelines that will be developed by ETEC, schools will rate themselves against the school quality standards and produce a final rating on a scale of one to four. Schools that rate themselves as either one or two will be given additional support by supervisors to develop and implement an improvement plan. Schools that rate themselves as three or four will be eligible to receive an external evaluation by ETEC evaluators and can also apply for accreditation.

The best schools in the country can apply for accreditation from ETEC

Based upon the results of self-evaluation or external evaluation, schools can voluntarily apply for accreditation from ETEC. There is also discussion about making accreditation obligatory for private schools, while it would be voluntary for public schools. It is currently unclear whether there will be other consequences for schools that become accredited, beyond the public stamp of excellence it confers. In many OECD countries, schools that show strong capacity for self-directed improvement and internal quality assurance are given more autonomy in how they organise teaching and learning.

An online portal will provide a dashboard interface to monitor indicators and tools to help schools improve

Accompanying the new school evaluation framework are plans to create a dashboard interface that houses school evaluation results. Schools will be able to use the dashboard to compare the results of their evaluation to those of national- and regional-averages, and also to groups of like schools (e.g., with similar demographic characteristics). Policy makers will be able to use it to monitor performance trends around the country.

ETEC also plans to create a portal that will contain diagnostic tools, evaluation rubrics and materials that will help schools self-evaluate and improve. An important development that is being considered is making available a centrally created but locally administered test of student learning outcomes that is intended contribute to school self-evaluation and help schools prepare themselves for external evaluation. ETEC is also considering having evaluators administer the same instrument to students as part of a school's external evaluation.

ETEC is developing principal standards

ETEC is also in the process of developing Saudi Arabia's first principal standards. This document will explain the professional expectations of principals, which will help determine how they are selected, evaluated and developed. At present, these standards are expected to be introduced after the new Teacher Standards and Professional Pathways (see Chapter 3 for a discussion about the consequences of this sequencing).

A new national training organisation will provide greater professional development to principals

The professional development of principals has historically received little attention in Saudi Arabia. Local training centres offer some growth opportunities to principals, but have limited capacity and focus most of their resources on teachers. However, the planned principal standards, and increased recognition of the importance of principals in general, is creating pressure to develop competencies related to school leadership.

NIPED was established in 2016 to expand and enhance the provision of education professional development, including to principals. NIPED currently has 30 staff and manages the operations of all local training centres through the Education Offices and Directorates where they reside. NIPED also creates its own training initiatives. One program that is currently being developed is a national principal training programme that all principals must complete in order to be certified in their positions. This training is being created in collaboration with the National Professional Qualification in Headship in Manchester, England, and the General Teaching Council of Scotland. A final key responsibility of NIPED is accrediting training programs created by third parties. NIPED

is in the process of creating accreditation standards and, once complete, these standards will support the expansion of high-quality training throughout Saudi Arabia for all educators.

The National Assessment Programme is producing nationally representative student achievement data in several domains

ETEC has created an ambitious programme for the national assessment of student learning outcomes, called the National Assessment Programme (NAP). NAP is planned to be administered annually in Grades 4 and 8 in mathematics, science, reading and writing, though the subjects tested will rotate every year. A representative sample of students from each grade tested will be selected to take the test.

The objectives of NAP are to monitor performance and strengthen accountability. ETEC intends to generate separate reports for different audiences (e.g., one for teachers and principals and another for the general public), each containing information relevant to their intended audiences.

NAP builds on previous national assessment experiences. An earlier assessment was eliminated in 2015-16 after funding for the programme was unexpectedly stopped. Such inconsistent funding is one reason that NAP is sample-based and rotates subjects during each administration as this design requires fewer resources.

School system governance

Strengths

Vision 2030 and NTP have aligned education actors around key objectives

Vision 2030 is a powerful national campaign and has inspired action from all parts of the education system and the ambitious goals of NTP are well understood by education stakeholders. In Directorates, Education Offices and schools visited by the OECD, staff were united around the aims of these two documents and were well aware of their targets and timeframes. National initiatives, such as Khebrat (see Chapter 3), have also been developed with explicit references to the aims of Vision 2030 and goals of NTP. These two resources have clearly communicated the need to provide quality education to Saudi Arabian students and have helped align decision-making, responsibilities and resources behind a national vision.

There is an independent institution (ETEC) that defines school standards and procedures for school evaluation

ETEC was created to provide technical leadership related to the definition and measurement of education quality. The organisation's independence, expertise and remit enable it to develop many instruments that are important for improving the quality of schooling. In addition to the new framework for school evaluation, this includes standards for teachers and principals and for student learning, as well different resources to evaluate quality and train professional evaluators in relation to these standards. While ETEC's sub-bodies that are responsible for developing these resources do not appear to be collaborating as closely as they might, there are clear opportunities for strong alignment. For example, how the quality of teaching in schools is evaluated can reflect new

expectations for teachers and principal standards can reinforce the changing expectations for schools with respect to planning, evaluation and instructional leadership.

The national data infrastructure allows for the capture and analysis of data on school quality and performance

NOOR and FARES are sophisticated and well-designed data systems that hold a wealth of information. All entities (students, teachers, schools) are identified with unique identification numbers. In the case of individual persons, their government identification numbers are used, which allows data to be merged for research purposes (e.g., analysing the relationship between educational and labour market outcomes). Technical capacity around data management at the central-level is generally high and the NOOR system can be adapted to meet new needs, such as incorporating data points from new national assessments.

MoE has research capacity through a body dedicated to studying policy

Under MoE's Agency for Development and Planning, the Education Policy Research Centre has an explicit research and evaluation role. This organisation not only helps monitor performance, but also studies education policy initiatives and reviews international best practices. The staff within the Centre are qualified and can be utilised to review extant programming and forecast the effects of intended reforms.

Challenges

Saudi Arabia's overarching reform agenda has yet to be translated into a clear vision of quality schooling

A vision of good schooling provides a common reference towards which different actors in the system can align their efforts to improve the quality of schooling. It serves as a helpful complement to a school evaluation framework by illustrating the larger purpose that schools are working towards and giving coherence to different elements of quality. This purpose is usually framed in terms of student outcomes and how a good school supports students' cognitive, emotional and social development (OECD, 2013[10]).

In Saudi Arabia, the powerful overarching education aims of Vision 2030 have not yet been translated into a clear definition of quality schooling. The NTP sets national student achievement goals, but this does not help schools understand how they should act to help achieve the goals or, more fundamentally, what the underlying purpose of schooling should be in the context of Vision 2030 and NTP. Without this vision of schooling, Directorates and Education Offices lack a reference around which to prioritise their school-level activities and interventions. As a result, each Directorate sets its own priorities and uses its own criteria to determine the essential elements of good schooling. This runs the risks of core national priorities receiving inadequate or inconsistent attention.

The need to reinforce basic competencies and achieve more equitable outcomes does not appear to be receiving sufficient attention

Helping all students achieve basic minimum standards, in particular in core subjects such as literacy and numeracy, is a primary function of all education systems. In addition to overall achievement, education systems around the world are also concerned with achieving equitable educational outcomes. This does not mean that all students perform at

the same level, but that all students, regardless of background, benefit from a good standard of schooling and have an equal opportunity to achieve minimum standards (OECD, 2013[3]). Consequently, countries have clear policies, and often specific targets, to narrow gaps in student outcomes and ensure that populations or regions at risk receive adequate support.

In Saudi Arabia, international assessment results (TIMSS, PIRLS, PISA) as well as national assessment data indicate that many students are performing poorly in literacy and numeracy. There are significant performance differences between geographic regions and by gender, with boys performing well below girls. Given the critical nature of these challenges, one would expect a strong policy focus on both improving core competencies and reducing equity gaps. While the former is in the NTP and there are national policies in this area, the review team noted that not all Directorates' and Education Offices' priorities mirrored this focus on improving basic numeracy and literacy. This is partly because overall learning expectations are not yet clearly expressed through a central curriculum (see Chapter 4). It is also because Saudi Arabia lacks census-based national assessments that can help Directorates and Education Offices benchmark the performance of their individual schools against others from around the country.

Regarding equity, there is a significant lack of attention dedicated to reducing learning disparities at the national policy level. NTP includes goals about overall learning, as measured by TIMSS, PIRLS and PISA, but not goals around improving the equity of these outcomes. Furthermore, there are few interventions specifically aimed at providing greater resources, in particular experienced and qualified teachers, to needier areas of the country. Instead, the current Jadarat teacher placement scheme actually exacerbates the situation by allowing the most experienced teachers to choose to be placed in the least challenging environments, leaving inexperienced teachers to be placed in the most demanding environments (see Chapter 3).

MoE and ETEC are not sufficiently aligned around a core set of priorities and ways of working that can secure impact

Reform goals in Saudi Arabia are ambitious and complex. Success will depend on different bodies of the system working together in a co-ordinated manner to achieve national aims. However, educational bodies in Saudi Arabia are not always co-ordinated in their actions, even at a national level. Different bodies are sometimes working in siloed and contradictory ways with a lack of agreement around new policies. Schools are then unsure about the direction of new policy, while policy-makers have limited understanding of how and which new policies will actually be implemented in schools.

For example, formal links between MoE and ETEC exist at board level and ETEC has engaged in some consultations with key MoE stakeholders on developing the new school evaluation framework. However, awareness about ETEC's plans remain low, both within MoE and more widely. None of the local and school actors interviewed as part of this review seemed aware of plans for a new school evaluation framework. As a result, there is risk that the new framework will not align with new projects proposed by MoE, or conflict with the supervisory work of the Directorates and Education Offices. This lack of coherence between different parts of the system could undermine reform efforts. In fact, one of the reasons that past school reforms, such as the Tatweer school model, were not more successful was the fact that the supervisory model was not adapted accordingly and actually impeded schools from fully embracing the reforms. This could happen again with

respect to the new school evaluation framework if MoE and ETEC do not align their efforts and co-ordinate supervision around the new framework.

Directorates and Education Offices view their roles more as helping MoE administer schools and less as helping schools improve

The role of middle tier bodies, such as school districts and local authorities, is evolving in many school systems around the world. Increasingly, they have a reduced role in compliance and a strengthened role in building the capacity of schools and in sharing knowledge and expertise across local systems ((Munby and Fullan, 2016[11]; Hargreaves et al., 2018[12])). In Victoria (Australia), Singapore, Poland and Wales the roles of local and regional oversight bodies have been redefined in this way (Mourshed, Chijioke and Barber, 2010[13]; OECD, 2018[14]). In these systems, district-level bodies usually take on a strengthened role in providing professional development opportunities and facilitating learning networks that connect schools to each other in order to facilitate peer learning.

Saudi Arabia's middle tier bodies are the Directorates and Education Offices. Their core purpose, however, is less to support schools than to oversee and evaluate them. Schools are managed by several layers of bureaucratic governance, but do not receive concentrated assistance. This is caused by the configuration of Directorates and Education Offices, which are designed to report upwards to different parts the national Ministry, but are less well organised to disseminate support to schools. Supervisors, for instance, are evaluated based on how many evaluations they complete, but not how effectively they provide support to schools. Several initiatives have tried to orient these bodies to focus more on development, such as the Tatweer school model, but these initiatives have not been able to fundamentally change how Directorates and Education Offices are viewed and view themselves.

There is limited focus on evaluating the effectiveness of different interventions or on communicating effective practices around the system

Modern school systems must focus on evaluating all aspects of their work in order to identify which school-level practices are most effective and should be considered for expansion, and which are ineffective and should be discontinued (Burns and Köster, 2016[15]; Greany and Maxwell, 2017[16]). In this context, good school system governance plays a critical role by establishing feedback loops between schools and central administrators such that good practice in one school becomes good policy that affects all schools and vice-versa.

At present, Saudi Arabia lacks a strong focus on evaluating education programming and making strategic decisions about this programmes based upon the results. While research capacity exists within MoE, it is not systematically directed towards evaluating programming and building a national knowledge base. Instead, staff in these bodies are often directed by leadership to work on ad hoc projects or identifying international practices.

This means that there are heavily funded national programmes that are operating but their impact has never been evaluated. The Khebrat programme, for instance, has already returned two cohorts of teachers but it is unclear what effect the programme has had on teacher quality or student learning. On the other hand, good practices might occur at the local level but are not communicated systematically to a wider audience. For example, many Directorates and Education Offices are being encouraged to develop and implement new practices through innovation and incentive schemes created by the Ministry. Several

initiatives have emerged from this scheme, such as one Directorate pairing successful schools with struggling schools in order to facilitate peer learning. These practices, however, are neither evaluated nor reported, and therefore their impact and potential wider applicability is unknown.

School evaluation and quality

Strengths

Supervisors based in local offices have established relationships that can be redirected to complement the new ETEC model

There is an existing system for evaluating and supporting teachers and principals through teacher and principal supervisors. Their responsibilities, and the standards against which they evaluate school leaders and teachers, are governed by a centrally produced set of standards that has been continuously updated and is currently on version six. The central nature of these standards means that supervisors across the country use the same instruments, which helps to ensure consistency in their approach to evaluation.

Teachers and principals told the review team that they appreciate the supportive role that supervisors play. In particular, they find it useful that that supervisors connect schools to each other and facilitate shared learning. There are many instances of individual supervisors taking the initiative to help weaker teachers and schools learn from best practice in their locality. Many supervisors also use technology and social media, such as WhatsApp groups, to quickly communicate with schools and deliver information in a timely manner. These networks and relationships that supervisors have created can be harnessed to support school improvement after the new school evaluation framework is implemented.

ETEC's new school evaluation framework provides a strong platform for improving schools

ETEC is developing a new school evaluation framework that was informed by studying international practices and through consultations with key national stakeholders, including several Directorates and Education Offices. This framework compares positively overall with mature systems for evaluation in OECD countries. It contains a set of standards and sub-standards that reflect the most important areas for school effectiveness and improvement. In particular, there is a strong focus on teaching and learning practices, with close alignment with the new teacher standards and the new curriculum framework. For example, schools are required to focus on how teachers are engaging in professional learning communities, joint planning and action research, and the learning environment emphasises developing 21st century skills. There is also a good balance between "enabler" criteria (leadership capacity, material resources) and "outcomes" (achievement).

While the indicators, descriptors and evaluation instruments that will support the framework are still being developed, ETEC seems aware of the range of resources that will be needed. Again, ETEC plans to balance qualitative information sources (e.g., surveys, classroom observations) with more objective data (e.g., student participation and learning outcomes). There are also plans to create accessible materials such as videos and written statements that illustrate what quality looks like across the different standards and performance spectrum. These developments represent a significant and positive change compared to the current supervision procedures and grids.

Likewise, in terms of the overall purpose of the new evaluation framework, ETEC orients its approach towards using school evaluation for school improvement, which is in line with international practice. This is reflected in the importance placed on investing first in building school understanding of the standards through self-evaluation, and in the consequences of evaluation results for schools. If, for instance, a school does not perform well on its self-evaluation or external evaluation, it is identified for targeted support, but not penalised. ETEC also plans for lower performing schools, as identified through the school evaluation framework, to receive enhanced support. This is good practice as research shows that allocating greater support to needier schools in disadvantaged contexts helps to improve overall educational equity (OECD, 2013[3]). To strengthen the evaluation process, the evaluation framework emphasises giving schools and evaluators tools, such as dashboards, that they can use to benchmark their school performance.

Another positive feature of the framework is the plan to develop a cadre of independent, trained, professional evaluators. This improves upon the current supervisors by selecting persons who are specifically prepared to evaluate and support schools and who are not affiliated with the schools they are evaluating so they can provide objective judgements.

The new school evaluation framework includes a strong focus on school self-evaluation with resources and training available to support schools through the process

Research shows that robust school self-evaluation that leads to focused actions aimed at enhancing practice can be a powerful driver of school improvement (Datnow and Park, 2014[17]).According to OECD data, lower secondary schools in the vast majority (34) of OECD and partner countries conduct self-evaluation regularly (OECD, 2015[18]).

ETEC plans to make self-evaluation mandatory for all schools as part of its new school evaluation framework. School leaders and staff will be expected to undertake this process annually, reflecting on their strengths and areas for improvement, and will then develop an improvement plan that they will share with their local Education Office for approval. ETEC will support schools throughout this process by developing an online platform that will include tools and resources for self-evaluation, including a centrally developed assessment of student learning that schools can use, and by providing training for school leaders on how to use the tools to perform self-evaluation.

Tatweer schools have undergone self-evaluation and their experiences can inform the development of ETEC's new national approach

For most schools in Saudi Arabia, performing self-evaluation will be a new requirement. However, roughly 1 000 schools that have participated in Tatweer's School Development Programme have already been required to perform self-evaluation and received quality materials and guidance on how to do this. Although there appears to be no plans to expand the Tatweer model, the experiences of these schools will serve as important examples for all schools as the new school evaluation framework is established. They demonstrate that self-evaluation is feasible and ETEC can learn from these schools' experiences to refine the new school evaluation framework.

Challenges

The current supervision system is ineffective at assuring quality schooling

Supervision is sometimes bureaucratic rather than developmental, and can prevent school principals from assuming a role as leaders of learning

While the stated purpose is developmental, the supervisory system is heavily bureaucratic and does not allow supervisors to move beyond box-ticking to fulfil their development responsibilities. Supervisors must adhere to hundreds of pages of standards and guidelines and their evaluations are confined to extensive grids that are not necessarily adapted to individual school contexts. Many teacher supervisors, particularly those in scientific fields, have far too many teachers to supervise for them to meaningfully assess and support. Principal supervisors are often tasked with supervising principals in schools that are too far apart geographically for them to visit consistently.

This model is a considerable distraction for schools and teachers. They must allocate a lot of time and resources to comply with the procedures and do not receive particularly useful feedback in return. More significantly, it serves to disempower school principals by limiting their role, which creates confusion about who wields authority at the school level.

Supervisors are not always equipped to evaluate schools or provide meaningful support to them

Despite their critical role in evaluating and supporting principals and teachers, supervisors are not always well prepared or motivated to assume their responsibilities. To become supervisors, candidates must have been either teachers (for teacher supervisors) or principals (for principal supervisors) for at least four years, must pass an examination developed by ETEC and pass an interview conducted by a committee in each Directorate. After their selection, the supervisors receive two weeks of training on average.

These requirements are inadequate to create a cadre of qualified supervisors. While it is positive that supervisors have school experience, evaluation requires additional knowledge and skills which require more than two weeks of training to develop. Certain structures of the education system also hinder the effectiveness of supervisors. Supervisors occupy the same professional status and payscale as teachers and principals (see Chapter 3 for further discussion). This system makes it easy to transfer between different roles, but makes it difficult to screen for qualifications that are suited for specific roles. Independence is also a concern. In smaller communities, supervisors might have pre-established relationships with schools and cannot be expected to evaluate objectively their staff. These factors create inconsistency in supervisors' judgements, which greatly impacts how meaningful their final evaluations are.

The capacity of supervisors to support school improvement is currently weak

In Saudi Arabia, after the implementation of the new school evaluation framework, most schools will not have direct interaction with ETEC evaluators. Instead, they will be expected to work with supervisors to improve their performance based on the results of their self-evaluation. Currently, there is already a great amount of concern about the role and capacity of supervisors. It is unclear how the current group of supervisors could help improve school performance in the future without significant changes in how they are recruited, prepared and supported. While stopping certain functions, notably teacher

appraisal, would free up capacity, it would not resolve the more fundamental concern that the majority of existing supervisors have been neither selected, trained nor evaluated based on their ability to coach schools to improve. Supervisors are also not currently deployed in a way that concentrates assistance where it is needed most.

Given this situation, it is not surprising that schools do not necessarily regard supervisors as sources of development expertise. As mentioned before, some schools appreciate that supervisors put them in contact with other schools, but they do not necessarily look to supervisors to improve their teaching and learning practices. Instead, when asked where they turn to develop their competencies, school staff told the review team that they ask more experienced colleagues or self-develop through online resources and social media communities. Without significant investment in developing the skills of supervisors and managing their deployment across schools, the new evaluation framework will not trigger the type of school-led improvement that is intended and required.

While the standards and sub-standards in the new school evaluation framework are well developed, there could be minor improvement

The summary of the new school evaluation framework that the OECD examined showed that the framework is modern and focused on improving student learning. Nevertheless, there are some areas that are slightly misaligned with international norms, especially in the school evaluation standards. First, there appears to be a lack of attention given to student well-being. The school environment area focuses on facilities and the school leadership area mentions safe and supportive learning environments. While important, none of these sub-standards explicitly addresses the extent to which students are happy and feel secure. The latter sub-standard could be referring to well-being, but it can also be interpreted to refer to infrastructural features and pedagogical engagement in the classroom. A focus on well-being could include these factors, but would also include broader issues such as protecting students from bullying and promoting their health, such as through physical activity or nutrition programmes. In the Scottish inspection framework, "Ensuring wellbeing, equality and inclusion" is an explicit area of focus, and student well-being is referenced in all three overarching themes of the framework (Education Scotland, 2015[19]).

Second, the teaching and learning area focuses on in-class instruction, but neither it nor the other areas explicitly focus on out-of-class educational activities. As students' time in school is not entirely spent in the classroom, schools need to be expected to provide sufficient educational opportunities during out-of-class time. These could include extracurricular activities and remedial instruction. The Netherlands' inspection framework, for example, has a standard called "additional support" in its educational process quality area. This standard refers to providing additional teaching and supervision to students who need extra assistance (The Netherlands Inspectorate of Education, 2017[20]).

The roll-out of new school evaluation framework lacks clarity in some areas and might exacerbate inequity

> There is agreement in principle that supervisors will have a supportive role after roll-out of the new evaluation framework, but the details of this configuration are not clear

The implementation of the new evaluation framework will necessitate a change in the current supervisory model. With ETEC evaluators being responsible for evaluating schools (and a new body of assessors appraising teachers), there is general agreement that

supervisors will be responsible only for supporting school improvement and teacher professional development, particularly in weaker schools. The exact parameters of this arrangement, however, have not been documented explicitly.

Without clear and precise guidelines about what the roles of supervisors will be, there is considerable risk that they will continue assuming their previous functions. Principals will continue to be appraised by principal supervisors using criteria that focus on compliance, which runs contrary to the aims of the new evaluation framework, which focus on instructional leadership. Teachers would continue looking to the teacher supervisors for summative judgement because they have been long conditioned to do so. They would ignore their self-evaluation results because they would not influence the summation delivered by the teacher supervisors. Thus, in the vast majority of schools that do not undergo external evaluation, the new evaluation framework would be undermined and the schooling landscape would not look very different from how it does today. Those schools that do undergo an external evaluation would then receive conflicting advice, likewise undermining the potential of the new framework to take hold, as the previous Tatweer school model experience showed.

Plans to implement ETEC's school evaluation model lack a sufficient focus on supporting the weakest schools

A primary purpose of school evaluation is to help lower preforming schools identify their needs and provide them with targeted support to develop their capacities (Faubert, 2009[21]). Several OECD countries, such as Denmark, England, Ireland, the Netherlands and Sweden in Europe, and Ontario in Canada, rely on a risk-based approach to school evaluation (European Commission/EACEA/Eurydice, 2015[22]). In these countries, schools that have been identified as under-performing are more intensively evaluated than schools that are performing well (Nusche et al., 2014[23]; Eurydice, 2018[24]).

As ETEC will not have the capacity to evaluate all schools at once, a key issue in Saudi Arabia is how the 700 to 1 000 schools should be selected for the bi-annual external evaluations. Presently, its plan is to select from both a representative sample of schools and a sample of schools that were rated either a three or four (out of four) on self-evaluation. Schools that were rated one or two would work with the current teacher supervisors to improve themselves before undergoing external evaluation.

The OECD is supportive of the decision to evaluate a representative sample of schools as this will help evaluators understand the full range of school performance in Saudi Arabia. However, the strategy beyond that to focus only on schools that were rated highly in their self-evaluations is contrary to international practices as it prioritises high-performing schools for external evaluation. This approach prevents the neediest schools from having access to qualified evaluators who could help them improve. Instead, these schools will be relying upon the same supervisors who were unable to help them improve in the first place. Such a strategy has the potential to exacerbate the inequities that were discussed previously.

The success of the new school evaluation framework will depend on significant evaluator, principal and teacher capacity, but there are few plans to build that capacity

Plans for developing a qualified cadre of school evaluators remain unclear

Selecting high-quality school inspectors is critical for building the legitimacy and credibility of the external school evaluation process (OECD, 2013[3]). In a majority of OECD countries, prospective inspectors are generally expected to hold a relevant tertiary education degree, have experience in education or teaching, have received specialised training, have completed a probationary period and have passed a competitive examination (Faubert, 2009[21]; OECD, 2013[3]).

For the new school evaluation framework to be successful, it is imperative that ETEC recruit a team of high calibre evaluators who can provide robust but fair judgements on school quality. It is unclear, however, how ETEC plans on recruiting enough evaluators without suffering a significant trade off in their quality. ETEC's search for qualified teacher assessors is already proving challenging, and their search for qualified evaluators is likely to encounter similar limitations.

Most principals and teachers are unfamiliar with self-evaluation and might lack the capacity to assess their own performance

While school self-evaluation can be an effective tool for school improvement, it can be challenging for schools to examine the quality of their own practices. Many schools in OECD countries struggle with how to select and use evidence and form an objective perspective on the quality of their work. A related challenge is for schools to evaluate themselves as a community, rather than a few individuals doing the evaluation for the entire school (OECD, 2013[3]). In many countries, self-evaluation is regarded by schools as an external compliance exercise and not an activity to be used to improve their practices. Those systems, such as Scotland, that are recognised for having established a genuine culture of collective self-evaluation have invested intensively in building school evaluation capacity over several decades.

Saudi Arabia's goal is for all schools to undertake self-evaluation as part of the new school evaluation framework. Aside from staff at Tatweer schools, however, principals and teachers around the country have likely never conducted an internal quality review. They will likely not fully understand the purpose of such an exercise, nor have the capabilities to analyse evidence and form valid and reliable judgements of quality based on that evidence. Therefore, the ratings they give themselves will not be a sound basis for internal school planning and even less for providing a national picture of school quality, as ETEC intends. Furthermore, the current supervisors, who are expected to provide support to schools as they undertake a self-evaluation, have no experience with such a process.

Using data to inform school evaluation will be difficult because the data lack consistency and the capacity to use data is weak

In order for schools to improve through self-evaluation they need to have a clear, shared understanding of their current areas of strength and weakness (MacBeath, 2005[25]). Schools with high capacity and longstanding experience of quality review might be able to form such judgements on the basis of their own data. However, the majority of schools need external benchmarks to calibrate their own views. This is one function of external

school evaluation, but it is also a reason why many systems provide standardised data and other resources to help schools and teachers form reliable judgements. They also provide training and support for school-based teams on how to analyse and use data, for example on how to relate national standardised data on student learning outcomes with school assessment data to form a picture of student progress and attainment (Schildkamp and Poortman, 2018[26]).

While Saudi Arabia has sophisticated data systems, there remains a notable gap with regards to having reliable data on student learning outcomes. There are several national assessments, though none are offered consistently on a census basis. The voluntary assessments that ETEC is creating to accompany the new evaluation framework is a positive development, but still do not allow schools to benchmark their results against others'. Without this information, schools lack reliable reference points for evaluating the quality of their student learning and outcomes. This situation makes the self-evaluation exercise less meaningful and limits external evaluators' ability to compare outcomes across schools and monitor improvement over time.

If census-based assessments are implemented (as recommended in Chapter 4), there is a further concern about whether school and local officials have the capacity to use the information to direct school improvement. Although NOOR can store the information, NOOR users must be able to interpret the information. Currently, principals and supervisors rely upon a battery of locally designed assessments that not referenced to criterion standards. Results are typically reported as how many questions a student answered correctly. Standardised assessments would report results differently. They would likely be presented as a scaled score as well as percentile benchmarks for an Education Office, Directorate and the country. Principals and supervisors are not used to seeing these types of results and thus might not use them at all for school improvement purposes, or use them incorrectly.

School leadership

Strengths

Many schools have committed principals who are interested in school improvement

Research shows that school leadership is essential for driving school quality and improving student learning (NASSP and NAESP, 2013[27]). The importance of principals is particularly acute in countries like Saudi Arabia where the education system has undergone rapid expansion and strong accountability measures are not yet well established (Mbiti, 2016[28]). Without adequate quality assurance systems, it is crucial that principals be qualified and motivated to improve student learning at their schools.

In Saudi Arabia, almost all principals were former teachers and most are appointed because they have volunteered for the role, suggesting that they have intrinsic motivation to lead their schools. In the schools visited by the OECD principals were very resourceful in trying to help teachers deliver the curriculum, even in difficult environments with few resources available (according to TIMSS 2013, principals of Grade 4 students in Saudi Arabia were almost four times more likely to respond that instruction was affected by a shortage of materials) (IEA, 2015[29]). Many principals were making use what information was at their disposal, such as teacher ratings and supervisor tests, to identify their school's strengths

and areas for improvement. Others were actively communicating with their supervisors via social media to bring more resources and support to their teachers.

Structures exist for developing and supporting school leadership, in particular through the principal supervisors and NIPED

Principal supervisors based in Directorates and Education Offices are primarily responsible for supporting principals. Although there are challenges associated with this model, such as lack of preparation for the supervisors, it is important to recognise that principals appreciate that a structure to support them is in place. While not all support is determined to be useful, principals liked the opportunities they had to meet with other principals, or for new principals to shadow their more experienced peers.

In addition to principal supervisors, local training centres provide professional development opportunities to principals, such as courses in leading change and transformational change. The plans of NIPED to oversee the quality of local training offerings, develop more professional development resources and accredit private training programmes have the potential to significantly expand both the relevance and reach of professional development for principals.

The new Teacher Standards and Professional Pathways have the potential to create meaningful incentives for teachers to become leaders in their schools

Currently, Saudi Arabian schools do not have formal leadership aside from principals and deputy principals. Except in Tatweer schools, there are no heads of department or other teacher-leader positions. The Teacher Standards and Professional Pathways have the potential to create more meaningful incentives and opportunities for experienced teachers to become leaders in their school. For instance, the Expert and Advanced teachers identified through the teacher standards will be asked to help their peers learn and improve. These teachers could be encouraged to take on more formal leadership roles within schools, such as leading a department or taking responsibility for coaching and mentoring other teachers.

Challenges

Saudi Arabia has not prioritised recruiting and selecting high-quality school principals

Research demonstrates that principals improve teaching and learning most powerfully through their influence on staff motivation, commitment, teaching practices and through developing teachers' capacities for leadership' (Leithwood et al., 2006[30]; Robinson, Lloyd and Rowe, 2008[6]). Informed by this evidence, high-performing school systems place a priority on developing and empowering high quality principals (Breakspear et al., 2017[31]; Jensen, Downing and Clark, 2017[32]). Box 2.1 describes how principals are selected and supported in Singapore.

Box 2.1. Selecting and supporting principals in Singapore

In Singapore, a tightly coupled set of Ministry of Education human resource policies and practices shape who becomes a principal and how they operate. Seven approaches work in concert to achieve "an extraordinary level of coherence and alignment – in leadership and system-wide policy innovation". They include:

- the creation of a leadership track as one of three career paths;

- an appraisal system that consistently rewards leaders for achieving according to certain criteria;

- leadership preparation and development provided by the National Institute of Education;

- the rotation of senior school leaders, especially principals.

Source: Dimmock and Tan (2013[33]), *Educational leadership in Singapore: Tight coupling, sustainability, scalability, and succession*. Journal of Educational Administration. http://dx.doi.org/10.1108/09578231311311492

While principals have a nominal leadership role in Saudi Arabia, ensuring that school principals are highly qualified and competent has not been a high-level priority. There is no central set of expectations for what principals should do and no criteria to use when recruiting and selecting principals. Although there are plans to develop such standards, there is no timeframe for their completion or implementation.

On paper, the status of principal is the same as that of teacher, and it is not uncommon for teachers to move back-and-forth between a school leadership and teaching role. This has implications for both the authority and professionalisation of the principal position. Furthermore, this means that there are no financial incentives for persons to become principals. Pay for principals is the same as for teachers, which is very different from differentiated salary structures in OECD countries. In Scotland and Australia, teachers' payscales and principals' payscales are different, with those of principals offering greater overall remuneration (EIS, 2019[34]; NSWTF, 2017[35]). The absence of such differentiation in Saudi Arabia limits the attractiveness of the position and sends a signal that the function does not require highly skilled applicants. While reliable data is lacking, interviews suggest that this often leads to shortages and/or under qualified candidates. Consequently, the only selection mechanism in place, an examination, is sometimes ignored because otherwise there would be no principals in some contexts. Instead of a strong commitment to leadership, motivation for becoming principals is often to move to a more attractive location in the country or to stop teaching.

Supervision undermines principals' authority and their motivation to provide instructional leadership

Over the past few decades, many school systems around the world have worked to increase the degree of autonomy afforded to schools (Suggett, 2015[36]; Vernez, Karam and Marshall, 2012[37]). This approach reflects evidence that, when coupled with high levels of leadership capacity, greater school autonomy, in particular over the curriculum, pedagogy and teacher appraisal, is associated with improved student outcomes (Hanushek, Link and Woessmann, 2012[38]).

At present, school principals in Saudi Arabia have very little influence over the instruction that occurs in their schools. Their role is very administrative and not educational. They cannot make any meaningful decisions around staffing, curriculum, pedagogy or resources and they do not have well-defined leadership teams that can help them embed change at the classroom level.

A common school situation encountered by the review team is recognition of an issue but a lack of agency to address it. For example, one principal said that finding time for staff training was challenging. However, the principal also noted that there were around five weeks each year when the school was not busy, when it would be possible to provide learning opportunities for staff, but it was not done because they have not been asked to do so by the supervisors. This situation indicates that school leaders see their role as executing instructions and waiting to be told what to do; they do not feel empowered to take decisions that will improve the quality of their schools, in particular with respect to teaching and learning.

A large part of the reason why principals do make decisions regarding education at their school is the presence of the supervisors. As supervisors are responsible for the summative appraisal of principals and teachers, decisions that are made at the school-level are incentivised to align with what would produce positive ratings. As mentioned before, however, supervisors evaluate principals using standardised grids that focus on compliance with central regulations instead of instructional leadership. Principals thus have limited encouragement to engage in activities that might improve teaching and learning. Even if they do, their authority and space to do so is stymied by teacher supervisors, who are regarded by teachers to be their main appraiser and whose primary focus during evaluation is to check for curriculum compliance. For example, if a principal suggests to a teacher that extra time should be given to covering material that students have not mastered, the teacher would hesitate to spend classroom time in this way because he/she would cover less of the overall curriculum and risk a negative evaluation.

In-service principals have had limited opportunities to develop the qualities they need to engage in meaningful school self-evaluation or to lead school improvement with their staff.

High performing school systems provide on-going opportunities for serving school principals to engage in professional development and learning throughout their career. This capacity building support is usually buttressed with tools and resources that help leaders to engage in rigorous school self-evaluation and continuous improvement. Box 2.2 describes how professional development is provided to principals in Scotland.

> **Box 2.2. Providing professional development to in-service principals in Scotland**
>
> There are various professional development programmes for in-service principals in Scotland, such as the programmes offered in partnership with or by the Scottish College for Educational Leadership (SCEL).
>
> "**In Headship**" is a post-graduate programme for newly appointed principals that is offered by four universities in partnership with the Scottish College for Educational Leadership (SCEL). It is the final component of the Specialist Qualification for Headship and aims at providing support to principals at the beginning of their careers to become effective, strategic leaders. This programme draws on a school self-evaluation framework – How good is our school? - which takes prospective and serving principals through a structured process of reflection on their school's strengths and areas for development. It includes three elements: (1) Shaping professional identity and practice: critical reflection in the transition to headship; (2a) Pursuing equity and excellence; (2b) Building capacity in self and others.
>
> The "**Excellence in Headship programme**" that is offered by SCEL provides various leadership professional learning opportunities that evolve every year. It is aimed at principals with two years of work experience or more in their post. There are different formats of professional learning opportunities, such as coaching and mentoring, collaborative learning and engagement with online learning. The programme starts with a two-day induction session on leadership and critical self-awareness, following which principals can select professional learning opportunities among the five Excellence in Headship themes (leadership of learning, values based leadership, people and partners, leading systems change and organisational effectiveness) based on their professional development needs.
>
> Besides these two programmes, the SCEL has also developed the **SCEL framework for educational leadership** - an online tool to support principals' professional development. It provides principals with access to various online learning activities and support materials and allows them to browse through existing educational leadership development programmes in Scotland.
>
> Source: Education Scotland & SCEL (2019[39]), *In Headship*. https://www.scelscotland.org.uk/what-we-offer/school-leadership/in-headship/
> Education Scotland & SCEL (2019[40]), *Excellence in Headship*. https://www.scelscotland.org.uk/what-we-offer/school-leadership/excellence-in-headship/.

In Saudi Arabia, some principal supervisors appear to be proactive in helping principals communicate and network, for example by pairing new principals with experienced ones. However, these promising practices occur largely on an individual, ad hoc basis, rather than through common policy across Directorates. Additionally, the supervisors who manage such mentorship arrangements have received little training on how to do so effectively.

Beyond supervisors, there is very limited support available to principals. While principals can access some training in training centres, the review team was told that the courses tend to focus on new policy initiatives, rather than on how to exercise their administrative and instructional functions within the school. A training catalogue that the OECD reviewed showed that only two out of 36 offerings were focused on developing principals. The fact that the NTP baseline indicator for principal professional development is an average of five hours per year signals the limited extent of current supply, and potentially demand.

Recommendations

School system governance

Clarify the mandates and responsibilities of key actors across the system and position the new school evaluation framework as the only model for evaluating school quality

In Saudi Arabia, the roles and responsibilities of different educational organisations is not always clear. This is particularly true with respect to ETEC. Although it is nominally responsible for setting standards and evaluating school quality, most schools do not interface directly with ETEC, instead interacting mainly with their supervisors who operate according to a different set of standards. Once the new school evaluation framework is introduced, it will be critical that it is considered the only model for evaluating school quality. However, given the current lack of clarity around mandates, it is doubtful if schools will understand the remit of ETEC and the role of the new school evaluation framework.

The OECD recommends that MoE undertake a root and branch review of the remit of Directorates and Education Offices and the ways in which they relate to MoE, ETEC and, in some cases, the programmes run by Tatweer. The purpose of this review is to understand what the formal remits of these organisations are, what they perceive their mandates to be and how schools interface with them. A key issue to examine is how schools are evaluated, by whom and to whom they turn to for support.

A joint commission should be set up under the authority of the Minister of Education to undertake the review, with members representing both the MoE and ETEC. The results of the review should inform the articulation and roll-out of the new school evaluation framework and help position it as the only model once it is implemented. For instance, if the review discovers that current evaluation systems are unexpectedly overlapping in some schools, the text of new school evaluation framework can specifically mention that these other systems should be discontinued once the new framework is implemented. It will be the responsibility of MoE, through Directorates and Education Offices, to help communicate this message.

Internationally, Poland is an example of a rapidly improving system that had to review and reconfigure roles around governance. As part of a national restructuring, the country's political regions were consolidated from 49 to 16. The newly created regions needed to know what their responsibilities were with respect to education, and national- and local-level bodies needed to know what their expectations were vis-à-vis the new regions. To accomplish this, the government specified "critical decision rights" for each level of education and inspected organisations from each level to verify that the regulations were being followed (Mourshed, Chijioke and Barber, 2010[13]).

Create a new delivery unit within MoE that is responsible for driving and aligning efforts to reform the school system, tracking progress and reporting on impact

Research shows that even well-conceived educational reforms can often fail to achieve their intended impact (Hall, 2013[41]). This occurs when reforms are not sequenced and/or are introduced too quickly, when schools and teachers lack the capacity to execute the reforms and when communications with schools during the implementation process is not strong (Schlechty, 2009[42]; Levin, 2008[43]). As noted previously, reforms in Saudi Arabia are not always well aligned and communication across MoE can be improved. There is a need to

strengthen monitoring of reforms and align educational initiatives with each other in order to reduce overlaps, increase efficiency and enhance impact.

To this end, it is recommended that MoE create a "delivery unit" within MoE. This unit should have a remit to monitor the progress and performance of key policies and agencies and to report to the Minister. It should also make progress across the system more transparent by publishing regular reports comparing the performance of all regions and districts. Saudi Arabia can consider integrating the unit into its existing governance structure, such as by establishing it as a general Directorate. Box 2.3 describes how a similar unit was developed in Pakistan to help see through reforms.

A core task of the unit should be strengthening programme and project management disciplines across MoE and its agencies. This unit would have oversight of all MoE initiatives and should be able to stop or pause projects that duplicate each other or that do not contribute to the core objectives. As such, it would be responsible for evaluating the effectiveness of policy and monitoring progress towards strategic goals. For the delivery unit to achieve its objectives, it must be prominently situated within MoE. Therefore, the OECD recommends that it report directly to the Minister and being involved in regular meetings with MoE leadership to remain aware of key developments.

An initial task for the delivery unit should be to review the different evaluation and assessment practices operating in the school system. The OECD identified considerable overlaps, misalignments as well as gaps in how the quality of different dimensions of schooling are being evaluated at present. For example, students are taking potentially 100 hours of tests per year, but this is not tracked as the tests themselves are delivered by different individuals and organisations. Many of these tests will need to be stopped and others redesigned if teachers and schools are to be able monitor student learning in relations to national standards in a meaningful way.

Box 2.3. Embedding reforms in Pakistan

The Punjab province in Pakistan established a focused delivery "roadmap" that set out the key reforms it would prioritise in order to improve the quality of its schools (Barber, 2013[44]). The goals of the roadmap itself were to enrol children in school, reduce dropouts and ensure that they develop basic competencies. To achieve these goals, Pakistan created the Programme Monitoring and Implementation Unit (PMIU) as the "lynchpin of the entire Roadmap". This unit was established to capture and analyse data on key measures of progress on a monthly basis. Data comparing the progress of each school and district were fed back to ministers and shared with district officials each month. This monitoring and transparency was combined with a disciplined approach to project management within the Ministry itself, helping to maintain positive progress.

Develop targets for improving basic competencies and monitor progress towards these targets to inform policy making

There is an overall lack of attention given to the urgent need for Saudi Arabia to develop students' basic competencies in an equitable manner. The OECD recommends that MoE address this need by establishing ambitious but achievable targets for improvement in key areas, such as literacy and numeracy in lower primary grades, boys' achievement and student performance in rural regions of the country.

When setting these goals, it will be important that they be realistic. A good starting point for Saudi Arabia would be to consider results from the NAP field study and set targets based upon them. A target might then be that a certain percentage of Grade 4 students (slightly higher than the baseline gathered through the field study) demonstrate proficiency in mathematics. Further analysis could inform the development of equity indicators as well, such as creating separate targets for different regions of the country.

The information generated by this process can then be used to steer policy-making. If, for example, the gap between boys and girls achievement grows, then national-level discussions can focus on addressing this issue. Policy makers might consider how to attract more qualified men to become teachers and if the initial teacher preparation that they receive needs to be adjusted to address issues that disproportionately affect boys in school. Internationally, Norway has begun studying its dropout gap between boys and girls in order to develop future interventions (Borgonovi, Ferrara and Maghnouj, 2018[45]).

Improve the ways in which information and evidence are communicated and applied across the system, including through regular briefings for schools on policy developments and an online research clearing house

Previous recommendations have focused on co-ordinating the education system around key issues and creating indicators to monitor the extent to which those issues are being addressed. Once the core aims of the system have been established, it will be necessary to communicate these aims to schools and provide resources to help them achieve them.

Internationally, several countries have created repositories of research-based approaches to help schools identify useful practices that are aligned with new policies. For example, the Education Endowment Foundation in England has created the Teaching and Learning Toolkit (Education Endowment Foundation, 2019[46]). In the United States, the National Institute of Education Sciences has developed the What Works Clearinghouse (IES, n.d.[47]). Other countries have invested more in lateral networks that bring school leaders and teachers together to reflect on evidence and effective practices, sometimes facilitated by experts from universities. Examples of this approach include the Spirals of Enquiry networks from British Columbia (Stoll and Temperley, 2016[48]) and the Research Learning Communities programme in England (Brown and Greany, 2017[49]).

MoE could adapt these strategies by publishing a termly practice-focused journal or newsletter that would be sent to all schools and would explain new policy developments and identify research-based articles that focus on the aspects of teaching, curriculum and school improvement that are relevant to the new policies. MoE could also create a research clearinghouse that encourages schools to use practices that have been verified by research to be potentially effective. This clearinghouse could be hosted by Tatweer on their existing iEN online portal. Finally, MoE could also regularly hold conferences that would bring school leaders together to hear about and discuss new initiatives and to develop peer networks. Participation at these conferences could be organised according to geographic region or schools identified as having similar needs. Importantly, teachers and principals need to be given time to develop themselves in these ways and the time they spend should be considered as working hours.

Orient central research capacity towards systematically evaluating education programming

While MoE has considerable research capacity to conduct research, presently they are not systematically studying the diverse array of education programmes that are occurring in Directorates and Education Offices. To direct MoE research efforts towards programme evaluation, feedback loops should be established between Directorates and Education Offices and the Education Policy Research Centre so the Centre is made aware of what is occurring in schools and how their research efforts can be best put to use. The Delivery Unit can help facilitate this exchange of information between the Research Centre and the General Directorate for Educational Supervision, which is in closer contact with lower levels of school governance.

Even with feedback loops, it will be challenging for the Education Policy Research Centre to evaluate all education programming in the country, especially those that originate from small, isolated areas. To expand the coverage of national research, it is recommended that the Education Policy Research Centre engage with universities, which also have significant research capacity. Through calls for tender, the Research Centre could work with university researchers to collect information and evaluate the impact of educational reforms in all regions of the country.

Develop the structures and capacities of Directorates and Education Offices to support school improvement

Directorates and Education Offices, through their supervisors, have a formal role to support schools to improve. Despite this mandate, however, they serve primarily administrative and management functions, such as keeping data and tracking personnel movement. This orientation is motivated by governance structure of Directorates and Education Offices, which are designed to facilitate communication from different departments within MoE to schools through their own subsidiary departments. This encourages the departments to work in silos rather than work as units to support schools.

To orient Directorates and Education Offices towards helping schools improve, the OECD recommends that the previously mentioned root and branch review examine this configuration and determine how it can be revised with the aim of delivering better support to schools. For instance, schools might have a single point of contact from an Education Office instead of several from different departments. Similarly, departments within Education Offices should be required to be more communicative with each other instead of focusing on communicating with their higher-level peers in Directorates.

A further question is the capacity of Directorate and Education Office staff who are nominally responsible for supporting schools. As mentioned previously, supervisors are not prepared to help teachers develop and learn. Thus, one reason that they view their roles as delivering orders because they do not necessarily know how to deliver effective support. Another reason is that supervisors in some areas are overwhelmed with the number of schools they must oversee. The root and branch review should also study how to allocate more efficiently professional development capacity at local levels. If there is insufficient capacity to staff each Education Office, which appears to be the case, consideration can be given to consolidating such capacity at the Directorate level so the most qualified persons are available to support more schools.

Finally, it should be mandated that the purpose of Directorates and Education Offices is to help schools improve and they need be held accountable for how well they support their schools. MoE should review data about Directorates' and Education Offices' activities, such as how much training the teachers receive, and evaluate if the support was aligned with schools' needs. This process would also help MoE identify which areas of the country need greater central support and how to distribute resources accordingly. In Massachusetts, a state in the United States, school districts that are under-performing may be assigned a development assistant lead to help the district in developing and carrying out turnarounds plans for each of its under-performing schools (Massachusetts Department of Elementary & Secondary Education, n.d.[50]).

Develop a vision of good schooling and create a set of associated performance indicators for schools

It is imperative that Saudi Arabia defines what a "good school" is in terms that are broad enough to allow for local agency and contextualisation, but that are specific enough to be meaningful and measurable. The new school evaluation framework already outlines four areas (school leadership, teaching and learning, learning outcomes and buildings) with multiple key standards and sub-standards. This is a very valuable resource for schools and evaluators and serves to communicate the components of a school that will be evaluated. However, what is missing is an overall vision of schooling that encompasses these four areas. In other words, what is the overall goal schools are working towards by meeting all the standards and sub-standards?

The OECD recommends that, in finalising the school evaluation framework, attention be given to defining in a succinct statement of the vision for the Saudi Arabian school of the future. In most OECD countries, such a vision statement focuses centrally on the student outcomes a school hopes to realise and usually include mastery of essential competencies - such as literacy and numeracy - in recognition of their importance for any student's future success in life.

Many OECD economies have developed a definition of what makes for good schooling, such as Australia, Finland, the Netherlands and Scotland (OECD, 2013[3]; European Commission/EACEA/Eurydice, 2015[22]). Within the Middle East and North Africa region, the Kingdom of Morocco has put the "new school" model at the centre of its own Vision 2030; it is framed around the key principles of equity and equality of opportunities, education quality for all and the promotion of individuals and society (Conseil Supérieur de l'Education, 2015[51]).

School evaluation and benchmarking

Create a new set of supervision standards in light of the new teacher standards and new school evaluation framework and update the principal supervision process accordingly

The most important consideration after the new school evaluation framework is implemented is what becomes of the role of the supervisors. Under the new teacher standards and school evaluation framework, external appraisal of teachers would be the responsibility of ETEC-trained assessors and the external evaluation of schools that of ETEC-trained evaluators. Currently, supervisors are responsible for evaluating and supporting teachers, principals and schools. It is understood that their roles will change, but the official designation of their responsibilities has not been officially codified.

The OECD recommends that, after the new evaluation framework is introduced, current teacher supervisors should have no evaluative responsibility and would instead only provide support for teacher professional development, particularly where school and teacher capacity are weakest. Principal supervisors should retain their function of appraising the performance of principals, though how this is done will need to change significantly.

To embed these roles into policy, the OECD recommends that a new set of supervision standards be created to reflect the roles of teacher and principal supervisors in consideration of the new teacher standards, school evaluation framework and planned principal standards. Chapter 3 recommends that current teacher supervisors be renamed professional development supervisors (instructional coaches) to reflect their new support role. Guidance around what the standards for this position should be can be found in that chapter.

Although the role of principal supervisors will remain the same – principal appraisal and feedback - how supervisors exercise this role should evolve significantly to support the new vision of schooling. In the new standards, expectations for principal supervisors should be closely aligned with the expectations for principal instructional leadership set out in the school evaluation framework (and which this review also recommends be emphasised in the new principal standards). This will also require a strong focus on how principals are working with teachers to deliver the curriculum in a way that is adapted to learner levels and needs. The processes and tools used as part of the principal supervision process should also be modified and reflected in the new standards. For example, the current grids should be updated so principal supervisors look for evidence that teachers are using formative assessment in the classroom, providing feedback to students and adapting their instruction for individual learner needs.

Following the updating of the supervision standards and principal supervision processes, principals supervisors will need training in understanding the new standards and following the new processes. This should be the responsibility of NIPED in cooperation with ETEC.

Review and finalise specific components of the new school evaluation framework

Revise sub-standards to focus on student well-being and out-of-class time

Before introducing the new school evaluation framework, the OECD recommends that ETEC revise the sub-standards for school evaluation in light of the challenges identified in this chapter. Specifically, the sub-standards should mention student well-being. If this is the intent of the "safe and supportive learning environment for learners" sub-standard, then that sub-standard should be re-written to refer to well-being. If this is not the intent of this sub-standard, then it is likely that the intent this sub-standard is already reflected in the "safety and security" key standard and can be replaced by one that focuses exclusively on student well-being. The placement of the well-being sub-standard should also be moved to be under the "school community" key standard, as it is more about how the entire school is oriented to support students and less about overseeing a pedagogical process.

The sub-standards should also mention out-of-class time to reflect the fact that students in-school are not always in classrooms. This sub-standard would be most appropriately located under the learning environment key standard and could be phrased as, "Supportive extracurricular and remedial activities outside of class". This sub-standard would help to reinforce the aforementioned sub-standard about student well-being, as extracurricular activities and supplementary instruction would help students be healthy and feel supported.

Carefully create indicators to accompany school evaluation standards

The OECD understands that ETEC is in the process of developing indicators to accompany the standards that appear in the new school evaluation framework. The recommendations made here are not about specific indicators, but about how to approach the development of these indicators so they align with international best practices and help schools and external evaluators understand school quality.

Develop a small set of school evaluation indicators

The standards that the OECD reviewed are relatively dense compared to standards used by several OECD countries. The new school evaluation framework specifies four areas, 12 key standards and 29 sub-standards. There will likely be even more indicators associated with the sub-standards. A long list of indicators can inadvertently encourage evaluation to become a checkbox exercise that focuses on compliance and not on improvement. Internationally, many countries have simplified their school evaluation indicators to focus on key aspects of school quality. For example, the school inspection framework in Scotland has only three areas and fifteen indicators (see Box 2.4).

School supervision in Saudi Arabia is already closely associated with checking boxes on supervisors' grids, rather than evaluating quality. Therefore, the OECD recommends that, in finalising the indicators of the school evaluation framework, ETEC only create a small number of indicators. This would give schools and evaluators and more time to focus on the most critical components of teaching and learning quality.

Box 2.4. Indicators for school evaluation in Scotland

The fourth edition of the school evaluation framework in Scotland, "How good is our school?" is composed of 15 quality indicators divided in three domains: leadership and management, learning provision and successes and achievements. While different sources of information are evaluated to inform the evaluation of each indicator, only one rating is provided for each indicator. The complete set of indicators is shown below.

Domains	Leadership and Management	Learning Provision	Successes and achievements
	1.1 Self-evaluation for self-improvement	2.1 Safeguarding and child protection	3.1 Ensuring well-being, equality and inclusion
	1.2 Leadership of learning	2.2 Curriculum	3.2 Raising attainment and achievement
	1.3 Leadership of change	2.3 Learning, teaching and assessment	3.3 Increasing creativity and employability
Indicators	1.4 Leadership and management of staff	2.4 Personalised support	
	1.5 Management of resources to promote equity	2.5 Family learning	
		2.6 Transitions	
		2.7 Partnerships	

Source: Education Scotland (2015[19]), How good is our school? 4th edition. https://education.gov.scot/improvement/documents/frameworks_selfevaluation/frwk2_nihedithgios/frwk2_hgios4.pdf

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Prioritise using observed classroom practice to evaluate teaching and learning

ETEC is developing classroom observation protocols to support the new school evaluation framework. This is a positive development as observing classroom practice represents a more authentic assessment of the teaching and learning process than simply reviewing standardised assessment results.

It is currently unknown how exactly and to what extent classroom observations will be used during school evaluation. The OECD recommends that most of the indicators that become associated with the learning outcomes and teaching and learning areas be measured via classroom observations and not standardised assessments. This would motivate schools and evaluators to reflect deeply on teaching practices before making a judgement about quality and help prevent the evaluation framework from being focused on test results. In developing these indicators, ETEC might draw on the classroom observation indicators developed by the International Comparative Analysis of Learning and Teaching (ICALT), which are based on practices with a proven impact on student learning (see Box 2.5).

Box 2.5. 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: the Flemish Community of Belgium, Lower Saxony in Germany, the Netherlands, the Slovak Republic, and Scotland in the 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 toward 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 (3 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[52]), *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 .

Avoid external testing of schools as part of external evaluation processes

Currently, teacher supervisors and school principals administer tests to students in order to assess the quality of instruction. Chapter 3 recommends that these procedures should be stopped as they do not accurately assess the performance of teachers and undermine the position of principals to help teachers develop. They are also a distraction for students, taking time away from more valuable classroom learning activities.

The review team was told that ETEC plans for evaluators to test students using centrally developed instruments to inform external school evaluation. The OECD recommends that this proposed practice not be pursued. In no other OECD country do evaluators assess students directly as part of an evaluation; such assessments have no national reliability nor any instructional value. Rather, the majority of OECD countries rely on a mixture of standardised national assessment data, school-level test data and qualitative measures like classroom observations to form a perspective on the quality of learning outcomes in a school and the quality of teachers' assessment practice. This review recommends that ETEC take a similar balanced approach, and that national assessment data simply be one measure out of many that inform an understanding of school quality.

Articulate procedures to provide schools specific with feedback on how to improve following an external evaluation

School evaluations should lead to clear feedback for schools on areas of strength as well as specific areas for improvement (OECD, 2013[3]). This feedback should be given verbally at the end of the evaluation visit in order to give opportunities for the school to ask questions and discuss any aspects that are not clear. This verbal feedback should be followed up with a written report.

Findings from Hong Kong, Ireland, the Netherlands and Scotland suggest positive impact from school inspections where inspectors set out improvement priorities and actions (Ehren, 2016[53]). This research indicates that school staff will actively reflect on inspection findings when they feel those findings are accurate and helpful, when the inspection process

provides opportunities for staff to discuss the issues raised and when school staff find the inspection visit a positive and affirming experience (Mcnamara and O'Hara, 2006[54]).

In Saudi Arabia, how feedback and follow-up support should be given to schools needs to be articulated in the new school evaluation framework. To link feedback and support, the OECD recommends that, when a school is selected for an ETEC evaluation visit, the relevant supervisors should be informed in advance so they can be prepared to offer support following the evaluation. All supervisors should also attend the final feedback session, during which ETEC evaluators share their findings and recommendations with the school's leadership.

ETEC's feedback to schools should be tailored depending upon the performance of the school. Higher performing schools should be encouraged to take ownership of possible improvement areas with limited oversight from their professional development supervisors. Interaction with the principal supervisor should continue, but with a reduced focus on appraisal and an increased focus on how the school is responding to the ETEC feedback.

For schools that are judged to be weaker, a clear support plan must be agreed between the school, ETEC evaluators and the Education Office. Supervisors should be strongly engaged and help the school's leadership respond to ETEC's feedback and build the capacity of the school to improve. The school and the supervisors should agree upon a package of material supports that can be provided to assist the school, such as specific training for staff and being paired with schools that are facing similar challenges but demonstrate better outcomes.

Develop a formal roll-out strategy that includes a pilot study of external evaluation and prioritises evaluating weaker schools

Pilot the implementation of school evaluation framework and monitor its results carefully, in particular how schools react to feedback and interact with their supervisors and evaluators

Once the new supervision standards have been drafted and the school evaluation framework is ready to be implemented, the framework's external evaluation component should first be piloted with a sample of Directorates and Education Offices. The purpose of the pilot is to understand what parts of the external evaluation process are difficult to understand, if the results are valid and reliable and what can be done to improve the framework.

The pilot should be conducted in a small sample of schools, preferably in a region that is noted for having both higher performing and lower performing schools. Following implementation of the framework in pilot schools, MoE should commission an independent evaluation to study the effects. This evaluation would examine several of the processes related to school evaluation, such as how feedback was delivered and what type of support was provided following the evaluation. Of particular interest will be whether supervisors understood that their role is purely supportive and felt competent in fulfilling that function. The independent evaluation would also study the quality of the materials produced by the evaluation and the impact of the process itself. For instance, was the feedback provided useful? What changes did schools undergo following an external evaluation? Finally, the result of the external evaluation should be reviewed. Do multiple evaluators agree with the rating? Do they agree on how the evidence that was reviewed should be interpreted?

The results of the pilot can inform not only how the school evaluation framework should be refined, but also what type of training supervisors and evaluators will need to fulfil their

new responsibilities. For example, supervisors might need enhanced coaching skills and evaluators might need training in how to analyse and use school level data to support school improvement. Using this information, MoE can work with NIPED to make sure that the most important training modules are available after the new school evaluation framework is introduced.

Prioritise weaker schools in the roll-out of the evaluation framework

According to the new school evaluation model, ETEC plans to evaluate externally a sample of 700 to 1 000 schools every two years. Some of these schools will be selected as a representative sample, while the rest will be chosen only from among schools who receive the highest two ratings from their self-evaluation. The OECD review team is concerned that this strategy will allocate greater resources (support from ETEC evaluators) to schools that are already doing well, thus having the potential to exacerbate educational inequity in Saudi Arabia.

The OECD supports the selection of a representative sample of schools to be part of the evaluated sample, but recommends that the rest of the evaluated sample be comprised of schools who received the lowest two ratings from their self-evaluation. This approach would serve several purposes. First, it would provide the most qualified support where it is needed most. Second, in cases where a great majority of schools from one area and found to be performing poorly, it would help Directorates and Education Offices be aware of their schools' needs and help MoE identify where to provide greater support.

The review team acknowledges that some schools might be unprepared to undergo the external evaluation process and agrees that targeting schools with lower self-evaluation ratings would result in fewer accredited schools. However, the purpose of school evaluation is not necessarily to accredit schools. Rather, the ultimate reason that schools should undergo evaluation is so they know what their strengths and weaknesses are and how they can improve student learning. Targeting weaker schools who have much to improve better accomplishes this goal than targeting stronger schools who have already found ways to improve. Box 2.6 describes how Ontario, Canada, has provided targeted support to under-performing schools to improve their outcomes.

It should be noted that, in some countries, additional evaluative oversight can be associated with punitive consequences. This would not be a constructive approach for a new evaluation system, like Saudi Arabia's, which is just being introduced and which aims to build school capacity and awareness of new methods. The focus of this recommended risk-based approach is to concentrate the oversight and expert feedback that an external evaluation brings on those schools that need the most help, not to punish them. In effect, this approach would concentrate the provision of support and resources to the neediest areas, which is in line with international practice and would help improve overall learning outcomes at the country-level.

Box 2.6. Supporting struggling schools in Ontario, Canada

In Ontario, Canada, the Focused Intervention Program provides targeted support to underachieving primary schools, measured through results on provincial assessments of reading, writing, and mathematics (Grades 3 and 6). The programme funds are used for professional development, additional learning resources for students and teachers, literacy and numeracy coaches, and teacher release time for collaboration and additional training. Schools selected for participation in the programme tend to be those serving disadvantaged communities, with a relatively high percentage of students with special education needs or an above-average range of educational challenges. Between 2002-03 and 2010-11, the number of schools with fewer than 34% of students achieving at provincial standard in Grade 3 reading was reduced by two thirds (from 19% to 6%).

Source: Adapted from OECD, (2012[55]), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. OECD Publishing, Paris. https://dx.doi.org/10.1787/9789264130852-en
OECD (2015[56]), Education Policy Outlook – Canada. OECD Publishing, Paris. www.oecd.org/edu/policyoutlook.htm

Build staff capacity and develop resources to assist schools with undertaking self-evaluation

Provide schools with guidance about how to perform self-evaluation along with suggestions of improvement steps in response to common challenges

Eventually, all schools in Saudi Arabia are expected to undertake self-evaluation and, based upon the results, they could be more likely to undergo external evaluation and achieve accreditation. As discussed previously, however, school staff will be unfamiliar with the exercise and will need significant support and guidance as they assess themselves for the first time. ETEC has plans to develop online tools and resources to assist schools to review their quality. These resources are helpful, but they are to be used as part of the self-evaluation. They do not help schools understand the purpose of self-evaluation or guide them through all the procedures. This type of guidance will be needed by schools that are inexperienced with the process.

Saudi Arabia should create materials that specifically help schools understand self-evaluation, guide them through it and instruct them in how to engage in follow-up activities. These materials should include guiding questions that compel principals and teachers to think about their own practices, such as how they make decisions and based upon what information. They should also include best practices from schools across the country about how to address common challenges that self-evaluation is likely to reveal. Tatweer schools would be well suited to contribute to the development of these materials as they have conducted self-evaluation already. Internationally, Scotland's "How good is our school?" toolkit is an example of a resource that guides schools through self-evaluation and contains case studies of common challenges and responses to those challenges (Education Scotland, 2015[19]).

Administer school-level standardised assessments, input their data into NOOR and support schools to use these data effectively

Benchmarking school performance using standardised data has the potential to enrich the school self-evaluation process, strengthen external evaluation and inform the targeted provision of school supports. With such information, school leaders would be able to track whether student outcomes are improving over time in comparison with national rates and in comparison with schools that have similar student intakes and characteristics. At a more granular level, schools will be able to identify whether students are failing to grasp particular concepts or areas of the curriculum, or whether particular groups of children are falling behind.

Saudi Arabia is administering or plans to administer several national assessments, most of which are sample-based. The OECD recommends that some of these assessments be census-based because their results would serve valuable school accountability and development purposes by giving schools and evaluators a more reliable perspective on the quality of student learning. To enable this type benchmarking, the OECD further recommends that the NOOR database be developed to house the national assessment data and make it accessible to relevant stakeholders.

Once data become available, school leaders will require support to make the best use of the data to enrich professional learning and reflection, rather than just looking at data as a tool to be used when managing teacher performance. Research in this area suggests that, to create a culture of constructive data use, it is important to bring together school staff to reflect on the data and discuss what it implies for their school (Schildkamp and Poortman, 2018[26]).

In Saudi Arabia, support in this area can be provided by QIYAS, which can produce materials that assist school staff in understanding its assessment results and what it might mean for their schools. Principals, with the support of supervisors, can encourage their teachers to meet over assessment results, collectively reflect upon the strengths and weaknesses of their school and determine how to improve.

School leadership

In the planned principal standards, establish a core focus on the leadership of teaching and learning and create incentives for individuals to become principals

ETEC is planning to introduce new standards and pathways for school principals alongside the already developed standards and professional pathways for teachers. The OECD supports the development of principal standards. They will set out the expectations of principals and create a separate payscale to motivate persons to become principals. The OECD further recommends that, in the standards, Saudi Arabia broaden the role of principals to become explicitly responsible for leading the teaching and learning that occurs in their schools. Internationally, the Australian Professional Standard for Principals offers a good example of how this type of instructional leadership is embedded as professional expectations. This is described further in Box 2.7. Once principals are established as "lead learners", principal appraisal systems can then refer to these standards in order to evaluate principals based upon how well they support teachers in the instruction of their students.

Box 2.7. Leading teaching and learning from the Australian Professional Standard for Principals

Leading teaching and learning is one of the five key professional practices particular to the role of the principal in the Australian Professional Standards of Principals. As instructional leaders, principals are expected to foster a culture of effective teaching, to lead, design and manage the quality of teaching and learning, and to define high standards for the whole school through collaborative planning, monitoring and reviewing learning effectiveness. It is then described at increasing levels of proficiency:

- At the first level of proficiency, principals ensure that school values foster inclusive practices and guarantee the focus of all activities is on the improvement of students' learning outcomes. They update and communicate current developments in pedagogy and student engagement to all staff.

- At level two, principals prioritise the creation of a student-centred learning environment, motivate staff to use research and new technologies keep their teaching practices up-to-date, develop a robust approach to reviewing the curriculum and pedagogy and encourage honest feedback to and from students based on evidence.

- At the level three, principals direct the whole school towards a focus on individual student achievement and educational provision for all students, ensure that reflective practices, structured feedback, and other practices have an impact on personal improvement of both students and staff. They also systematically monitor student progress, report on this and implement interventions to reduce gaps in attainment.

- At level four, principals identify excellent teaching and learning practices based on evidence and systematic research methods and share strategies for excellent teaching and learning with the school community. They develop a model of collaborative leadership, exchange practices with other schools and organisations to improve practice, and inspire innovation in the education system.

Source: AITSL (2014[57]), *Australian Professional Standard for Principals and the Leadership Profiles*. https://www.aitsl.edu.au/tools-resources/resource/australian-professional-standard-for-principals

Engage in manpower planning for the principal profession

Saudi Arabia has a well-recognised oversupply of teachers. Because principals and teachers occupy the same professional status in the civil service system, it is unclear what the supply and demand of principals is. Nevertheless, because individuals can transfer between the posts and because there are few established selection criteria to become principals, there is certainly risk that supply and demand become misaligned. This risk would become greater once the new principal standards are developed and being a principal becomes more attractive.

Mitigating this risk before it manifests itself requires several efforts. First, Saudi Arabia should engage in manpower planning for principals to understand better the profile of principals in the country, entry to and attrition from the profession and movement between schools, as is likewise recommended for teacher workforce planning. With this information, Saudi Arabia can develop a high-level strategy to develop and retain an

efficient supply of high quality principals. This type of planning has been successful internationally in managing the supply of principals. England, for example, conducted manpower planning and noted a shortage of principals, which prompted the country to create the National College for School Leadership to identify and train more principals (Greany, 2018[5]).

Key questions that the Saudi Arabian principal manpower planning exercise should seek to answer include:

- What is the age profile of current school principals? How many new principals will be required in each region/district in future years?

- How are school principals currently recruited across different districts and regions? How could this process be enhanced to ensure that it is transparent and secures the best possible candidates?

- Do some remote and disadvantaged areas require extra support and incentives to ensure that they can recruit the best possible candidates?

- How much financial incentive will be required to attract high calibre candidates, especially to serve as principals in rural, isolated schools?

- What kinds of systems and processes can best ensure a strong supply of applicants for every principal position in every locality? For example, should every Directorate and/or Education Office be expected to identify and support a pool of future applicants or can this be done centrally?

- To what extent would Advanced and Expert Teachers represent a supply of future principals, or is a separate, parallel process needed?

Develop in-service principals by creating a new "leadership academy"

School systems around the world have invested in strengthening the capacity and expertise of school-level leaders (Pont, Nusche and Moorman, 2008[58]). Principals need access to coaching and mentoring along with well-facilitated opportunities to visit and work in different schools (Greany, 2018[5]). One method of developing principals is through national leadership colleges and academies. These organisations can have several responsibilities, from educating aspiring principals, to training current principals to helping form and drive policy concerning principals. Box 2.8 explains the role of school leadership academies in Singapore and Scotland.

Box 2.8. A school leadership academy in Singapore and Scotland

The National Institute of Education (NIE) in **Singapore** provides one example of how an academy can provide consistent and coherent support for building school leadership capacity. The NIE was formed in 1991 and is responsible for delivering three key leadership programmes that support principals and other school-level leadership. Heads of Departments must take Management and Leadership in School, while aspiring principals must complete the Leadership Situation Exercise and Leaders in Education Programme (LEP). Launched in 2001, the LEP is a 6-month, full-time, fully paid for programme attended by selected vice-principals and Ministry officials to prepare them for school leadership. The programme content covers systems and futures thinking, organisational learning, dealing with complexity as well as more operational aspects of being a principal. It also includes a two-week visit to another country and requires completion of a Creative Action Project, in which participants propose and implement a "value-adding change" in a different school than their own.

In **Scotland**, the Scottish College for Educational Leadership (SCEL) provides various leadership learning programmes for prospective school leaders (Towards Headship and the Into Headship qualification) and for school leaders at different stages of their career (In Headship for beginning school leaders and Excellence in Headship for in-service principals). It also provides quality assurance for leadership development programmes in Scotland and identifies the most promising programmes via an online website. SCEL also works with partners to build a strong evidence base to inform policy, shares resources (such as the European Policy Network of School Leadership) and provides free online access to education journals via EBSCO.

Source: Greany (2018[5]), Balancing the needs of policy and practice, while remaining authentic: an analysis of leadership and governance in three national school leadership colleges. Wales Journal of Education, 20(2), 63-98. https://doi.org/10.16922/wje.20.2.5

National Academy for Educational Leadership Wales (2018[59]), Inspiring Leaders – Enriching Lives. http://nael.cymru/

Education Scotland & SCEL (2019[60]), Website of the Scottish College for Educational Leadership. https://www.scelscotland.org.uk/

The OECD recommends that Saudi Arabia create a similar, national-level leadership academy in order to strengthen the national focus on school leadership and build the capacity of principals. It is suggested that Saudi Arabia's leadership academy begin by having relatively a limited role in order to avoid creating greater confusion around organisational responsibilities. In the immediate term, it should focus exclusively on training in-service principals. As such, the leadership academy should be located within NIPED because of the training role of NIPED. However, NIPED is already experiencing overstretched capacity, so it will be important that the Academy be funded through additional resources that are ring-fenced for this function, predictable and sustained over time. As NIPED is primarily focused on developing teachers and will become even more focused after the release of the new teacher standards, this leaves a sizeable gap around principal development that an adequately resourced leadership academy can fill.

Upon its introduction, the leadership academy should assume all principal development responsibility that is currently performed by NIPED. This includes not only training principals themselves, but also principal supervisors. Importantly, principals should be trained according to the new principal standards. Principal supervisors should be trained

according to the updated supervisory standards proposed in School evaluation and quality assurance.

Replicate King Saud University's degree programme in educational leadership and set highly competitive entrance criteria

Previous recommendations have suggested that Saudi Arabia better understand the demand for principals vis-à-vis the number of incoming principals and provide more high quality training for current principals. Nevertheless, it will also be necessary to take measures to ensure that the supply of incoming principals is highly skilled and motivated to take on the responsibilities of being an instructional leader.

King Saud University is an elite institution that has been accredited internationally and nationally. Its degree programme in educational leadership is the only one of its kind in the country from an accredited institution and includes coursework in leadership for learning, school performance management and practical fieldwork. Graduates of this programme are some of the most prepared principals in Saudi Arabia. However, this programme is only available at King Saud University, which limits the number of students who can benefit from it.

The OECD recommends that King Saud University's programme in educational leadership be replicated in select universities around the country that have the capacity to implement it. This would help expand access to rigorous principal preparation. These programmes should work with the National Centre for Academic Accreditation and Assessment (NCAAA) to develop programme and accreditation guidelines, which would improve their rigour and credibility.

Entrance criteria into these degree programmes should be highly competitive. The purpose should be to graduate a limited number of motivated and skilled principals. Similar criteria that is recommended for selecting teachers, such as scores on entrance examinations and interviews, should be employed to select the most qualified candidates to enter these educational leadership programmes.

Create a prestigious programme that identifies and trains high-quality principals

With structures in place to prepare principals, it will be necessary to attract the most capable persons to enter pre-service training and eventually become principals. To this end, the OECD recommends creating a prestigious and highly competitive scholarship programme that selects the most qualified potential principals, provides them with fully funded preparation in one of the aforementioned educational leadership programmes, gives them professional mentorship. Conditions for participation should include being placed in a struggling school upon entrance into the profession, staying in that post for at least five years and acting as a mentor for future Leadership Scholars. The programme might be called "Leadership for Change" and participants "Leadership Scholars."

The OECD recommends that the Prince Mohammed bin Salman bin Abdulaziz Foundation (MiSK Foundation) should consider managing Leadership for Change. It is actively involved with education, already experienced with overseeing scholarship programmes and its engagement would further signal the prestige of becoming a Leadership Scholar. Upon their selection, Scholars could be invited to meet MiSK leadership, which would expand the professional network of Leadership Scholars and increase the attractiveness of the programme.

Select the most competitive students to be participants in Leadership for Change and fund their education

Upon receiving a bachelor's degree, students will be eligible to apply for Leadership for Change. Specific recommendations for the selection process and other pre-service specifications are provided below.

- Candidates must first pass the selection criteria established by the educational leadership programmes. Those who do would then undergo an additional screening process such that only the most qualified persons out of an already very qualified pool would be accepted.

- Selection criteria would include higher standards on entrance examinations, a written personal statement and potentially an additional interview with senior MiSK Foundation staff (these could be conducted remotely).

- The number of Leadership Scholars accepted would be informed by the previous manpower strategy recommendation.

- Leadership Scholars should have their education fully funded. This not only includes tuition, but also accommodation and incidentals as many Scholars might have to relocate in order to study.

- During their education, Scholars should be provided with formal networking opportunities with each other and university leadership in order to build relationships that they can take advantage of when they enter the profession.

Leadership Scholars should be directly placed into the profession as a deputy principal for two years and provided with continuous development

Upon graduation, Leadership Scholars should not have to pass the ETEC principal examination because they will have been thoroughly screened and will have graduated with a degree in education leadership from an accredited institution. Instead, they should be guaranteed a position as a deputy principal for two years as preparation for them to assume full principal duties. The schools where they are placed should not be overly challenging in order not to discourage the Scholars and should also be selected based upon the recognised mentorship capacity of the school's principal (in the future, these schools could be schools led by Leadership Scholars). Selection of these schools should be done in close consultation with MoE. Mentor principals should be provided with training for this role by the previously recommended leadership academy.

Leadership Scholars should be placed into needy schools and provided with continuous development

After completing the deputy principal stints, Leadership Scholars would be ready to assume full principal responsibilities. As agreed upon when they applied to Leadership for Change, Leadership Scholars would assume their principal roles for at least five years in needy schools where their capacity and competence can be most impactful.

During this time, it will be important that Leadership Scholars receive support in order to remain motivated. In addition to support from their principal supervisors, Leadership Scholars should be provided with training from the previously recommended leadership academy. This training should be specifically developed for Leadership Scholars, as their high level of ability and placement into higher risk contexts means that they will need more

targeted training. On a regular basis, Leadership Scholar cohorts should be convened for them to re-establish their relationships and learn from each other's experiences. This will also help them stay committed to the profession and not be disenchanted by the difficulties of the job.

Use the new teacher pathways to develop school leadership roles below the principal

Schools in Saudi Arabia would benefit particularly from having school leadership positions below that of the principal and deputy principals. Given that principals in Saudi Arabia have not typically held roles of instructional leadership, they will need support from their staff when asked to fill this new role. Having additional leaders to share the new responsibilities would greatly assist them.

The policy framework for identifying these leaders has already been outlined by the new teacher standards; Advanced and Expert teachers would be natural candidates to assume roles as heads of departments and on-site mentors. In schools without teachers at these levels, the most competent Practitioner Teachers can be asked to become leaders, which would further incentivise them to develop their skills (see Chapter 3).

Progressively shift the responsibility of school management to schools, starting with those that become accredited by ETEC

At present, schools in Saudi Arabia are managed by a complicated bureaucracy comprised of supervisors and several departments in Directorates and Education Offices. Although principals are the individuals who are most aware about the needs of their schools, they have limited authority and incentive to influence the quality of teaching and learning in their schools.

The OECD recommends that, in the future, school principals, particularly those who demonstrate strong leadership capacity, should have more authority over their own schools and schools should be responsible for managing themselves. This would give greater authority to those who are best placed to drive important and alleviate the burden from an already overburdened corps of supervisors. There are excellent schools in Saudi Arabia, and these should be recognised and awarded with greater autonomy.

This type of significant change, however, requires substantial time to achieve and should not be rushed until the necessary school-level capacity to take on greater management responsibility has been built. Therefore, throughout this chapter the OECD has suggested moderate changes that will help establish the necessary policy foundations needed to achieve greater school-based management in the future.

An additional initiative that can steer Saudi Arabia in this direction is to use the new school evaluation framework to identify those schools that would be most capable of managing themselves. Schools that are accredited by the new school evaluation framework will have demonstrated high levels of capacity would benefit most from having greater autonomy. Key elements of having more autonomy might include less frequent visits by supervisors, greater discretion over which materials the schools wish to use and flexibility over adopting the curriculum for the school contexts.

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Annex 2.A. Key indicators

	List of key indicators	Saudi Arabia	OECD average
	Background information		
	Economy		
1	GDP per capita PPP (constant 2011 international dollars), 2018 *	49 101	40 537
2	GDP growth (annual %), 2018 *	2.4	2.3
	Society		
3	Population Growth (annual %), 2018 *	1.8	0.6
4	Population aged 14 years or less (%), 2018 *	25	17.8
5	Fertility rates, total (Births per Woman), 2017 *	2.4	1.7
6	Rural population (% of total population), 2018 *	16.2	19.4
7	Unemployment, total (% of labour force), (modelled ILO estimate), 2018 **	5.9	5.3
8	Unemployment, youth total (% of total labour force ages 15-24) (modeled ILO estimate), 2017 **	25.8	11.9
	Education Indicators		
	System		
9	Starting age of compulsory education, 2018 ***	6	5.7
10	Duration of compulsory education (years), 2018 ***	9	10.9
	Students		
	Net enrolment rates ***		
11	Pre-primary education (3 to 4 year olds) (2017)	19.7	84.4
	Primary education (5 to 14 year olds) (2018)	94.5	95.6
	Secondary education (15 to 19 year olds) (2018)	96.4	89.4
12	Tertiary education attainment rate (25-34 year olds), 2017 (EAG, 2017)	25.8	43.7
	Teachers		
13	Mean age of teachers (TALIS 2018)	37.8	44.1
	Ratio of students to teaching staff (2018) ***		
14	Primary education	13.8	15.3
	Secondary education	11.5	13.7
	Learning outcomes		
15	Mean students' performance in reading (PISA 2018)	399	487
16	Mean students' performance in science (PISA 2018)	386	489
17	Mean students' performance in maths (PISA 2018)	373	489
18	Percentage of students below PISA proficiency level 2 in reading (PISA 2018)	52.4	22.6
19	Percentage of variance in reading performance explained by student's socio-economic background (PISA 2018)	11.5%	12.0%

Chapter 3. Strengthening the quality of the teaching profession

This chapter looks at how Saudi Arabia is improving the quality of teachers and teaching. Several factors have prevented Saudi Arabia from creating a dynamic and professional teacher workforce. First, it does not have a comprehensive set of teacher standards and established professional pathways for teachers. Second, teaching is seen as a secure, but not highly prestigious, profession, which affects how selective initial teacher preparation programmes can be and the rigour of teacher certification requirements. Finally, once in their posts, teachers are evaluated and supported by supervisors who are not always well positioned to fulfil either function. Many initiatives are underway to address this situation. Saudi Arabia is implementing its first ever teacher standards and professional pathways. Initial teacher preparation is being overhauled and will be offered at a post-graduate level. The country has created a new agency, the National Institute for Professional Education Development, to lead teacher development efforts. This chapter makes recommendations about how Saudi Arabia can use the new standards to identify the best teachers, distribute them to the neediest areas, and make initial teacher preparation more attractive and higher quality. This chapter further suggests that teacher appraisal, instead of being conducted by supervisors, should instead be led by the teacher's principal, be continuous and be focused on supporting the teacher to improve.

Main features of teacher policies in Saudi Arabia

The success of education reform in the Kingdom of Saudi Arabia (KSA) will depend greatly on the success of efforts to transform teaching and the teacher profession. Historically, teacher preparation in KSA was quick and in-service training struggled to meet demands. Teacher appraisal procedures incentivised teachers to adopt traditional, rote pedagogical practices that did not promote the development of important student skills.

Recently, KSA has undertaken several ambitious initiatives designed to improve the quality of teaching and the professional status of teachers. These include developing new Teacher Standards and Professional Pathways, creating a new, post-graduate initial teacher preparation (ITP) programme and reconfiguring the role of teacher supervisors. Efforts such as these help bring the country into line with international teacher policies and have the potential to develop a more skilled, motivated teacher workforce.

Teacher preparation, selection and career progression

This chapter analyses teacher policies in KSA according to key stages of a teacher's career: selection into ITP programmes, completion of ITP, entering teaching and continuous professional growth. Throughout these stages, teacher standards act as a reference point for encouraging and rewarding excellence in teaching. Figure 3.1 illustrates this analytical framework.

Figure 3.1. Teacher training, selection and career progression
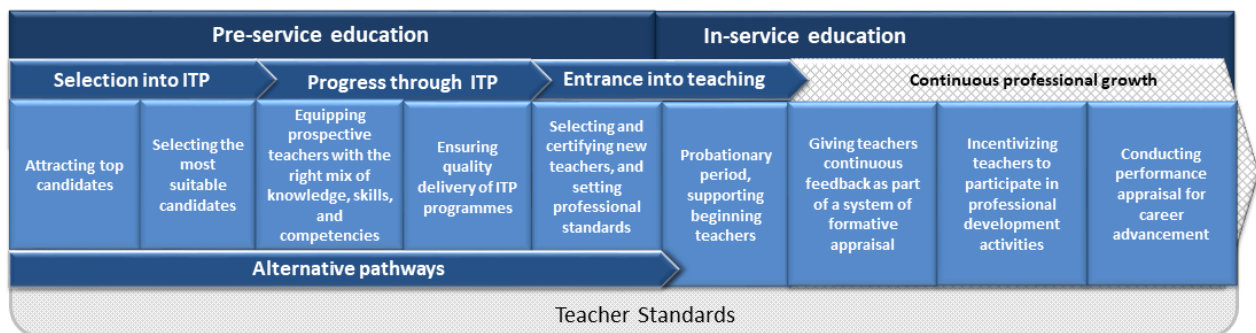
Source: Adapted from (OECD, 2019[1])

Background

There are several distinct features of the Saudi Arabian teaching profession. Relative to the number of students in the country, the teaching workforce is quite large. The pupil-to-teacher ratio was only 11.7 at the primary level in 2016 and 11.0 at the secondary level in 2014. In comparison, OECD countries had an average pupil-to-teacher ratio of 13.4 at the primary level and 12.1 at the secondary level in 2015 (UNESCO Institute for Statistics, 2019[2]). However, it is important to note that teacher data in KSA is misleading. Teachers in KSA are civil servants with permanent contracts and almost all persons working in education (e.g., teachers, principals and administrators) occupy the same status in the civil service system. As a result, not all 500 000 teachers in KSA's data systems teach in classrooms. At least 10%, for example, are school managers or supervisors.

Further, KSA's low pupil-to-teacher ratios do not necessarily translate to small class sizes. Not only does the classification of teachers distort these ratios, but classroom teachers in KSA are not always allocated efficiently. Small, rural schools might have pupil-to-teacher ratios far less than the national average, while teachers in large, urban schools struggle with overcrowded classrooms. For instance, despite the above pupil-to-teacher ratios, the average class size in public lower secondary schools in KSA in 2015 was 26, compared to 24 across OECD countries (World Bank & ETEC, 2016[3]).

Teacher demographics in KSA vary somewhat from international benchmarks. Because boys and girls attend separate schools, the number of female teachers is almost equal to the number of male teachers (52.0% of teachers were female in 2015, compared to 82.3% across OECD countries in the same year). The relatively high number of male teachers places pressure on the system to attract qualified male teaching candidates, who likely have opportunities in other professional fields.

Saudi Arabian teachers are also, on average, younger than teachers in other countries. Data from TALIS 2018 revealed that, in KSA, the average age of teachers of lower secondary students is less than 38, compared with the OECD average of over 44. The fact that teachers in KSA are comparatively young and hold permanent contracts contributes to the urgency of developing the teaching profession as current teachers are expected to stay in the profession for a long time.

Finally, the management of teachers in KSA is centralised, but fragmented. At the national-level, the Educational Training and Evaluation Commission (ETEC), an independent standards-setting and assessment organisation, is responsible for developing teacher standards, the Ministry of Education (MoE) oversees and supports teachers but the Ministry of Civil Service (recently merged with the Ministry of Human Resources and Social Development) hires teachers. Both school principals and teacher supervisors from Directorates and Education Offices have appraisal and teacher professional development roles. In this context, teachers are not always certain about what guidelines to follow, who evaluates them and to whom they should turn for support.

Standards

Teacher standards refer to a set of criteria that defines what "good" teaching is and what is teachers are expected to do. They typically include a general profile of the skills teachers should possess, the responsibilities they will perform, and might identify specialised profiles for different types of teachers (e.g., according to different levels of teaching experience, grade levels or subjects taught). Standards are essential to aligning teacher policies as they represent a common reference point that anchors the overall understanding of teacher responsibilities and expected performance (OECD, 2013[4]).

There are currently no professional teacher standards in KSA (these were released in 2020, after the time of writing this report). Civil service regulations govern remuneration, benefits and other administrative matters. However, these regulations do not represent true professional standards of the teaching profession as they are not related to teacher practice or student learning. Instead, the main reference for teaching practice are the "grids" that teacher supervisors use to evaluate teachers as part of a well-established function of regular teacher appraisal (see below).

Initial teacher preparation

ITP refers to the education and training that teacher candidates receive before entering the profession (OECD, 2019[1]). It consists of selection mechanisms into education programmes, participation in the programmes themselves and formally entering into the profession. Entrance into the profession can typically require passing a licensing examination and successful completion of a probationary period, during which new teachers are given extra support to develop their teaching practice (Kitchen et al., 2019[5]).

Selection

Attracting talented students into ITP is challenging

In KSA, research suggests that teacher candidates are not always motivated to teach, nor are they particularly interested in education in general. Instead, they are attracted to the lifetime job security afforded by the career and the impression that being a teacher is not terribly strenuous (Alnadhi, 2014[6]). In TALIS 2018, teachers from Saudi Arabia had the highest correlation in the world between selecting teaching as a first career choice and being motivated to become a teacher because of job security. Moreover, the economic benefits of the teaching profession, though stable, are lower overall than careers in the private sector because teachers in KSA (including principals and supervisors) have a flat pay scale in which all salaries are equivalent and increase incrementally only with seniority. These circumstances contribute to the perception that teaching is not a high status profession, which affects the quality of persons who wish to enter it (Alnadhi, 2014[6]).

Entrance criteria into ITP are weak

The relatively low status of teaching is reflected in the student intake into ITP programmes. MoE was unable to share data about the qualifications of ITP students because tertiary student data is not collected centrally. However, conversations with individual ITP providers revealed that teacher candidates tend to have lower scores on the GAT and SAAT than students studying towards other degrees.

Several factors contribute to the relatively lower qualifications of ITP students. First, many ITP providers do not set entrance requirements, or set very broad ones (e.g., candidates must have good conduct and be in good health). In effect, any student who successfully completes upper secondary education and passes the university entrance examinations could enter these programs. This contrasts with practice in many OECD countries, such as Australia, Korea the Netherlands and Norway, where selection into ITP is competitive and candidates must exceed high thresholds on standardised tests, grade point average and/or subject-specific examinations offered by the ITP providers (OECD, 2019[1]). Second, the number of students that are admitted into ITP programmes is not co-ordinated with the teaching market's demands. Information shared with the OECD review team indicated that, recently, roughly 400 000 ITP graduates applied to around 8 000 teaching positions. These circumstances suggest that there is an oversupply of teachers in Saudi Arabia and that entrance criteria into ITP can be strengthened without concern about having enough candidates to staff open positions (Binhwaimel and Alanadi, 2015[7]).

Progress through ITP

Educational requirements to become a teacher have been steadily rising

KSA has long set relatively high levels of educational attainment for entry into the teaching profession. A bachelor's degree has been a long-standing requirement for new teachers in secondary schools and has been a requirement for new teachers in primary schools since 2011 (World Bank & ETEC, 2016[3]). As a result, almost 98% of lower secondary teachers hold at least a bachelor's level degree.

Until 2017, there were two main routes into the teaching profession. A concurrent model, delivered through teachers' colleges, provided a bachelor's degree in education, which varied in design across faculties but required a minimum amount of coursework in education theory and methods. A consecutive model, delivered through faculties of education, required candidates to first obtain a bachelor's degree and then complete a one-year, post-graduate, general education diploma that included coursework and a teaching practicum. These models were comparable to offerings in OECD countries (OECD, 2019[1]).

In 2017, the requirement to become a primary or secondary teacher was raised to two years of post-graduate education (early childhood education teachers remain eligible to teach with a specialised bachelor's degree). Consequently, both the concurrent and consecutive models were discontinued. A consecutive, two-year, post-graduate degree in education is now being developed and will act as the primary gateway to the teaching profession, but has not been completed (see Main policy initiatives underway).

The quality of ITP programmes is highly variable and quality assurance relatively weak

In KSA, both consecutive and concurrent ITP models were linked to universities, most of which are public (Al-Zahrani, 2011[8]). Some universities are well resourced and considered leaders in the region, such as King Saud University and King Abdulaziz University. Others serve rural, isolated areas and have fewer resources at their disposal. ITP programmes offered by the most prestigious institutions are developed in consideration of the best international practices and some, like King Saud University's, used to be recognised with the National Council for Accreditation of Teacher Education (NCATE). However, OECD interviews and research have revealed widespread concern with the quality of many other ITP programmes, and in particular with the former one-year diploma (Alharbi, 2011[9]). In TALIS 2018, just over 60% of teachers from Saudi Arabia reported that they felt well prepared in classroom practice, the fifth lowest share in the world.

Quality assurance of higher education institutions is performed by the National Centre for Academic Accreditation and Assessment (NCAAA), which has recently been merged with ETEC. While NCAAA has developed many advanced quality assurance procedures, such as an integrated electronic accreditation system, its capacity to guarantee and improve standards is ITP is relatively limited. NCAAA has recently updated its accreditation standards, but these remain generic and typically at the level of departments or faculties, rather than programme specific. For these reasons, the best programmes in the country still seek international accreditation.

Entrance into teaching

Beginner teachers are licensed through the Qifayat examination

Upon completing ITP, teacher candidates are required to pass a licensing exam, the Qifayat, in order to become beginner teachers. In place for 10 years, the Qifayat is a standardised test in both subject-matter knowledge and teaching competency and is administered by ETEC through the National Testing Agency (QIYAS). Candidates have to score 50% in both subject and teaching tests to pass. These licensing requirements do not currently apply to in-service teachers who started teaching before the examinations were in place.

In their current stage of development, the new Teacher Standards and Professional Pathways still require ITP graduates to pass the Qifayat exam to become licensed at the lowest level (Practitioner). Importantly, they also require that all in-service teachers be licensed through the examination, alongside other measures. There has been conversation about whether the examination should change due to the post-graduate level of the new ITP and, if so, how it should change. Nevertheless, no formal agreement has yet been reached to change the Qifayat.

Teachers are selected and placed according to academic performance and length of unemployment through the Jadarah system

Teachers who complete ITP and pass the Qifayat are selected and appointed to teaching posts through a system called Jadarah, which is managed by the Ministry of Civil Service. Jadarah ranks teachers based on three weighted measures: 40% grade point average in university, 40% the result on Qifayat and 20% the time teachers have been unemployed since completing ITP. If teachers have been unemployed for more than 10 years, they automatically receive a full 20 points in this category.

Every year, MoE calculates the number of available posts in schools and the Ministry of Civil Service advertises the positions and chooses qualified applicants through Jadarah. Vacant places are given first to in-service teachers applying to move and then for teachers who do not currently have a post, including newly certified teachers.

A probationary period provides teachers with an opportunity to demonstrate their competence

In KSA, all new teachers have a probation period of two years. The Directorate General of Educational Supervision in MoE is responsible for the evaluation criteria of all teachers (see discussion about teacher appraisal below). It has created a special evaluation form that is used by principals and teacher supervisors in appraising new teachers on probation.

A teacher who is on probation should be visited by his/her supervisor at least four times during the probationary period (though this rarely occurs because of limited capacity) to monitor their performance and identify professional development needs. After principals make the final appraisal of teachers on probation, those who do not meet requirements might be dismissed from the profession or placed in administrative positions.

In-service appraisal and teacher professional growth

After becoming a certified teacher, it is important that teachers continue to develop their competencies and that they be evaluated to determine in which areas further development is needed. This process occurs through regular appraisal, in which teachers receive

continuous feedback on their professional practices, typically from their school principals, to support their professional growth. In cases where countries have different professional levels of teachers, an external appraisal for promotion is used to determine career advancement (OECD, 2013[10]). KSA has a well-established system for appraising in-service teachers which combines in one process both formative and summative functions, though the implementation of this practice can vary across institutions.

Appraisal

Regular appraisal is performed by principals and teacher supervisors according to processes established by MoE

Regular teacher appraisal is conducted every year. The process is guided by supervisory standards, currently on version six, created by the Directorate General of Educational Supervision. External supervisors appraise teachers using centrally produced grids that have been amended to introduce new concepts, such as formative assessment and active learning, but have not been fundamentally updated for over 20 years. Several areas of focus are covered by the grids, such as attendance, interaction with colleagues, teaching methods and student learning. Principals use a formal appraisal form to appraise teachers. These forms do not necessarily reflect what is contained in supervisors' grids. While regular appraisal occurs annually, not all teachers are evaluated every year, depending upon the availability of the supervisors.

To help them complete the appraisal grids and forms, principals and teacher supervisors usually perform classroom observations and refer to teachers' lesson plans, assessments and record books as supporting evidence. Teacher supervisors and principals also test students separately as a measure of teacher performance. Principals develop their own assessments for these purposes, while the assessments that teacher supervisors use are usually standardised in terms of design at the Directorate-level. The results of a teacher's appraisal are delivered to the teacher in a report. Information from teachers' appraisals are entered in NOOR, the educational database of MoE. Some Directorates and Education Offices aggregate the data in an attempt to measure teacher quality across schools. The OECD review team visited schools where teacher ratings by class and year were published and top ranking teachers rewarded.

The results of regular appraisal might not accurately reflect teacher capacity and performance

There is concern that the regular appraisal system does not accurately measure the performance of teachers. Ministry staff noted that over 90% of teachers receive over a 90% rating on their appraisals. This type of rating inflation makes the exercise meaningless and is reflective of the overall perception of appraisal as an administrative task rather than a means to inform professional growth. When asked to describe the purpose of regular appraisal, most teachers and teacher supervisors spoke about ratings rather than improving teaching practice.

Professional growth

> Teachers in KSA do not participate in professional development as much as teachers from many other countries

In KSA, teachers engage in a low amount of professional development compared to international benchmarks. In the National Transformation Plan (NTP), an explicit goal is to increase the average number of annual development hours from 10 to 18 by 2020. The comparison figure in leading countries according to NTP is 100 hours for the year 2016 (Saudi Arabia government, n.d.[11]). These discrepancies can be partly explained by the fact that teachers in KSA do not have a mandatory number of professional development hours and that their workload is calculated solely based upon classroom instruction time (World Bank & ETEC, 2016[3]).

> Teacher supervisors and local training centres are responsible for identifying and providing professional development

Teacher professional development in KSA is usually provided through local training centres. These are affiliated with Education Offices or Directorates, but are not necessarily located in the same building. Some large Education Offices and Directorates might have several training centres. Training centres are coordinated at a central level by the National Institute for Professional Education Development (NIPED) (see Main policy initiatives underway).

Teacher training needs are identified by teacher supervisors through regular appraisal. Teacher supervisors then communicate with the training centres to notify them of what types of training are needed. Training centres announce their professional development offerings at the beginning of each academic semester. Training from the training centres is offered free of charge and is delivered by designated trainers, who are often called training supervisors. While most training supervisors are former teachers, they receive very little preparation on how to develop other teachers.

In addition to delivering training on-site, trainers sometimes deliver training in schools or train specific teachers to become trainers in their own schools. In many Education Offices and Directorates, trainers and teacher supervisors foster professional learning communities in this way. Teacher supervisors identify a subject area need in a school and nominate a teacher from the school to become the designated lead for the professional learning community. The lead is then trained at the training centre and returns to his/her school to train other teachers.

Main policy initiatives underway

The fact that the quality of teaching features prominently in Vision 2030 and NTP indicates that there is wide recognition at the top levels of government that improving teaching is essential to improving learning. Led by these strategic plans, several key policy initiatives have been introduced to develop teachers and strengthen teaching in KSA.

Teacher Standards and Professional Pathways will soon be introduced for the first time in KSA

Since 2015, ETEC has been developing the Teachers Standards and Professional Pathways, the first set of professional teacher standards in KSA (these were introduced in 2020, after

the time of writing this report). In addition to defining good teaching, these standards establish a three-stage performance-based career structure for teachers - Practitioner, Advanced and Expert. To reach these levels, teachers would no longer be evaluated using the current supervisor grids. Instead, they would be appraised based on a review of evidence that includes classroom observations, lesson plan review and the creation of teaching portfolios.

Upon implementation of the new standards, all in-service teachers will have to take an examination. Teachers will be provided with diagnostic assessments, developed by ETEC, to help them prepare for their certification examination. Those who do not pass will be given six years to become qualified. Teachers who pass will be certified as Practitioner Teachers and, based on their score, some will be preliminarily considered to be Advanced or Expert Teachers. These teachers will be given four years to demonstrate that they have the competence to occupy their status. If they cannot, they will be moved down to the level below. All teachers will be expected to renew their status every five years.

A key reform of the new teacher standards is that it removes appraisal responsibilities from teacher supervisors. Instead, principals will be solely responsible for the regular appraisal of teachers. There will no longer be summative stakes attached to regular appraisal and it will be performed entirely for formative purposes. Current teacher supervisors would then become responsible for helping principals develop their teachers and improve their schools in general.

Appraisal for promotion, or evaluating teachers to move to higher levels of the professional pathways, would be conducted by a special group of assessors from ETEC. These persons would be hired on a freelance basis and not associated with a specific Education Office or Directorate. They would evaluate teachers' performance against the standards and determine if teachers have demonstrated adequate competence to be promoted.

A new consecutive master's programme for ITP is being developed

As mentioned previously, a post-graduate, master's level ITP programme is being developed after the recent elimination of the simultaneous and consecutive models. Entrance into the post-graduate programme will be dependent upon successful completion of a bachelor's degree in an academic field. The new ITP programme is expected to comprise three semesters of coursework and a one-semester teacher practicum that complements the coursework.

A new centre has been established to enhance the quality and supply of teacher training

While strengthening the pre-service education of teachers will help improve the instruction of future teachers, it will not help improve the instruction of current teachers. In-service training was historically provided by local training centres, but the quality of the training provided by these centres varied greatly (Alharbi, 2011[9]).

NIPED was established in 2016 to expand and enhance the provision of teacher professional development. NIPED currently has 30 staff and manages the operations of all training centres through the Education Offices and Directorates where they reside. Additionally, NIPED has developed several training initiatives of its own. It has created an online training portal that delivers distance training, is collaborating with Learning Forward to help promote skills-based learning and is working with the Japanese International Cooperation Agency to promote lesson plan study. NIPED also provides scholarships to

teachers for further study and recently initiated a summer training programme that enrolled over 55 000 teachers (this time has typically not been used for development purposes in the past). A final key responsibility of NIPED is accrediting training programs created by third parties. NIPED is in the process of creating accreditation standards and, once complete, these standards will enable the expansion of high-quality training throughout KSA.

The Khebrat programme sends teachers abroad to learn about and bring back best practices

Among the initiatives managed by NIPED, the most significant is Khebrat. Participants in this programme travel internationally to view best practices so they can return to KSA and catalyse educational improvement. The programme aims to enrol 25 000 participants in five years and two cohorts have already completed their experiences. Teachers, principals, supervisors and counsellors are eligible to participate in Khebrat through a competitive selection process that includes a review of their appraisal results and their English competency. Upon returning, Khebrat participants are required develop a project that they implement in their schools. The scope of these projects vary greatly and the evaluation team was told that records of Khebrat participants' activities upon returning to KSA are not comprehensive, meaning it's unclear exactly what activities participants engage in and what their impacts are. A full evaluation of Khebrat has yet to be conducted.

Standards

Strengths

Teachers standards are continuously updated and aligned with international norms

The new teacher standards define the shared values and ideas of the teaching profession in KSA and explain what good teaching looks like in practice. The standards are structured around three core domains, which reflect most of the elements that are common in teacher standards internationally (Call, 2018[12]):

1. Professional Ethics and Responsibility (3 standards and 8 sub-standards) – teachers should respect national (Islamic) norms as well as professional ethics while pursuing continuous professional development and interacting actively with other teachers and society at large.

2. Professional Knowledge (4 standards and 16 sub-standards) – teachers should be competent in pedagogical content knowledge, possess literacy, numeracy and digital skills, understand students and their learning processes and know the curriculum and how to teach it.

3. Professional Practice (4 standards and 15 sub-standards) – teachers should be able to plan and enact effective lessons while creating a conducive learning environment and formatively assessing student learning.

The new standards lay the foundation for performance-based career that is associated with consequences in status, role and salary

Creating different levels of the teaching career (e.g., beginner and advanced teachers) features prominently in teacher standards internationally (Toledo, Révai and Guerriero, 2017[13]). Teachers can be more motivated to develop their knowledge and skills if

improvements in performance are rewarded with higher status and increased salary. Establishing different levels of teaching can also encourage highly qualified teachers to stay in the profession, as they do not need to move to another role, such as principal, in order to receive a higher salary and increase in status. When higher levels of teaching are associated with new roles, such as mentorship, they can also help to generate system-wide improvements and support a culture of collaborative learning.

KSA's new standards categorise teachers into three levels -Practitioner, Advanced and Expert. It is expected, though not formalised, that 5% of teachers will attain Expert Teacher status and 15% Advanced Teacher status. The standards further explain the expectations of each level and the requirements that need to be met to achieve promotion to more senior levels. Licensing and promotion decisions draw on multiple sources of evidence, which research shows is essential for evaluating the different dimensions of good teaching (OECD, 2013). For example, to become qualified at the Practitioner level, teachers are required to pass an examination, undergo classroom observations and undertake a specified number of hours of professional development. The evaluations of teachers aspiring to Advanced and Experts levels draw on broad portfolios of teacher-generated evidence, reflecting clear expectations for teachers to evolve to become autonomous professionals.

The standards also outline what is expected of teachers at the respective levels. Advanced and Expert Teachers are expected to assume leadership positions in their schools. They should initiate innovative practices, mentor more junior teachers and, in the case of Expert Teachers, perform action research. These senior levels also receive increases in salary, which has the potential to make the teaching profession more attractive.

Challenges

New standards do not sufficiently emphasise pedagogical content knowledge

Teacher standards should send a clear message to teachers that what matters most is the quality of teaching. Internationally, this domain of expertise is known as pedagogical content knowledge, which refers to both the knowledge of a specific subject matter and the pedagogical knowledge needed to adapt the presentation of the subject to different profiles of learners (Guerriero, 2017[14]; Shulman, 1987[15]). Research shows that a teacher's level of pedagogical content knowledge is a strong predictor of student achievement (Guerriero, 2017[14]).

In KSA's new teacher standards, within the 16 sub-standards of professional knowledge, pedagogical content knowledge could be emphasised more. The standards focus on content or general knowledge and general pedagogy separately. Only one sub-standard focuses on the teaching of specific content. This is the "knowledge of content of specialisation and method of teaching" sub-standard, which is separated into content specialisation and teaching methods tailored to the specialisation. Other standards, while highly relevant, do not necessarily focus on the nexus of content knowledge and pedagogy.

While the standards reference values and ethics, expectations in these areas are unclear

In KSA, there is evidence that not all teachers are highly committed to their craft. As mentioned previously, many teachers enter the profession because they view it as a secure career. Furthermore, according to PIRLS 2016 data, principals of 37% of students in KSA primary schools reported that teacher absenteeism was a moderate or serious problem, compared to 12% across all participating countries (IEA, 2016[16]).The new teacher

standards set out in its first standard that there must be respect for Islamic norms and professional ethics, which is a productive step towards encouraging more positive behaviour. However, unlike the majority of OECD countries and a growing number of non-member countries, KSA does not have a teacher code of conduct (there are general rules for conduct as part of being a civil servant, but these are not specific to teachers) (ETICO - IIEP UNESCO, n.d.[17]). Such a code would define a set of ethical values and expectations for professional conduct with the aim of fostering teacher commitment, upholding the positive image of the teaching profession, regulating teachers' misbehaviour and protecting pupils from teachers' misconduct (Poisson, 2013[18]; ETICO - UNESCO IIEP, n.d.[19]).

There is no standard for graduate teachers

Many OECD countries specify a standard for graduate teachers (Révai, 2018[20]). These are persons who have completed ITP and passed requirements to enter the profession (e.g., an examination), but have not yet been fully certified at a particular level of the teaching pathway. Although teaching in classrooms, they might still be in their probationary period or have not yet submitted the necessary evidence to become certified. In addition to helping to regulate the quality of beginner teachers, a graduate teacher standard also acts as a reference for ITP developers and providers so they understand what a teacher is expected to do upon completing an ITP programme.

The new teacher standards contain detailed information about the requirements to become a Practitioner, Advanced and Expert Teachers. Although a committee working on the ITP program have begun to outline the competencies expected from graduates there is at present no graduate teacher standard. Without such a standard, the developers of the new ITP programme do not have a reference to guide them in their work and ETEC does not have a reference point to use if they are asked to align the Qifayat to the new ITP programme.

Rolling-out new teacher standards without other professional standards could disrupt the supply of those professions

According to the civil service system of KSA, currently almost all employees in schools, Education Offices and Directorates share the same job status, that of teacher. If individuals have the relevant qualifications, they can transfer easily between positions as their civil service status is identical. This is particularly true for the position of classroom teacher as many individuals working in education, such as principals and supervisors, were once classroom teachers.

When the new teacher standards are introduced, they will make the classroom teacher position a more attractive career with greater professional prospects. While there are plans to develop professional standards for other positions, including principal and supervisor, they will not be released alongside the new teacher standards. This sequencing might incentivise principals and supervisors to relinquish their current positions in order to return to classroom teaching and take advantage of the benefits of the new teacher standards. These circumstances would place even greater strain on the already limited supply of qualified principals and supervisors.

Initial teacher preparation

Selection

Strengths

Raising the entry bar has the potential to improve the quality of beginning teachers

An ITP programme at the post-graduate level immediately raises the entry bar to the profession. While the curriculum and structure of the new ITP programme are still being developed, the fact that a post-graduate education is required to enter the profession signals to aspiring teachers a high level of intellectual competency and preparation are needed even to qualify to become a teacher. This would boost how society views teaching and teachers.

As a post-graduate programme, selection into ITP could also be designed to attract a different type of teacher candidate. For example, it could establish subject competency as a selection criteria for entry, which would ensure sufficient content knowledge of teacher candidates before entering ITP. ITP curricula would therefore concentrate on pedagogy and practice, which could greatly improve the readiness of future teachers. Programmes could also screen candidates to determine their commitment and motivation to become a teacher.

These measures would lessen the burden on faculties of education to provide a broad range of programmes to candidates with varying levels of readiness. This would enable the faculties to focus their bachelor-level efforts on developing fewer but more rigorous programmes, particularly in early years education.

Developing new entrance requirements creates the opportunity to better align the demand and supply of teachers

The OECD review team was told that, in previous years, roughly 400 000 individuals applied for around 8 000 teaching posts in KSA. This situation suggests that the supply of teachers is misaligned with national demand and that that the development of teachers has been inefficient. Public resources have been invested in producing a large quantity of teachers, most of whom end up unemployed, as opposed to a small number of high-quality teachers who are more likely to find employment in a limited market.

A higher threshold for entry into ITP represents an important measure to addressing this situation. Fewer, more highly qualified candidates will enter ITP, meaning fewer ITP programmes would be required and less resources needed to maintain ITP throughout the country. Teacher candidates would also be more likely to be employed through the Jadarah system because they would have a higher a Jadarah weighted score and compete with fewer candidates for the same posts. This situation would represent a much more efficient investment in teachers.

The current surplus of unemployed teachers is also caused by a large number of teachers who hold bachelor-level teaching qualifications that do not enable them to pursue work in other fields. Raising ITP to the post-graduate level would help address this issue because ITP programmes would first require candidates to hold bachelor degrees in other fields (e.g., mathematics or science). Teacher candidates would then have the flexibility to be employed in those fields if they do not complete ITP or cannot find employment as teachers.

Challenges

Recruiting quality candidates into ITP will be challenging

Current and previous teacher candidates have not been the most competitive university students. Even after ITP is raised to the post-graduate level, there is no assurance that the most qualified candidates would apply. Part of the challenge is that there are currently few external benchmarks for assessing the readiness of teacher candidates before they enter ITP. This is not only true with respect to measuring subject-matter knowledge, but also candidates' suitability to enter the profession (e.g., whether they have the proper temperament and motivation).

There is also a concern that the two-year post-graduate ITP requirement to enter teaching may inadvertently discourage the best and the brightest students, especially males, from entering teaching. For these individuals, the longer period of preparation would represent an opportunity cost in terms of foregone salary and they might be deterred from pursuing teaching as a result.

Manpower planning that could inform the provision of ITP has not been conducted

To align the supply and demand of teachers, MoE has to ascertain the number of students the universities would need to train to fulfil staffing requirements at schools. As mentioned, when the bar for entry into ITP is raised, the number of institutions that offer a post-graduate ITP would be expected to decrease, but the exact number, and how many students they should admit, would have to be aligned with market needs.

However, the oversupply of teachers in KSA suggests that enrolment into ITP has not been considered from a central, strategic perspective. MoE and education faculties do not work together to determine how many teachers should be recruited and trained given the employment needs of the country. These circumstances contribute not to the current surplus of teachers, but also risk that the wrong type of teachers could be recruited (i.e., according to education level or subject-matter expertise) from the wrong areas (i.e., selecting more teachers from urban areas when rural schools tend to be more understaffed).

Progress through ITP

Strengths

Institutions focus on improving practical experiences

Practical experiences in ITP programmes are essential as they allow teachers to practice and improve upon their pedagogy. According to research, preparing teachers with an emphasis on practice - for instance through extending the practical experience or field placement for prospective teachers - has a strong influence on future student learning and teacher retention (Jenset, Klette and Hammerness, 2017[21]). Almost all the participants of the OECD's study of ITP programmes mandate a practical experience as part of their teacher preparation. (OECD, 2019[1]).

In KSA, several leading institutions already focus on providing meaningful practical experiences. King Saud University's College of Education, which sees itself as a torchbearer for the entire Middle East for teacher education, has re-framed its ITP to focus on pedagogical-content knowledge as well as developing more valuable practicum

experiences through deeper collaborations with schools. Such national models of excellence provide a source of professional capital that could be leveraged to improve ITP programmes across the country.

Challenges

ITP programmes lack an accreditation process that would help ensure their quality

A key concern about ITP programmes is the quality of instruction they offer, particularly in large countries like Saudi Arabia where ITP is offered by many different institutions of highly variable quality. One method of ensuring the quality of ITP is by accrediting teacher education programmes. Accreditation is a process in which an external body certifies that an ITP programme meets basic minimum standards that are determined nationally, such as adequately preparing teachers in classroom management, teaching methodologies, summative and formative assessment and teacher-conducted research (OECD, 2005[22]). Almost all countries that participated in the OECD's ITP study have an accreditation system for their ITP programmes (OECD, 2019[1]).

In KSA, the quality of ITP programmes has been a continuous concern. Currently there are no central accreditation standards or guidelines for the new post-graduate ITP, nor any immediate plans to develop these. Moreover, the national accreditation agency, NCAAA, though part of ETEC, does not appear to be have been centrally involved in discussions related to the quality assurance of the new programmes. There are also no specifications with respect to how teacher candidates will be assessed and graded, even though a candidate's GPA caries significant weight in the Jadarah scheme. Without such reference points, it will be very challenging to guarantee the quality of ITP programmes across a large tertiary sector with a broad range of institutional capacity and professional expertise.

Entrance into teaching

Strengths

Key procedures for entering the teaching profession are standardised and understood

In KSA, procedures that govern entrance into teaching are well-established and understood. An exit examination (Qifayat) must be passed by candidates who finish ITP and the results on this test, along with a candidate's grade point average during ITP and length of time searching for a position, are considered in a weighted selection system (Jadarah). Depending upon how many points an individual accumulates in Jadarah, he/she will be selected for a position, transferred to a different position or not selected or transferred at all. Current and new teachers are well aware of these procedures and know how to navigate these systems.

A probation period is in place and could help support new teachers

There is considerable evidence that some beginning teachers, no matter how well prepared and supported, struggle to cope with the realities of the profession when they first enter the classroom (Paniagua and Sánchez-Martí, 2018[23]). This can contribute to a high rate of new teachers leaving the job or continuing with low motivation and weak sense of self-efficacy. For these reasons, many countries require the satisfactory completion of a probationary

period before full teaching certification or a permanent teaching post is awarded. (OECD, 2005[22]). This period can provide an opportunity for new teachers to assess whether teaching is the right career and to continuously develop their classroom skills.

MoE has in place a two-year probationary period for new teachers. During this time, teachers are in position to receive support and mentorship to improve their teaching. The new teacher standards also mention the probation period explicitly, noting that teachers should be nurtured and provided with specific support during this key moment in their career.

Challenges

The Qifayat is not aligned with the new teacher standards or the post-graduate ITP requirement

Most countries with teacher standards use these to set the requirements for teacher licensing and certification (Darling-Hammond and Burns, 2017[24]). In Shanghai, for example, where there is an oversupply of teachers, officials have used the teacher standards to develop a three-part national certification examination that includes a written assessment on pedagogy and psychology, an interview about subject-matter instruction and a language proficiency test (Darling-Hammond and Burns, 2017[24]).

In KSA, the Qifayat was designed before the new teacher standards, and there do not appear to be any immediate plans to bring it into alignment with them. Similarly, there are no plans to align the Qifayat with the new post-graduate ITP requirement for teacher candidates, which means that the examination is not prepared to assess the higher-level skills that teachers should be expected to acquire through their more advanced education. Unless the Qifayat is aligned with new standards and requirements, the impact of the latter in terms of raising the skills of the profession will be diminished.

Teachers are identified as struggling by the Qifayat but do not receive structured support to improve their skills

A teacher's result on the Qifayat is only one part of his/her selection and placement through Jadarah. Some teachers might not do well on the Qifayat, but still become licensed due to large weights in other Jadarah criteria, such as how long they have been waiting to become teachers.

Through teachers' records on the Qifayat, the Education Offices and Directorates that employ them will know that these teachers have weaknesses in certain areas and were only appointed because of other reasons. However, there does not seem to be any efforts to target these teachers for specific types of training and support based upon their documented weaknesses.

First-in, first-out queue-based placement system can prevent the most qualified candidates from securing employment

One of the greatest challenges facing the Jadarah system is that it positively weights years of unemployment, thus prioritising applicants who have been in the system for a longer period of time. These circumstances, combined with the previously mentioned oversupply of teachers, help to produce a backlog of teacher candidates that disproportionately prevents younger teachers from finding suitable employment.

For example, despite indicating geographic preferences (up to 20 choices per applicant), newly hired teachers tend to be sent to remote, unappealing areas in the beginning of their assignments because all the desirable positions have been taken by those with greater seniority. Some young teachers, despite excellent qualifications, might find themselves in the back of a long queue and must wait several years before securing their first teaching post, which is likely to be an unattractive one. According to PIRLS 2016, almost 32% of teachers in rural schools (communities with fewer than 3 000 people) have five years of seniority or less, compared with 14% of teachers in schools situated in large communities (more 100 000 people).

Given this situation, highly qualified and motivated teachers might become frustrated and seek employment elsewhere. Furthermore, candidates who have been waiting a long time might not be up to date with current pedagogical knowledge and skills and they might lower the quality of teaching when they are eventually placed.

Teachers do not necessarily receive effective support during the probation period

An effective probationary period combines mentorship and professional development activities as part of an induction programme and provides formative feedback to ensure that teachers receive the support they need to develop their teaching practices during their first years on the job (OECD, 2014[25]). While a probation period exists in KSA, teachers do not always receive the support they need during this critical time. Beginning teachers do not receive a structured induction in their schools and rarely are they paired with a mentor teacher. Appraisal of probationary teachers is nearly identical to those of more experienced teachers and is performed by principals who often lack the capacity and authority to help their teachers develop (see Chapter 2).

In-service appraisal and teacher professional growth

Appraisal

Strengths

Independent appraisal for promotion is embedded into the new teacher standards

KSA's new teacher standards provide the basis for a more balanced and coherent approach to teacher appraisal. First, they set the expectation that high stakes decisions - for licensing and promotion - be taken on the basis of a transparent, clearly defined process with a high degree of independence. The latter is reflected in the plan of ETEC and MoE to create a dedicated body of teacher assessors who will be responsible for making important judgements on teachers' competence for promotion. Most OECD countries with a performance-based career structure have taken similar steps to introduce integrity into decisions around teacher promotion (OECD, 2013).

Professional learning and growth and portfolio-based appraisal are reflected in the new teacher standards

The new standards also establish a new approach to appraising teacher competence, which is anchored in the development of portfolios that contain evidence of teacher knowledge and skills. Research shows that portfolio-based appraisals, especially those that involve goal setting in relation to standards, can be particularly effective in encouraging teachers

to reflect on their practice and their development (Attinello, Lare and Waters, 2006[26]; Elliott, 2015[27]; Hunzicker, 2011[28]). In New Zealand, teachers are expected to develop portfolios of evidence of their teaching as part of their regular appraisal. This evidence might include examples of assessment tools, recorded feedback from principals, other teachers and students, samples of research and documentation of professional development (Teaching Council, 2019[29]; Education Council New Zealand, n.d.[30]; School performance management New Zealand, n.d.[31]).

According to the new teacher standards, in order to become an Advanced Teacher, Practitioner Teachers must compile creative professional portfolios. These must contain evidence that teachers tried using innovative teaching and assessment strategies and that they shared these strategies with other teachers. To become an Expert Teacher, Advanced Teachers must create leadership professional portfolios. These must demonstrate that the candidates initiated innovative teaching and assessment methods with other teachers and facilitated collaboration between teachers. Once they become Expert Teachers, individuals are expected to promote the professional growth of others and by acting as mentors to junior teachers, including helping them complete their own portfolios. Such expectations provide the basis for an appraisal system that is more focused than it has been on the past on teachers as the main agents of their own development.

Teacher supervisors regularly appraise teachers to help them improve

Formative teacher appraisal aims to provide feedback to teachers to help them improve their practice. By identifying teachers' strengths and weaknesses through appraisal, teachers and their principals can determine which possible professional development activities best meet the needs of individual teachers and those of the school (OECD, 2013[4]).

KSA has a well-established system of regular appraisal that follows a central framework and is carried out by teacher supervisors with the assistance of principals. Teacher supervisors are to work with the principal to appraise the teacher and give them advice on how to improve. Furthermore, most teacher supervisors were previously teachers, which provides them with important experience to draw upon when fulfilling their responsibilities.

Challenges

Teacher supervisors work in difficult environments and cannot provide adequate support to teachers

There are several related concerns with respect to how teachers are appraised currently in KSA. The fact that regular teacher appraisal is led by external actors – teacher supervisors - weakens its formative value because it is hard for external persons to understand a teacher's development needs and interests and because teachers are less likely to engage in an open discussion about school affairs with external agents. For these reasons, in most OECD countries the continuous appraisal of teachers is conducted internally by school leadership. While principals in KSA do play a role, both teachers and principals themselves perceive supervisors to be the primary appraisers. This also has implications for the extent to which principals feel they can direct improvement in their schools (see Chapter 2).

The reliance on external actors for regular teacher appraisal is also inefficient and very difficult to operate in a country as large as KSA. Interviews conducted by the OECD review

team revealed that teacher supervisors can be overwhelmed by the volume of their responsibilities. For example, teacher supervisors in densely populated areas who have scientific backgrounds (less common than other backgrounds) can be responsible for well over 400 teachers. In rural areas, there might be fewer teachers per teacher supervisor, but the teacher supervisors may be required to travel greater distances. In both situations, it is difficult for teacher supervisors to provide meaningful support to all the teachers whom they supervise.

Another concern is the nature of the appraisal process. Efforts have been made to update the appraisal frameworks ("grids") used by supervisors to focus more attention on effective classroom practices, such as formative assessment and active learning. Nevertheless, despite these measures, they primarily check for compliance with government requirements and are far removed from the modern vision of teaching expressed in the new teacher standards. The reliance by supervisors on the direct testing of students to form a judgement of teaching quality is also problematic. This activity can produce results that can be unfair and invalid for teachers and can disrupt the classroom learning environment (see Chapter 5). In fact, teachers themselves told the OECD review team that they do not always trust the ratings provided to them by their teacher supervisors.

There is a final tension with the existing teacher supervision system regarding support and accountability. Research shows that when used for both accountability and instructional improvement, performance appraisal can be a powerful tool for determining and enhancing the quality of teaching (Danielson and McGreal, 2000[32]). However, research also signals that it is important to distinguish clearly between these processes, highlighting that the developmental function of appraisal can be undermined unless separated from high stakes decisions relation to sanction and reward (OECD, 2013[4]). In KSA, while the ostensible purpose of teacher supervision is formative, several factors contribute to the perception that it is also a high stakes process. For example, supervisors are external to schools, engage in student testing, and provide teachers with ratings that are recorded in NOOR and can be widely accessed. Teacher supervisors themselves are also evaluated based upon the ratings they provide to teachers. These activities compel teachers and their supervisors to focus on the summative role of supervision instead of the formative functions.

New ETEC assessors might lack the capacity to appraise all teachers against the new standards

The new standards require that all in-service teachers be appraised against the standards. The quality of this process will be critical to the success of KSA's efforts to transform teaching into a professional, performance-based career. ETEC intends to hire assessors to perform this task. However, there is a question about how the assessors will be trained to ensure that the integrity of the standards are maintained and that appraisal of teachers is done accurately, impartially and consistently. The current proposal is that the assessors will be trained and managed by ETEC, but perhaps deployed locally through Directorates. This configuration carries certain risks, especially in small communities with very close interpersonal relations, situations that have already produced problems in the existing supervision system.

It is also unclear if there are enough individuals with the relevant background needed to assess all teachers in KSA. ETEC told the OECD review team that it has identified 150 assessors thus far, which is clearly inadequate for a workforce of close to half a million. However, ETEC is having difficulty identifying more people with the necessary qualifications to become assessors.

Certifying an adequate number of Practitioner Teachers could prove challenging

Implementing new teacher standards, particularly those with different levels of teaching, can sometimes have the unintended consequence of making it too difficult for teachers to become certified at even the lowest level. In Georgia, the government had concerns similar to KSA's with respect to having a teaching workforce whose practices were outdated and lacked motivation to adopt new approaches. In response, the Ministry of Education, Science, Culture and Sport unveiled a new Teacher Professional Development Scheme that required teachers to pass a certification examination, with the expectation that all teachers would be certified within five years. However, nearly a decade afterwards, the vast majority are still not certified and the government has come under pressure to lower or remove the certification requirements.

KSA might encounter a similar challenge in certifying in-service teachers to the Practitioner level. Many in-service teachers have not been educated to teach using the modern pedagogical methods envisioned by the new standards. These individuals might struggle to pass the examination or resist applying at all for certification, as has been the case with the majority of older teachers in Georgia. Nevertheless, in-service teachers might expect to be certified as Practitioner Teachers regardless, given their considerable experience. MoE will have to manage such expectations without compromising the integrity of the standards.

Expert and Advanced Teachers are unlikely to be distributed equitably throughout the country

Internationally, teacher quality tends not to be distributed randomly in a country. The most highly qualified teachers can usually be found more readily in urban areas than rural ones as these teachers are both attracted to and improved by the better resources available in cities (Ozoglu, 2015[33]). Consequently, students in rural areas who are already disadvantaged by their geography are more likely to have less experienced teachers, thus further exacerbating educational inequity (Haycock and Peske, 2006[34]).

In KSA, high-performing and experienced teachers already seek an urban school posting, which has resulted in a lack of highly skilled teachers in rural areas. These circumstances, combined with the rigorous requirements to become an Advanced or Expert Teacher, would likely contribute to a situation where more Expert and Advanced Teachers would be found in urban, well-resourced schools In fact, implementing the quotas (discussed to be 5% for Expert Teachers and 15% for Advanced Teachers, but not finalised) would likely result in some schools not having any Expert or Advanced Teachers. This which would limit the local capacity of some areas to develop teachers on probation and Practitioner Teachers and would contribute to the cycle of less experienced and competent teachers teaching in rural schools, where highly qualified teachers would be most needed.

Sustaining motivation for improvement in Practitioner Teachers will be more difficult if higher level positions become filled

In any organisation that attempts to differentiate staff, it is expected that there will be fewer senior-level staff and more junior-level staff (Ingvarson, 2018[35]). Once the senior-level positions are filled, junior-level staff will have less motivation to apply themselves as one substantial reward will no longer be available. Therefore, an important consideration in any stratified system is how to keep motivating junior-level teachers to develop themselves without formal promotion as an incentive.

Currently, in KSA, there are limited plans in place to sustain the motivation of Practitioner Teachers once senior-level positions are filled. This is a notable gap because teaching positions are viewed as comfortable and teachers tend to stay in their roles. Therefore, there is a risk that the Expert and Advanced Teacher quotas are filled with little turnover, leaving 80% of teachers without a clear trajectory for growth. These teachers might be less motivated to improve themselves professionally, which risks lower quality instruction and the potential for young, talented teachers to become disillusioned and leave the profession.

Professional growth

Strengths

Professional development occurs through NIPED and Khebrat

Historically, the teacher professional development landscape in KSA has been fragmented. Local training centres executed their own plans, often with inadequate human resources and quality assurance. The recent creation of NIPED has the potential to address these issues by co-ordinating the provision of teacher development across the country so high quality training in the most critical areas becomes available to all teachers. In addition, NIPED can help address the current problem of an inadequate supply of trainers by accrediting third-party training providers.

The Khebrat programme, managed through NIPED, intends to create a cadre of excellent teachers who can catalyse positive changes in the system. Khebrat participants experience in-depth learning in high-performing systems abroad and are required to share their learning in their communities upon their return. The OECD review team met with several Khebrat participants who were clearly motivated by their experiences and eager to apply them in their school contexts. These teachers represent an important source of professional development knowledge and their expertise can be leveraged to improve the quality of teaching throughout KSA.

NIPED intends to develop professional learning communities to help improve teaching quality

NIPED is planning to use professional learning communities (PLCs) as a major vehicle for promoting professional growth. This is a significant and positive development as research shows that PLCs engage teachers in collaborative professional development activities and can be effective in improving teacher practice (OECD, 2016[36]). To embed PLCs, KSA uses a train-the-trainer approach in which supervisors from an Education Office or Directorate receive training from the MoE on how to train individual teachers to be coaches and leaders of the PLC in their school. These identified leaders then go to the local training centre for additional guidance.

Challenges

Khebrat's potential is not fully harnessed to raise quality of teaching nationwide

At its current state of implementation, it is difficult to determine if Khebrat has made a meaningful contribution to the quality of teaching in KSA, particularly in consideration of its costs. While teachers are supposed to implement a project in their schools when they return, it is unclear to what extent this occurs and how effective those projects are. In

particular, there does not seem to be a co-ordinated effort to organise returned Khebrat teachers in order to co-ordinate the sharing of what they have learned.

A related concern is that Khebrat teachers lose seniority in the Jadarah system due to their time away from KSA. It is unclear how this will affect Khebrat teachers after the new teacher standards are implemented. What is technically considered a lack of experience due to the time they spend abroad could affect Khebrat teachers' ability to become Advanced and Expert teachers. Without a senior-level status, these teachers might not feel empowered enough to share what they learned from their international experiences.

Training organisations are overwhelmed with demand and under-staffed

Local training centres are operating at maximum capacity and are encountering difficulties trying to increase capacity. The review team heard that the ideal ratio is one trainer for 600 teachers, but training centres are unable to meet this ratio. One training centre told the review team that it requested 14 additional trainers last year and only received one. For these reasons, training centres can sometimes only provide superficial training, even in highly needed areas. The train-the-trainer model for embedding PLCs, for example, relies on training centres to provide local guidance to trainers who were first trained centrally. With their capacity constraints, however, it is unclear just how much guidance the training centres can provide and how useful that guidance is. Similarly, the 30 staff currently working at NIPED seems inadequate to co-ordinate the training needs of the entire country. Even with 60 staff, which is NIPED's goal, it would be difficult to fulfil NIPED's accreditation and co-ordination functions, let alone the resource development that is also part of NIPED's mandate.

After the new teacher standards are released, there will be even more pressure on training centres to provide relevant opportunities. Teachers will want to move up the career pathways and will depend on the training centres to support them. At their current operating capacity, it does not appear that the training centres will be able to accommodate this increased demand.

Recommendations

Standards

Devise a formal implementation strategy for the new teacher standards

Creating the Teacher Standards and Professional Pathways is a tremendous accomplishment, but also one that affects several parts of the education system, in particular the training, management and appraisal of teachers. In implementing the new teacher standards, the roles of the parties who are responsible for these parts of the system will need to be clearly defined and aligned with the expectations of the new teacher standards. These roles include, in particular, those of MoE, ETEC and NIPED.

In KSA, there have been several conversations around how to implement the new teacher standards and what risks might arise when doing so. Nevertheless, there does not appear to be a clear implementation strategy that acts as a central, common reference point for all stakeholders who would be affected. It will be critical that KSA develops such a strategy to guide the implementation process and consistently communicate expectations. Highlighted below are specific areas of consideration that should be included in the implementation strategy.

Finalise and publish the new Teacher Standards and Professional Pathways with a clear communications plan

While there is some urgency to publish the new teacher standards soon, it is suggested that the recommendations made in this chapter be considered and integrated into the final version before they are published. In particular, the OECD review team recommends that a specific standard be developed for graduate teachers, which would be a key reference for quality assurance processes as well as for the revised Qifayat (see recommendation about aligning the Qifayat). Another suggestion is placing greater emphasis on pedagogical content knowledge, which is currently represented (though not explicitly mentioned) only in one part of one sub-standard.

The communications around publishing the new teacher standards will be extremely important. There are already many concerns and rumours circulating about what they entail and what their impact will be, likely because few teachers were directly involved in their creation. Therefore, it is critical that teachers be included in the finalisation of the standards and in their publishing. The communicative environment of KSA is well suited for national outreach, as exemplified by the highly successful campaign around Vision 2030. Social media is very popular and teachers already use it to communicate with each other and their supervisors. These experiences and tools can be leveraged to reach the 500 000 teachers currently in the system, and related stakeholders such as faculties of education. For instance, in communicative materials (e.g., brochures, commercials, online advertisements), the new teacher standards could be presented in alignment with Vision 2030 and as what teachers have requested for a long time. These materials could then be disseminated through social media.

Develop a Code of Conduct to accompany the new teacher standards

The OECD review team recommends that MoE develop a code of professional conduct for teachers alongside the new teacher standards. This code would identify the mission, vision and values of the teaching profession in the Saudi Arabian context and in-service teachers should be enlisted to help create it. Such collaborative engagement creates a buy-in and gives teachers a sense of ownership over the code of conduct. It should be used to help make decisions about which candidates are most suitable to enter ITP and become teachers in KSA (see recommendation about assessing the disposition of ITP applicants through an interview). Box 3.1 describes the teacher code of conduct from Scotland.

Box 3.1. Teacher code of conduct from Scotland

The Code of Professionalism and Conduct defines the core principles and values for teachers in Scotland so both teachers and the public know how teachers are expected to behave. It includes five key principles:

1. Professionalism and maintaining trust in the profession,
2. Professional responsibilities towards pupils,
3. Professional competence,
4. Professionalism towards colleagues, parents and carers,
5. Equality and diversity.

Each of those principles includes a set of guidelines for teacher behaviour. For instance, the guideline " "you must treat pupils equally, fairly, and with respect, in line with the law and without discrimination" is under the principle "Professional responsibilities towards pupils".

The General Teaching Council for Scotland (GTCS) has the responsibility to develop, adopt and update the Code of Professionalism and Conduct. Teachers are introduced to the code during Initial Teacher Education by the GTCS and during the induction scheme for new teachers.

Source: The General Teaching Council for Scotland (2012[37]), *Code of Professionalism and Conduct*. GTC Scotland. http://etico.iiep.unesco.org/sites/default/files/uk_scotland.pdf
Golubeva & Kaniņš (2017[38]). *Codes of conduct for tecahers in Europe*: a background study. Volume 4. ETINED Council of Europe Platform on Ethics, transparency and Integrity on Education. https://rm.coe.int/vol-4-codes-of-conduct-for-teachers-in-europe-a-background-study/168074cc72

Prioritise the certification of teachers at the Practitioner level

Teachers in KSA were trained at different times and taught to use different pedagogical approaches. An important first step in implementing the new standards will be to ensure that all practicing teachers have acquired basic minimum competencies as defined by the new standards and can achieve the status of Practitioner Teacher. To this end, MoE should require all teachers to become certified at the Practitioner level within a fixed timeframe.

At present, the new standards are expected to be rolled out over six years, which is desirable because it gives the impression of maintained momentum. However, the most important consideration is whether the timeframe allows for the development of adequate training capacity to prepare teachers for the certification process. A valuable lesson from Georgia is that if teachers are going to engage positively with the scheme, they need to feel adequately supported to have a fair chance of success.

NIPED and the current teacher supervisors will play a critical role in helping to achieve this goal. The teacher supervisors can be responsible for administering the initial diagnostic assessment to determine teachers' readiness for certification. Based on the results of these assessments, supervisors can develop training plans for teachers to help them prepare to become certified. NIPED would be tasked with providing the relevant training modules to support teachers in the most needed areas. Once these procedures have occurred, MoE can make a more informed determination about how long in-service teachers should be given to reach Practitioner level.

Stagger the promotion of Advanced and Expert Teachers

How and when teachers are promoted to the newly created levels needs to be determined carefully. In Singapore, the status of Master Teacher represents the pinnacle of the teaching profession. This level of teacher, however, was announced in conjunction with Senior Teacher, which is the penultimate level of the teaching profession. Teachers were not allowed to be promoted directly to the Master level, but first had to be promoted to the Senior level. Only after there was a sufficient pool of Senior Teachers, and the transparency and rigour of the process were established, could teachers be promoted to Master Teacher.

The OECD review team learned that KSA plans to promote some teachers immediately to the Advanced (but not Expert) level. These are teachers who hold a master's or PhD educational qualification, and those currently working as educational supervisors at the

Directorate or ministerial level. For remaining teachers, promotion would first follow certification of teachers at the Practitioner level. The OECD review team supports this staggered strategy and further suggests that promotion to Advanced and Expert levels should not occur for teachers immediately following certification. Instead, it should only occur after first creating a sufficiently large pool of Practitioner Teachers. Similarly, Advanced Teachers should not be promoted to Expert Teachers until a large pool of Advanced Teachers has been established.

This staggered strategy serves two purposes. First, building a pool of Practitioner Teachers would enable ETEC to assess whether there is even an adequate number of qualified teachers to become Advanced Teachers (and Advanced Teachers to become Expert Teachers). It would be difficult to retract a promotion to Advanced level later if the quality of teachers is found to be lacking. Second, staggering promotion communicates that the integrity of the standards is important, which would build trust in the system and elevate the status of the teaching profession. Finally, the certification appraisal process requires time to be enhanced, and staggering promotion allows the process to be adjusted to meet the needs that arise (e.g., training enough assessors to be evaluators of teacher quality).

Continue to develop Practitioner Teachers

Inevitably, many Practitioner Teachers will not be qualified to become Advanced and Expert Teachers. It will be important that MoE continue to support these teachers so they remain motivated to improve. Therefore, the implementation strategy should include plans for the professional growth of the roughly 80% of teachers who do not become Advanced or Expert Teachers.

While there are no formal levels between Practitioner and Advanced Teachers, the OECD review team recommends that certain Practitioner Teachers can be given specialised roles within their schools. These might be, for example, serving as a resident expert in a certain instructional method or in using a specific tool. Other teachers from the same school would then consult with these teachers when they have questions in these areas. In schools without Advanced or Expert Teachers, the most respected Practitioner Teachers can also become middle-level school leadership. Such in-school differentiation would continue to motivate Practitioner Teachers to develop themselves even without formal promotion to the next level.

Develop a plan to manage out under-performing teachers from the system

Education systems need mechanisms to manage out under-performing teachers. This process not only removes less motivated teachers, but also creates space in the system for young, talented teachers who might not otherwise be able to find a suitable post. A common mechanism for phasing out teachers is known as a "golden handshake," in which a set of financial and other incentives are offered to encourage under-performing teachers to leave the profession. While it is not a popular measure nor a long-term solution, in the short-term it can be an effective means of renewing the current teaching force (Macgregor, Peterson and Schuftan, 1998[39]). Such measures would also signal the commitment to preserve the integrity of teaching quality, which would help elevate the status of the profession. This practice has been exercised in England, where a scheme of severance packages has been effective in encouraging under-performing teachers to accept early retirement (Philipson, 2013[40]).

The introduction of the new teacher standards and Code of Conduct offers KSA an opportunity to ensure that only good teachers remain in the service. Non-performing

teachers must be given ample opportunity to improve through training, coaching and mentoring. However, if they fail to improve, MoE and the Ministry of Civil Service ought to consider offering a "golden handshake" to ease these non-performing teachers out of teaching. In these cases, the new teacher standards and code of conduct can be used as critical reference points to justify non-performance. In Scotland, for example, breaches of the Code of Professionalism and Conduct (see Box 3.1) can lead to sanctions and dismissal of the teacher (Golubeva and Kaniņš, 2017[38]; The General Teaching Council for Scotland, 2012[37]).

Equitably distribute Advanced and Expert Teachers throughout the Kingdom and recertify them to maintain their expertise

As mentioned previously, it is likely that a disproportionate number of Advanced and Expert Teachers would be found in the urban areas of KSA, leaving many rural regions without such expertise. To address this concern, the new teacher standards could establish regional considerations when promoting Advanced and Expert Teachers, without compromising the rigour of the appraisal criteria for these top categories of teachers. For instance, if a cohort of potential Advanced Teachers has all been deemed to meet the requirements to become Advanced Teachers, but the 15% quota does not allow all of them to be certified as such, preference could be given to teachers whose Directorates or Education Offices currently lack Advanced Teachers.

Since Advanced and Expert Teachers occupy valuable and limited positions, it will be necessary to develop a process of recertification of all teachers to verify that senior-level teachers have maintained the necessary skills to perform their tasks. KSA currently plans to recertify teachers every five years. This is a positive development and mirrors policy in high-performing countries such as Singapore, where the 30% of teachers who reach senior levels are required to undergo continuous recertification. Teachers who do not continuously demonstrate the required competencies would be demoted, thus allowing giving young and talented teachers constant opportunities to become Advanced or Expert Teachers.

While KSA's five-year recertification cycle appears reasonable, it might not be realistic in the national context. As discussed, there is a noted shortage of ETEC assessors and licensing teachers at the Practitioner level should be a priority. Therefore, it is recommended that recertification occur at a slower pace. Once more teachers reach the practitioner level and once ETEC has more assessors, the regularity with which recertification occurs can be revisited.

Encourage individuals from other professions to stay in their positions

In KSA, teachers, principals and supervisors all occupy the same status in the civil service system. There is a risk, therefore, that the implementation of the new teacher standards could draw principals and supervisors away from their current positions and back to classroom teaching to take advantage of the differentiated salary structures that are available to classroom teachers.

To avoid this situation, principals and supervisors should be provided with incentives to stay in their positions before the new teacher standards are implemented. Such incentives might include a responsibility allowance that would be comparable to the salary increase that an Advanced Teacher would receive. Victoria (Australia) provides principals and assistant principals with such a benefit, termed a "higher duties allowance", in order to incentivise highly qualified individuals to pursue these positions (Victoria State Government, 2018[41])

In addition, there must also be assurances from MoE and ETEC that standards and professional pathways for other positions are being developed and will be released soon. The communication strategy around these documents need to take into consideration that current principals and supervisors will need to know *now* that the pathways are being developed and release appropriate information far in advance of releasing the actual pathways. These types of measures could convince promising principals and supervisors to stay in their current roles and develop their skills in anticipation of progressing along a pathway for their own profession in the future.

ITP

Selection

Use the subject-matter Qifayat test as a selection instrument

In KSA, the Qifayat teacher examinations are currently used to certify teachers in subject-matter expertise and pedagogy at the conclusion of ITP. With a new post-graduate ITP, however, there is a reasonable expectation that teachers will have obtained expertise in an academic subject prior to entering ITP. Therefore, the subject-matter Qifayat test, instead of being administered at the end of ITP, could instead be used as a selection mechanism into ITP, ensuring that teacher candidates have a sufficient amount of higher-level content knowledge to become teachers (see recommendation on aligning the Qifayat test). If potential candidates do not even pass the subject-matter examination, they would not be admitted into the ITP programme. Not having to remediate candidates' subject-matter knowledge would enable education faculties to focus on developing teacher practice, which would be critical to improving overall teacher quality. Furthermore, having fewer but higher quality teacher candidates would, as discussed previously, represent a more efficient investment in teachers given the current oversupply.

Use the code of conduct as a reference for interviews as part of the selection process for ITP candidates

The goal of ITP is to select and train individuals to become successful teachers. This means that not only must teachers have the right skills to teach students, but they must also have the right motivation and temperament to work in the rigorous environment of the classroom. A licensing examination such as the Qifayat can assess teachers' knowledge and skills, but is less able to assess their disposition.

The creation of a teacher code of conduct will create a reference for how teachers are expected to behave and conduct themselves. It can therefore be used to help select ITP candidates with the correct temperament to become successful teachers. When reviewing candidates for entry into ITP, it is recommended that an interview become a part of the process. The purpose of the interview will be to determine if a candidate's character is appropriate, as defined by the code of conduct, to take on teaching responsibilities.

As the majority of teacher candidates would expect to be employed by MoE, it follows that the Ministry, along with education faculty staff, should be part of the panel that interviews the candidates. This process would help to ensure the employability of the ITP graduates, contributing to a more stable and motivated workforce.

Improve manpower planning to align the supply of teacher candidates with the demand

Manpower planning is essential to creating a sufficient (and not overabundant), high-quality teaching workforce that is well distributed across subjects and geographical areas. (OECD, 2019[1]). Manpower planning consists of analysing any oversupply and shortage in the current teaching workforce, forecasting future supply and demand based on data and determining the education and training needs of the workforce (Owen, Kos and Mckenzie, 2008[42]).

In KSA, there is an urgent need to forecast the demand for teachers and use those results to manage the supply. Many policies, such as the design of the new ITP framework, roll out of the new teacher standards and execution of golden handshakes, should be informed by this manpower planning exercise in order to avoid contributing to the current problem of an overall oversupply of teachers, but an undersupply in certain regions and fields of expertise. In the absence of such information, previous responses have been hasty and have potentially produced unintented consequences. For instance, a recent freeze in teacher hiring, while having temporarily stopped more teachers from entering an already saturated market, might be exacerbating existing teacher shortages in certain fields such as math and science. Experiences such as this further emphasise the need for a thorough review of the teacher labour market.

To undertake manpower planning, MoE must:

- Understand the profile of its teaching force. How many teachers are there, how many are in the Jadarah pipeline and how have these figures changed over time? This exercise should also be differentiated according to age, gender, rural and urban locations and subjects taught. The data needed to produce these figures are available in NOOR and the review team was told that certain data points can be used to distinguish classroom teachers from other persons that occupy the same status in the civil service system.

- Understand the movement of the teaching force. What is the attrition rate? Does it differ according to the aforementioned variables? What is the movement rate of teachers between schools, and does it differ according to any of the previous variables?

- Consider the strategic direction of the country and MoE. If, for example, MoE would like to focus greater efforts on science, technology, engineering and mathematics instruction, there would be a greater need for teachers with this type of background and potentially less need for teachers with different backgrounds.

This planning must form the basis of strategic planning across different Ministries. For instance, if STEM education is a focus, the Ministry of Civil Service and the Ministry of Finance must agree to targeted hiring, the universities must devote more efforts to producing STEM graduates and the Qifayat must be aligned to evaluating potential STEM teachers. Several countries have succeeded in conducting such manpower planning Box 3.2 describes examples from Scotland, Australia and the Netherlands.

Box 3.2. International examples of manpower planning to align the supply of teacher candidates with the demand

In **Scotland**, the Scottish Government carries out workforce planning every year in order to identify the number of new teachers required and communicate those results to the Scottish Funding Council (SFC), which sets student intake thresholds into ITP providers. The workforce planning exercise relies on a statistical model that is based on pupil projections and current pupil-teacher ratios. It is overseen by the Teacher Workforce Planning Advisory Group that is comprised of representatives of the General Teaching Council for Scotland, universities, local authorities, and teacher unions.

In **Australia**, the Australian Teacher Workforce Data (ATWD) strategy unifies and connects ITP data and teacher workforce data from across the country. The analysis of the data will allow the government to determine trends in teacher education, the teacher workforce and teacher supply in order to assist in future workforce planning and inform policy development.

In the **Netherlands**, the institute CentER data carries out annually labour market estimates on teacher supply and demand over a period of 10 to 15 years for the Ministry of Education, Culture and Science. This Institute uses a forecasting model called MIRROR (Microsimulation Calculation Model Regional Education Estimates) to identify teacher needs at the regional and sub-national levels. The model uses both central and local data for different indicators such as the number of recent graduates from ITP, the age distribution of teachers and teacher qualifications. Those labour market estimates allow monitoring of supply and demand, forecasting teacher needs, assessing the effects of different scenarios on teacher recruitment, and assisting the development of recruitment strategies.

Source: The Scottish Parliament (2017[45]), Teacher Workforce Planning for Scotland's Schools. https://sp-bpr-en-prod-cdnep.azureedge.net/published/ES/2017/9/1/Teacher-Workforce-Planning-for-Scotland-s-Schools/10th%20Report,%202017.pdf.

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Introduce substantial reward and recognition schemes to increase the attractiveness of teaching

Countries with higher relative teacher salaries and where teaching has higher social status tend to attract better candidates into ITP (Park and Byun, 2015[43]). To encourage the best candidates to apply to ITPs, there must be concerted efforts on the part of MoE to elevate the attractiveness of teaching, in terms of salary and career development, to compete with other professions. This is partially addressed by the new pathways, though only the top 20% of the teachers will reach Advanced and Expert Teacher levels. Other suggestions, some discussed in greater detail in other chapters, are described below.

- Offer more generous but more selective scholarships. Currently, tuition for ITP candidates is strongly subsidised, which helps many candidates finish ITP but does not necessarily make ITP more selective. To attract higher quality candidates, the number of ITP scholarships can be reduced, but they can be made more generous and only available to the best candidates as identified by selection criteria into ITP programmes (see recommendations about using the Qifayat subject-test and an interview as part of the selection process). These scholarships could help subsidise not only tuition, but also accommodations and transportation for students who might live far away form an ITP provider.

- Reform Jadarah so promising young teachers can find more employment more easily (see recommendation about revising the Jadarah system).

- Limit the schools where teachers can be allocated during their probationary period only to those that have Advanced and Expert Teachers and where conditions will not be too challenging for beginning teachers (see recommendation about not placing beginning teachers in difficult situations).

- Introduce leadership development schemes for the most talented teachers (see recommendation about deploying teachers to other parts of the education system).

Beyond policy reforms, MoE could considering offering immediate incentives, such as recognising in the media the role of teachers in the development of KSA (Park and Byun, 2015[43])). Offering other benefits, such as housing, would further enhance the image of the teaching profession. Working environments are also important. MoE should make efforts to upgrade the infrastructure of schools with modern facilities to attract better candidates. These measures are especially important to take in rural areas in order to attract highly qualified teachers to teach in underserved schools (e.g., highly qualified teachers can be incentivised with salary increases or extra housing allowances if they work in designated needy schools).

Progress through ITP

Develop the ITP programme in accordance with internationally benchmarked practices

The OECD review team understands that the post-graduate ITP programme is still in a stage of development. As this development unfolds, it will be important to consider and integrate what research determines to be the essential components of effective ITPs. Recognised features of well-designed ITPs include (Darling-Hammond, 2006[44]; Darling-Hammond, 2006[45]):

- **Coherence, based on a common, clear vision of good teaching grounded in an understanding of learning, permeates all coursework and clinical experiences**. In KSA, providers should be required to use the new teacher and curriculum standards as the core references for programme design.

- **A strong core curriculum, taught in the context of practice, grounded in knowledge of child and adolescent development, learning in social and cultural contexts, curriculum, assessment and subject-matter pedagogy.** While many universities in KSA have staff that are well versed in developmental psychology and learning theories, they are largely disconnected from the contexts in which schools operate. Much closer co-operation between universities and the MoE will

be needed to ensure that pedagogical theory is consistently related to classroom contexts – for example, how to use formative assessment methods in large classes, or provide motivational feedback to adolescent boys. Such cooperation could take the form of closer collaboration in developing the teacher practicum and selecting schools to participate in the practicum, as recommended below.

- **Extensive clinical experiences** that are developed to support the ideas and practices presented in interwoven coursework are essential to successful ITP programmes. Many of the world's high-performing teacher education providers adopt a university-based teacher education model characterised by about 50% classroom-based courses and 50% school-based experiences such as observations and practicum. Integrating these effectively will require a partnership between education faculties, MoE and schools. In particular, MoE, through its Directorates, should play an active role in identifying good teaching practicum schools with highly competent teachers (Advanced and Expert Teachers according to the new standards) acting as mentors.

- **Assessment based on professional standards** that evaluates teaching using performance assessments and portfolios that support the development of 'adaptive expertise', the process whereby teacher candidates experiment during their practicums. At present, universities receive little guidance on how students should be assessed during ITP. In conjunction with the graduate standard that this review recommends, assessment guidelines should be developed, specifying the types of methods to be used along with the criteria and grading rubrics for awarding summative marks. Currently the GPA, which determines both graduation and placement through the Jadarah system, is highly unreliable.

Create a strategic partnership amongst MoE, ETEC and education faculties to create a valuable practicum experience for teacher candidates

Building high-quality ITP programmes with a strong emphasis on the development of teaching practice will demand close collaboration between a wide variety of stakeholders. In the Netherlands, the Dutch Ministry of Education, Culture and Science facilitates partnerships between ITP providers, school boards and individual schools, Consequently, almost half of ITP providers now collaborate with schools on course design and delivery (OECD, 2019[1]).

Already, several stakeholders (e.g., education faculties, MoE, ETEC) are co-operating on an ad hoc basis to influence the design of the new programmes. This review suggests that such collaboration be formalised in a permanent, strategic partnership that is charged with both developing and overseeing the delivery of ITP. The partnership could be steered by a small group of representatives of the main stakeholders. Education faculties should be represented by a balance of leading universities and smaller providers to ensure that considerations of capacity are taken into account. The group would be responsible for directing the timely development of key resources (programme and assessment guidelines, orientation for practicum schools and for mentors, and accreditation guidelines) and for making sure that all stakeholders are aware of and execute their responsibilities.

- MoE's role within this eco-system will be to share overarching policies that inform education faculties' teacher education approaches, including the shaping of their programmes and research priorities. With respect to ITP, MoE should identify practicum schools with Expert and Advanced Teachers to guide student teachers.

MoE should closely monitor the schools to make sure that teachers are provided with different opportunities during their practicum and that they are exposed to a broad spectrum of real teaching conditions.

- ETEC should work with the education faculties to provide initial selection tools into ITP (e.g., the subject-matter component of the Qifayat). It will also help develop (through the recommended creation of a graduate teacher standard) assessment guidelines to make graduation from ITP meaningful.

- NIPED should develop training to help Expert and Advanced Teachers mentor practicum teachers.

- Education faculties should integrate the partners' inputs into their ITP programmes and co-ordinate the efforts in enhancing the theory-practice nexus. They should communicate regularly with MoE and ETEC to maintain alignment between ITP programme offerings, the strategic direction of MoE and changes to the new teacher standards and national curriculum framework.

Begin accreditation of ITP programmes to promote programme rigour and hold universities accountable

One way to encourage ITP programmes to meet minimum quality standards and support improvement over time is through accreditation. Accreditation also provides a powerful lever for aligning teacher education programmes with national priorities and national teacher standards. In Australia, where accreditation is used as a central mechanism for quality assurance, ITP providers must demonstrate how their courses prepare candidates for the graduate teacher standard in order to be accredited.

This review recommends that KSA develop accreditation standards that are specific to ITP programmes and make it a requirement that all programmes be accredited within a set timeframe. While ITP programmes would still maintain significant autonomy to direct their activities as they see fit, an accreditation requirement would introduce a needed element of consistency across the country. This is a common requirement in many OECD countries, and in particular in those where there is a high degree of public subsidy for tertiary education. ETEC/NCAAA would be naturally positioned to lead this work, which might be carried out in partnership with an external international body, such as the Council for the Accreditation of Educator Preparation (CAEP), formerly NCATE, or the Australian Institute for Teaching and School Leadership (AITSL).

As part of the accreditation process, universities should be required to provide data about their students, including their Qifayat scores and how many are gainfully employed within a specified amount of time after graduation. In addition to submitting this information for accreditation, universities should also be required to publish this information publically. This type of transparency on test and employment outcomes can help build trust in ITP programmes, raise the status of the highest performing ones and motivate lesser performing ones to improve.

Entrance into Teaching

> Align Qifayat to the new teacher standards and curriculum standards, and increase its rigour to reflect the higher qualifications of teacher candidates

With the Qifayat, KSA has developed a strong instrument to help ensure that all new teachers meet minimum standards. This review recommends certain modifications to the Qifayat to reinforce its quality assurance function. First, as recommended above, the Qifayat's subject-matter component should be administered earlier, as a screening tool for entry into post-graduate ITP programmes. Second, Qifayat's teaching component should be retained as an examination that students who graduate successfully from ITP must take to be licensed for entry into the profession.

However, both parts of the examination must be reviewed and revised. They should be aligned with the new teacher standards (specifically the recommended graduate standard), the new curriculum standards (i.e., the subject-matter component should ask teachers to demonstrate the type of higher-level thinking that it expects students to demonstrate) and reflect the stronger skills that post-graduate candidates are expected to have. These adaptations are essential to reinforce the changes in expectations of new teachers that the new teacher standards and post-graduation requirement promote.

KSA might also consider if the content of its licensing examination should be differentiated for in-service teachers (who will have to take the examination after the new standards are implemented) and teacher candidates who just finished ITP. Since in-service teachers have acquired many years of teaching experience they can be expected show a deeper understanding of how to apply teaching concepts. Adapting the examination's content would reflect the different expectations between Graduate and Practitioner Teachers as explained by the Graduate Teacher Standards, which this chapter recommends be created.

> Revise Jadarah and use the new Qifayat to give placement priority to the most highly qualified candidates

Once certified by a more rigorous Qifayat, teacher candidates would enter the Jadarah system. The current weighting system of Jadarah discriminates against new ITP graduates by prioritising individuals who have been in the system longer. In many cases, even high scores on the Qifayat and excellent grades cannot overcome the extra weight given to seniority. Consequently, young, qualified teachers are unemployed or find themselves in the undesirable environments with little mentorship. To address these concerns, and give higher priority to the most qualified candidates, the following changes to the Jadarah are recommended:

- *Remove the weight for seniority*. In the past, MoE has considered proposals to eliminate the weight given to unemployment time in Jadarah. These reforms have not been successful due to pressure from teachers. However, the new teacher standards create an opportunity to change the overall expectations of the teacher profession. Teachers are expected to benefit from the new professional pathways and increases in salary. In this environment, it is reasonable to expect them to be placed based on competency and not on years spent in the system.

- *Transfer the 20% weight previously given to seniority to teacher performance on the improved Qifayat*. While the weight could be equally distributed between a candidate's GPA and Qifayat score, the OECD review team recommends that it be entirely transferred to a candidate's Qifayat score. Without accreditation standards

and widely acknowledged variance in both ITP quality and assessment of students in ITP, a candidate's GPA during ITP is a less reliable measure of ability.

- *Require that all teachers waiting for a position are re-licensed.* When the new standards are introduced, KSA should require that all teachers in the Jadarah queue take the new Qifayat test. However, passing the Qifayat should not confer licensure for an indefinite period. Teachers who remain in the queue even after passing the Qifayat should be required to demonstrate their continued aptitude to teach by retaking the test within a given period – for example after 5 years. A similar practice exists in Australia, where teacher licensing is mandatory and must be renewed periodically (OECD, 2013[4]). To support this policy, MoE will need to make training courses available that would help teachers to meet the new standards.

- *Prioritise the placement of certain teachers according to need.* Although there is a general oversupply of teachers in KSA, there is a shortage of teachers, particularly highly qualified ones, in certain regions and in certain fields. The previously recommended manpower planning exercise will reveal these shortages in greater detail. Jadarah can be used to address directly these identified shortages by prioritising the placement of candidates from those regions and in those fields. If, for instance, there is an urgent need for science teachers in one Directorate, then the most qualified science teacher candidate from that region should receive priority in Jadarah, even if his/her combined weight score is slightly lower than that of others'.

It was beyond the scope of this review to examine comprehensively the Jadarah system, as it is less related to the preparation and training of teachers. However, it is clear that other elements of the system require reform. The system has the strength of being objective and understood. Nevertheless, the fact that teacher placements are so heavily centralised creates considerable rigidity and inefficiency. It also encourages teachers to apply constantly for movement in order to take advantage of favourable circumstances one year that might vanish the next. Any changes to the placement of new teachers should be made alongside a thorough examination of the Jadarah system as a whole.

Make accommodations in teachers' workloads so beginning teachers can receive mentoring and avoid placing them in situations that are overly challenging

The first two to three years of teaching are crucial in a teacher's career. They determine not just if the teacher stays in the profession, but how the teacher perceives what is valued in the system. To help teachers during this period, mentorship from senior teachers is crucial. The new teacher standards in KSA already articulate the mentoring expectations of teachers during their probationary period. To be mentored, however, beginning teachers' workload must be reduced so that they can engage in professional conversations and learning with Advanced and Expert Teachers. This would also imply a reduced workload for these Advanced and Expert Teachers. Currently, however, the standards do not mention that beginning teachers or teachers in mentoring positions would have reduced workloads. This accommodation needs to be made explicit for meaningful mentoring to occur.

Box 3.3. Workload expectations for teachers on probation in Scotland and Singapore

In **Scotland**, teachers on probation are expected to teach in the classroom roughly 16 hours per week and carry out continuous professional development for around 7 hours per week. Compared to experienced teachers, their teaching load is reduced by approximately 20%. As part of their probation period, they are expected to:

- Prepare a Professional Development Action Plan (PDAP), jointly determined with their mentor, at the beginning of the probation period, an Interim Professional Development Plan in the middle of probation period and a final profile report at the conclusion;

- Participate in professional development activities according to their PDAP;

- Compile an induction portfolio of professional development activities and update it throughout the induction period;

- Meet weekly with their mentors to receive their support and advice;

- Carry out classroom observations in experienced teachers' classes,

- Take part in formal assessment meetings to review progress and identify strengths and areas for development.

In **Singapore**, teachers on probation have a reduced teaching workload that represents about 80% of the teaching time of an experienced teacher. This allows for teachers on probation to engage in professional development activities and for other activities such as lesson planning, observation of other teachers' practices in classrooms and mentoring. The in-service courses provided to beginning teachers in the framework of the beginning Teacher Induction Program address various topics such as pedagogies, classroom management and building relationships with students.

Source: Scotland Teacher's Union (2017[46]), *Induction Planner 2017 (Scotland)*. Scotland NASUWT The Teachers' Union. https://www.nasuwt.org.uk/uploads/assets/uploaded/d39fccdc-6c87-4a99-a9c88056296825a8.pdf
ATL (2012[47]), *Induction making it work for you: Our guide for probationer teachers in Scotland*. https://www.atl.org.uk/Images/Induction%20-%20making%20it%20work%20(Scotland)%20-%20October%202012.pdf
NCEE (2016[48]), *Empowered educators: How high-performing systems shape teaching quality around the world. Singapore: a teaching model for the 21st Century*. http://ncee.org/wp-content/uploads/2017/02/SingaporeCountryBrief.pd f

The mentorship provided by Advanced Teachers would naturally require that, in the future, beginning teachers be posted only to schools that have Advanced and Expert Teachers. In addition to this requirement, new teachers should not be allocated to difficult and challenging teaching environments. In challenging schools, beginning teachers, even with mentorship, would have to focus more on discipline and classroom management instead on focusing on teaching and learning. This would give beginning teachers the wrong impression of teaching and risk that they leave the profession.

In the interim period, as the new teacher standards are still being introduced, it will be important to strengthen the experience of current teachers during their probationary period. These temporary reforms do not have to be comprehensive, as they would no longer apply after the new teacher standards are introduced. Nevertheless, the OECD review team

recommends that all schools required to nominate official mentors who would be responsible for supporting teachers in their school who are in their probationary period. The mentors should be given guidelines that explain what is expected of them and access to courses at their local training centre to help them support beginning teachers.

Externally validate the final probation decision

In most OECD countries with formal probation appraisal, a combination of evaluators internal and external to the school are involved in deciding whether the beginning teacher meets the requirements for full certification. The decision is typically made by an individual that is familiar with the trainee's conduct, such as a principal or mentor, as well as an external evaluator (OECD, 2014[49]). The externality is important to maintain the independence of the decision and reliability of judgement across schools.

After the new teacher standards are implemented, teachers who complete their probationary period in KSA will be eligible to become Practitioner Teachers if their principals approve of their performance and if ETEC assessors determine that they meet the requirements outlined by the standards. In the meantime, however, teachers become fully certified based solely upon the probationary decision of their principals. Given the backgrounds of Saudi Arabian principals, many might not be qualified to evaluate the previous performance and future potential of teachers who are completing probation. The review team was even told that principals dislike the pressure of making this decision without external support.

The OECD review team recommends that, before the new teacher standards are implemented, a principal's final probation decision be validated by the relevant teacher supervisors. The supervisors are more knowledgeable about pedagogy and can speak to the teacher's instructional practice, while the principal could speak to the teacher's behaviour and conduct. This requirement will be challenging for supervisors given their current capacity constraints, which is why it will be important to take measures to free up their time, such as encouraging more peer learning (see recommendations about professional growth) and reducing supervisors' oversight responsibilities of high-performing schools.

In-service appraisal and teacher professional growth

Appraisal

Make a distinction between appraisal for licensing and promotion, and regular appraisal

Currently, teacher supervisors are responsible for summatively appraising the performance of teachers and developing teachers' skills. According to the new teacher standards, an external group of teacher assessors will be identified and given appraisal for promotion responsibilities. It will be critical to distinguish clearly the role of these external assessors and, after implementation of the standards, the role of the principals and current teacher supervisors.

The OECD review team supports that external assessors be responsible for appraisal for promotion. That is, when Practitioner Teachers wish to become Advanced Teachers, and when Advanced Teachers wish to become Expert Teachers, they must undergo a process that involves a review, by external assessors, of portfolios that they create and other aspects of their performance.

Principals should be responsible for the regular appraisal of teachers. Unlike appraisal for promotion, regular appraisal occurs according to a pre-defined schedule and would not have summative consequences for teachers (i.e., they would not determine promotion). Instead, regular appraisal would designed to give teachers constructive information about their performance with the aim of helping them develop.

It is not recommended that the current teacher supervisors be part of the appraisal process. They are not external enough to provide impartial determination for appraisal for promotion and do not have enough school-level knowledge to provide meaningful regular appraisal of individual teachers. However, supervisors would play a vital role in helping teachers grow and improve as part of a broader reconfiguration of the supervisory functions in KSA that this review recommends (see Chapter 2).

Select and train respected educators to be competent and impartial assessors

The initial assessment of teachers in the new teacher standards must be fair and accurate to build trust in the new teacher standards. Therefore, it is critical that the initial batch of assessors, who will be responsible for appraisal for promotion, must have the expertise and experience to evaluate teachers properly, and the esteem of the teaching community such that their decisions are respected.

The review team was told that ETEC intends to employ freelance assessors, but are having difficulty identifying and recruiting enough qualified individuals. ETEC plans to introduce specific standards for assessors, which in the future should help develop and select individuals to carry out this role. In the shorter term, KSA could consider targeting Khebrat graduates for this role as they are currently underutilised and have had exposure to the type of teaching that the new teacher standards seek to encourage. In order to reinforce the training of assessors, ETEC might also consider partnering with international bodies, such as the National Board of Professional Teaching Standards (NBPTS) in the USA, who could help design and deliver preparation courses in teacher evaluation and work directly with Saudi Arabian assessors to review their practice. This could serve to reinforce both the independence and integrity of the role and its status.

Redefine regular teacher appraisal as a process of professional reflection and growth and align appraisal procedures with this approach

With appraisal for promotion being conducted by assessors, regular appraisal of teachers would be conducted by principals with the aim of helping teachers grow and improve. This redefinition of regular appraisal will require that certain extant practices be stopped. For example, the current grid that is used by supervisors to rate teachers and the ratings themselves should be eliminated. They are too focused on simple compliance measures and do not accurately capture the activities that teachers engage in to improve student learning. In fact, they even have the effect of making teachers focus on measures that might not impact student learning, but do help them achieve higher ratings according to the grids, such as progression through the curriculum and use of certain materials. The fact that the overwhelming majority of teachers receive extremely high ratings from their external evaluations further testifies to the ineffectiveness of the grids. Teachers have identified how to orient their activities to receiving high ratings such that the ratings no longer have any meaning.

The testing of students as a proxy of appraising teacher quality should also stop. Research shows that a multitude of factors influences how students perform on assessments, in particular their socio-economic background and the previous education they have received.

As such, the assessment results of a teacher's students is a much stronger reflection of the intake of a teacher's students than the performance of that teacher (OECD, 2013[4]). This type of exercise does not evaluate a teacher's contribution to student learning and would only encourage teachers to "teach to the test," thus actually distorting classroom instruction instead of supporting it.

Instead of using these tools, regular appraisal of teachers could be conducted through a simple three-phase annual process. First, teachers and principals should engage in performance planning during which annual targets are set in relation to the Teacher Standards and school goals. Teachers would then receive coaching not only from their principals, but also from available Advanced and Expert Teachers so their performance is continuously reviewed and they receive regular feedback. Principals would then deliver an evaluation of the teachers, which would be in the form of qualitative descriptors that are aligned with the new teacher standards and intended to help direct teachers' future development. Box 3.4 describes effective formative appraisal practices found internationally.

Box 3.4. What makes for an effective formative teacher appraisal

Effective formative appraisal aims to provide meaningful feedback to teachers and inform classroom practices. It is usually carried out by an evaluator(s) that is familiar with a teacher's work and has the opportunity to observe their teaching. In most OECD countries, the regular appraisal of teachers is led by the school leadership team because they have 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. In addition to classroom observations, evaluators might rely on teachers' self-evaluation and teaching portfolios to inform the appraisal process (OECD, 2015[56]).

Appraisal results are used to create individual teacher development plans, which define the type of activities a teacher will undertake in order to improve specific areas of practice. According to research, such plans are most effective when they connect individual objectives with school priorities for teacher development, as this helps to foster teacher collaboration and peer learning (Matt Clifford et al., 2012[57]).

Source: Clifford et al. (2012[57]) Linking Teacher Evaluation to Professional Development: Focusing on Improving Teaching and Learning. National Comprehensive Center for Teacher Quality. https://gtlcenter.org/sites/default/files/docs/LinkingTeacherEval.pdf
OECD (2015[56]), Education at a Glance 2015: OECD Indicators. OECD Publishing, Paris. https://dx.doi.org/10.1787/eag-2015-en
OECD (2013[4]), Synergies for Better Learning: An International Perspective on Evaluation and Assessment. OECD Publishing, Paris. https://dx.doi.org/10.1787/9789264190658-en

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Train principals on helping teachers develop

In their current roles, principals are more concerned with administrative tasks rather than with helping teachers grow as professionals. After implementation of the new teacher standards, principals will have greater responsibility for formatively assessing teachers in order to help them develop. Principals will have to be trained and supported to perform this role and to use the new teacher standards as part of the process.

To aid principals, ETEC could provide them with diagnostic assessment tools to help assess teachers' skills against the expectations of the new standards. These could be variations of the diagnostic assessments that ETEC is currently developing to help teachers prepare for certification. The assessments can be linked to the sub-standards and be further disaggregated by grade levels and subjects. These assessments would not have stakes, but would be used to identify teachers who are in need of professional development and then inform the design of the training they receive. This type of guidance would help principals accomplish what will become one of their primary goals after the new standards are implemented-develop their teachers so all of them achieve Practitioner Teacher status (see recommendation about devising an implementation strategy for the new standards). Box 3.5 identifies more tools and processes that are used internationally to conduct school-based formative assessment of teachers.

Box 3.5. Research into school-based formative assessment of teachers

School-based assessment tools and classroom observations can be used to identify gaps in teachers' knowledge and skills. The Framework for Teaching (Danielson, 2007[50]) or the comprehensive 41-element model (Marzano, 2012[51]) have been used internationally for this purpose. Marzano stresses that, to identify gaps and to improve teaching practice, an assessment system must:

- Be comprehensive in its coverage as well as be specific in description of each aspect of the tool;

- Have developmental scales;

- Have rewards for growth.

However, it is not just the tools that support teacher improvement, it is the process. Danielson shares a practice where teachers are not passive objects of teacher assessment, but rather active agents involved in self-assessment, reflection as well as co-owners of the assessment process to improve their own skills and knowledge. There must be very clear definition on what is good teaching and it must be easily identifiable and accepted by teachers. Further, there must be space and time for professional conversations on how teachers can improve their practice.

Professional Growth

   Use the results of the Qifayat and regular appraisal to inform the content and
   delivery of targeted professional development

NIPED is the most critical central entity in the professional development ecosystem of KSA. However, NIPED is already struggling to meet existing training demands and those demands will only grow when the new teacher standards are implemented.

To allocate the resources of NIPED and the training centres most efficiently, decisions about what training to provide and where it should be provided should be made based upon a careful review of the available evidence. This chapter has recommended that the competence-based component of the Qifayat be administered after candidates complete ITP and that diagnostic tools be used as part of teachers' regular appraisal to identify skills gaps. The results produced by these two assessments can be used to inform decision-making about training offerings in order to avoid investing valuable resources in ineffective ways.

Box 3.6 describes international benchmarks that should be considered when developing professional development opportunities.

Box 3.6. International benchmarks for professional development

Several international benchmarks have been established to guide countries in selecting and accrediting training opportunities for teachers. Learning Forward, a non-profit international membership association that works to promote high-quality professional development, advocates that seven be followed by training coordinators. Selected benchmarks that are relevant to KSA are listed below:

4. The professional learning outcomes ought to be aligned with national teacher standards and expected learning outcomes.

5. The professional learning design must integrate learning theories, models and current research. Common features such as active engagement, modelling, reflection, metacognition, application, feedback, on-going support, and formative and summative assessment must be present and lead to changes in knowledge, skills, attitudes and teaching practice.

6. A number of these features require on-going support through face-to-face or online interaction in the implementation stage. One of the most powerful forms of learning is job-embedded where there on-site support. This would require the training providers to build the capacities of principals and experienced teachers to support other teachers in their schools.

Source: (Learning Forward, 2019[52]; Learning Forward, 2011[53])

In addition to the content of professional development, attention should be given to where support is delivered. It is recognised that isolated, rural areas are already lacking teaching capacity. Reviewing data to better understand teachers needs will further confirm this disparity and also identify what specific needs are most lacking in the least resourced areas of the country. Teachers from these areas will need the most capable trainers and the best resources in order to provide instruction that is comparable with areas that are inherently better resourced. In China, for instance, rural teachers are provided by the government with access to special training programmes specifically designed to improve their skills in their contexts (OECD, 2016[54]).

Use technology to expand access to training opportunities

Online professional development has the possibility of achieving greater and broader impact than face-to-face training, especially if it is coupled with quality facilitation (Borko, Jacobs and Koellner, 2010[55])). Teachers like that online learning portals give access to instant pedagogical and content knowledge through a format that can be highly interactive (Holmes, Signer and MacLeod, 2011[56]). A particular advantage of digital training is that it has the potential to show teachers practices that they cannot see through face-to-face training. Research has shown that teachers respond positively to viewing good teaching practices that they can adapt for their own classroom contexts (Victoria State Government, 2018[57]). In Singapore, teachers can access the "One Portal All Learners" portal where instructional videos, lesson plans and issue-based professional discussions are facilitated, providing just-in-time, bite-sized professional development (Bautista, Wong and Gopinathan, 2015[58]; Huat, n.d.[59]).

Given the size of KSA, NIPED should invest heavily in its digital learning portal to augment face-to-face learning. Its platform should be able to provide personalised professional learning with formative and summative assessments built in and online support from the Education Offices, Directorates and NIPED. With the manpower constraints in training centres and NIPED, the digital platform could stretch existing capacity and allow a limited number of trainers to reach more teachers.

Redefine the role of current teacher supervisors to provide professional development support after implementation of the new teacher standards

Chapter 2 recommends that the school supervisory standards be updated to reflect the solely formative role of the current teacher supervisors, who would become "professional learning supervisors". These supervisors, as mentioned previously, will not be responsible for any appraisal of teachers, but will act solely to support the improvement of teaching and learning in schools.

Employing dedicated staff in a professional support role is an established practice in several school systems. In Singapore, each school has a school staff developer (Hairon and Dimmock, 2012[60]). This position acts as an on-site coach, a source of expertise for good teaching practice and a training facilitator for teachers. He/she customises training programmes for individual needs and in consideration of the school's goals. School staff developers are often heads of departments to ensure that professional support is also aligned with subject-specific requirements.

Given their prior experience as teachers and their engagement with teachers as subject-specific supervisors, current teacher supervisors are well situated to become professional learning supervisors. In this role, they would provide professional development support to schools and teachers and help connect the new teacher standards and the overall goals of MoE to local teacher and school needs. Their specific responsibilities might include:

- Maintain professional development plans for principals and teachers;
- Visit schools to observe instructional practice and suggest growth steps for principals and teachers;
- Co-ordinate activities among subject area specialists, principals, and NIPED;
- Assist schools in articulating the availability of subject area materials and program needs.

Allocate more non-instructional time to professional development

Teachers thrive in school environments where they have sufficient time to plan, collaborate with colleagues and discuss student work and effective teaching strategies (Reeves, Emerick and Hirsch, 2006[61]). To enable this type of development to occur regularly, teachers must have time allocated specifically to engage in such activities. In Scotland, full-time teachers are required weekly to engage in up to 12.5 hours of scheduled, non-teaching work, which includes activities such as staff meetings, planning, professional review and development (SSTA, 2016[62]).

In KSA, a teacher's workload is based on only the time spent in the classroom. Professional development or other non-instructional activities are not accounted for adequately and thus are not given sufficient priority. Within schools, there must be dedicated time - daily or

weekly - for teachers to gather to learn and share ideas. Professional development, sharing and learning as well as action-research, which is in the new teacher standards for Advanced Teachers, must be viewed as part of teachers work and hence incorporated into their workload. As Advanced and Expert Teachers are expected to contribute more to school-level professional development their classroom instructional expectations will need to be reduced more than those of Practitioner Teachers (also as recommended above with respect to mentoring teachers on probation).

Develop teacher-leaders by deploying them in other parts of the education system to cross-fertilise ideas and encourage deeper professional learning

There is increasing international recognition about the importance of giving the most promising teachers opportunities to develop their leadership skills. This not only elevates the status of the profession, but also expands the impact that these teachers have on their colleagues and students (Curtis, 2013[63]). In Washington, DC, the most qualified teachers are encouraged to apply for the Leadership Initiative for Teachers. As part of this programme, participants are given leadership opportunities outside the classroom, including sitting on the Teacher Cabinet to provide monthly input on policy, direct curriculum initiatives and influence teacher recruitment and selection (District of Columbia Public Schools, n.d.[64]).

To promote deeper professional learning and fast track the development of promising teachers, MoE could consider offering placements for talented teachers in Education Offices, Directorates, education faculties, or education agencies like NIPED and ETEC. The duration of these placements could range from one to three years and would allow participating teachers to learn more about the education system from a different perspective. Some potential responsibilities that teachers could assume during their placements include:

- At MoE, these teachers could provide vital, "on the ground" input for policy development that affects teachers. They would rejuvenate the current MoE staff with new members and bring new, relevant ideas from the field.

- In the education faculties, especially with the launch of the post-graduate ITP, these teachers could be adjunct lecturers or teaching fellows that provide teacher candidates with practical insights on how learning theories are translated to teaching practice (see recommendation about creating a strategic partnership to improve ITP practicums). The teacher-leaders would gain professionally as they learn more about learning theories and education research methodologies, which could be applied in their schools when they return.

- At ETEC and NIPED, these teachers could be additional resources for the effective and broad-based implementation of the new teacher standards as assessors and trainers, respectively. The teachers would gain knowledge and skills on performance evaluation as well as training design and delivery. These skills would be essential to have when these teachers become school leaders or supervisors as they assess, coach and train their own colleagues.

Review the impact of Khebrat and identify different ways to use the experience of returned Khebrat teachers

While Khebrat's intent is positive and clear, a comprehensive review of its effects would be useful to determine how the programme can be made more impactful. Anecdotal

evidence suggests that, upon returning to KSA, Khebrat teachers might share their experiences with teachers in their schools, but that their influence does not necessarily extend pass their immediate surroundings.

The review team suggests that Khebrat teachers can play a larger role within the education system in order to affect it more meaningfully. For instance, they can receive greater consideration to become Advanced or Expert Teachers. They can also be considered to become assessors who are responsible for appraisal for promotion. They would also be suitable candidates to become the aforementioned teacher-leaders and be posted temporarily elsewhere in the education system.

A final important consideration is how Khebrat graduates can be deployed in ways that would help to narrow inequities in education quality across KSA. It has been mentioned numerous times that capacity and resources are not distributed equally across the country. Khebrat participants represent the most talented teachers in the country and their skills and experiences should be allocated to the neediest areas. This can be accomplished through the initial selection of participants into Khebrat (e.g., prioritising applicants from under resourced areas) or placement into schools upon their return (e.g., purposefully allocating returned Khebrat teachers through the Jadarah system into under resourced areas). Importantly, the OECD review team recommends that an explicit purpose of Khebrat should be to diminish the educational inequities found between different regions. This purpose should be clearly advertised through brochures, commercials and social media to interested teachers and the public, which will help communicate that teaching in high-needs schools is a task that is not only demanding, but also associated with high status.

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Chapter 4. Modernising the curriculum and assessment practices

This chapter looks at how Saudi Arabia's curriculum and assessment practices influence student learning. In the past, Saudi Arabia has typically relied on textbook content to direct what students learn. Assessment was based upon the amount of factual recall that students could demonstrate, often also based on textbook content. These strategies, however, are not supporting the country's aims to train a labour force that is highly skilled and able to apply their knowledge to solve problems in novel situations. In response to these circumstances, Saudi Arabia has developed a national curriculum framework that focuses on skills and competences. It has also created a National Assessment Programme to assess student learning against the curriculum and help teachers understand how they can do so as well. This chapter makes suggestions about how the curriculum framework can be further strengthened, and how teacher appraisal methods can be reconfigured to help teachers implement the new curricula. Regarding assessment, this chapter recommends that Saudi Arabia create a national assessment framework to help co-ordinate the numerous assessments that students take, support teachers to adopt more modern assessment practices, and refine national assessments and examinations to reflect and support the educational goals of the country.

Main features of curriculum and assessment in Saudi Arabia

A curriculum is the strongest expression of the goals of an education system. What students should know, how they should be taught and how their learning should be assessed are articulated through the curriculum's framework, learning standards and accompanying materials. Through its continuous curriculum reforms, Saudi Arabia has communicated its aims to modernise its education system. The country envisions a departure from a focus on learning content, teacher-led instruction and assessment through memorisation and movement towards a focus on developing complex skills, student-centred learning and assessment through applying knowledge in novel situations. Saudi Arabia's reform efforts, however, have not fully succeeded in transforming the nature of education in the country. Teachers still largely rely on textbooks to guide their instruction and students sit through in upwards of one hundred hours of multiple-choice testing per year.

Saudi Arabia is about to introduce its first national curriculum framework, which will not only guide the creation of a more modern curriculum, but also provide an opportunity to address several of the systemic issues that have prevented previous reforms from being embedded in all classrooms across the country. This chapter analyses and makes recommendations about how the curriculum framework can more clearly communicate the country's educational aims, how teacher supervision procedures can be revised to reinforce implementation of the curriculum and how student assessment structures can be transformed to ensure that students have acquired the most important skills they need to be successful in a modern, knowledge-driven economy.

This chapter looks at Saudi Arabia's curriculum reforms from the perspective of three dimensions: the intended curriculum, the implemented curriculum and the assessed curriculum. These dimensions are illustrated in Figure 4.1 and are discussed in detail next.

Figure 4.1. The intended, implemented and assessed curriculum
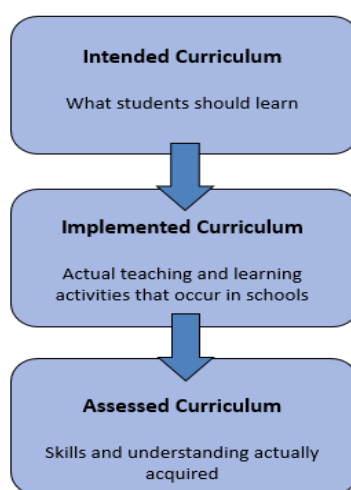
Source: Adapted from Taguma (2017), Preliminary Findings from the OECD Education 2030 project. OECD. https://www.nier.go.jp/kankou_kiyou/146/b08.pdf

Intended curriculum

The intended curriculum refers to what the curriculum expects students to learn and, through these expectations, expresses nationally held beliefs about underlying values, pedagogical methods and assessment aims (OECD, 2013[1]). The intended curriculum increasingly includes objectives for learning attainment, often termed learning standards, which clarify what students are expected to have mastered at the end of a cycle of education. These elements can be further be disaggregated through phases or grades, and specific learning areas.

Saudi Arabia's national curriculum remains strongly textbook centred, but has been updated continuously to integrate modern learning concepts

The curriculum in Saudi Arabia is strongly textbook centred. Until recently, other references that might guide how teachers and schools organise learning, such as learning objectives or performance standards, have been lacking. As a result, the central resource for determining what students learn have been the content and outcomes contained in national textbooks. In interviews with teachers, supervisors and policy makers, when the OECD review team asked what was understood by "the curriculum", they referenced the contents of their textbooks.

Over the past two decades, the national textbooks provided to schools have been updated continuously to integrate more modern concepts and student-centred approaches. In each iteration, the goal has been to move education away from the strict memorisation of facts and towards the development of higher-order thinking skills and applied knowledge (World Bank and ETEC, 2016[2]). Content and objectives have also been more strongly aligned with international standards, notably through benchmarking with TIMSS. This process of curriculum renewal has been constant and affected all subjects, in particular the sciences and mathematics.

Curriculum development is centralised and split across entities

Historically, the development of textbooks and other curriculum materials (teacher resources, student workbooks, sample tests and quizzes) has been led by the MoE. In 2007, Tatweer for Education (Tatweer) was established as an executive arm of the MoE and assumed responsibility for producing most textbooks and other resources. In the past few years, Tatweer has invested significantly in the development of digital materials and created a national education portal (iEN) to host materials that educators can access online (see Main policy initiatives underway).

Since 2013, the Education and Training Evaluation Commission (ETEC), a standards setting and assessment organisation, has assumed some of the main responsibilities for creating overarching curriculum documentation and guiding the development of curriculum materials. Notably, ETEC has developed the first national curriculum framework and is in the processes of developing subject specifications, including performance standards that align with the framework (see Main policy initiatives underway). At the time of writing this chapter, the national framework was not yet been approved by MoE.

Tatweer carries out regular revision of curriculum materials using a 'corrective constructive approach,' which includes correcting mistakes or misconceptions and updating information and statistics. Pursuant to this approach, Tatweer has already

begun to review existing resources to see what adaptations and new materials will be required in accordance with the new framework.

While focus groups of teachers and supervisors have been consulted on these developments, overall it appears that stakeholder consultation was relatively limited (Alnefaie, 2016[3]). Similarly, it does not seem that there are plans to pilot the curriculum framework in select schools before it is fully introduced. In the past, changes to the curriculum and accompanying materials have been introduced rapidly and across all grades simultaneously. During these review cycles, channels for collecting teacher feedback during the review process also appear to have been limited.

Important efforts have also been made to review how learning time is used

There are 160 days of instruction per year in Saudi Arabia, compared to 185 across OECD countries (Kingdom of Saudi Arabia, 2018[4]). The shorter school years, plus expectations that schools follow strict curricular time tables, give schools little freedom to adapt the curriculum and, until recently, gave students very limited curricular choice. A number of recent reforms intend to provide more flexibility and time for student-led activities. Notably, the structure of secondary schooling is being adapted to a credit system that allows students to choose which subjects they take each academic term. The MoE has also added an extra hour of instruction to the school day in order to encourage students to participate in extracurricular activities, with a focus on applied academic activities, such as science clubs and sports.

Implemented curriculum

The term implemented refers to the actual teaching and learning activities that occur in schools. In effect, the implemented curriculum is a manifestation of how the intended curriculum is translated into practice

Despite concerted efforts to modernise teaching and learning, classroom practices in Saudi Arabia remain very traditional

The constant renewal of Saudi Arabia's curriculum has been accompanied by a broad array of training initiatives that are intended to support teachers in adopting modern pedagogies. Many of these initiatives have been designed in conjunction with the release of new materials, with a strong focus on the type of job-embedded support that international experiences shows is most effective in helping teachers embrace new methods (Darling-Hammond and Burns, 2017[5]). This is the case, for example, of the Maths and Science Blended Professional Development Programme that promotes student-centred instruction (see Main policy initiatives underway).

However, there is consensus that these efforts have not yet translated into significant change in instructional practices in most Saudi Arabian classrooms. Research shows that, in many schools, teaching and learning is still very focused on memorising facts to pass tests rather than developing deep learning (Alhareth, 2014[6]). Pedagogy is characterised by teacher-led lectures with students taking notes and students are not systematically encouraged to be critical, reflective learners. These observations were confirmed in OECD interviews with teachers, principals and supervisors.

Teachers rely heavily on the provided resources, especially textbooks

An important reason why the intended curriculum is not widely reflected in the implemented curriculum is that teachers in Saudi Arabia rely heavily on the resources they are given, especially textbooks, to plan their lessons (Albedaiwi, 2014[7]). While textbooks are a central resource for teaching in most education systems, what is distinct in Saudi Arabia is the extent to which teachers are reliant upon them to structure their lessons. Instruction frequently follows the textbook from cover to cover, with teachers exercising little discretion as to what material might need to be repeated, adapted or put aside in response to learner needs.

Several factors explain teachers' heavy reliance on textbooks. These include the relatively weak pedagogical knowledge and skills of many teachers (see Chapter 3) as well as the lack of understanding of the overall learning objectives and standards that they should be working towards. The fact that teacher supervisors monitor teacher compliance with the textbook and assess students against lesson unit outcomes further reinforces teachers' dependence on textbooks.

Assessed curriculum

The assessed curriculum is the knowledge, skills and understanding that learners actually acquire as a result of teaching and learning, as demonstrated through different means of evaluating student learning. This includes overall policy around assessment and types of assessment, such as classroom assessments (e.g., tests and quizzes administered by teachers), national standardised assessments (e.g., standardised tests with no formal consequences for students) and examinations (e.g., standardised tests with consequences, such as to determine a student's entry into tertiary institutions). Assessment literature traditionally makes a distinction between assessment for summative and formative purposes. Regarding the instruments used to assess students, two important qualities are to what extent the instruments are valid and reliable. These terms will be used to discuss the assessed curriculum in Saudi Arabia and their definitions can be found in Box 4.1 .

Box 4.1. Key definitions

- **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.

- **Summative assessment** - assessment of learning, summarises learning that has taken place, in order to record, mark or certify achievements.

- **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 consistently 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), *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.

Assessment policy and governance

Assessment policy and governance refers to the definition of the objectives of a student assessment system and the regulatory framework in place to ensure that student assessment results are used in a way that helps achieve the objectives. Assessment policy and governance also includes the distribution of responsibilities for implementing the assessment framework and how different levels of governance interact to form a comprehensive assessment system - for example, how national assessments and examinations relate to classroom practice (OECD, 2013[8]).

Both MoE and ETEC set assessment policy in Saudi Arabia, though their activities are not coordinated

In Saudi Arabia, both MoE and ETEC are responsible for setting national policy related to assessment. MoE, through the General Directorate of Educational Supervision, has developed school supervision (inspection) standards. These standards set out how schools and teachers are to be evaluated, including through the direct testing of students by supervisors (inspectors) in order to appraise teacher performance. Separately, the Department of Measurement of Cognitive Achievement will also administer census-based assessments for system monitoring and school accountability purposes (see Main policy initiatives underway).

QIYAS, the former national assessment and examinations agency, was recently integrated into ETEC, bringing all of QIYAS's assessments under the latter's remit. These assessments include a recently developed, sample-based National Assessment Programme (NAP) and two entrance examinations into tertiary education institutions (see Main policy initiatives underway). ETEC is also developing the new Teacher Standards and Professional Pathways, which are Saudi Arabia's first ever teacher standards, which include expectations for how teachers assess students.

There is currently no assessment framework that defines assessment activity at a national level and how different assessments, in particular ETEC's examinations, work together to advance student learning. As a result, and in the absence of any overarching co-ordinating body, MoE and ETEC set assessment policy largely in parallel, which can result in conflicting priorities and overlapping assessments. This is evident, for example, in the aforementioned duplication of national assessments that arose from a lack of agreement between the two organisations as to whether the assessments should be census - or sample - based.

Classroom assessment

Teachers' classroom assessment is the most important form of assessment for student learning. Classroom assessment is most effective when it balances regular high-quality

formative feedback with periodic summative judgements of student performance in relation to national standards. Modern curricula, like Saudi Arabia's, that expect students do more than know discrete facts also require teachers to use a broad array of assessment instruments to measure students' complex skills, such as open-ended tests, task-oriented projects and portfolios.

Teachers' classroom assessment is predominantly summative and assessment materials strongly feature memorisation and closed-ended item types

In Saudi Arabia, teacher assessment is heavily summative. Teachers and students are very focused on the marks that students receive and consider assessment without marks to be meaningless. Conversations with teachers suggested that students are motivated primarily by the marks that they receive and that there is a culture of "learning for the test". Teachers mentioned that, in schools that eliminated end of term tests, students became less interested to learn and, in some cases, attended class less.

Reviews of classroom assessment materials showed that they are very content-focused and do not evaluate complex skills such as problem solving and critical thinking (Almuntasheri, 2016[9]). When asked by the review team to show examples of literacy assessments that evaluated student skills, teachers showed tests that evaluated spelling and punctuation. Most test questions only had one correct answer choice and did not encourage deeper learning.

Formative assessment is encouraged by recent education initiatives, but is not readily practised

Recent initiatives in Saudi Arabia have clearly encouraged the use of formative assessment. These include:

- The new curriculum framework, which explicitly emphasises formative assessment as part of student assessment processes;

- The growing set of assessment resources created by ETEC to help teachers reliably assess individual student learning in relation to national standards;

- Local initiatives by some Education Offices to increase the use of formative assessment in classrooms;

- The national guidance given to schools to not assess students using marks until Grade 4.

Despite these efforts, implementing meaningful formative practices remains a challenge. In conversations with teachers, the review team found that few were providing regular formative feedback to students and the majority said that they did not adapt their instruction based upon previous assessment results. These findings were confirmed by several stakeholders who reiterated that teachers had weak overall assessment literacy, and did not understand that assessment went beyond marking and should inform teaching. One administrator summarised the situation as teachers have heard about formative assessment, but it remains "just a noise".

Principals and teacher supervisors test students as part of teacher appraisal and for monitoring purposes

Teacher appraisal is conducted by principals and teacher supervisors in tandem. To inform their opinions about teacher performance, both principals and teacher supervisors test students independently using different instruments. Principals develop their student assessments by themselves, while teacher supervisors' assessments are created by selecting questions from an item bank that is developed by their respective Directorates. While these tests may not directly count towards students' grades, they do mean that students are tested frequently by external authorities, which can take time away from regular teaching and learning. Furthermore, because these assessments contribute to a teacher's appraisal rating, they also influence classroom teaching by motivating teachers to prepare their students strictly for the tests (Alhareth, 2014[6]).

In Grades 4, 7 and 10 teacher supervisors administer "stage assessments" to all students in maths, science and Arabic. These assessments are conducted in addition to the previously mentioned teacher appraisal assessments. The purpose of the stage assessments is to understand the performance of the students over time and each Directorate administers the same stage assessments in all of its schools.

Assessment resources are centrally provisioned and are not meant to be adapted locally

Similar to general instructional materials, teachers' assessment resources are provided to them from a central level and teachers have little agency in helping to create them. These include the previously discussed textbooks, which often contain assessment material, but also overall guidance around assessment. For instance, MoE publishes guidelines for how teachers should develop examinations for their students at the end of academic terms. These guidelines give instructions about what types of items should be used, how long the items should be, how the items should be marked and how each set of items should be weighted to produce a student's final grade.

Providing teachers with rigid assessment resources is problematic in the Saudi Arabian context. As discussed previously, teachers are already inclined to closely follow the resources they have without consideration of their students' individual needs. Giving them strict assessment guidelines exacerbates this situation.

Teacher professional development does not strongly emphasise improving teacher assessment practices

In Saudi Arabia, teacher professional development is primarily provided through local training centres that are affiliated with Education Offices or Directorates. Some large Education Offices and Directorates might have several training centres. Conversations with training centres revealed that specific pedagogical practices (e.g., active learning and co-operative learning) are the most frequently demanded training modules. While training in assessment is available, they are underutilised and tend to focus on certain activities (e.g., developing a test) rather than helping teachers improve their assessment literacy in general.

National standardised assessments

National assessments are centrally developed, standardised instruments that are administered to monitor student progress and evaluate educational programmes (OECD,

2013[8]). The vast majority OECD countries administer regular national assessments. While the design of the assessments vary, there is increasing use of census-based testing as a means to monitor progress and support instructional improvement. It is common for OECD countries to use national assessment data as a source of information for school accountability, but most countries take steps to avoid consequences for teachers or students.

ETEC has created a sample-based national assessment while MoE has developed census-based national assessments

The primary national assessment in Saudi Arabia is the NAP, which began in 2018. This assessment is sample-based and is intended to be used for monitoring student attainment at the national level (see Main policy initiatives underway). It builds on a previous attempt by ETEC - then EEC - to establish a regular national assessment, which was halted in part because of unstable funding.

Because NAP is a sample-based national assessment, its results cannot be used to monitor sub-national entities or individual schools. MoE, through the General Department of Measurement of Cognitive Achievement, is developing census-based assessments that will be used for school accountability purposes. This assessment is currently planned to be administered in Grades 3, 6 and 9.

MoE's supervisor assessments serve a Directorate-level monitoring function

While supervisor assessments, both those administered to appraise teachers and the stage assessments, are not standardised, they are nevertheless used to compare school performance. Based on the results of these assessments, Directorates rank schools and these rankings are used for internal monitoring and accountability purposes (these assessments were completed and implemented in 2019, after the analysis for this report was completed).

Saudi Arabia participates in both TIMSS/PIRLS and PISA to help monitor national performance

Saudi Arabia has participated in TIMSS since 2011 for Grade 4 and 2003 for Grade 8, and in PIRLS since 2011 (IEA, 2019[10]). Saudi Arabia joined PISA in 2018 and received its first PISA results in late 2019. Results from these three international assessments are considered key performance indicators in the National Transformation Plan (NTP), which outlines goals for every government Ministry in accordance with the aims expressed in Vision 2030, the national initiative to redevelop the country's economy.

National examinations

National examinations are standardised assessments that are developed at the national or state level with formal consequences for students. A common practice for almost all OECD countries is to require students to pass an examination in order to be certified as having completed upper secondary school (OECD, 2013[8]). These examinations ensure that graduates demonstrate basic minimum competencies and exert pressure on students to apply themselves in order to pass the exam. Research shows that students who attend schools in areas with certification examinations demonstrate higher academic outcomes and future earnings potential than students who do not (Bishop, 2006[11]).

Two national examinations are administered at the end of upper secondary school to help determine entrance into tertiary institutions

Saudi Arabia does not have an upper secondary certification examination. Such an exam used to be administered but was discontinued in order to increase completion rates. Currently, Saudi Arabia has two national examinations, the General Aptitude Test (GAT) and the Scholastic Achievement Admission Test (SAAT). They are administered starting in Grade 11 and help select students for entrance into higher education institutions.

GAT is not aligned with the curriculum and aims to assess deductive, logical and critical thinking skills through verbal and quantitative sections. The verbal section includes sub-sections about reading comprehension, sentence completion, analogies, contextual error and relationship and difference. The quantitative section for science majors contains questions about arithmetic, geometry, algebra, statistics and comparison. The quantitative section for arts majors contains geometry, arithmetic and mathematical analysis. All of the questions are multiple-choice and tests are machine scored.

SAAT is also not aligned with the curriculum but is more difficult and is more focused on subject domains. SAAT for science majors tests mathematics, biology, physics and chemistry. Some questions measure comprehension and others measure application and inference. SAAT for arts majors consists of general aptitude questions in reading comprehension, logical relations, solving problems based on basic mathematics, inference skills and measuring capacity. It also tests students in Islamic culture, monotheism, jurisprudence, Arabic grammar, rhetoric and criticism, literature, history and geography. All questions on the SAAT are multiple-choice.

In addition to selecting students for higher education institutions, the results of GAT and SAAT are used for performance monitoring purposes. Student results are aggregated at the school level and released on ETEC's website. Schools are ranked according to their average student performance and users can search for and sort schools. Results are published only for schools that have had at least 10 students take the tests in three consecutive years. Figure 4.1 shows the various external assessments and examinations that are administered in Saudi Arabia.

Table 4.1. External assessments and examinations in Saudi Arabia

GRADE	MoE			NAP	ETEC		International		
	Department of Measurement of Cognitive Achievement	**Supervisors**		**NAP**	**GAT**	**SAAT**	**PIRLS**	**TIMSS**	**PISA**
Grade	Census-based assessment	Teacher appraisal assessments	Stage assessment	Sample-based assessment	Entry examination	Entry examination			
1	X (maybe)	X							
2		X							
3	X (maybe)	X							
4		X	X	X			X	X	
5		X							
6	X	X							
7		X	X						
8		X		X				X	
9	X	X							X
10		X	X						
11		X			X				
12		X			X	X			

Main policy initiatives underway

ETEC is developing a new national curriculum

One of ETEC's primary responsibilities is to develop a new national curriculum. This is being completed in two phases. In phase one, ETEC created a National Framework for Public Education Curricula Standards, which sets out the overall expectations for student learning and achievement in school from Grades 1 to 12. In phase two, which is underway, ETEC will develop subject-specific standards in ten core learning areas.

Underpinning the curriculum framework are 10 "foundations" that represent the main pillars upon which the curriculum standards are built. They include Arabic language, the national objectives of Vision 2030 and an aspiration to align Saudi Arabian education with modern educational trends and practices such as active, student-centred pedagogy. The framework specifies an overall vision that learners be proud of their religion and language, contribute to their nation's development, have a constructive and balanced personality and be creative and productive. The curriculum framework is intended both as a guide for the development of teaching and learning materials and as a key lever to align the education system with the country's overall transformation agenda. To this end, the curriculum framework focuses not only on learning areas, but equally on developing skills, such as critical thinking and creativity, and also on values, such as self-esteem and responsibility.

ETEC is creating a National Assessment Programme that will monitor student learning nationwide

Developed by ETEC, NAP is a sample-based, criterion-referenced assessment in Grades 4 and 8 in maths, science, reading and writing. ETEC intends to administer the assessments annually with the primary purpose of monitoring the academic achievement of students at a national level. The subjects will be rotated in each administration, with each subject expected to be tested every three years. NAP was tested in 2018 in a field study. Roughly 60 000 Grade 4 and Grade 8 students were sampled from around the country and were tested in maths and science. The NAP assessment framework has been designed to enable the benchmarking of student performance against international standards, notably those used in TIMSS and PIRLS. Because NAP was developed before the new curriculum standards will be released, it is not aligned with the upcoming standards and it is unclear if it will be.

The representative sample of NAP will enable analysis according to several different dimensions, such as geographic location and gender. This analysis will be presented in five different reports for various audiences:

- An executive summary;
- A report for MoE;
- A report for principals and teachers;
- A report for the media;
- A technical report.

Tatweer has created an online portal to hold educational resources

To facilitate the development and delivery of high quality instruction resources, Tatweer has created the National Education Portal (iEN). This portal acts as an online repository that provides teaching and learning opportunities (e.g., online videos and instruction) and educational resources to students, teachers, principals, supervisors and parents. In addition to centrally developed resources, teachers submit their own materials directly to iEN for other teachers to browse and use. The resources held by iEN include lesson plans, worksheets, homework assignments and a question bank for classroom assessments. Currently, iEN holds over 42 000 resources and over 100 000 assessment items. Tatweer wishes to expand iEN's assessment item bank to over one million.

Intended curriculum

Strengths

The national curriculum increasingly encourages modern instructional approaches

Saudi Arabia has continuously revised its curriculum to encourage modern instructional approaches that have been shown to be effective in helping students learn. Many of the curriculum materials examined by the review team encouraged teachers to engage in instructional activities that went beyond asking students to perform lower order tasks such as memorisation. Instead, these materials promoted the use of more demanding activities that asked students to reflect on their learning and construct their own conclusions. These expectations for student learning align broadly with those found in OECD countries in terms of rigour and coherence. Policy reforms have also reinforced curriculum revisions. There have been notable attempts to reduce content-overload and to give students more flexibility and ownership over what they learn, such as through extending the school day and introducing the credit system in secondary school.

Tatweer has strong capacity to develop curriculum materials and deliver them to schools

Tatweer has strong organisational capacity to develop curriculum materials. Staff at Tatweer have considerable subject-matter expertise, which informs the development of their resources, and also technological proficiency, which helps with resource delivery. The creation of iEN is a very positive initiative because it allows teachers to share their own materials with each other. These materials are more likely to be more relevant to classroom contexts than those developed centrally. The fact that iEN is online also allows centrally developed and teacher developed resources to be accessible to more teachers.

Twenty-first century skills are firmly embedded in the new curriculum framework

Around the world, education systems have increasingly emphasised the development of complex and applied skills. These key skills are often called 21st century skills and can include creativity, communication and use of technology (OECD, 2013[8]). They are seen as increasingly important to student success and national competitiveness in era of knowledge-driven economic growth.

Saudi Arabia's new curriculum framework explicitly focuses on developing these transferrable, 21st century skills. The document is underpinned a set of curriculum

priorities, values and skills that include creative thinking, communication and self-learning. Using these principles to guide the creation of subject-specific standards indicates that that students are expected to use their knowledge in new situations, and not just memorise answers to take a test.

The new curriculum framework has the potential to establish consistency across subjects and address gaps in standards and Arabic language materials

Recent decades have seen almost constant curriculum development in Saudi Arabia, with materials being adapted from a range of national and international sources and revised based on continually evolving specifications. This has inevitably resulted in a degree of pedagogical inconsistency across subjects and core concepts. The creation of the new curriculum framework, and its position as the main reference for developing curriculum materials, has the potential to improve the coherence of students' learning experiences. It can also support the establishment of a more structured cycle for curriculum revision in the future.

The new curriculum framework also allows for the development of clear standards for student achievement across subjects and grades. These standards would give teachers a broader reference for student learning than the discrete learning objectives contained in textbooks. The standards can further support the use of a wider range of instructional materials than are presently employed. Importantly, the planned new standards for Arabic are intended to address many of the concerns in the current approach to language learning. These include the heavy focus on grammar and other language construction rules and a limited focus on overall understanding (see Chapter 5).

There is broad alignment between the curriculum framework and standards for teachers and schools

It is crucial that the reference standards for student learning, teachers and schools be aligned so the entire education system acts to achieve the same goals. In Saudi Arabia, the OECD review team noted that there is strong alignment between the new curriculum framework and the standards that are being developed for teachers and schools. The documents shared with the review team signal a consistent emphasis on active learning, student-centred pedagogy and context-sensitive teaching and learning.

This type of alignment in expectations provides a strong basis for creating alignment in pedagogy and assessment and more broadly in how teaching and learning is organised in schools. This alignment will be further strengthened when ETEC begins developing accompanying instruments to support the evaluation of teaching practices, such as classroom observation protocols and indicators of teaching and learning.

Challenges

The new curriculum framework lacks some internal coherence and might be difficult for users to understand

The general content of the curriculum framework suggests a clear shift of teaching and learning towards contemporary education principles. However, the document is dense and not always internally coherent. For example, the framework is organised into the following sections, intended to guide the development of subject-specific standards:

- Vision of the standards

- Structure of the standards (learning areas, curriculum priorities, values, skills)

- Levels of learning

- Guiding principles of the standards (curriculum content, learning processes, information and communication technology, assessment processes)

Independently, these sections are coherent. Read together, however, it is difficult to determine how they are integrated. Levels of learning ostensibly refers to levels of student progression in learning areas and/or skills. However, a close review of this section suggests that it refers to grade levels or stages of schooling. Further, this section only makes reference to learning areas (subjects), but not values and skills, even though these were explicitly mentioned earlier in the framework. Thus, while values and skills are clearly an important part of the framework, it is unclear how students are expected to progress in these areas.

Similarly, the sections on learning and assessment processes are independently logical, but are not aligned with each other or the rest of the framework. It is uncertain, for instance, how the seven principles for assessment support the six principles for learning. It is equally uncertain how assessment processes will assess values and skills, especially across different levels of learning.

This lack of internal coherence could negatively impact the users of the curriculum framework. The primary audience for the curriculum framework is developers of learning standards and instructional materials. Given the lack of coherence between different parts of the framework, however, a test developer will be unsure about how he/she should use the framework to, for instance, create a test that assesses student' skills across different levels of learning.

Plans for how the new curriculum will be introduced could be clearer and might underestimate the need for significant two-way communication

International experience shows that effective curriculum reform begins with inclusive consultation of stakeholders (Fullan, 2007[12]). It continues with constant two-way communication to align implementation efforts across central, local and school leadership and feed lessons from practice back into curriculum policy (Barber, 2009[13]; Persson, 2016[14]).

In Saudi Arabia, conversations with schools and teachers, some of which occurred online through the Tatweer portal "Your Opinion is Important", revealed that teachers feel uninformed about the curricular changes underway. Some were unaware that a new curriculum framework is about to be introduced. While input from teachers, supervisors and local education authorities has been solicited as the framework has been developed, this is not visible and does not appear to have been adequate to ensure that materials are contextually relevant or that teachers have "bought into" the changes.

The curriculum framework itself contains a section about implementation. However, this section only articulates two initiatives-further professional development for teachers and aligning education system components with the new framework. Including teachers in a pilot of the curriculum or consulting them about implementation challenges is not mentioned. Without such engagement by teachers and school leaders, there is a possibility that the new curriculum will not be widely understood or used properly.

Curriculum resources have been created but might not be sufficient, and can be difficult to access for some populations

Tatweer has made tremendous strides in creating materials to accompany the national curriculum. Nevertheless, given the large number of schools in Saudi Arabia and the variation in teacher capacity, the educational resources available might still be insufficient. In visits to schools, the review team was told that inadequate resources is still a significant concern, both in terms of quality and quantity.

The development of iEN is a step forward in creating and disseminating teaching and learning resources in Saudi Arabia. However, OECD school visits revealed that, while some teachers are using iEN, others lack sufficient digital literacy to access the portal and make best use of the resources in the classroom. This is particularly true for teachers in remote, rural areas. Furthermore, there is an enormous amount of content on iEN, and Tatweer intends on adding even more. With limited time and capacity, teachers cannot easily identify which resources are best and most relevant to their needs.

Implemented curriculum

Strengths

A new centre for professional development will provide more support to teachers in implementing the curriculum

The National Institute for Professional Educational Development (NIPED) is responsible for the professional development of teachers, principals and supervisors. Teacher professional development has been designed to focus on modern pedagogical skills that are needed to engage in the student-centred, outcomes-based instruction that curriculum reforms have demanded. In particular, NIPED has taken strides to lessen teachers' rigid reliance on using the textbook in class, which impedes them from adopting modern pedagogical approaches. For example, NIPED has collaborated closely with educators from the United States and developed Lesson Plan Study activities in partnership with Japan. This training encourages teachers to study other teachers' lesson plans in order to increase their capacity to create lessons that are less dependent upon on their textbooks and more adaptive to the needs of students.

Challenges

Teacher appraisal structures discourage teachers from implementing the intended curriculum

One factor that is preventing teachers from implementing the intended curriculum more fully is how they are appraised. An important criteria against which teachers are evaluated is how much of the curriculum they have covered, as measured by student results on supervisors' tests (Ministry of Education - World Bank, 2017[15]). This system incentivises teachers to race through the curriculum in order to receive a good appraisal rating. This is contrary to the modern instructional approaches promoted by the intended curriculum, which emphasise developing deeper learning and tailoring instruction to the needs of individual students.

Teachers' strict adherence to classroom resources contradicts the aims of the intended curriculum, which expects teachers to adapt materials for student needs

Textbooks exist, alongside many other resources, to support teachers in their lesson planning. They should not be seen by teachers as prescriptive instructions to be followed word-for-word without any regard to the classroom context and their students' specific needs (Isaacs, unpublished[16]). However, in Saudi Arabia, many teachers believe that textbook content is synonymous with the curriculum and follow textbooks very closely.

Teachers interviewed by the OECD review team understood the learning outcomes expected at the end of each lesson unit, but lacked an appreciation of overarching content and standards, which are critical to know if teachers are to make more discerning use of textbooks and other resources. This rigid adherence to the textbooks prevents teachers from focusing on individual students and adapting their instruction based upon their students' ability and interests. In this context, the new curriculum framework, which encourages teachers to focus on standards, rather than the textbook, and draw on a range of instructional resources, will encounter challenges in school-level implementation. Box 4.2 describes the challenges that were encountered in South Africa, a large country with significant geographical disparities, as it tried to implement a more modern curriculum.

Box 4.2. Lessons learned from introducing a modern curriculum in South Africa

In South Africa, curriculum reform in 1997 sought to replace a knowledge-based curriculum with an outcomes-based curriculum that integrated broader learning areas (e.g., teamwork, critical thinking and problem solving). However, a review of the curriculum's implementation noted that there was a lack of alignment between what the curriculum intended and what was implemented in schools and the reform was not pursued further. Researchers studied the situation and noted that limited teacher capacity contributed significantly to why the reforms were unsuccessful. Specific reasons include:

- A lack of assessment knowledge among teachers, especially on formative assessment, due to the absence of guidelines about the fundamental principles of good assessment practice;

- Teachers did not have access to adequate resources, such as revised curriculum. Syllabi and textbooks, and did not know how to use what was available;

- Teachers did not understand the curriculum and did not receive sufficient training and development around implementing it;

Source: Kanjee & Sayed (2013[17]) *Assessment policy in post-apartheid South Africa: challenges for improving education quality and learning*, Assessment in Education: Principles, Policy and Practice, Vol.20/4, pp 442-469. https://doi.org/469. 10.1080/0969594X.2013.838541
Schmidt (2017[18]), The Perils of Outcomes-Based Education in Fostering South African Educational Transformation. Open Journal of Political Science, 7, 368-379. https://doi.org/10.4236/ojps.2017.73030

Assessed curriculum

Assessment policy and governance

Strengths

Assessment is a clear priority of the education system

Assessment has been a longstanding focus of the Saudi Arabian education system. All stakeholders recognise the importance of assessment, which is evinced by the quantity of external assessments that are administered to students (see Table 4.1). The new curriculum framework reserves an entire sub-section to principles of assessment, further emphasising the importance of assessment in the instructional process.

Considerable assessment expertise has been developed at the national level

ETEC is a highly technical organisation with considerable assessment expertise. ETEC is administering several national examinations and assessments. These assessments are delivered via paper-and-pencil and computer mediums and some assessments use sophisticated item response theory models. ETEC is also helping to build the assessment capacity of Directorates, Education Offices and schools. It is developing materials that teachers and principals can use to assess the performance of schools in a standardised manner and will also create resources to aid the school evaluation framework.

Challenges

Not all assessment activities are aligned through national policy, such as a national assessment framework

A common, coherent vision for student assessment needs to be disseminated to stakeholders in order to create consensus around what assessment is and why it is important. In many countries, this is accomplished through the creation of an assessment framework, which articulates a clear assessment pathway for students from primary through upper secondary education. This would include the types of assessments to be used, when and how they should be used and the subjects to be assessed. In high-performing countries, assessment frameworks cover both formative and summative assessment and specify how both purposes are achieved through classroom assessments, national testing programmes and examinations. Box 4.3 describes the integrated assessment framework from Hong Kong.

Box 4.3. Assessment framework in Hong Kong

Hong Kong's assessment framework combines school-based assessment, a territory-wide system of assessment and subject examinations in upper secondary school. School-based assessment emphasises formative assessment but also helps guide teachers' summative judgement, especially in upper secondary school. The assessment framework can be easily accessed on the website of the Hong Kong Examinations and Assessment Authority (HKEAA) (http://www.hkeaa.edu.hk/en/), which allows the public to easily know what assessments students are expected to take.

National tests include the Territory-wide System Assessment (TSA) tests of basic competency that are administered in each school at years 3 and 6 in primary school and at year 3 in secondary school. These provide schools with objective data on students' performances in Chinese language, English language and mathematics. TSA reports and school reports provide information about students' strengths and weaknesses against specific basic competencies and key learning areas. The outcomes of the tests aid schools and teachers in their teaching and learning plans. Government uses the territory-wide data to review policies and provide focused support to schools. These tests are for internal use only; comparisons on the performance among schools and students are not supposed to be made and access to data is restricted, with schools following a strict protocol to avoid information misuse. A section of the HKEAA website makes available various resources related to the TSA, such as question papers, marking schemes and reports.

Students in upper secondary school prepare for the Hong Kong Diploma of Secondary Education (HKDSE) examinations held at the end of year 6 of secondary school. HKDSE tests four core subjects - Chinese, English, mathematics and liberal studies - and up to three selected subjects. The results at this examination contribute to students' certification requirement from secondary school.

Source: Isaacs & Creese (2014[19]), Aligned Instructional Systems: Cross-Jurisdiction Benchmarking Report. National Center on Education and the Economy. http://www.ncee.org/wp-content/uploads/2015/09/AIS-Cross-Jurisdiction-Report.pdf
HKEAA (2019[20]), Website of the Hong Kong Examinations and Assessment Authority. http://www.hkeaa.edu.hk/en/

In Saudi Arabia, a national assessment framework that oversees all assessment in the country has not been developed. Both ETEC and MoE engage in substantial assessment activities, but these are not regulated by a single point of reference. Assessment activities are not co-ordinated and most stakeholders do not have an accurate picture of all the assessment that occurs in the country. As a result, there is duplicate testing (e.g., the external assessments by Directorates, ETEC and MoE) as well as assessment gaps in key domains during critical period of student learning (e.g., there is no national, census-based assessment during primary grades). There are also tests that are not fulfilling their stated purposes, as is the case with supervisor assessments that distort instead of supporting teaching and learning.

The assessment principles in the curriculum framework are theoretically sound but will be hard to implement

In any curriculum reform, the assessments that will provide evidence of student achievement of the curriculum should be developed simultaneously with the curriculum

standards and content (Ahmed and Pollitt, 2008[21]; Crisp, Johnson and Constantinou, 2018[22]). In Saudi Arabia, central education policy advocates for a modern understanding and practice of assessment. The new curriculum framework encourages teachers to use a diversity of assessment methods and to utilise the data from assessments to improve instruction. These principles are in line with international best practices supported by the OECD review team (Isaacs and Creese, 2014[19]).

However, as with other aspects of the curriculum, it does not appear that assessment practice in Saudi Arabian classrooms fully reflects the modern principles advocated by central policy. Teachers often ask students to memorise and recite passages in order to test their understanding of a concept. Written tests and quizzes, whether developed by teachers, principals or supervisors, tend to be composed mainly of multiple-choice questions. These common practices suggest that the modern vision of assessment that is espoused centrally has not embedded itself into classrooms.

Classroom assessment

Strengths

Regular summative assessment procedures are established and followed

Summative assessment features prominently in Saudi Arabian education. Teachers record individual student achievement in their classroom grade books and produce report cards that are shared regularly. These practices are well-established and monitored closely by principals and supervisors. Teachers receive some support, in the form of criteria and rubrics, to improve the reliability of their judgements and ETEC intends to provide teachers with more assessment resources to further improve the quality of their summative instruments and the validity of their marking.

Formative assessment has gained prominence in recent initiatives

While Saudi Arabian classrooms have typically been dominated by summative activities, formative assessment has gained recent attention. Some local training centres now provide courses in assessment for learning, which the NIPED intends to strengthen and expand. Tatweer has launched a study to determine to what extent formative assessment practices are being used, including asking students if they know how well they are doing based upon their teachers' feedback. This will generate valuable evidence to inform the expansion of professional development. Tatweer has also developed several resources to aid teachers in using formative assessment methods. These include tools such as observation protocols and guidelines around student journals, student self-assessment and assessment by more than one teacher. The new school evaluation framework should give further impetus to these efforts and positively includes providing feedback as one of the two sub-standards for evaluating the quality of assessment.

Challenges

There is too much assessment of little education value for students

Summative assessment is an important part of assessment and education in general. Research shows, however, that well-conceived formative assessment has the potential to more positively impact student learning (Black and Wiliam, 1998[23]). For this reason, many countries are trying to emphasise formative assessment while exercising caution with respect the amount of summative assessment that students encounter (OECD, 2013[8]).

The lack of a national assessment framework in Saudi Arabia and the strong culture of testing have created a situation in which a great deal of predominantly summative assessment occurs without alignment or a clear sense of the educational purpose behind the assessments. Depending upon the grade a student is in, the review team calculated that some students might be subject to upwards of 100 hours of quizzes and tests per academic year. Many of these assessments duplicate each other, with teachers, principals and supervisors all testing students on similar areas of knowledge.

Importantly, the large volume of assessment that students undergo adds little value to their learning. Much of the testing occurs to help produce a rating for teachers or schools, not to directly help students learn. Further, such a heavy testing burden actually has a negative effect on students' education. Teachers and students spend so much time preparing for and taking tests that they do not have enough time to cover what is already a dense curriculum in a relatively short instructional year. The fact that persons other than a student's teacher enter the classroom to test students on a regular basis, a very uncommon practice internationally, also undermines the professional autonomy of teachers.

Teachers' assessment judgement lacks accuracy and reliability and no moderation practices are in place to improve these areas

At its core, the purpose of assessment is for teachers to form reliable judgements about students' progress. If teachers' assessment judgements are not accurate, the purpose of assessment and what can be done with assessment results is undermined. Teachers will not know what their students are capable of and thus cannot adapt their instruction accordingly, or will do so incorrectly. Students might be under the impression that they have mastered a subject and lose motivation to continue applying themselves when, in fact, there is much that they can still learn.

In Saudi Arabia, stakeholders do not always trust teachers' judgement, which largely explains why principals and supervisors also test students. Resources available to improve this situation, while expanding, are still limited overall. In particular, they do not address adequately the need to strengthen in-school moderation practices, in which teachers review each other's assessments and mark students' work against a shared set of criteria (OECD, 2013[8]). Such practices expose teachers to a wider variety of student work and help them identify their own sub-conscious biases when marking. They thereby support teachers in establishing a judgement of student achievement that is more consistent, fair and valid in relation to expected curriculum standards. The OECD review team did not find evidence of moderation in schools visited, nor of policies in place to address this gap.

Saudi Arabia's assessment resources do not capture information about students' higher-order skills

It is important for assessments to evaluate the most critical skills that students need in order to be successful. In knowledge economies, this means that assessments should evaluate higher-order and transversal skills, which are more effectively assessed through the usage of open-ended assessment questions and performance-based tasks (e.g., experiments and projects) (OECD, 2013[8]). Developing such skills and assessments are emphasised strongly in most modern curricula, including in Saudi Arabia's new curriculum framework.

However, research into assessment in Saudi Arabian schools suggests that the assessment methods used by teachers assess rudimentary, lower-order skills, such as finding a word in a passage (Alafaleq, 2014[24]). One main reason for this is the types of assessment resources provided to teachers. The review team examined a selection of these and found them to be

overly focused on factual recall and the completion of simple tasks and inadequate in guiding the evaluation of higher-order skills.

For example, the recently introduced *Exam Guidelines for Teachers* (2017) gives information on how teachers should develop, implement and mark end-of-term tests at the intermediate and secondary stages. The review team studied the English subject guidelines and found that they would require significant further revision to support the new curriculum framework in helping students master higher-order thinking and communication skills.

For instance, the exam guidelines for English mostly propose selected-response type items, such as multiple-choice, one word or very short answers. Marking student responses is largely based on looking for demonstration of lower order thinking skills, such as defining basic concepts with little application of those concepts. Although these guidelines require that students complete an open-ended writing exercise, this does not receive adequate assessment weight. For intermediate students, the writing section is worth five marks out of a total 30. For senior students, it is worth 12 marks out of a total 50. How the writing task is marked also focuses on lower-order skills. In the intermediate level, 60% of a student's 5-point mark on the open writing task is from grammar, vocabulary, mechanisms and spelling, In other words, 28 of 30 points on an intermediate student's end-of-term English test is derived from a simple, mechanistic understanding of the language

How teachers are appraised prevents teachers from adopting formative assessment more widely

Research shows that embedding formative assessment practices into schools is very challenging. A key factor in successfully promoting the use of formative assessment is aligning national policies so teachers are supported in their use of formative assessment. In many countries, however, policies have acted as barriers. These policy barriers include a dense curriculum, the pressure on the teachers to cover all of the curriculum, the lack of support to schools for implementing formative assessment and accountability systems that are focused on summative assessment scores (Box, Skoog and Dabbs, 2015[25]; OECD, 2005[26]). In Saudi Arabia, all these obstacles are apparent.

Teachers have weak assessment literacy, but training agencies do not have the capacity to provide adequate professional development in this area

Many of the aforementioned policy barriers were actually created in response to concerns about teachers' overall weak assessment literacy. In conversations with the review team, teachers seemed to interpret formative assessment as simply not giving a grade, thus mistaking a technique for a principle. Some also mistook continuous summative assessment as formative assessment. Researchers have noted that teachers in Saudi Arabia do not feel comfortable adapting assessment resources for their students' needs or creating their own (Albedaiwi, 2014[7]). Thus, policies were established to strictly regulate how teachers teach and assess in an effort to mandate the use of certain activities.

While well-designed accountability structures can play a role in mitigating weak assessment literacy, if assessment is to support learning there is no way around developing the professional assessment knowledge and skills of teachers. Until recently, such support in Saudi Arabia has been relatively limited. There is consensus that most teachers receive little preparation in assessment in their initial teacher education and in-service training capacity is highly constrained. Tatweer, NIPED and ETEC have created some valuable resources that teachers can draw upon. However, in order to make meaningful use of these, teachers need qualified and sustained support within their schools and classrooms, either

from their peers, their principals or qualified external coaches. Such support is not currently available in most schools.

National standardised assessment

Strengths

Saudi Arabia has made considerable efforts to collect more consistent data on student learning

Saudi Arabia recognises the need to assess students in a consistent manner in order to monitor student performance in relation to national curriculum standards. Both ETEC and MoE have created national standardised assessment initiatives to help accomplish this purpose. ETEC's NAP will test a representative sample of students, while a new MoE programme might administer a standardised, census-based national assessment. MoE also tests all students through supervisors' assessments, which are used to compare student achievement across schools.

Saudi Arabia is supplementing national data with international survey results

Participation in international surveys provides comparative information in key areas of schooling. The results provide a frame of reference that helps countries determine their strengths and weaknesses, allows them to better understand their own system and provides ideas to inform further research and policy development (Tamassia and Adams, 2009[27]; OECD, 2013[8]).

MoE and ETEC have been making intelligent use of Saudi Arabia's international survey data (both the performance results and contextual questionnaire information) to help develop the curriculum and inform the assessment items for NAP. In 2018, Saudi Arabia joined PISA for the first time with the objective of focusing more attention on broader student competencies and 21st skills, such as creativity and digital literacy.

Challenges

Large-scale, census-based national assessments are not yet in place

Census-based, national testing allows countries to analyse data at several levels and according to different dimensions. School and regional level data can be produced and examined according to students' gender, family background and other factors. A majority of OECD countries administer census-based national assessment at either the primary or lower-secondary levels (OECD, 2013[8]).

At the time of writing, Saudi Arabia does not have a census-based national assessment. The only wide-ranging assessment data comes from student results on GAT and SAAT. NAP partly addresses this situation by testing a representative sample of students at several grade levels. However, its sample-based strategy will not allow for results to be collected at the school-level or, depending on how sampling occurs, at the Education Office- or Directorate-level. MoE's supervisor assessments do test all students, but the instrumentation is not standardised. This means that students and teachers have no reliable, external benchmarks of learning outcomes until Grade 12. It also weakens accountability at the school level, which is especially problematic in a country where comprehensive school evaluation is still under development and will take a long time to roll-out to all schools.

National performance is measured primarily by results on international surveys, but these results do not capture the Saudi Arabian context

In the National Transformation Plan, national goals related to student achievement only focus on using international survey results. While it is positive to use these outcomes for benchmarking purposes, these instruments do not fully reflect the educational context or curriculum of Saudi Arabia. National assessments, such as NAP, have been introduced, but student achievement according to this assessment has not yet been translated into national goals. This also creates uncertainty regarding the future of NAP and its position as a key performance metric (a lack of sustained political and financial support stymied previous attempts to establish a regular, standardised national assessment).

National examinations

Strengths

End of secondary examinations are established and well understood by stakeholders

National examinations serve several purposes. Being centrally produced, they provide an objective signal of student achievement that can help inform students' future education and career options (Bishop, 1999[28]). Research shows that high-stakes examinations can also positively impact students' motivation and reinforce rigour in classroom learning by encouraging students and teachers to prepare for the test (Sukyadi and Mardiani, 2011[29]; Roderick and Engel, 2001[30]). Finally, a national examination that is aligned with the curriculum also helps concentrate teaching and learning on the curriculum, which helps ensure alignment between the intended and implemented curricula.

In Saudi Arabia, the GAT and SAAT are administered at the end of upper secondary education for the purpose of university admissions. They are administered by ETEC and their methodology has been tested and refined over several administrations. Students and teachers are well aware of these examinations and perceive the examinations to be fair. Although these examinations select students for entrance into for higher education, national priorities to admit more students into tertiary institutions have lowered the stakes of these examinations. This, in turn, also limits how much the exams can exert pressure and influence teaching and learning in classrooms.

Challenges

No national examination is aligned with the curriculum, which prevents the examination system from supporting implementation of the curriculum

International experience shows that what is tested shapes what is taught. Teachers and students, wary of the importance attached to examinations at the end of upper secondary school, tailor their teaching and learning to the content of those examinations. Tests that are aligned with the curriculum help ensure that teachers and students focus on the curriculum in class. This is particularly true for certification examinations that directly assess whether students have mastered the curriculum. Tertiary entrance examinations, especially in the presence of a certification examination, generally have a little more flexibility with respect to curriculum alignment in order to accommodate the needs of tertiary institutions. However, it is highly unusual for the needs of tertiary institutions to be strongly misaligned with what upper secondary curricula deem to be the most important competences that students should master.

Since Saudi Arabia currently does not have an upper secondary certification examination, the GAT and the SAAT play a de facto role of helping to steer the focus of teaching and learning. However, the review team was told that neither the GAT nor the SAAT are aligned with the curriculum and that this is by design. Currently, ETEC does not believe that the curriculum and university expectations are co-ordinated. Therefore, ETEC views its university entrance examinations as bridging a gap between what students learn in school and what universities expect them to be able to do.

Because no exam is fully aligned with the curriculum, Saudi Arabia does not have an external lever than can support teachers in implementing the intended curriculum. Teachers who do decide to use classroom instruction time to help students prepare for the tests that are administered must actually deviate from the intended curriculum to do so. This is problematic in a context in which the implemented curriculum is already misaligned with the intended curriculum.

Success on the GAT and SAAT is generally expected, which might prevent the exams from applying positive pressure on students to apply themselves

Saudi Arabia's tertiary enrolment rate has steadily risen in recent years. While taking the GAT and the SAAT is required in order to enter tertiary education institutions, most students who take them end up enrolling in tertiary education. This suggests that the exams are either rather easy for students, or entrance requirements are set fairly low, or both.

Without high-stakes, the GAT and the SAAT are unable to impact strongly student and teacher motivation in upper secondary school. In other countries, examinations motivate students to apply themselves and teachers to help students prepare. In Saudi Arabia, because most students who take the exams expect to enrol in university, they feel less compelled to apply themselves. Consequently, the education system loses a powerful lever for improving student achievement.

Items from the GAT and SAAT test a limited range of skills and are sometimes internally incoherent

The review team analysed items from the GAT and SAAT to better understand the content of these examinations. While many items are well designed, the review team also identified several weak items. These include items that assess skills that are too simple, internal incoherence of items (e.g., there were factual errors in the questions or why an answer is correct is unclear) and item bias. A selection of specific limitations that the review team identified from these two examinations can be found in the annex of this chapter.

Recommendations

Intended curriculum

Improve the internal coherency of the curriculum framework

Before the new curriculum framework is officially released, the OECD review team recommends that it be reviewed and made more internally coherent. In particular, the section on curriculum standards should be further developed so learning areas, curriculum priorities and values explicitly relate to each other instead of being separate lists of ideas and issues. Box 4.4 describes some key elements of curriculum frameworks and provides digital links to curriculum resources from high-performing countries.

Saudi Arabia's review of the curriculum framework should be done in conjunction with the teacher and school standards so that common language is used and complex concepts are

defined in the same way. While broadly aligned, there is space for improvement in Saudi Arabia's materials. For example, the same student skills that are mentioned in the curriculum framework should also appear in the teacher standards and in the new school evaluation framework so teachers and schools are appraised based upon how well they help students develop these skills.

Box 4.4. Curriculum frameworks

The table below provides broad guidelines about what is usually found in a national curriculum framework.

Element	Description
1. Introduction: Current context	Describes the social and economic environment in which teaching and learning occur.
2. Educational policy Statements	Describes the government's goals for education, such as universal literacy and numeracy, the development of skills needed for economic development and the creation of a stable and tolerant society
3. Statement of broad learning objectives and outcomes / Standards for each level/cycle	Describes what students should know and be able to achieve when they complete their school education. Outcomes should be expressed through a range of domains, including knowledge, understanding, skills and competence.
4. Structure of the education system	Describes the school system within which the curriculum framework is to be applied. It should specify: • Number of years of schooling, including compulsory schooling. • Stages (or cycles) of schooling and their duration. • Number of weeks in the school year and teaching hours in the school week.
5. Structure of curriculum content, learning areas and subjects	Describes the organisation of content within the framework and the extent to which schools and students can make choices. It might include: • An outline of subjects or learning areas to be studied in each stage or cycle (such as core, elective and optional subjects). • A brief description of each subject or learning area, outlining the rationale for its inclusion in the curriculum and the contribution it makes to the achievement of the learning outcomes defined in Section 3. • The number of hours to be assigned to each subject or learning area in each stage or cycle.
6. Standards of resources required for implementation	Describes standards as they apply to: • Teachers – qualifications, teaching load (number of classes per week). • Students – number per class in each subject. • Materials – textbooks, computers, other equipment, facilities – classrooms, furniture, supplies.
7. Teaching methodology	Describes the range of teaching approaches that might be employed in the implementation of the framework.
8. Assessing student achievement	Describes the importance of assessing the extent to which students achieve the outcomes of each subject and recommends or prescribes modes of assessment (such as written or oral examinations, performance and practical-skill demonstrations).

Examples of curriculum frameworks from around the world can be found through the links below.

- Singapore: http://www.moe.gov.sg/education/

- Finland: http://www.oph.fi/english/curricula_and_qualifications/

- Australia: http://www.australiancurriculum.edu.au/

Source: International Bureau of Education (2013[31]), Training tools for curriculum development: a resource pack; 2014, http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Training_tools/IBE-CRP-2014_eng.pdf.

Solicit feedback from teachers about the new curriculum before it is fully implemented to ascertain its usability

Teachers should be consulted extensively about the new curriculum before it is fully implemented. Curriculum development and implementation can only be successful if the final users, a country's teachers, are confident that they can understand the curriculum and apply it in their classrooms (Solini, Pyhalto and Pietarinen, 2017[32]). Internationally, Japan is a high-performing school system in which teachers and other stakeholders are integrally involved in the reform of curriculum. This process is called "Materialization of society-wide commitment to improve education" and, as part of this process, meetings are organised at schools during which school staff receive a guide to the revised curriculum and provide feedback before the reforms are finalised (MEXT, n.d.[33]).

Saudi Arabia should establish procedures to formally involve teachers in a review of the draft curriculum and its implementation strategy. This can be accomplished by forming separate working groups of teachers from different areas of the country and who teach different grades and subjects. These teachers would be responsible for reviewing the curriculum as it has been developed thus far and providing their opinions about how easy to understand it is and how easy to use it would be. They would also provide input about what kind of resources need to be provided alongside the curriculum to help teachers implement the curriculum in their classes.

Create a transparent, regular process for curriculum review

Developing a modern curriculum framework is a tremendous accomplishment. As the education landscape changes, however, it will be important that the curriculum and learning standards be subject to periodic review to reflect the latest developments in education and evolving skills needs. A key element of curriculum review is to establish a regular timeline and procedures, which help create transparency around the process and legitimise future reforms. This process helps to maintain the relevance of curricula while avoiding the destabilising effects of the type of unexpected curriculum changes that have occurred in Saudi Arabia previously. Internationally, this type of regular review occurs in England, Finland, Japan, the Netherlands and Singapore (Sargent et al., 2010[34]).

In Saudi Arabia, the OECD review team recommends that a regular curriculum review process be established that is a joint effort between MoE, ETEC, Tatweer and NIPED. Such a process would incorporate perspectives from organisations responsible for education policy, curriculum development, resource provision and training delivery. This consortium should establish a clear timeline that specifies how frequently reviews should occur, how long they should take, which entities are responsible for which tasks and how the review should be conducted.

Develop more effective classroom instructional materials by including teachers in their creation

Tatweer is responsible for developing materials to accompany curricula. While the effectiveness of the resources has steadily improved, there remains some concerns about the types of pedagogical approaches that the materials support and their level of rigour. Internationally, countries often enlist teachers in the development of resources as they are most familiar with the needs of their classrooms and the inadequacies of their current materials. This partnership is critical in Singapore, where teachers provide annual feedback

on textbooks and other resources and their suggestions are taken into account for the next version of the materials (Isaacs et al., 2010[35]).

To strengthen the quality of resources provided to teachers, Tatweer should enlist teachers to help them develop materials more directly than in the past. Teachers should review the resources and communicate if they are relevant to teachers' needs and accessible to teachers with varying levels of experience. Teachers can also help identify which parts of the textbooks might not be relevant for some classroom contexts and suggest that Tatweer, through textbook guides or the textbook content itself, prompt teachers at these moments to exercise flexibility and draw on other materials.

Given the size of the Saudi Arabian workforce, it will not be possible to involve a significant percentage of the country's teachers in resource development. What will be important is for the teacher workforce to know that their fellow teachers contributed to the development of the resources, which would make all teachers more likely to embrace and use the resources (Castro Superfine, Marshall and Kelso, 2015[36]; Persson, 2016[37]).

Implemented curriculum

Develop teacher appraisal processes that are aligned with the curriculum's pedagogical expectations

Other chapters recommend an overhaul of Saudi Arabia's teacher appraisal system, with a new cadre of assessors being responsible for appraisal for promotion and principals being responsible for regular appraisal, but only for formative purposes. Chapter 3 also recommends that how teachers are regularly appraised be fundamentally revised, and that the direct testing of students to appraise teachers be stopped.

This chapter recommends that the reformed, school-based regular appraisal be designed in a way that reinforces the new curriculum's expectations with respect to instructional practice. The new teacher standards, which should guide appraisal, are broadly well aligned with the curriculum, emphasising the importance of using a diverse range of educational resources, the need to set high expectations for every student and foster higher-order thinking skills. However, the standards and sub-standards are set at a general level and principals will need additional guidance on how to evaluate teachers against these expectations.

As the developer of the teacher standards and curriculum framework, ETEC is well positioned to create materials that will help principals perform regular teacher appraisal. For example, ETEC should develop classroom observation guidelines, along with performance descriptors and videos of practice. These tools can help principals reliably evaluate how teachers are performing in areas that are expressed in the curriculum, such as using a variety of curriculum and assessment materials that are related to national standards. Internationally, the New Zealand Teaching Council (NZTC) has created high-quality resources to guide principals through conducting effective teacher appraisal. These include a quality practice template to illustrate what types of evidence can demonstrate that good practice is occurring and an alignment matrix that shows how the appraisal system is co-ordinated with the curriculum and teacher standards (OECD, 2013[8]; Nusche et al., 2012[38]; Teaching Council New Zealand, n.d.[39]).

Align teacher continuous professional development with the new curriculum and its emphasis on modern teaching and learning

Chapter 3 makes extensive recommendations about continuous professional development for teachers. This chapter highlights the importance of ensuring that the aims of the curriculum, particularly its emphasis on modern pedagogy and assessment methods, be considered centrally when designing the training offered through NIPED. The centralisation of the Saudi Arabian system means that the MoE has strong levers to align teacher supports with curriculum goals, especially if there is more structured collaboration with ETEC, Tatweer and NIPED, as this review strongly recommends.

An area of focus for teacher training that is particularly relevant to Saudi Arabia is how to properly use textbooks to complement instruction. Research shows that training teachers in how to use textbooks can stimulate a change in teachers' thinking about what are effective instructional practices and how students should learn in relation to the books (Arbaugh et al., 2015[40]). Creating and delivering this type of training, alongside developing new teacher appraisal procedures (see next recommendation), can help teachers view and use textbooks as a complementary educational tool as opposed not a script to be followed. The Lesson Plan Study activities that NIPED is promoting could be used for this purpose. As part of participation in this training, teachers could be shown how to incorporate their own materials into their lesson plans and evaluate the efficacy of those lessons. The OECD review team recommends that this training be delivered via a blended methods approach, in which some training is delivered in-person and some online, which has proven to be effective in training in successful models such as Pearson's.

Assessed curriculum

Assessment policy and governance

Create a national assessment framework that clarifies the purpose, methods and relationship between classroom assessment, national assessments and examinations

Saudi Arabia has a wide variety of national assessments, national examinations and classroom assessments. What is missing, however, is co-ordination of all these assessments so their aims are clear, complementary and aligned with curriculum goals. To accomplish this, and also address the duplication and redundancy that currently exists in relation to some assessments, it is recommended that Saudi Arabia create a national assessment framework.

Saudi Arabia's national framework should be based on national educational goals. Assessments should not be articulated in the framework unless their value towards achieving the goals can be clearly explained. Standardised testing within the framework should not be used in an overly punitive manner, even if accountability is one of its purposes. Classroom assessment should require an array of assessment types that achieve both formative and summative purposes.

To develop its national assessment framework, Saudi Arabia should begin by looking at the principles of assessment processes that are found in the national curriculum framework. Contained within these principles are ideas around assessment planning, diversity of methods, providing feedback to students and measuring progress and data analysis. Saudi Arabia's assessment framework should be built around these principles and would provide high-level direction for other important reforms related to assessment, such as the development of NAP and revisions to the national examinations. An example of a national

assessment framework from Hong Kong was provided in Box 4.3, and another from Norway is provided in Box 4.5.

Box 4.5. A national assessment framework in Norway

The Norwegian National Testing Framework was introduced in 2017 and is available on the website of the Directorate for Education and Training. It acts as the central reference point for all classroom and national assessment practices, thus ensuring that all assessment activities are oriented towards a common purpose without duplication of efforts.

Regarding classroom assessment, the framework places a strong emphasis on formative assessment. The framework specifies that the purpose of assessment is to provide schools with information about student learning that can be used by teachers to improve their practice.

Regarding national assessments, the framework requires national testing in English, reading and numeracy in years 5 and 8 and reading and numeracy in year 9. The National Testing Framework articulates the content and form of the tests and includes instructions and specifications for student sampling, as well as reporting and use of the test results. National assessments are developed by university experts based upon learning objectives as stated in national curricula. Most items are marked automatically. Open-ended questions, however, are marked by teachers based upon external guidelines.

Source: Tveit (2018[41]), *Ambitious and ambiguous: shifting purposes of national testing in the legitimation of assessment policies in Norway and Sweden (2000-2017)*, Assessment in Education: Principles, Policy & Practice, 25(3), 327-350.
https://www.tandfonline.com/doi/pdf/10.1080/0969594X.2017.1421522?needAccess=true

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Position ETEC in an overall co-ordination role to facilitate communication between the various organisations responsible for assessment policy

Creating a national assessment framework is an important step towards achieving alignment between Saudi Arabia's assessment practices and national education goals. An equally important step is facilitating the collaboration of institutions who play a role in assessment policy and practice such that the intent of the assessment framework is widely understood and all institutions are aware of their responsibilities.

It is recommended that ETEC be responsible for the overall co-ordination of assessment policy in Saudi Arabia. ETEC is well placed to assume this role because it is already responsible for creating standardised assessments and developing classroom assessment tools and is the locus of most assessment expertise in the country. In this position, ETEC would not unilaterally determine assessment policy, but should work closely with MoE and Tatweer to map our clear roles and responsibilities to avoid duplicating efforts and make sure that all important tasks are assigned. One important area for communication is with Directorates, Education Offices and supervisors. As Saudi Arabia moves forward to stop the direct testing of students by supervisors and replace the stage assessments with the new standardised tools developed by ETEC, as this review also recommends (see below), the supervisors themselves will need to be aware of this change and understand how it affects their roles.

In the new teacher standards, set clear expectations for the assessment literacy of teachers at different levels of the professional pathways

Assessment literacy refers to teachers' knowledge and use of effective assessment practice and is an essential pedagogical skill in contemporary education. Internationally, the Australian Professional Standards for Teachers prominently feature assessment literacy. In the domain "Professional Practice", assessing students is a standalone standard that includes five focus areas. Expectations in these areas are then specified according to the different levels of the teaching profession. (Australian Institute for Teaching and School Leadership, 2011[42]).

In Saudi Arabia, the new teacher standards dedicate an entire standard to evaluating student performance and this standard is further disaggregated into five sub-standards. A separate standard also contains a sub-standard about creating assessments that are aligned with the aims of the curriculum. These are positive developments and clearly signal the importance of assessment literacy. However, what is missing and should be introduced are expectations of how teachers at different levels of the profession should demonstrate different levels of assessment literacy. An Expert Teacher would be expected to have a different level of assessment literacy than a Practitioner Teacher, but this distinction is not clear in the standards. Introducing this type of differentiation would signal the importance of continuously improving one's assessment literacy.

Classroom assessment

Use teacher appraisal and school evaluation to promote the use of more diverse, especially formative, assessment practices

Improving classroom assessment is a critical need in Saudi Arabia and successfully reforming teacher practices will require co-ordinated efforts in the areas of policy initiatives, resource provision and teacher training. Regarding policy, effectively designed evaluation and appraisal procedures can be powerful levers for driving changes in instructional practice. They can help to reinforce a better balance between summative and formative classroom assessment and encourage the use of more diverse assessment tools.

Saudi Arabia's new school evaluation framework and envisioned changes to the teacher appraisal system will help align evaluation and appraisal with the curriculum's aims regarding student assessment. For example, the new school standards contain a key standard about assessment, which will ensure that this important element of school performance is evaluated, and the new teacher standards require teachers to compile portfolios that demonstrate their effective use of a range of assessment instruments.

Given the habits that the supervision system has engrained, ETEC should consider also including clear statements in school evaluation and teacher appraisal documents of what will *not* happen. For example, principals and external evaluators will not test students or use progression through a textbook to determine teacher performance. Instead, documentation should explicitly require that evaluators look for evidence of positive practice, such as school-level moderation of marking (described in greater detail below).

Create moderation programmes in order to improve teachers' assessment judgements and make them more reliable

An initiative that would particularly useful in Saudi Arabia is to encourage assessment moderation programmes. There is widespread concern that the assessment judgements of

teachers are unreliable and that assessments are not well designed to yield consistent results. Neither principals, supervisors nor parents trust that the marks given to students accurately represent those students' levels of achievement. Most OECD countries have policies in place to encourage and support schools to introduce moderation activities to improve reliability.

This review recommends that Saudi Arabia use policy levers to require moderation. First, under the "management of learning process" key standard in the new school standards, an indicator should be developed that references organising moderation in schools and school principals should be held accountable for meeting this standard. Allocating time for moderation during the school day would also help support its implementation. Second, to build understanding around moderation, it is recommended that the national assessment framework specifically define moderation, explain what it is, why it is important to conduct and why it matters. Case studies of schools that perform moderation (these could be international at first and then feature Saudi Arabian schools) should accompany the description to help schools visualise moderation.

Study student testing time to help monitor and reduce the quantity of testing that students undergo

Saudi Arabia should reduce the amount of testing that occurs in Saudi Arabia be reduced in order to focus classroom time more on teaching and learning the curriculum. The policy levers to do this have been addressed elsewhere, such as creating an assessment framework that maps testing activities and eliminating principal and supervisor testing of students as part of teacher appraisal. While these policy initiatives will reduce testing, it is important to monitor if they achieve the desired change in a way that supports the more effective use of instructional time and a better balance between formative and summative approaches.

One of the challenges to monitoring the situation is a lack of clarity about how much testing students currently undergo. Therefore, it is recommended that MoE perform a baseline study to measure how much time a representative sample of students (i.e., according to grade level and Directorate) spends on taking tests in an academic year, and the different purposes and sources (central, local, school) of these different tests. This study can be repeated after the recommended reforms have been implemented to determine how much testing has reduced and if certain policies are more impactful than others. The policies can then be re-evaluated in light of this information.

Create diagnostic assessments and eliminate the stage assessments that are being administered by supervisors

Policy initiatives can help incentivise teachers to adopt better and more formative classroom assessment practices. However, teachers will need to be supported in their efforts through high-quality assessment resources in order for policy aims to be embedded. In Saudi Arabia, a critical concern is the weak capacity of teachers to determine accurately their students' levels of learning. Without such information, teachers are not sure where their students are with respect to the curriculum's learning expectations and will not be able to adapt their instruction accordingly. To address this challenge, the OECD review team recommends that Saudi Arabia develop high-quality diagnostic assessments to aid teachers in understanding the abilities of their students.

Diagnostic assessments are a type of formative assessment, which often takes place at the beginning of a study unit in order to find a student's starting point, or baseline, for learning and to develop a suitable learning programme for that student. Diagnostic assessments may

also serve to identify students who are at risk of under achievement, uncover the reasons for their learning difficulties and create an appropriate intervention.

ETEC is already developing a set of assessments in relation to the new school evaluation framework that schools can either download or take online to assess how students are performing in relation to national standards. The OECD review team recommends that some of these tests should be designed with an explicit student-level, diagnostic function. This would entail developing enough questions for the tests to measure individual student learning and potentially making some units voluntary so teachers can elect to diagnose only specific skills. These assessments could be designed first for core subjects at the start of each stage and eventually each grade in all subjects.

ETEC will not have to create the diagnostic assessment items from scratch because some suitable resources already exist. For example, the stage assessments that are being administered by supervisors can also be repurposed to be used by teachers. With classroom-level diagnostic assessment helping teachers to understand student learning and a nationwide standardised assessment (see National standardised assessments) school-level performance, there will no longer be any need for the stage assessments. They should be reduced and, eventually, eliminated.

It should be noted that these diagnostic assessments will not be standardised and comparable nationally. While the content of the tests is developed centrally, their administration and marking will be conducted locally. As the purpose of diagnostic exams is to help individual teachers understand their students' level of learning, not to monitor nationwide performance, it will not be necessary to spend the resources to standardise these tests.

Develop materials to support the assessment of complex and higher-order skills

In Saudi Arabia teachers are not familiar with how to assess the higher-order thinking skills that are expressed in the curriculum standards and need materials to assist them in this area. To support teachers, Tatweer should prioritise the development of sample quizzes, worksheets and class projects that would help teachers determine student development of complex skills. Examples of assessment resources from other countries that test higher-order skills can be found in Box 4.6.

Box 4.6. Assessment formats that measure broader competencies

In the Flemish Community of Belgium, a range of institutions including educational centres, academic institutes and umbrella organisations, have developed tools that teachers can draw on to assess non-cognitive aspects of learning, such as attitudes, well-being and involvement. Some of these tools are used quite widely while others are applied rather sporadically and in a limited number of schools. The most commonly used tool for assessment of non-cognitive performance is the SAM-scale (Scale for Attitude Measurement; Schaal voor Attitude Meting). The SAM-scale measures students' attitudes and has been developed to assess, guide, stimulate and orientate students. By means of this tool a teacher can determine to what extent a pupil scores high or low for certain attitudes, e.g. flexibility, diligence and responsibility.

In **Ontario (Canada)**, the document "Growing Success" provides a description of all the dimensions of evaluation in Ontario schools and includes the assessment of non-cognitive skills, called "Learning Skills and Work Habits". All teachers from Grade 1 to Grade 12 are required to assess and report on these six non-cognitive skills. "Growing Success" includes a non-exhaustive list of sample behaviours for each skill to support teachers' understanding and identification of each skill in the classroom. It also includes a 4-point rating scale (Excellent, Good, Satisfactory, and Needs Improvement) used for the evaluation of non-cognitive skills and a description of how this information should be reported on student report cards, which are standardised throughout the province.

In New Zealand primary schools, progress towards the achievement of national curriculum goals is measured via the National Education Monitoring Project (NEMP), which incorporates the assessment of competencies and values. Many of the NEMP assessment tasks are performance-based, requiring students to transfer learning to authentic close-to-real life situations. There are different assessment situations including one-to-one interviews, work stations and teamwork. Most assessment tasks are carried out orally and some are videotaped to allow for an in-depth analysis of student responses and interaction with teachers. While NEMP is designed for system monitoring, examples of previous assessment tasks are available for teachers and may be used in the classroom.

Sources: Flemish Ministry of Education and Training (2010[43]), OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes Country Background Report for the Flemish Community of Belgium. http://www.oecd.org/education/school/46974684.pdf .

Nusche et al. (2012[38]), OECD Reviews of Evaluation and Assessment in Education New Zealand, OECD Publishing. http://dx.doi.org/10.1787/9789264116917-en .

Merchant, Klinger & Love (1995[44]), Assessing and Reporting Non-Cognitive Skills: A Cross-Canada Survey. *Canadian Journal of Educational Administration and Policy*, 187, 2-17. https://journalhosting.ucalgary.ca/index.php/cjeap/article/view/43135/43931

Disseminate assessment resources through iEN and establish curation procedures to make the best resources easier to find

After high-quality assessment resources are created, it is recommended that they be distributed through Tatweer's iEN system. However, while easily accessible, iEN is not always easily navigable. Its item bank already has over 100 000 questions and this large quantity of items is intimidating to teachers who do not have time to sift through so many questions. Adding even more resources to iEN, even high quality ones, does not guarantee that those resources will be used if teachers cannot find them. iEN's assessment resources

need to be curated to make it easier for teachers to identify the most useful materials and for Tatweer to remove those of low quality.

A first step is to require more metadata be associated to iEN resources so they can be digitally sorted by users. Anyone who uploads materials should specify, for example, if the material is centrally created or by a user, what grade level the resources are intended for, which content area of the curriculum is assessed, which skills are assessed and what types of questions are contained (i.e., short answer, multi-stage or essay questions). This information must be inputted before the resource is available on iEN. Users can then more easily browse for materials that are relevant to them. Tatweer can also generate assessment maps that link materials on iEN directly to curriculum objectives and standards.

The next step is to manage more actively the quality of resources that are stored in iEN. This can be accomplished by a combination of education expert reviews and "crowd sourcing", in which the materials are reviewed by the users themselves. Curators would be responsible for determining if the resources are well aligned with the curriculum framework and if they assess higher-order skills. Users would share their experiences in using the resources and suggest what can be done to make the resources more pertinent in specific contexts.

Provide targeted pre- and in-service development to enhance teachers' assessment capacity

Resources will help guide teachers in using more effective assessment practices, but they will also need training in how to use and adapt those resources for their classroom contexts. Internationally, the higher education sector often plays an important role in strengthening teacher assessment literacy. Several universities offer programmes that specifically focus on student assessment. In the United Kingdom, University College London's Institute of Education offers a Master's degree in Educational Assessment (several Saudi Arabian students have completed this programme), a more general Master's degree in Curriculum, Assessment and Pedagogy and in-service teacher training (University College London, n.d.[45]).

Saudi Arabia's leading higher education institutions, such as King Saud University, should offer similar specialisations in student assessment. Not all graduates of such a programme would necessarily become teachers, but they could work for institutions like Tatweer and ETEC to develop useful assessment materials for teachers. Faculty of this programme could also contribute their expertise to Saudi Arabia's initial teacher preparation programmes, which would improve teacher assessment literacy before candidates are posted to positions.

In-service training in Saudi Arabia will also need to focus on improving teacher assessment literacy. Teachers need to understand concepts such as validity, reliability and test standards. They need to be trained to assess higher-order thinking and not just rote memorisation of knowledge. To this end, NIPED should make the provision of this type of training (and accreditation of third parties that offer this kind of training) a national priority. Faculty of the national specialised programmes in student assessment would be well placed to help NIPED develop and deliver the training modules, and also to make graduate programmes more relevant to teacher classroom needs.

National standardised assessments

Extend the National Assessment Programme to be census-based and consider several design elements in light of the national assessment framework

While the sample-based, national testing that Saudi Arabia conducts through NAP provides important information on how the system as a whole is performing, it does not generate school- or student-level results. In order to provide schools and teachers with reliable information on how well their students perform with respect to the curriculum's expected learning outcomes, it is recommended that Saudi Arabia should administer census-based assessments for at least two grades, one at the primary level and another at the secondary level. Given the need to focus on basic numeracy and literacy, it is suggested that the subjects tested include mathematics, reading and writing. Administering NAP as census-based assessments would also eliminate the need for MoE to conduct its own census-based testing.

As well as generating data for system monitoring purposes, the value of having census assessments would be the information provided to teachers and schools on student performance in relation to national expectations. At a time of curriculum reform, national student-level assessments can be particularly effective at building understanding of new standards and how they can be measured. Furthermore, the information be used to identify which schools are in greatest need of additional support and determine instructional interventions and improvements. Through generating positive backwash effects, census-based assessments can strengthen external school evaluation and accountability, helping to anchor qualitative assessments in consistent metrics.

Specific design elements to be considered when moving towards census-based assessments include:

- **Access to data**: School-level results should be made available centrally and Directorates and Education Offices should have access to the results of all schools within their jurisdictions. Certain groups, such as relevant government agencies, educational researchers and universities, should also have access to the micro-data. Schools themselves should only have access to their own data, and to relevant benchmarks (e.g., national performance indicators). School-level results should not be made public to avoid schools being ranked against each other.

   National-level results should be published and disaggregated by several dimensions, such as by Directorate, Education Office and gender. These indicators would be used to monitor the system and could form a composite indicator that appears as a goal in NTP (e.g., increase the number of Education Offices that perform above a certain threshold).

- **How data is used**: Results should not be used to sanction teachers or schools. As discussed in Chapter 2, school data should be used to prioritise schools in need of support. Within the school evaluation framework, it would provide one measure of quality alongside others that ETEC is developing. Nationally, however, the data should be used more consequentially to hold Directorates accountable. Those with low outcomes should be closely monitored and provided with greater support to help their schools improve. Data should also be used deliberately in the development of curriculum materials. The assessment will reveal where teachers and students are struggling and this information should be used to direct the development of supporting instructional resources.

Box 4.7 describes the National Assessment Program from Australia, which could act as a model for Saudi Arabia's.

Box 4.7. The National Assessment Program from Australia

Australia's National Assessment Program (NAP) is a battery of two tests, both aligned with the Australian National Curriculum, that are administered nationally to collect information about student learning across the country. The two types of tests are:

- The National Assessment Program – Literacy and Numeracy (NAPLAN), an annual, census-based assessment in literacy and numeracy that is administered to students in Years 3, 5, 7 and 9;

- Three NAP sample-based assessments: science literacy, civics and citizenship and the information and communications technology, administered nationally to a sample of chosen students once every three years on a rolling basis.

Most items from these tests are multiple-choice, which makes them cost-effective to mark. However, the items were specifically designed to test students' higher-order skills and not just factual recall. For example, the civics and citizenship sample tests cover not only content knowledge (e.g., vocabulary around government bodies), but also the cognitive processes that students need to understand and draw inferences from the content. This is accomplished by asking students to think about the type of social behaviours that would encourage and discourage participatory governance.

Test development, implementation and marking procedures are fully transparent. NAP's website (https://www.nap.edu.au/) provides easily accessible assessment frameworks, technical reports, national reports and sample assessments. For both tests, national reports and associated data are provided on NAP's website. National reports include a comparison of students' results by jurisdiction, by demographic group, by location of the school and by gender.

For NAPLAN only, school level results are released on the My School website and reports on individual students' results are provided to all students and parents. For the sample-based assessments, a basic report about the performance of their students is provided to each participating school.

Source: ACARA/Australian Curriculum/My school (n.d.[46]), National Assessment Program. https://www.nap.edu.au/
Australian Government (2018[47]), National Assessment Program - sample assessments. www.education.gov.au/national-assessment-program-sample-assessments

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ETEC should be responsible for overseeing the assessment, but needs to receive adequate, sustained support

As the national testing agency, ETEC should be responsible for developing and overseeing the expanded NAP. Nevertheless, there are legitimate concerns about whether ETEC presently has the capacity to manage such an ambitious project. A previous census-based assessment programme was abruptly halted due to a lack of sustained funding. Therefore, the OECD review team recommends that the budget for the expanded NAP be guaranteed so ETEC feels supported in devoting resources to developing and administering it. Including results from this assessment in NTP and building accountability measures around

local-level indicators from the assessment would help establish it as the authoritative source of performance data, which would help guarantee its funding.

MoE should assist ETEC with the administration of the expanded NAP because of their well-established relationships with schools. This would entail overseeing all logistical matters (which will be considerable as the assessment will have to be administered in paper-and-pencil format) such as transportation, proctoring, marking and data input. It will be the responsibility of ETEC to train MoE staff (e.g., supervisors and Directorate/Education Office staff) to perform these tasks, but MoE must assure its support. Furthermore, MoE should show its support for the centrality of this assessment by ceasing its own external assessment activities, such as those administered by supervisors and MoE departments.

Align the assessment with the curriculum and use reporting from the assessment to build understanding of the curriculum standards

A national assessment is a powerful tool for not only measuring performance, but improving understanding of key education resources. An assessment that is aligned with the curriculum standards, for example, helps educators understand what the standards are and their critical significance to teaching and learning. For these reasons, the majority of OECD countries have central assessments that are aligned with national curriculum goals and/or standards (OECD, 2013[8])

Given the need to improve teachers' assessment literacy, the expanded NAP should be aligned with the new curriculum standards to help teachers better understand the curriculum standards. Teachers will be able to see the types of questions that NAP asks students and what types of skills they are intended to measure. This will help teachers differentiate between teaching and assessing surface-level knowledge versus a deep mastery of skills.

As ETEC is already developing a teachers' report based on NAP results, the OECD review team recommends that, in addition to reporting relevant assessment results, this report should also contain formative information that helps teachers understand the standards. An example of this type of report are report cards from the National Assessment of Educational Progress (NAEP) in the United States. They include a description what students are expected to know and be able to do at three different achievement levels across subjects. The report cards also include informative digital links that contain further detailed descriptions of the standards and achievement levels (The Nation's Report Card, n.d.[48]).

Examinations

Set, as a medium-term (five years) goal, the development of an examination that is aligned with the curriculum and certifies completion from upper secondary school and selects students for entrance into tertiary education

Saudi Arabia's examinations system faces several challenges. There does not exist a school-leaving examination that is aligned with the curriculum, which prevents the system from exerting positive pressure on teachers to implement the intended curriculum. The two tertiary-entrance examinations, the GAT and the SAAT, are not fully aligned with the curriculum and are generally perceived as easy with low-stakes. They thus do not act as a significant motivating factor for students.

The development of a new curriculum framework represents an opportunity for Saudi Arabia to revisit its examinations system and make it more fit-for-purpose. The new

system should encourage students to apply themselves and reinforce the aims of the curriculum by assessing higher-order thinking skills, especially in core learning areas such as Arabic and mathematics. To achieve these goals, the OECD review team recommends that Saudi Arabia set a goal to create a single, curriculum-aligned examination that would both certify completion from upper secondary school and select students for entrance into higher education institutions. Once introduced, this examination would incorporate many of the elements that are currently in the GAT and SAAT, which would eliminate the need for the GAT and SAAT as they are currently configured.

Establishing an examination that certifies graduation from upper secondary school would motivate students to apply themselves

The OECD review team understands that a previous upper secondary certification examination in Saudi Arabia was eliminated in order to increase completion. Currently, completion rates have increased and now a greater concern is that schooling lacks rigour and students need to be motivated to improve their learning. The GAT and SAAT are not fulfilling this purpose as strongly as they could because entering tertiary education is not overly difficult and therefore not all students need to prepare for these exams. Creating a certification examination would introduce much needed stakes into upper secondary school, which would incentivise students to focus on their studies so they can pass the exam.

Aligning the examination with the curriculum would support teachers in implementing the curriculum in their classrooms

Similar to aligning national assessments with the curriculum, aligning examinations with the curriculum helps teachers better understand national learning standards and reinforces the implementation of the curriculum in the classroom (OECD, 2013[8]). In Saudi Arabia, neither the GAT nor the SAAT are aligned with the curriculum. This can create conflicting messages for teachers who feel responsible for not only teaching the curriculum, but helping their students enter higher education institutions.

To further support classroom instruction and implementation of the curriculum, the OECD review team recommends that the proposed examination be aligned with the curriculum. In particular, the types of items that appear in the examination need to be able to assess the higher-order thinking skills that are expressed in the curriculum standards. The vast majority of certification examinations employ a combination of closed-ended (multiple-choice and single response) and open-ended item types, which are generally more capable of assessing complex skills. Teachers will already be required by the curriculum and the teacher standards to develop these skills in students and use proper assessment methods to evaluate them. Assessing these skills on a national examination would reinforce teachers' efforts and, through teachers' viewing the examination items, help them improve their own assessment capacity.

Requiring a limited number of subjects while making others voluntary balances the need to assess the important basic skills with the requirements of individual tertiary programmes

It is important that examinations balance the need to assess the most important skills while not becoming too burdensome for test takers. The OECD review team generally supports examinations that include a limited number of core compulsory subjects, usually including mathematics and the language of instruction, and a significant elective component. Some

subjects, in particular mathematics, should have differentiated versions depending upon student interest and need (e.g., functional mathematics for students who will not be engaging further in technical subjects and advanced mathematics for those who intend to pursue technical fields). In 30 OECD education systems that have entrance examinations to higher education institutions, those examinations include at least one compulsory examination subject and a range of optional subjects (OECD, 2015[49]; OECD, 2013[8]).

For Saudi Arabia's examination, the OECD review team recommends that Arabic and mathematics be mandatory subjects and potentially a foreign language, such as English. Mathematics should also be divided into basic and advanced versions. Students would take one or the other depending upon interests and the requirements of the university programmes they wish to enter. In addition to the mandatory subjects, students would be required to take a small number of voluntary subjects (e.g., in science, social or Islamic studies), again depending upon their interests and programme requirements. This elective dimension would also align with current reforms that give upper secondary students more choice over their subjects of study.

The advantage of this structure is that it focuses student testing on those domains that matter most for a student's future. It also reduces the amount of oversight and development required from ETEC, enabling staff to concentrate on developing fewer, but higher quality items. The current GAT and SAAT are already showing item-level errors, and this is likely related to the fact that ETEC currently oversees over 25 assessments and examinations with constrained capacity. Decreasing the number of items that ETEC needs to develop through limiting the subjects tested and through the development of a single examination would help to improve the quality of examination items.

A single examination model in the Republic of North Macedonia is described in Box 4.8. It has been highlighted as it represents a good example of a relatively newly introduced examination, which combines the strong features of more mature systems, without some of the legacy constraints of older models. An additional feature relevant to Saudi Arabia is the inclusion of a project assignment, which would can help to support the emphasis the curriculum gives to applied learning.

Box 4.8. Single examinations model in North Macedonia

In North Macedonia, the State Matura examination, which has been a model for other countries' examination systems, certifies students as having completed upper secondary school and selects them for entrance into universities. Students must take their native language, mathematics or a foreign language and must choose from a list of electives for the remaining subjects. The State Matura also includes a project assignment, which allows students to demonstrate a broader range of competencies than they could via a written examination. The State Matura can be taken by students from both gymnasium (general education) schools and vocational schools. The table below summarises the design features of the State Matura.

Components	Four subject tests, three of which can be chosen by the student Compulsory subject: 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 Students must also complete an in-school project assignment, which might be research or an applied task in a specific field.
Eligibility	All students completing gymnasium and four year vocational education schools
Item development	Bureau for Development of Education develops specifications for general education subjects Vocational Education and Training Centre develops specifications for vocational education subjects Item development is led by state subject committees, composed of professors and practitioners Individual schools develop items for school-assessed subjects
Question format	Multiple choice, closed format short answers and open-ended questions Pen and paper
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 assignments are marked at the school level
Reporting	Individual student results are accessible through an online portal on the National Examination Centre'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 results.

Source: (National Examination Centre, n.d.[50])

In the meantime, conduct a thorough and cohesive review of the GAT and SAAT tests, involving a large range of assessment experts

The proposed changes to the examinations systems cannot be made quickly, which is why the OECD review team suggests that they be set as a medium-term goal. While preparations are being made for the new examination system, the OECD review team recommends that ETEC conduct a thorough review of the current examinations, including their construction and the development of their items.

To conduct the review in accordance with international practices, ETEC should appoint a chief examiner who reviews the examinations and writes a draft paper about his/her findings. Another group of examiners would meet to discuss the draft paper and modify the findings. This dual-stage process helps identify and resolve internal errors found in the exams. After the items have been modified, the examiners should take the tests as if they were students, which would help them identify mistakes that may have been missed during

the first round of review. Once the exams have been taken by students, ETEC should proceed with its quantitative tests of item functioning to determine if the items behaved as expected. Any inconsistencies should prompt a review of the items that produced them and, if necessary, dismissal of the items (Assessment and Qualifications Alliance, n.d.[51]; Cambridge Assessment, 2017[52]).

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Annex 4.A. Review of selected GAT and SAAT items

GAT

While the GAT claims to require deductive, logical and critical thinking skills, the review team found that most questions could be answered by memorisation. The reading section assesses lower-level skills, meaning that most of the answers can be derived from simply reading the text, rather than inferring from it.

The "odd one out section," in which students must identify which word does not belong in a group, presented two difficulties. Question 7's group of words is golf, billiards, cricket and volleyball. The correct answer is billiards, either because billiards is the only indoor game or because in billiards several balls are in play simultaneously while only one ball is in play at a time in the other three sports. However, to answer this question correctly, test takers must know the rules of some fairly specific activities. The item might also be culturally inappropriate and could discriminates against girls, who are less likely to know the details of each sport.

Question 8's group of words is four, book, silk and milk. According to the answer key, the correct response is silk. It is unclear why this is. The review team thought the most correct response was four, either because the rest are tangible items and "four" is abstract, or because the rest contained the letter "k."

Another set of questions highlights four words in a passage and asks students to identify which words is used incorrectly. The answer key for Question 11 in this section is incorrect. The answer should be A (pusillanimity), not C (chastised). Question 15 has two responses that could be considered correct – B (perpetual, which should be permanent) and C (eradicable, which should be ineradicable), which is the identified as correct in the answer key.

The quantitative section of the GAT tests arithmetic, algebra, geometry and interpretation of graphs and tables. This set of assessed competencies is slightly less challenging than examinations internationally. For example, the General Certificate of Secondary Education in England, which is taken by over 90% of 16 year old students, assesses algebra, ratios, proportion and rates of change, geometry and measures (including sine, cosine and tangent) and probability and statistics.

Specific questions also raised concerns. For example, question 14 asks students to determine which column of a column chart is higher, but two columns are of such similar height that it is difficult to ascertain which is higher. Question 20 asks students to compare two values, both of which are the same. The correct response should be "the two values are equal." However, the answer key states that the correct response is the first value is greater than the second value.

SAAT

The sample SAAT was expectedly more difficult than the GAT contained questions that were more appropriate for Grade 12 students (the test covers content from Grades 10, 11 and 12). However, answering the questions for the most part relied on memorisation of facts rather than critical thinking skills. One biology question, for instance, simply tested students' ability to memorise "which worm belongs to phylum annelida".

There are also inconsistencies regarding SAAT questions. Question 7 for the biology question uses the phrase 'dormant A blood type', which is not possible. Given the answer choice, presumably the item writer meant homozygous (i.e. AA). Chemistry question 2 has two distracters that rely on the test taker knowing how to spell "molar", rather than knowledge related to chemistry. Chemistry question 8 is formatted in a confusing way because one of the choices precedes the end of the question. Furthermore, the first of the answer choices does not exist.

Chapter 5. Strengthening the foundations for learning

This chapter looks at early childhood education sector in Saudi Arabia. While the country has seen a rapid expansion of educational access in primary and secondary school, enrolment in early childhood education lags behind international benchmarks. There are also concerns regarding the quality of education that is provided at this critical stage, ranging from a lack of standards that govern early education settings, inconsistent licensing of private settings, inadequate teacher preparation and insufficient materials. Saudi Arabia is investing heavily in the sector to address these issues. It has created the first ever Saudi Early Learning Standards, is constructing new facilities and is expanding the early education cycle to include what is now Grades 1 through 3 of primary education. This chapter recommends that Saudi Arabia further expand its early education sector by focusing on settings other than formal kindergartens. It further suggests that Saudi Arabia develop quality assurance standards for all settings and provide teachers and principals with the materials and the training they need to help students learn.

Introduction

A weak early education sector has been recognised as a contributing factor to low and inequitable learning outcomes once students are in school. Compared with international benchmarks in PIRLS 2016, there is a considerable learning gap for Saudi Arabian students by Grade 4. The average student from Saudi Arabia scored 430 points, which was lower than or not different from all but five participating countries. The learning gap is particularly pronounced for boys, who scored roughly 65 points lower than girls. The relationship between attending early childhood education and performance becomes more evident as students become older In PISA 2018, 15 year-old students from Saudi Arabia who attended early years education for one year or less scored roughly 46 points lower than students who attended for one to five years, even after accounting for socio-economic status and gender. This difference is equivalent to about two years of schooling in the Saudi Arabian context.

Saudi Arabia is well aware of these returns to early education and is investing heavily in expanding early childhood so all students can enter school ready to succeed. Between 2013 and 2017, the government more than doubled the number of kindergartens from roughly 1 500 to over 3 000 (World Bank, 2017[1]). These efforts have helped net enrolment in pre-primary education rise from 14.3% of the age-eligible population to 20.1% (UNESCO Institute for Statistics, 2019[2]). These figures, however, are still far from international benchmarks (e.g., a 46.9% enrolment rate in 2016 for the Middle East and North Africa region) (UNESCO Institute for Statistics, 2019[2]). Early childhood education expansion, however, has not occurred equitably across the country. In PIRLS 2016, Grade 4 students in areas with over 500 000 people attended pre-primary education 50% more than students in areas with less than 3 000 people. With respect to family background, students whose mothers completed a bachelor's degree were almost twice as likely to attend pre-primary education than students whose mothers only completed primary education (IEA, 2016[3]).

In light of these circumstances, Saudi Arabia needs to consider how to preserve the quality of early childhood education while expanding it, and how to provide services to the majority of students who will not be enrolled in kindergarten in the near future. Successfully doing so could greatly aid Saudi Arabia in its mission to develop human capital and build a modern, knowledge-based economy.

Main features of early childhood education in Saudi Arabia

Saudi Arabia in the midst of a profound reconfiguration of the organisation, content and expectations of its early childhood education sector. To support Saudi Arabia's ambitions, this chapter makes recommendations according to three broad dimensions of early childhood education. The first is the governance and leadership of the sector. The body that oversees early childhood education needs more prominence to influence key stakeholders and reallocate how education funding is allocated, which currently de-prioritises early years education. National plans need to be created that co-ordinate activities and call for the establishment of alternative settings that can serve the needs of families in areas that cannot accommodate formal kindergartens. Regarding quality assurance, a high number of private kindergartens is helping to enrol more students, but regulation of these settings is loose. Overarching institutional requirements and inspection procedures are needed to ensure that public and private kindergartens are safe and helping children develop. Last, the introduction of Saudi Early Learning Standards is a strong lever to improve early learning, especially in the area of literacy. Without the necessary resources and capacity building,

however, the aims of the new standards will be difficult to achieve in classrooms. Parental engagement can also be strengthened so children are not only receiving better developmental experiences in kindergartens and other settings, but also at home.

Sector governance and leadership

Early childhood education and care is offered through several settings and is rapidly expanding

Saudi Arabia offers early childhood education and care primarily through two settings - nurseries for children from ages 1 month to 3 years and kindergartens for children from ages 3 to 6 (Table 5.1). Most of the policy attention and thus far dedicated to developing kindergartens, which is also where most of the expansion has occurred. Nurseries are comparatively underdeveloped and entirely private, which reflects the fact that many socio-cultural and labour market factors encourage families to keep very young children at home.

Table 5.1. The structure of early education in Saudi Arabia

	Early Childhood Educational Development	Pre-primary education	Primary education
Age range	1 month-3 years old	3-6 years old	6-11 years old
ISCED levels	ISCED 0.1	ISCED 0.2	ISCED 1
KSA designation of education levels	Nursery	Kindergarten	Primary school

Note: ISCED refers to the International Standard Classification of Education
Source: UNESCO Institute for Statistics (2019[2]) UNESCO & UIS (2011[4]) & OECD (2017[5]).

Early childhood education governance has become integrated but, until very recently, has lacked a formal, central strategy

As of 2016, the Ministry of Education (MoE) now oversees all kindergartens and nurseries (a small number of family daycare centres remains under the management of the Ministry of Labour and Social Development). However, within MoE responsibilities are split depending on whether facilities are publicly or privately managed. Public kindergartens are overseen by the Early Childhood General Department. Nurseries and private kindergartens are overseen jointly by the General Department and the Deputy Ministry for General Private Education.

Strategy around early childhood education has been set through Vision 2030 and the National Transformation Plan (NTP), which has recently been integrated into the Human Capital Development Programme. These documents are intended to drive the expansion of early education and align public and private efforts. However, they are very high level and are not intended to guide everyday governance of the sector. While there have been attempts to develop a more operational National Childhood Strategy, at the time of the OECD's review mission a first version of the Strategy had been put on hold (World Bank, 2017[1]) and new plans had not yet been made public.

Saudi Arabia's data infrastructure is well developed but contains incomplete information about early childhood education

Saudi Arabia's primary education database is NOOR, which contains information about schools, staff and students. Persons in NOOR are identified through their government identification numbers, which allows them to be tracked from birth through participation in the labour market.

While data collection and entry into NOOR is comprehensive for general education, it is incomplete for early childhood education and care. Kindergartens collect information, but there are concerns with the accuracy of the data. Nurseries do not collect information systematically and the exact number of nurseries and children enrolled in nurseries is unknown (World Bank, 2017[1]).

Funding provided for early childhood education is relatively low overall and in comparison to other sectors

Compared to international benchmarks, Saudi Arabia underfunds early childhood education. According to MoE reports, public spending for early childhood education represented 0.3% of national GDP in 2016, while the OECD average was 0.7% in 2015, with some countries as high as 1.8% (World Bank, 2017[1]; OECD, 2016[6]). This disparity becomes greater when considering that the percentage of the Saudi Arabian population that is between the ages of zero and four in 2017 (roughly 9%) (General Authority for Statistics, 2017[7]) is larger than that of OECD countries (6%), and that the emerging nature of Saudi Arabia's sector requires significant infrastructural investment. It should also be noted that actual spending might be less than what is allocated because funding is not specifically earmarked for early childhood education in Directorates and Education Offices.

Although early childhood education expenditure is relatively low, overall education spending in Saudi Arabia is actually quite high and represents a greater portion of all government spending relative to OECD countries. A disproportionate amount, however, is allocated for tertiary education. Nearly one-third of all educational spending in 2015 went to the tertiary sector, compared to less than 25% for OECD countries (World Bank & Education Evaluation Commission, 2016[8]; UNESCO Institute for Statistics, 2019[2]).

Sub-national entities have significant autonomy, which can lead to variations in service provision

While early childhood education governance is centralised in some respects, such as the learning standards in use and sources of funding, Directorates and Education Offices are largely responsible for service provision and oversight. This configuration is common to many OECD countries and can help to adapt provision to local needs and contexts. Nevertheless, such decentralisation also creates risks in terms of significant variation in provision. These risks are magnified in countries such as Saudi Arabia that have large private sectors.

Quality assurance

Licensing and monitoring requirements for kindergartens are in place but are not documented centrally and their application is not always consistent

Saudi Arabia has passed numerous pieces of legislation that regulate early childhood education settings. For example, building construction standards were introduced in 2013

and standards for private settings were introduced in 2016. An organisational manual for kindergartens and nurseries was recently updated to version 2 and establishes the procedures that public and private settings must follow. They cover requirements for building specifications, staff to children ratios and the presence of key materials such as first aid kits and toys. The manual strongly emphasises staff operations, such as which staff should be responsible for key tasks and also mandates that a staff member be responsible for data collection. It is unclear to what extent these multiple requirements overlap, which would then take precedence and if application of the requirements might differ according to the source of the requirement and the public/private status of the setting.

Monitoring of kindergartens occurs through kindergarten supervisors in Directorates and Education Offices. These individuals are expected to monitor and provide support to a kindergarten's principal and teachers. Unlike general education supervisors, there is only one kindergarten supervisor allocated per institution and each supervisor is expected to oversee seven schools and no more than 50 teachers. However, because of capacity limitations supervisors frequently exceed these quotas. An organisational and procedural manual that guides kindergarten supervisors is being developed to be used by supervisors, principals and teachers.

While both public and private kindergartens receive supervisory visits, private kindergartens are also overseen by Assistant Directorates for Private Kindergartens. It is not clear exactly what guidance these bodies provide to kindergartens, as much of it occurs locally, but the dual management of private kindergartens might be contributing to widely documented inconsistencies in service provision between the public and private sectors (World Bank, 2017[1]).

The Early Childhood Environment Rating Scale is being used by kindergartens for self-evaluation

Kindergartens practice self-evaluation by using the Early Childhood Environment Rating Scale (ECERS). This is an internationally benchmarked instrument that evaluates an institution according to 43 items across seven subscales. To support schools in their use of ECERS, kindergarten supervisors have also been trained via massive online open courses to help schools understand ECERS and how to use the generated results for improvement purposes. All kindergartens visited by the OECD had been using ECERS and found this a useful tool for reflecting on their work.

Curriculum and the workforce

New learning standards and updated curriculum resources have been developed to improve learning outcomes

Saudi Arabia has had an early childhood education curriculum for over thirty years. This curriculum is based on self-learning, or learning through play, and was developed in partnership with the Arab Gulf Development Program and UNESCO (World Bank, 2017[1]). Numerous accounts and OECD interviews suggest that teachers have limited materials to help them implement the curriculum, especially those that connect play with learning and those that develop effectively students' early reading/literacy skills, which is related to the low reading outcomes mentioned previously.

In 2015, the MoE commissioned the development of Saudi Early Learning Standards (SELS) to give greater focus and guidance on improving learning outcomes (see Main

policy initiatives underway). These standards were created in collaboration with the National Association for the Education of Young Children (NAEYC), who are also working with Tatweer for Education (Tatweer) to align the curriculum with the new standards and develop relevant new resources. An area of focus for SELS is improving student literacy and encouraging teachers to adopt pedagogical methods that will help students become better readers.

There are plans to develop the capacity of kindergarten principals

All kindergartens are led by a principal and, in some cases, with the assistance of deputy principals. In addition to administrative tasks, the principal is responsible for leading self-evaluation using ECERS and working with kindergarten supervisors to improve service provision. Unlike general education supervisors, kindergarten principals only work with one supervisor, which grants them greater autonomy over the activities that occur in their institutions. Kindergarten principals are selected from among kindergarten teachers and appointed with little to no formal preparation in their new role as institutional leaders. A kindergarten principal training programme is currently being developed in partnership with the World Bank to enhance the capacity of kindergarten principals.

Kindergarten teachers must hold relevant tertiary qualifications, but there is no licensing requirement

Kindergarten teachers in Saudi Arabia must hold a bachelor's degree in early childhood education. This requirement, however, is flexible depending upon the context of the kindergarten. In some private institutions and rural areas, kindergarten teachers need only to have a bachelor's degree in any subject (World Bank, 2017[1]). This arrangement supports kindergartens that might otherwise struggle to find qualified staff. Like all teachers, kindergarten teachers must also pass a licensing exam before being certified to teach in schools.

Professional development for kindergarten teachers is provided through dedicated kindergarten training centres and the National Institute for Professional Education Development

Professional development for kindergarten teachers is primarily provided through the local training centres established to provide training for school teachers. Six dedicated centres have been established in the main urban centres to enhance the quality of training and tailor it to the specialised requirements of kindergarten staff. Two more of these centres are planned. The National Institute for Professional Education Development (NIPED) also provides training programs for kindergarten teachers.

Initiatives to incorporate parents more strongly into their children's education have been launched, but overall engagement remains low

Several efforts have been made to try and improve parental engagement and overall recognition of the importance that a child's home environment in his/her development. Nationally, MoE has worked with the Child Care Association to improve home environments and raise parental awareness of how to impact positively their children's learning. One such programme, Educating Mother and Child, targets mothers of young children (ages 3 through 9) (Bashatah, 2016[9]). Locally, Directorates are encouraged to develop their own initiatives to expand and improve early childhood education. In Al-Lith, one of the Directorates visited by the review team, this encouragement helped produce the

"kindergarten reads" programme, in which a recently introduced extra hour of instruction was decided to be used as reading time for young children. MoE is also planning to introduce a virtual kindergarten strategy in which in-person instruction would be complemented by digital instruction in students' homes.

Nevertheless, despite these efforts, overall levels of parental involvement, and general recognition of the importance of the home environment in a child's development, remain limited. In some cases, there are large waiting lists to enrol in kindergartens. In other cases, even when kindergartens are near, some families still do not enrol their children (World Bank, 2017[1]). Interviews with parents and some kindergarten teachers also revealed that there is a lack of understanding around some fundamental child development issues, such as the importance of reading with children to improve their comprehension and vocabulary. In PIRLS 2016, for example, 23.1% of Grade 4 Saudi Arabian students' parents read often to them, compared with 53.7% internationally.

Main policy initiatives underway

Introduction of the Saudi Early Learning Standards

SELS were developed in 2015 through a collaboration between Tatweer and NAEYC. They were created based upon rigorous international benchmarking and represent the first national learning standards in Saudi Arabia (a curriculum framework for standards development has been created for general education). SELS indicators are organised into seven broad areas: approaches to learning, social-emotional development, language and early literacy development, cognition and general knowledge, patriotism, Islamic education and health and physical development. The current SELS are designed for children ages 0 to 6, but expanding the standards to include children from 7 to 8 is already underway in anticipation of creating a new cycle of education that encompasses ages 3 to 8 (see below).

SELS for children aged 3 to 6 have been introduced in kindergartens and their roll out was accompanied by a structured, short training programme for staff. This programme was intended to help teachers understand and apply the standards in their classrooms and was delivered by kindergarten supervisors, who were trained by Tatweer and NAEYC. Initial teacher preparation programmes were also briefed about how to align their programmes with SELS. Neither the implementation nor the impact of SELS have been reviewed.

Planned creation of a new cycle of education for children from ages 3 to 8

In the future, Saudi Arabia plans to create a new cycle of education that would cover children from ages 3 through 8 (and, later, age 9 or Grade 3 of primary). However, this requirement will be flexibly implemented in consideration of space and primary schools with appropriate facilities are expected to also house kindergarten students. Priority will be given to moving as rapidly as possible towards universal access for children aged 5 to 6 (i.e. the last year of pre-primary).

Several reasons motivated the decision to create a new cycle. First, it was recognised that learning outcomes for young children were low and that improving specific areas of learning, such as literacy, was needed in the early stages of education. Second, there is widespread concern that current teachers, particularly male teachers, in early primary grades are not qualified to teach young children and that these students would learn better in environments and with teachers who are more prepared to teach them. Finally, female teachers are generally perceived to be more qualified than their male counterparts and

exposing boys to instruction from female teachers might help reduce the observed achievement gaps according to student gender (see Chapter 3). Extending the length of kindergarten cycle, which is taught by female teachers, thus exposes students to more qualified instruction for a longer period of time. Plans for introducing the new cycle are being developed and MoE has performed detailed scoping of the infrastructural needs and potential demand (based on demographic and employment indicators).

Development of kindergarten teacher and principal standards

Historically, Saudi Arabia has not had formal professional standards for the education sector. This is changing as the Education Training and Evaluation Commission (ETEC) has released the Teacher Standards and Professional Pathways that will govern the teaching profession in general education, along with principal standards. ETEC is also developing standards for kindergarten teachers and principals. It is unclear, however, what the status of these standards are, how they will be used or when they will be released.

Development and piloting of the Saudi Early Grades Reading Assessment

In 2017, MoE, in cooperation with the World Bank, adapted the Early Grades Reading Assessment (EGRA), an internationally recognised instrument for measuring reading literacy in young children, for the Saudi Arabian context. This instrument, called SEGRA, was then piloted with students from Grades 2, 3 and 4 through oral administrations in one-on-one settings (World Bank, 2017[10]).

Based on analyses of the pilot test, seven sub-tests (tested areas) from SEGRA were selected to appear in the final version of the instrument. Areas that were identified as particularly weak were phonological reading, which requires students to assign sounds to letters in order to read text, and general reading comprehension. While there has been much conversation about how SEGRA should be used more widely in the future, specific plans for how the adapted instrument will be employed have not yet been determined.

Strengths and challenges in early years education policy

Sector governance and leadership

Strengths

The importance of early childhood education is explicitly recognised in national strategic documents

The highest level strategic documents in Saudi Arabia explicitly identify early childhood education as a priority. This suggests that the country is firmly committed to improving access to and the quality of educational services provided to young children. In Vision 2030, investing in early childhood education is mentioned as a significant need (Kingdom of Saudi Arabia, n.d.[11]).The National Transformation Program (NTP) sets an ambitious target to increase the kindergarten enrolment rate to over 27 % by 2020. Education policy reflects this importance placed on early childhood education. In particular, the initiative to integrate kindergarten and early primary grades indicates that early childhood education is gaining prominence in the Saudi Arabian educational landscape.

The Early Childhood General Department has consolidated responsibility for early childhood education and exhibits strong leadership

Internationally, more and more countries are giving the responsibility of managing early childhood education to a single organisation. In 2017, over half the countries surveyed by the OECD's Starting Strong V publication had integrated early childhood education under one Ministry (OECD, 2017[5]). Consolidation enables governments to co-ordinate early childhood education efforts and ensure continuity between the various levels of education.

Saudi Arabia is similarly consolidating the management of early childhood education. As of 2016, kindergartens and nurseries are under the auspices of the Early Childhood General Department. This gives MoE oversight of all early childhood education activities through a single General Department. Furthermore, the General Department has been given a wide mandate and considerable resources to execute the country's vision for early childhood education. Recent expansion of the sector across the country suggests that the leadership is committed and motivated.

Some districts have prioritised expanding early childhood education and demonstrated admirable results

As mentioned in Chapter 2, MoE has given Directorates and Education Offices considerable flexibility to innovate in order to improve student outcomes. This mandate also applies to the expansion of early childhood education. In some cases, Directorates have been very successful at using the autonomy afforded to them. Al-Lith, for instance, recently achieved a 46% enrolment in kindergarten, the vast majority of children being accommodated in public settings. Their experience, and those of successful Directorates around the country, can be learned from and their practices can be scaled to other parts of the country.

Challenges

There is still an overall lack of recognition of early childhood education and early literacy as important priorities

While early childhood education is growing in importance and appears in strategic planning documents, it still does not receive sufficient prioritisation within the government as indicated in several areas. First, strong recognition of the importance of early childhood education would likely translate to a sustained increase in public funding. In Saudi Arabia, funding kindergartens does not seem to be the priority vis-à-vis other sectors, particularly tertiary (see below).

Second, Saudi Arabia does not have a top-level, whole of government approach that would be needed to build a new educational sector. In other countries, an effort to bring together relevant government bodies around a singular purpose might be led a member of the national executive leadership or, in some instances, the First Lady. The most senior champion of early childhood education in Saudi Arabia is the head of the Early Childhood General Department, which is housed in one of 13 Deputy Ministries in MoE.

Third, the improvement of the early childhood education sector has been relatively isolated to the General Department and its subsidiaries in Directorates. There does not appear to be an overall strategy for early years schooling that would motivate other parts of the Ministry and the country to act in a coordinated manner around the same goals. This lack of alignment around important issues is particularly evident with respect to early literacy,

where evidence demonstrates a critical need, especially for boys. For instance, the SEGRA field test showed that, between Grades 2 and 4, boys from the sampled population showed no improvement in recognising letter names, while girls more than doubled their progress over the same period. Despite these challenges, there are few national initiatives that specifically target improving early literacy or improving the teaching of literacy in early grades.

Formal strategies related to early childhood education are not always the central reference points for policy-making

Developing a national-level strategy with consistent goals and clearly defined responsibilities is essential to delivering services to parents and children in a systematic and co-ordinated manner (OECD, 2006[12]). National early childhood education strategies with specific goals, such as establishing a child-centred curriculum and developing qualifications of the workforce, have been set out in many OECD countries to drive improvements in access and quality (OECD, 2011[13]).

In Saudi Arabia, a National Childhood Strategy was developed but never launched. The Early Childhood General Department is committed and motivated, but does not yet appear to be operating according to a centrally developed, agreed upon and published strategy. Particularly lacking is a set of actionable goals and realistic targets related to early childhood learning outcomes (World Bank, 2017[1]). Without formal strategic planning and central reference points, it will be difficult to build wide support for early childhood education or evaluate the improvement of this sector. As the sector expands, it will also become increasingly difficult to co-ordinate the activities of Directorates, Education Offices and private institutions without a central plan. These circumstances risk that certain efforts become duplicated, while some important issues might go unaddressed.

Education funding is not being allocated to maximise efficiency or equity

Compared to international benchmarks, Saudi Arabia spends considerably more on tertiary education than early childhood education. Economic analysis shows that not only are the costs of educating a tertiary student are greater than for a young child, even though, from the perspective of skills acquisition, it is more effective to building strong learning foundations during childhood than compensate for learning deficiencies during young (Carnoy et al., 2013[14]; Cunha et al., 2005[15])]).

In addition to efficiency, there is a question of equity with respect to how educational funding is distributed. In Saudi Arabia, most tertiary funding is public in the form of publically managed institutions and government-sponsored tuition subsidies, while many kindergartens are private, especially in isolated, rural regions. This means that, in effect, families from underserved areas are being asked to help finance their children's foundational development, while the government is providing generous benefits to a smaller population of college students who are inherently more likely to come from advantaged backgrounds.

Early childhood spending does not have specific budgetary guidelines

In most countries, funding for early childhood education is specifically earmarked for this purpose. This guarantees that this important sector will receive regular funding independent of political decisions (Belfield, 2006[16]; OECD, 2006[12]). In Saudi Arabia, unlike funding for other educational sectors, MoE allocates funding to Directorates without guidelines on how or even if it should be spent on kindergarten or other early childhood education

services (World Bank, 2017[1]). Since kindergarten is already a lesser priority, this risks that early childhood education does not receive the funding it needs to expand and improve.

Data is missing in key areas related to early childhood education

Collecting and monitoring data related to early childhood education is essential as they can be used for accountability purposes and to inform policy making (OECD, 2011[13]). For instance, knowing how many students are enrolled and the demographic profile of those students can help inform decisions about where to place public services in resource-limited contexts.

In Saudi Arabia, data collection for early childhood education is incomplete. Kindergartens are integrated into NOOR, but nurseries and family day cares less so. Moreover, the data that are collected for kindergartens and nurseries are not always accurate. The review team was told that schools that appear in NOOR might actually be closed and that this is unknown until someone from MoE visits the closed school. This situation prevents early childhood education from expanding in a strategic manner, to where it is most needed and can be accommodated. Instead, expansion can occur randomly and not always efficiently.

Part of the reason that data collection is incomplete is that the organisational manual for kindergartens and nurseries requires that kindergartens have an information record keeper, but this requirement does not apply to nurseries. Nevertheless, even with the presence of information record keepers, there do not appear to be evaluation mechanisms to review the accuracy of the data that is entered.

The approach to early childhood development and related goals focuses mainly on kindergartens, which do not cover the majority of children

Early childhood education and care is not only delivered through formal, kindergarten settings. Informal settings, such as family day cares and community centres, and services such as home visits also play a vital role in providing educational services to as many children as possible. These settings can contribute to child development without requiring the resources of a formal kindergarten, which makes them easier to establish in underserved areas. Several OECD countries, including Australia, Denmark, Norway, the Netherlands, Sweden and the United States, have strongly emphasised diversifying the types of early childhood education that are provided, rather than focusing on one standard mode of delivery (OECD, 2001[17]; UNICEF, n.d.[18]).

Saudi Arabia's orientation towards early childhood education and care focuses heavily on formal settings, especially kindergartens. The only early childhood education goals that appear in NTP relate to kindergarten expansion. Conversations with stakeholders also revolved mainly around kindergartens and, for very young children, nurseries. While these institutions are certainly an important part of a national early childhood education strategy, even if the NTP goal of enrolling nearly 30% of age-eligible children in kindergartens is met, over 70% of children would still remain without services. These children would enter primary school with a distinct disadvantage compared to their peers who did attend kindergarten and there does not appear to be a formal commitment to provide them with alternative services. A new initiative to develop virtual kindergartens might extend the reach of early education, but it is too soon to evaluate the potential of an approach that remains untested both nationally and internationally.

Without a central emphasis on diversifying service provision, available resources that could be leveraged go underutilised. For instance, despite the fact that kindergartens are only used

for instruction for roughly half the day, few have established after school programming for the greater community. These buildings have been constructed for the purpose of educating young children and could be used to offer developmental services in a safe environment. Instead, many stand unused after kindergarten students go home.

The lack of attention towards diversifying early childhood services is also an equity-related challenge. In Saudi Arabia, kindergartens are more available in urban, better resourced areas. Children in rural areas, who are already more likely to be disadvantaged and would benefit most from alternative services, risk falling even further behind their peers.

Among local leadership, there is a lack of systematic prioritisation of early childhood education

Within Directorates and Education Offices, the divisions for girls' education contain a department specifically dedicated to kindergartens that are responsible for overseeing kindergartens. While the mandate of these departments is clear, their position within the organisational structures of Directorates and Education Offices does not give the leaders of these departments the necessary authority to do their jobs, again suggesting that early childhood education is not given sufficient priority. For example, one of the most pressing issues regarding kindergarten expansion is securing land and buildings. Given their positions, however, leaders of kindergarten departments lack the influence needed to negotiate procedures related to land acquisition and construction.

Quality assurance

Strengths

Regulations are in place to assure that early childhood institutions meet minimum requirements in order to operate

Saudi Arabia has put in place some minimum quality assurance mechanisms for early childhood education institutions. Public and private kindergartens must meet basic requirements in order to operate and a supervision system reviews institutions for compliance vis-à-vis these requirements. Kindergartens are also using ECERS to guide themselves through self-evaluation, which further help them meet a basic level of service provision.

The recent development of the Saudi Early Grade Reading Assessment can help capture key information about student learning at important stages

The fact that EGRA has been adapted to the Saudi Arabian context and tested is a very positive development. This internationally recognised instrument can be used to capture key student outcomes at early stages of students' development. If expanded to a wider audience, it can be used to help teachers around the country understand how their students are performing relative to a common set of learning expectations. It can also act as reference to inform the further development of the curriculum, staff training and accompanying educational resources.

Challenges

There does not exist a singular set of standards that define basic minimum requirements for early childhood education settings

Across most OECD countries, a central set of standards define the minimum requirements that must be met in order for early childhood education settings to be allowed to operate (OECD, 2011[13]). These standards include the condition of the facilities, the availability of instructional resources and features such as staff with a basic understanding of first aid. These standards ensure that students in early childhood education settings are safe and receiving adequate developmental opportunities. The standards are also used as reference points when monitoring and evaluating institutions.

In Saudi Arabia, there are several reference points for early childhood education settings, such as various pieces of legislation and the organisational manual for kindergartens and nurseries. While these materials collectively set basic minimum licensing standards, they were created at different times, updated at different times, not always easy to understand (in particular the language used to write legislation) and their relationship with each other are not always clear, which makes the sector difficult to regulate.

Licensing and monitoring of kindergartens, especially private kindergartens, does not occur in a comprehensive and integrated manner

It is essential that governments supervise and regulate early childhood education settings in order to guarantee the quality of service provision for all children (OECD, 2006[12]). In almost all OECD countries, public and private institutions are held to the same licensing standards and private institutions are sometimes monitored more closely because it is more difficult to assure quality outside of the Ministry. In Australia, for instance, private operators are given greater scrutiny and a civil penalty regime has been introduced to hold private operators accountable (OECD, 2011[13]).

In Saudi Arabia, because a uniform set of standards is not in place, the licensing and monitoring of early childhood education settings is inconsistent, especially for private kindergartens. Although these are visited by the same supervisors as public kindergartens, it is widely understood that they often operate according to different procedures and use different curricula and resources (World Bank, 2017[1]). This discrepancy results partly from MoE's dual management structure, in which private kindergartens are also directed by Departments of Private Schools, which gives them greater distance from the regulatory requirements of public kindergartens. This lack of consistent and integrated oversight represents a risk to quality because private kindergartens, which outnumber public ones, are also more likely to operate in pre-built structures, be outfitted with materials provisioned by a third-party and private operators are incentivised to open their kindergartens as quickly as possible.

Supervisors are insufficient and not oriented towards helping schools improve student learning

Supervisors are supposed to support principals and help settings improve, but their numbers and qualifications prevent this from fully occurring. According to reports, there are less than one third the number of supervisors necessary to achieve the mandated ratio of one supervisor to seven schools (World Bank, 2017[1]). Expanding the kindergartens will only stretch the capacity of supervisors further.

Additionally, almost all supervisors are former general education or kindergarten educators. Although this gives supervisors experience with classroom instruction, it does not mean that they have the skills needed to support organisational improvement. Finally, supervision of kindergartens tends to focus on compliance measures related to the specifications of the health and safety requirements of the facility. While important, meeting these requirements it does not necessarily guarantee that kindergartens are helping students learn.

Curriculum and the workforce

Standards and curriculum

Strengths

SELS are informed by recent research and underpinned by a clear philosophy of learning that places a strong emphasis on learning through play

Developing high-quality learning standards for the early years is a significant milestone for education in Saudi Arabia. SELS will enable greater consistency in teaching and learning in the early years and are designed to encourage a better balance between play and learning. This guidance will be particularly useful once SELS are expanded to incorporate ages 7 and 8 as learning expectations and teaching approaches will then become more appropriate for young children. Their transition into general education would then be more coherent and less abrupt.

The curriculum and materials are being updated to be aligned with SELS

With the deployment of SELS, Tatweer, in partnership with the National Association for the Education of Young Children (NAYEC), is in the process of updating and developing materials that are aligned with the new standards. The OECD was told that over 12 manuals and 80 films are currently being created. In developing the materials, there is an emphasis on including culturally appropriate content, such as geographic features and fauna that Saudi Arabian children might see in their everyday lives.

Challenges

It is unclear how SELS will relate to the new curriculum standards being developed by ETEC

ETEC is in the process of developing a new curriculum, including learning standards, for Grades 1 through 12. However, there are plans to create a new cycle of education that would include ages 3 through 8 and, as noted, the SELS are being expanded to cover these years. It is unclear which set of learning expectations would then act as the reference for this cycle, in particular for students in Grades 1 through 3, and how coherent SELS are with respect to the general education learning standards.

Many teachers lack effective instructional resources that are designed specifically to teach young children

Teachers need resources to help them carry out classroom instruction effectively. For early childhood teachers, the resources they use, such as classroom activities and modes of assessment, must be designed specifically to educate young children. In Saudi Arabia, there

is a severe shortage of high-quality instructional resources available to kindergarten teachers, especially those that connect play with learning. The General Directorate of School Supplies aims to provide necessary resources, but encounters challenges given the rapid expansion of kindergartens and resource constraints.

The OECD reviewed the resources available in kindergarten classrooms and found that the main resources in use were guidebooks provided by MoE. There was little evidence, especially in public kindergartens, that teachers were using additional resources, learning aids or the materials found in online portals. Local research into kindergarten settings suggests that children prefer open-ended activities, such as playing with blocks, painting and drawing (Khoja, 2013[19]). These resources, however, are not readily available in all kindergartens. Some teachers have received resources to accompany SELS standards, but most of these, such as five videos that introduce SELS (Olmore, n.d.[20]), are digital and not all teachers are able to access them from their classrooms.

Teachers' approach to literacy is oriented towards learning linguistic mechanics and grammar, not reading for meaning and understanding

Considerable international research concludes that the five integral components of literacy are phonemic awareness, phonics, reading fluency, vocabulary and comprehension (National Reading Panel, 2000[21]). This approach has been called the balanced communicative, or integrated, approach to literacy instruction. According to this research, for literacy development to be effective, children need to:

- Understand how sounds are represented by print and apply this understanding to read words;

- Practice reading to become fluent readers;

- Learn new vocabulary words;

- Read for meaning and self-correct if what they read does not make sense (Snow, Burns and Griffin, 1998[22]).

Traditionally, Saudi Arabian teachers' approach to literacy development has not been integrated and has been narrowly focused on mastering grammatical elements and language mechanics. Through interviews with teachers and reviewing instructional materials, the OECD found that most early literacy instruction tended to focus on the letters of the alphabet rather than their sounds (or phonetical understanding) and utilised different forms of dictation activities. Grammatical concepts, such as singular/plural nouns and verb tenses, were introduced out of context. Teacher assessments relied heavily upon student recitation and usually asked students to linguistically decode short written excerpts, such as identifying the tense of a verb.

While it is important to understand the mechanics of a language, a disproportionate focus on individual linguistic elements is not sufficient to develop literacy according to the integrated approach. Literacy is not only about correct spelling and sentence construction, but understanding the connection between letters, sounds and words, deducing the meaning of written text and making inferences based upon what one reads (OECD, 2014[23]). These vital skills are not receiving enough attention in early child education in Saudi Arabia. Figure 5.1 shows that almost all students in Saudi Arabia are taught the alphabet in Grade 1, which is almost identical to international benchmarks. However, Figure 5.2 shows that less than 40% of Saudi Arabian students are taught to identify the main idea of a text before Grade 3, whereas roughly 70% of students internationally are. SELS aims to change this

situation by expecting students to demonstrate higher-order skills in the areas of reading and writing. However, unless teachers' instruction is made consistent with the goals of SELS, it will be difficult to improve student achievement in literacy.

Figure 5.1. Grade at which knowing letters of the alphabet first receive major emphasis
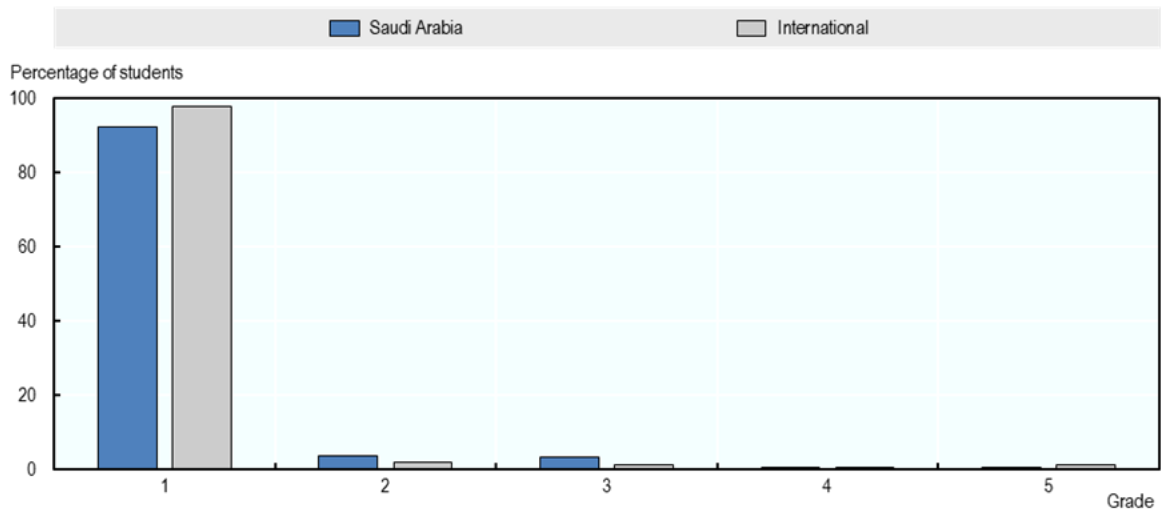
Note: As reported by primary school principals.
Source: Authors' calculations based in PIRLS 2016 data (IEA, 2016[3])

Figure 5.2. Grade at which identifying the main idea of a text first receives major emphasis
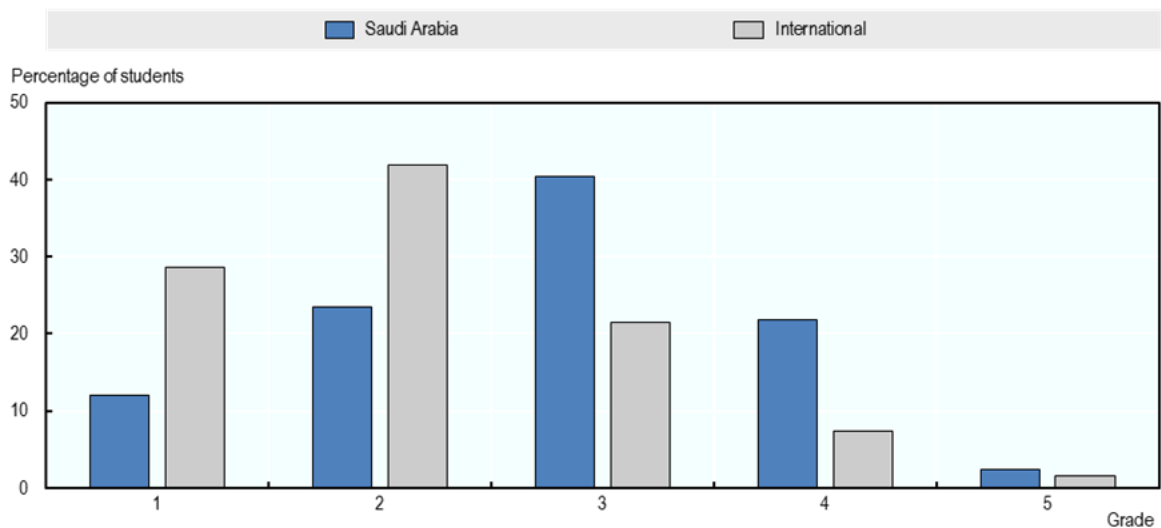
Note: As reported by primary school principals.
Source: Authors' calculations based on PIRLS 2016 data (IEA, 2016[3])

Extant resources about literacy do not guide teachers to develop literacy in an integrated manner, nor do they help teachers assess student progress

One reason that Saudi Arabian teachers' approach to developing literacy is largely mechanical is that the few resources they have to use also emphasise this same approach. Interviews with teachers revealed that their literacy activities are largely repeating the teacher says and rewriting word lists found in the resources that they have. Materials that could be helpful but were missing include games, flip books, reading logs and reading materials for different reading levels.

In addition to an absence of quality instructional resources in the area of literacy development, Saudi Arabian teachers also lack quality materials to assess student literacy. Teachers do not have descriptors of progress levels for students that would explain what students at different levels of literacy are expected to be able to do. Without these established reference points, it is difficult for MoE to create sample assessments that would help teachers determine where students are with respect to their progress and materials that would then help teachers teach students at different levels (which is what could be done with SEGRA in the future). Until then, classroom instruction occurs without teachers understanding where individual students are in their learning what those students should learn next, which leads to poorer student outcomes.

Workforce competencies

Strengths

There is recognition of the importance of principals and plans to develop them

The change that is desired in Saudi Arabia's early childhood education sector is not limited to facilities or instruction, but represents building an entire system and accompanying structures. Kindergarten principals occupy a vital role in this endeavour; they are the conduits who must bring national policy into individual schools and classrooms and they have the support of local supervisors to accomplish this mission. The fact that MoE is creating a training programme for kindergarten principals in collaboration with the World Bank suggests that there is broad recognition of the important role that they play.

Kindergarten teacher and principal standards are being developed by ETEC based on SELS

ETEC, in addition to developing the general principal and teacher standards, is also developing these standards for kindergarten staff. This will help Saudi Arabia to modernise the profession and align staff preparation and professional development accordingly. In particular, it will provide central guidance for expectations around staff knowledge and practice in critical areas as such as literacy development and learning through play.

The requirements to be a kindergarten teacher in Saudi Arabia are more rigorous than those of many countries worldwide

Kindergarten teachers in Saudi Arabia are required to hold a bachelor-level degree in early childhood education. Internationally, 27 out of 37 countries that participated in the OECD's Starting Strong survey have a bachelor-level requirement for early childhood teachers, though not necessarily with a focus in early childhood education (OECD, 2017[24]). In this context, Saudi Arabia's requirement goes beyond expectations in many developed systems.

Leading universities provide world class education for early childhood staff

Saudi Arabia is home to world class institutions of higher learning, such as King Abudulaziz University and King Saud University. Staff from these universities are providing high-quality training to prospective early childhood educators and are also contributing to the overall development of the early childhood education sector.

Universities adapted the curricula for their early childhood education bachelor programmes to reflect SELS, and will have to update them again to reflect the planned integration of early primary grades into kindergarten. This will help ensure pedagogical consistency once the transition is complete. King Abdulaziz University is also planning to develop a master's level programme in early grade reading, which will further improve initial teacher preparation for early childhood educators. Positively, the minimum requirement to become an early childhood educator will remain a relevant bachelor's level degree. This flexibility is likely to encourage more persons to attain the necessary requirements than insisting on equivalence with school teachers, who will now be required to attain a post-graduate degree in order to teach.

Dedicated training centres have concentrated expertise and can provide effective professional development

Saudi Arabia has six training centres across the country, with two more planned, that are dedicated solely to providing professional development for kindergarten teachers. This strategy of identifying and concentrating relevant expertise, instead of dispersing it throughout general education training centres, helps to develop the early childhood educator profession as a whole. Furthermore, creating dedicated training centres for kindergarten teachers helps communicate the overall importance of improving the education of young children. Positive features of the centre that the OECD visited in Jeddah included: the strong emphasis on integrated theory and practice; the potential for educators to generate pedagogical resources to accompany SELS, as part of their training; and the catalytic role the centre was playing in building system capacity through the involvement of supervisors and staff from local training offices.

Challenges

Despite recognition of the importance of their role, principals are not qualified to become sector-leading change leaders

While principals are positioned to lead significant reform, there are several concerns regarding their capacity to do so. Interviews with stakeholders suggest that kindergarten principals are not well-prepared to assume their positions and need professional development to become effective agents of change. The reasons behind these circumstances have been analysed in depth in Chapter 2 and are summarised in Box 5.1. This chapter focuses only on issues and makes recommendations that are specific to kindergarten principals.

Box 5.1. Principals in Saudi Arabia

Principals are a vital but underdeveloped position in Saudi Arabian education. There are no standards that regulate the profession. A licensing examination exists but the results are often disregarded because there are too few principal candidates to warrant further selection. Principals occupy the same level in the civil service system as teachers, which means their salary scale is the same and thus there is little financial incentive for the most talented persons to become principals. These circumstances are true for general education and kindergarten principals.

Chapter 2 analyses in detail the situation of principals in Saudi Arabia and makes several recommendations about how to improve the capacity of principals and empower them to improve their schools. They include proposals to: establish a separate professional pathway for principals; engage in manpower planning for the principal profession; create a leadership academy to lead principal training; launch a prestigious programme to attract the most qualified persons into the profession; and give the most successful principals greater autonomy over their schools. These recommendations also apply to kindergarten principals.

There is a shortage of qualified kindergarten teachers

The pressure to expand kindergarten provision has strained the availability of qualified staff. Not only have more vacant positions have been created, but, given the growth of the private sector, many current kindergarten teachers are incentivised to move to private kindergartens because they can potentially earn more salary, the working conditions can be better, and because of the limited number of positions in the public sector. Other limiting factors include the low student to staff ratio, which in some cases can require that two teachers teach one class (i.e., there are more than 15 students and not enough classroom space to split the class), which depletes the number of teachers available to teach in newly established kindergartens.

This employment pressure exists alongside general concerns about the capacity of kindergarten teachers. Through stakeholder interviews, the OECD learned that many early childhood educators, particularly those in nurseries, see themselves as caregivers and not necessarily teachers. This situation is becoming more pronounced in public institutions as the most proficient teachers leave for private schools. Aforementioned developments in initial teacher preparation are attempting to address these issues, but these efforts will not affect teachers who are already in-service. Kindergarten training centres are attempting to improve in-service teachers' capacity, but there are too few of these centres (see below) to keep up with demand.

In response to the simultaneous needs to employ more kindergarten teachers while improving their quality, MoE has adopted a strategy of retraining some general education teachers, of whom there is a surplus, to become kindergarten teachers. However, while this strategy can increase the number of kindergarten teachers, it does not necessarily improve the quality of early childhood education that is provided. Not only is it difficult for limited, discrete training to form an effective educator of young children, but there are already concerns that the candidates for retraining might not be strong educators in general. The review team was told that many early years primary teachers are often placed at this level because of a demonstrated lack of performance in teaching older students. It is unlikely that these teachers would become effective kindergarten teachers.

There is too little kindergarten training capacity to meet the country's professional development demands

Saudi Arabia's kindergarten training centres have concentrated expertise and can provide relevant training to teachers. There are, however, only six in operation. Even with the planned addition of two more, there will not be enough training centres to serve the needs of the country, particularly given the rapid expansion of the kindergarten sector and the planned integration of early primary grades into kindergarten.

Furthermore, it is difficult to see how general education training centres can help fill the gap in most areas. They are already working with fewer trainers than they request and their experience with early childhood education is limited, which is largely why dedicated kindergarten training centres were originally created. With the planned introduction of the Teacher Standards and Professional Pathways for general education teachers, NIPED is prioritising increasing the capacity of these centres to accommodate the increased demand for professional development in general education and not early childhood education.

Home learning environment

Strengths

National and sub-national initiatives promote parental engagement in their children's education

Parents in Saudi Arabia have become more engaged in the education of their young children, as exemplified through the introduction of the national Educating Mother and Child programme. At a local level, in several locations parents have been convened to learn about the important role of the home environment in the learning of children. Some Directorates have also taken it upon themselves to create original engagement practices. For example, kindergartens in Al-Lith ask students to create portfolios that are then discussed with parents.

Challenges

There is still inadequate appreciation of the importance of the home learning environment to a child's development

Families and the home environments they create greatly shape young children's well-being and the early learning opportunities they have. Research shows that parenting behaviours and how they interact with their children are highly correlated with children's cognitive development and school readiness. (Shuey and Kankaraš, 2018[25]).

In Saudi Arabia, while parental awareness of their role in their children's development is increasing, overall there is still an inadequate level of appreciation of the importance of the home environment to a child's education. In PIRLS 2016, 23.1% of Saudi Arabian students' parents reported that they read books with their children often, compared to 47.8% internationally (IEA, 2016[3]). At the school level, school staff are not prepared to meaningfully engage parents in their child's learning. With the few exceptions mentioned above, parental engagement in kindergarten seems to focus on sharing descriptive information about student behaviour with parents (e.g., whether the children slept and what they ate). While useful, this is not the same as including parents as partners in their children's learning.

Few interventions that are targeted at improving the home environment of families whose children are not enrolled in kindergarten

A limited number of virtual kindergartens notwithstanding, the aforementioned interventions aimed at improving the home environment are primarily delivered through physical kindergartens. This means that the only families who are affected by the efforts are those whose children are enrolled in kindergartens. However, in the immediate future, most children will not be enrolled in a kindergarten and will not have access to engagement activities based out of kindergartens. They will rely on their families to make them school ready and presently these families receive limited support to give their children positive developmental environments.

Recommendations

Sector governance and leadership

Develop and launch officially a formal strategy for early childhood education spanning age 0 to 8

It is important for emerging early childhood education sectors, such as Saudi Arabia's, to be guided by a central strategy so goals are commonly recognised and stakeholders at all levels understand their responsibilities. In Saudi Arabia, a National Childhood Strategy was drafted but never implemented. The OECD recommends that MoE build upon this previous effort to develop and implement a central strategy to guide the expansion and provision of early childhood education services (hereby referred to as the "early childhood education strategy"). Box 5.2 describes the introduction of a comprehensive early childhood strategy in Costa Rica, another country that is trying to expand the provision of early childhood education past formal kindergarten settings.

Box 5.2. Costa Rica's early childhood education policy "Política de Primera Infancia"

Costa Rica has established a comprehensive early childhood education policy (Política de Primera Infancia) spanning until 2021 that defines a framework for all agencies and providers operating in the sector. This policy aims to encourage the development of young children across five stages (pre-conception, prenatal, ages 0-2, ages 3-5 and ages 6-8) and three different areas - education, health and psychosocial development. Another aim of this policy is the improvement of the co-ordination of public and private actors in early childhood education. Planned actions in the policy included:

- Improving parental education to enhance childcare at home and to engage families in children's education and development;
- Increasing the provision of community-based care centres and to expand access to care services, such as child-friendly libraries and leisure environments;
- Setting up an overarching information management system to collect and integrate data on children under the age of 8 to improve policy making
- Reviewing the higher-education programmes specialising in early childhood to ensure the quality of the ECEC workforce.

Source: OECD (2017[29]), Education in Costa Rica, Reviews of National Policies for Education, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264277335-en .

Saudi Arabia's early childhood education strategy should explicitly mention that several early childhood education settings will be created in addition to kindergartens and nurseries. Broadening the definition of and goals around providing early childhood education and care will be vital to improving access, as the majority of children will not be enrolled in kindergarten in the near future. The OECD suggests that these settings include:

- **Community centres** are spaces that offer programming for children with children's development and readiness for school as the primary focus, but might not meet all the standards of kindergartens (e.g., opening hours, student-to-staff ratio and infrastructure). They can occur in a variety of facilities, which can include kindergartens and primary schools, but also libraries and open air areas (UNICEF, n.d.[18]).

- **Family day care centres** are care services provided by individuals for non-related children in the carer's own home (OECD, 2001[17]). These are currently being managed in Saudi Arabia by the Ministry of Labour and Social Development, but should be included in the early childhood education strategy because of their purposes overlap with the aims of early childhood education.

- **Home visits** are services that occur directly in families' homes and are provided by early childhood education staff and staff from other social organisations such as child welfare and health services. They often have a parental education component and might focus on what parents can do to promote their children's health and cognitive development (Litjens and Taguma, 2010[26]).

Set realistic goals for early years access to expanded services as well goals for early years outcomes in literacy

Once a national early childhood strategy has been created, national goals should be established that reflect the new strategy's aims. Currently, the NTP only has one indicator and target related to early childhood education, that of kindergarten enrolment. Internationally, early childhood education indicators are more diverse. The United States, for example, not only measures participation in early childhood services beyond kindergartens, but also rates of access to them (OPRE, 2016[27]).

The OECD recommends that additional early childhood education goals be added to the NTP and complement existing education goals. Of particular importance is developing a goal related participation rate in all of the early childhood services mentioned in the early childhood education strategy (not just kindergartens). This would be a useful measure for Saudi Arabia as evidence suggests there is some family resistance to using services, even if they are available (World Bank, 2017[1]). A final goal that should be introduced into the NTP is national early years outcomes in literacy. As this is an acknowledged weakness, improvement in this area needs to be made a national-level priority to focus attention on it. Once national-level goals are established, sub-national goals (see below) can then be set to support their achievement.

Increase and earmark funding for early childhood education as part of a wider review of public education spending

Compared to international benchmarks, Saudi Arabia underfunds early childhood education. Part of the reason for this is that Saudi Arabia does not earmark funding specifically for early childhood education. The OECD recommends that, in order to provide adequate funding for the early childhood education sector, MoE should allocate funding

for this purpose as an independent budget item. This would help MoE monitor spending levels and ensure that funding is not diverted for other activities.

Given budgetary constraints, a sustained increase in investment in the early years will likely require a reallocation of funds from other education levels. Particular attention should be given to the scope for reducing the relative weight of public spending on tertiary education, which is particularly high in Saudi Arabia, in favour of the pre-school. Participation in kindergarten is much lower in rural areas and among families with lower levels of literacy and educational attainment, populations that are less likely to benefit from the country's generous tertiary provision. Reallocating resources toward the early years represents a more efficient distribution and would help to improve equity of outcomes. Additionally, students who are better prepared to learn upon entering school are likely to require fewer resources to educate and reach tertiary education with stronger foundational schools, which could also improve the efficiency of the tertiary sector. It is recommended that MoE examine options for reducing public expenditure on tertiary education, such as cost sharing arrangements with families and students. The delivery unit, recommended in Chapter 2, would be well positioned to lead such a review into a more effective, efficient and equitable approach to public educational spending.

Elevate the General Department of Kindergartens to the level of Deputy Ministry and identify a high-level champion for early childhood education

The responsibilities of the General Department of Kindergartens are vast. In many respects, it is operating a school system within a school system, with its own buildings, learning standards, teacher requirements, quality assurance procedures and professional development centres. To effectively perform these tasks, especially negotiating for land on which to construct facilities, the General Department needs an adequate governance platform that gives early childhood education sufficient focus and the head of the General Department a powerful mandate.

In order to prioritise early childhood education and help facilitate its development, the OECD recommends that the General Department of Kindergartens to elevated to the level of a Deputy Ministry. This would provide the current head of the General Department with the authority needed to influence others to act in the interest of early childhood education.

To assist with making early childhood education more visible, the OECD recommends that Saudi Arabia identify a national champion who can prominently advocate for further development of the sector. This person would not necessarily be involved with the day-to-day governance of the sector, but his/her involvement would help attract public attention to the issue, which would make it a greater government priority. This individual could be the Chair of the Human Capability Programme, or another person with national distinction whose influence extends across different government bodies, as focusing on young children necessarily involves of the health, social services and labour sectors.

Within Directorates, elevate the Departments for Early Childhood to the level of Assistant Directorship and mandate the establishment of multi-year plans

At sub-national levels, early childhood education needs to be more strongly prioritised. Currently, Departments for Early Childhood are located within Assistant Directorships for Girls Education, which makes it harder to have a systemic focus on early childhood education. It is recommended that Directorates elevate their Departments for Early Childhood to the level of Assistant Directorships. Raising management of kindergartens to

this level would give early childhood education more prominence and provide the leadership with the necessary authority to act on their mandate.

It is further recommended that each Assistant Directorship for Early Childhood be required to set a multi-year plan in accordance with the national early childhood education strategy. This strategy should have targets for improving access and outcomes, based on those that appear in the national strategy, which are reported against and monitored centrally (see Chapter 2 for a discussion about accountability mechanisms for Directorates). Introducing planning at this level would help align early childhood education activities around common objectives and ensure that resources are being allocated appropriately.

Within the early childhood education plans, it is recommended that specific measures be taken to improve co-ordination within the Education Office/Directorate and with external partners. While increasing collaboration and reducing "silos" is recommended in Chapter 2 it is particularly important with respect to the early childhood education sector given the multi-faceted challenges involved, such as infrastructure, a strong private sector presence and the transition between kindergarten and general education. Strengthening internal links across Assistant Directorships will help address these challenges, but so will creating strong partnerships with non-MoE bodies, such as the Ministry of Health, Ministry of Labour and social service providers.

Update regulatory materials and procedures to encourage more accurate data collection and use data to strategically allocate resources

Saudi Arabian data systems are relatively strong. The fact that individuals are identified with government issued identification numbers means that students can be tracked and monitored across ministries and through all levels of education. This type of data usage, however, is currently not being performed. It is unknown how many family daycare centres or nurseries are in the country or how many students are enrolled in them; there is more data on kindergartens, but reliability is still a concern, especially in the private sector. Without this information, it will not be possible to measure participation rates and determine if national-level goals have been achieved, in which areas of the country support is most needed and what type of support should be provided. These data will also be needed to enable more in-depth research into the sector, and identify which practices in Saudi Arabia are most strongly associated with improved outcomes.

MoE should encourage the collection of more accurate data about early childhood education activities. For nurseries, in each institution a member of staff should be explicitly responsible for collecting information and entering it into NOOR. This does not have to be a stand-alone position (i.e., it can be a teacher or administrator designated to perform the task), though in larger nurseries a stand-alone position can be considered. In kindergartens, the ECERS form should be updated to include self-review of data collection and entry, as this is currently not one of the evaluated areas. Kindergarten supervisors' forms should also be updated so they review data processes during their visits (see Building a system for quality assurance). These requirements can be spelled out in a set of institutional standards and monitoring of them can be explained in an inspection framework, both recommended below.

The Deputy Ministry for Kindergartens should then use these data to make evidence-based decisions about resource allocation. For example, it can determine which areas of the country have the lowest participation rates and target those areas for expansion of services. It can further review the data to decide what types of settings, as set out in the national

strategy, should be introduced into those areas. Internationally, Austria has a well-established early childhood data system that is used to inform policy (Box 5.3).

Box 5.3. Early childhood data collection in Austria

Since 1972, Statistics Austria has collected data annually on early childhood education facilities throughout Austria. Uniform data collection forms are filled out by all crèches, kindergartens, after-school day care settings and mixed age day care settings. After completion, they are then submitted to Statistics Austria for processing via the inspectorates of the provincial governments.

Information is collected on the facilities (providers, opening hours, equipment, whether lunch is served, medical care, possibilities for using a playground area), children (length of stay, disabilities, age, employment of the mother, whether they eat lunch there, nationality) and on the staff (employment relationship, level of education/training, age, scope of employment). These data inform decisions that affect early childhood education and care in Austria.

In addition to this annual data collection, special data collections and surveys are also made. Micro-censuses in 1995 and 2002 included a special section entitled "Household Management, Day Care and Nursing Care". These micro-censuses contain items on day care, including questions on the lack of provision and other reasons for not taking advantage of day care facilities.

Source: Information provided directly to the OECD

Quality assurance

Develop single set of standards for different types of early childhood education settings in the public and private sectors

Establishing and consistently implementing standards for all early childhood education settings guarantees a minimum level of safety, health and educational quality for participating children (OECD, 2017[5]). Nevertheless, these standards also need to recognise that different settings and age groups should have different requirements (OECD, 2017[5]). Table 5.2 shows broad areas of quality that can guide standards for all early childhood education settings. An international example from the United States of how these broad areas can be applied to establish specific standards for different settings is described in Box 5.4.

Table 5.2. Elements of quality of early childhood education settings

Dimensions	Elements of quality
Structural	Adult-child ratios, group size, physical environment and availability of equipment and pedagogical materials
Caregiver	Initial education, professional development, mentoring/supervision and wages
Programme	Programme intensity (hours per week), parent involvement, language of instruction, curriculum, daily routine and health/nutrition inputs
Process	Caregiver-child and child-caregiver relationships

Source: Adapted from (Neuman, Josephson and Chua, 2015[28])

In Saudi Arabia, there does not exist a central set of standards that regulate all early childhood education settings, which creates space for confusion around which requirements apply to which settings in which sectors. Therefore, it is recommended that one set standards be developed, in partnership with relevant authorities (e.g., ETEC and the Deputy Ministry for General Private Education) that clearly spell out the quality expectations for each early childhood education setting, both public and private, that is identified in the national strategy in the public and private sectors. For instance, what kinds of facilities need to be present in a kindergarten as opposed to a family daycare? Home visits might not necessarily be associated with all standards because MoE has less control over their setting, but they do need broad objectives and guidelines to regulate how they occur and what their aims are (Heany et al., 2018[29]; Daro, Klein and Burkhardt, 2018[30]).

ECERS is an internationally benchmarked tool that is widely used in Saudi Arabia and it can form the basis for standards development. What is already required by ECERS can become part the standards. Further, based on international practices, it is recommended that Saudi Arabia's standards for early childhood education settings contain two levels-basic minimum standards that must be met in order for a setting to be licensed and another set of standards that can be used to accredit kindergartens.

Box 5.4. Standards for early childhood education settings from Massachusetts (United States)

In Massachusetts (United States), early childhood education is provided through centre-based and school-based institutions, family child care programmes and after/out of school programmes. The standards that regulate these different settings include the same categories:

1. Curriculum and learning;
2. Safe, healthy indoor and outdoor environments,
3. Workforce qualifications and professional development,
4. Family and community engagement,
5. Leadership, management and administration.

Although these categories are common, each type of setting has its own standards that reflect their specificities. For instance, in the category "curriculum and learning":

- Centre- and school-based formal settings must have educators who demonstrate completion of professional development in curriculum, screening tools and formative assessment;

- Family daycare centres must have a schedule that shows that educators have regular curriculum planning time;

- After/out of school programmes must show that the daily schedule includes strategies such as shared reading, book discussion, games and activities that promote literacy and numeracy.

Source: (QRIS National Learning Network, n.d.[31])

Licensing requirements for all early childhood education settings

Licensing requirements articulate what needs to be present in an early childhood setting in order for it to be allowed to operate. They should be referenced during the initial construction and resourcing of facilities, as well as during future monitoring and inspection procedures. Meeting these basic minimum standards is critical to guaranteeing a safe and healthy learning environment for young children.

A critical consideration in the Saudi Arabian context will be the qualifications of staff. Standards are being developed for kindergarten staff, but these will not apply to persons working in family daycare centres community centres. MoE will need to determine what the basic qualifications of these positions should be, understanding that requirements that are too stringent will limit how many of these settings can operate and undermine the original purpose of using the settings to expand access to services. In OECD countries, early childhood education staff have different qualifications depending upon their settings. In a majority of OECD countries, kindergarten teachers tend to have higher education requirements (generally ISCED level 5) than community centre staff (generally ISCED level 3).

Given the current challenges in Saudi Arabia around early childhood data, another licensing requirement that should be established is that settings collect and enter data about themselves and the children who receive their services. The standards should specify that an individual at each setting be responsible for these important tasks. In large, formal settings, a dedicated administrator could be responsible for this task. In smaller, informal settings, it would likely be the responsibility of a caregiver.

While licensing needs to be a requirement for all settings, some specific licensing requirements will only apply to private settings. For example, they should have to demonstrate financial viability to prevent unexpectedly closing and leaving children and families without services (OECD, 2011[13]). Other concerns, such as the condition of facilities, would apply equally, but private settings might be inspected more frequently against the requirements given their greater risks (see below).

There are many international examples of licensing requirements for various types of settings that are relevant to Saudi Arabia's context. Mexico, which is also trying to expand early childhood services across a large and geographically diverse country, requires that community centre facilitators undergo two weeks of training per year and be overseen by a regional supervisor (see Box 5.10). In the United States, family daycare centres' requirements vary by state, but common requirements are that applicants to be of a certain age, be without a criminal record, have basic training in first aid and complete a specified amount of state-sponsored training (US Department of Health and Human Services, 2019[32]).

Accreditation requirements for kindergartens

Accreditation is a designation that is conferred to settings that demonstrate exemplary performance. Establishing accreditation standards, which are more rigorous than basic licensing standards, illustrates to settings what they should strive to be and do. Accreditation thus acts as a motivating factor for settings that are not yet accredited and as a reward for those who are.

In Saudi Arabia, given the desire to transform the quality of early childhood education and build understanding of its value, there would be a particular value in having accreditation for kindergartens. To become accredited, kindergartens should demonstrate that, in addition to meeting basic licensing requirements, they are helping students learn and develop. This should be done, however, without directly assessing students as this type of assessment is not always reliable and the results often reflect more strongly students' family backgrounds.

AdvancED, a leading international educational accreditation organisation, has developed accreditation standards for early childhood education settings. Among its indicators spread across five standards, schools are expected to produce evidence (e.g., agendas and written correspondence) of parental engagement and that they have internal methods of tracking student progress so they can improve their instruction (AdvancED, 2014[33]). MoE can model its early accreditation standards for early childhood education settings based on these, but adapted for the national context.

A final consideration is how to use accreditation systematically to improve the early childhood education sector. From an institutional perspective, it is a prestigious distinction that will entice families to enrol their students and teachers to work there. Nevertheless, accreditation can also serve national strategic purposes. As mentioned previously, MoE is developing virtual kindergartens in which some instruction is delivered digitally to children in their homes through smart devices. The OECD recommends that accredited kindergartens be considered first to act as virtual kindergartens as they would be best equipped to deliver high quality services via a new medium.

Based on the standards, create an inspection framework that covers all types of settings and focuses heavily on the private sector

Once standards have been created for early childhood education settings, it will be necessary to monitor and inspect those settings to ensure that they continuously meet the standards (OECD, 2015[34]). These procedures will be especially important to follow for private kindergartens, which, because of their shared management and use of repurposed facilities, are at greater risk of not meeting standards than public kindergartens that are purposefully constructed. Internationally, an explanation of monitoring procedures and regulations, along with accountability, are typically contained in an inspection framework. A summary of Australia's comprehensive inspection framework is provided in Box 5.5.

It is recommended that the Deputy Ministry for Kindergartens work with ETEC to create the inspection framework for early childhood education settings in Saudi Arabia. ETEC has already developed a school evaluation framework that covers early years primary grades, which will soon become part of the same education cycle as kindergarten. Given this experience, it is sensible that ETEC have some responsibility in creating the framework for early childhood education settings as well. The OECD recommends that the following considerations feature prominently in the framework.

Box 5.5. The national quality framework from Australia

The National Quality Framework (NQF) for early childhood education and care is a comprehensive system of quality rating and minimum standards that was introduced in 2012 to improve the quality and consistency in children's education and care services. The NQF include: the National Quality Standard (NQS) that establishes requirements for settings and an assessment and quality rating process that guides the monitoring of settings.

NQS defines a national set of benchmarks for against which early childhood education and care services are assessed and rated. It is both an inspection tool for regulatory authorities and a quality framework used by service providers to guide service delivery, promote quality improvement and support developmental and educational outcomes for children. NQS includes evaluation indicators across the seven key quality areas that are important to outcomes for children: educational programme and practice; children's health and safety; physical environment; staffing arrangements; relationships with children; collaborative partnerships with families and communities; and leadership and service management.

Regulatory authorities in each state and territory are responsible for following NQF and granting all licensing approvals to providers and services, monitoring and enforcing compliance of settings. These authorities conduct inspections and rate the quality of service, including staff quality, against NQS indicators. Following inspections, each setting is provided with a rating for the seven quality areas of the NQS and an overall rating. For settings that are identified as under-performing, there may be requirements to take measures to address shortcomings, such as mandatory training. If severe non-compliance is found during the inspection process, different accountability tools are available and can be applied, such as a fine, suspension of service or revocation of the licence. Care is taken when working with private settings to help them meet standards while continuing to provide services to their communities.

Source: OECD (2016[35]), Starting Strong IV Monitoring quality in Early Childhood Education and Care Country Note: Australia. OECD Publishing, Paris. http://www.oecd.org/education/school/Monitoring-Quality-in-ECEC-Australia.pdf
ACECQA (2018[36]), Guide to the National Quality Framework. https://www.acecqa.gov.au/sites/default/files/2019-06/Guide-to-the-NQF_0.pdf

System-level monitoring responsibility should be shared with ETEC

Currently, the General Department of Kindergartens is responsible for monitoring early childhood education activity in the country. This allocation of responsibility is inefficient because it adds a significant burden to the General Department, which is primarily focused on expansion and quality provision and is less well-equipped to conduct broad oversight. The OECD recommends that the inspection framework specify that ETEC also become responsible for monitoring early childhood education activities at a national level. It is already assuming this responsibility for general education and has established the infrastructure and capacity to do so. Nevertheless, because ETEC is not experienced with the education and development of young children, it will need significant guidance from the Deputy Ministry of Kindergartens to determine what information to monitor. Leadership from both bodies will need to work closely together to determine these criteria.

With improved and relevant data collection, ETEC can centrally monitor the number of different early childhood education settings around the country, how many students participate, as well as critical structural, caregiver and programme variables. In addition,

ETEC can develop, in collaboration with the Deputy Ministry, the instruments that will be needed to measure the quality of processes and outcomes. These would include a protocol for observing caregiver-child interactions and a tool to measure the progress of child development. Several countries have made significant strides in measuring child development at the national level and MoE can learn from their experiences in determining its own mechanisms (see Box 5.6).

Box 5.6. Measuring child development at the national level: evidence from countries

The **Netherlands** collects data, as part of the "Pre-COOL" study, on children's cognitive and socio-emotional development every two years from a sample of children ages two to five who participate in early childhood education settings. Analyses of the data help evaluate the long term effects of participation in different settings.

The **Flemish Community of Belgium** uses a mixture of different tools such as direct assessment, narrative assessment and an observational tool to collect data on child development and outcomes in pre-primary education. Direct assessments monitor a broad range of development domains: language and literacy skills, numeracy skills, practical skills, creative skills, socio-emotional skills, motor skills, autonomy, health development and well-being. A student monitoring system available in registered schools - , *Leerlingvolgsysteem voor Vlaanderen* - relies on a sequence of tests to track the development of individual students and provides insight into a student's well-being and his/her involvement in school activities. Observation and narrative assessments help to qualitatively monitor many of the same domains.

Australia collects data on child development through the Australian Early Development Index (AEDI). Five areas of early childhood development are measured by the AEDI:

1. Physical health and well-being;
2. Social competence;
3. Emotional maturity;
4. Language and cognitive skills (school-based services), and;
5. Communication skills and general knowledge.

Data are collected through teacher-completed checklists, based on the teacher's knowledge and observations of children in their class along with demographic information.

UNICEF suggests the repeated use of multiple indicator cluster surveys to help monitor early childhood development across a country. UNICEF developed the Early Childhood Development Index (ECDI), a population based measure included in the Multiple Indicator Cluster Surveys (MICS) to collect internationally comparable data on child development. This index covers four early developmental domains: language/cognitive, physical, socio-emotional and approaches to learning. Adapting the sampling design of a cluster survey can even produce results at sub-national levels.

Source: OECD (2015[34]), Starting Strong IV: Monitoring Quality in Early Childhood Education and Care. OECD Publishing, Paris.
OECD (2011[13]), Starting Strong III: a quality toolbox for early childhood education and care. OECD Publishing, Paris.
Lozillon et al. (2017[37]), Development of the early childhood development index in MICS surveys. Data and Analytics Section, Division of Data, Research and Policy, UNICEF.

Both regular self-evaluation and external inspection, conducted by MoE, should be required for early childhood education settings

While ETEC will broadly monitor early childhood education at a national level, it cannot inspect individual institutions. Such inspections usually occur internally, in which an institution evaluates itself, and externally, in which an outside party visits and institution in order to determine if it is meeting standards. The inspection framework should require that both types of exercises be conducted for all settings.

- Self-evaluation - Kindergartens already self-evaluate regularly using ECERS. This tool can be adapted for other settings based on the standards (that are also informed by ECERS). All settings should be required to perform a self-evaluation every year so they know if they are meeting expectations.

- External inspection - Currently, supervisors externally inspect kindergartens and help them improve based upon the results. They should keep this responsibility according to the new framework, though how supervision is conducted can be improved (see next recommendation). All settings should be required to undergo an external inspection (contextualised for the setting) periodically to ensure that they are meeting basic minimum standards. The frequency of external inspections, however, would depend on the results of their self-evaluations and previous external evaluations. Settings that have greater needs should receive more frequent external inspections, while those that are doing well should receive fewer visits. Supervisors should enter external inspection data into central data systems. These data can then be used to help make strategic decisions about future expansion and resource provision.

While external inspection should apply to all settings, it is recommended that private institutions be prioritised for inspection. A newly established public kindergarten would have already met licensing standards before becoming operational and will not need require a detailed external inspection for several years. Private kindergartens, on the other hand, are more likely to operate in unconventional environments with third-party resources and will need more consistent external inspection to ensure that they continuously meet standards. Therefore, their formal inspections should occur more frequently and supervisors should follow up with them more regularly following inspection visits.

Accountability measures should be established to support settings that struggle to meet standards

The monitoring framework must explain what the consequences are if a setting does not meet standards. The consequences will differ according to the type of setting, but should largely be formative. A struggling kindergarten should be provided with greater support (e.g., staff training or instructional resources), while a family daycare might be given information about how to establish a healthier environment for children. In extreme cases, MoE will need to consider suspending the setting's license.

Specific considerations for private settings, however, should be made in consideration of the greater risks inherent in private settings. Public settings that need to improve can be overseen directly to do so. Private settings, however, could decide that it is more cost-effective to close entirely rather than improve, which would eliminate vital services that were being relied upon by families. More frequent and specific inspections, mentioned above, can help identify these kinds of situations and address them before they manifest themselves. In the event that they do arise, however, targeted support will need to be

provided, especially for private settings in isolated areas whose services are needed but who might find it more challenging to be financially solvent and meet standards. In these cases, MoE can consider providing specialised funding to help private kindergartens improve and stay in operation rather than shut down (OECD, 2006[12]). In cases where closure cannot be avoided, MoE should stipulate how much notice needs to be given to allow nearby families to identify alternative services. In Australia, where the largest kindergarten operator in the country shut down in 2008 for financial reasons, resulting legislation required that settings notify the government of the intent to shut down at least 42 days in advance and the government helped identify a different operator to take responsibility for some of the settings (Australia Department of Education, n.d.[38]).

Redefine the roles of kindergarten supervisors and introduce supervisors for other settings

Kindergarten supervisors are currently responsible for evaluating and supporting seven kindergartens and all their staff. This is a large set of responsibilities and, as it stands, there are already far too few supervisors and not all are adequately prepared to fulfil their duties. Chapter 2 makes recommendations about how to improve the skillset of supervisors in general, particularly in the area of supporting school and teacher improvement. This chapter suggests how to deploy kindergarten supervisors more efficiently and better align their responsibilities with their backgrounds.

This chapter recommends that the early childhood education sector focus on more than just kindergartens. This will require that a separate set of supervisors be introduced who are responsible for evaluating non-kindergarten settings (hereby referred to as service supervisors). These persons should be provided with tools that are based upon the standards for early childhood education to ensure that the settings they visit are meeting basic minimum standards.

Kindergarten supervisors would retain the responsibilities they currently have, with the exception of national-level monitoring, which would become a shared responsibility with ETEC. Guided by the supervision framework, supervisors would provide specific, targeted support to teachers and principals in accordance with needs that are identified through ECERS. They would not have a mandated number of kindergartens to support as not every kindergarten would need the same type or amount of support. As suggested previously, one additional item that all supervisors would review is the extent to which early childhood settings collect and input accurate data about themselves and their students.

This separation and redefinition of the supervisory roles carries several advantages. Since kindergarten supervisor responsibilities will not require the technical measurement capacity needed to support national-level monitoring, the potential pool of candidates who can assume these positions will be deeper, which will reduce the current deficit of supervisors. Given that service supervisors will require a broad range of expertise, they could be recruited from other fields, such as health and human services, which will help prevent a shortage.

Curriculum and the workforce

Standards and curriculum

Carefully monitor the implementation and impact of SELS in preparation for them to become the national learning standards in current early primary grades as the kindergarten sector expands

While SELS are broadly sound and based upon international research, it remains to be seen what type of impact they will have on teacher practice and student learning. It will be important to review the results of the previously proposed monitoring and evaluation activities to determine what measures might need to be taken in response to the introduction of SELS. If, for example, internal and external evaluation results indicate that few staff understand and use SELS, then MoE might need to work with teachers to clarify those areas (see Chapter 4 about working with teachers to revise standards and curriculum). If the outcomes of certain domains are lower than expected, then MoE should consider if SELS needs to be adapted in consideration of these weaknesses. Any revisions to SELS need to inform the in-process expansion of the standards to include standards for students from ages 7 to 8. ETEC and the Deputy Ministry for Kindergartens should work together to lead this review, but the MoE delivery unit proposed in Chapter 2 should also be included as follow-up activities are likely to require co-ordination across different parts of the Ministry and at different levels.

The OECD further recommends that SELS act as national learning standards for the upcoming cycle of education that will encompass ages 3 to 8, and in the future age 9. SELS are already created and are internationally benchmarked, emphasise the importance of developing literacy skills and considerate of the play-based approach to teach and learning that is espoused in Saudi Arabian early childhood education. They are well suited to guide learning in kindergarten and beyond. This means that, after the incorporation after the new educational cycle is created, the learning standards that were in place for early years primary grades should be replaced by SELS. Care will have to be taken to ensure that SELS are coherent with the learning standards that will be in place in what will become the second cycle of education (i.e., primary school for students over the age of 8, and later 9).

Improve the learning resources available to kindergarten and early years primary teachers, especially those intended to develop literacy

The introduction of new learning standards has the potential to align instruction and improve student learning. However, given the differences in how teachers currently teach and the expectations of SELS, particularly in the area of literacy, successfully implementing the new standards in Saudi Arabian classrooms will be very challenging.

To support teachers and improve the implementation of SELS, the OECD recommends that MoE significantly improve the quantity and quality of learning resources that are provided to kindergarten teachers, especially resources that are designed to develop student literacy. The first step is to review current materials, such as textbooks, to ascertain whether they reflect an integrated approach to language learning. These resources should teach grammar in the context of language skills and not as independent modules. For example, resources should encourage learners to read or listen to a passage, demonstrate understanding of these passages, then identify grammatical elements based on the context of these passages. They can then practice these grammatical structures in dedicated exercises and finally use them in novel contexts where they communicate orally or in writing. Materials that are consistent

with this integrated approach to learning should be retained while those that do not need to be adapted or removed from classrooms.

Reading materials intended for different levels of readers need to be introduced. These can range from picture stories to books, magazines and newspapers. Importantly, the materials need to be accompanied by resources that inform teachers what at which student reading levels reading level the materials are intended. These levels and their descriptions need to be aligned with SELS. MoE is currently working closely with NAEYC to produce more literacy materials. The OECD has not been able to review any of these materials, but suggests that what is created also adhere to the guidelines described here. Box 5.7 describes a highly successful early grade reading intervention in Egypt that focused on providing more effective literacy resources to teachers.

Box 5.7. Early grade reading intervention in Egypt

Starting in 2009, Egypt undertook a targeted early grade reading intervention in select schools. Central to Egypt's intervention was a fundamental reorientation towards how literacy was taught. A review of pedagogical practices revealed that students were taught letter names, but not letter sounds. A comprehensive analysis of the country's textbooks found that they also did not focus on letter sounds, resulting in students not being able to "sound out" and understand words, just recognise the letters that composed them. In response, the Grade 1 textbook was completely revised to focus on phonics-based instruction. New calls for tender for textbooks also emphasised the importance of phonics. A national mandate required that young students received 25 minutes of daily phonics instruction.

To evaluate the intervention, a set of control schools and treatment schools that would receive the intervention were selected and tested by the Early Grade Reading Assessment (EGRA) to establish baseline performance indicators. Before the intervention, students from the control and treatment schools performed similarly. In 2011, however, students in the treatment schools identified 19 more letter sounds per minute compared to just two letter sounds per minute for students in control schools. Students in treatment schools read 10 more words per minute compared to three more words per minute for students from control schools. These results motivated the Egyptian Ministry of Education to scale up the model in 2011, at which point roughly two million children from Grades 1 and 2 benefited from the initiative.

Source: (RTI International, 2013[39])

Provide assessment materials that help teachers determine student literacy levels in accordance with SELS and reinforce their use in the classroom through the inspection framework

Part of the challenge that early years primary teachers are facing when developing literacy is that they do not know the performance levels of their students or what their specific strengths and weaknesses are. Teachers are not provided with assessment instruments to help them determine this information and, as a result, tend to teach students in a uniformly rigid manner without consideration of a student's level of understanding.

To address this situation, the OECD recommends that kindergarten and early years primary teachers be given more high-quality assessment materials that can help them accurately

diagnose their students' levels of learning. Given that SEGRA has already been created, tested and has generated useful benchmarks (e.g., how many words students can read per minute), it should be the focal point of teachers' assessment materials. Nevertheless, Tatweer and NAEYC should also create others as part of their resource development initiative. These would include videos that illustrate different oral speaking levels that are linked to pedagogical responses (i.e., how to teach students at different levels). It would also be useful to provide teachers with tools that can identify learning disabilities so those students can be given relevant services. As Tatweer has created and is using an online portal (iEN) to distribute assessment resources to teachers, it should also host the assessment materials on iEN so teachers around the country have access to them.

However, simply giving teachers access to assessment materials is not enough to ensure that they are used correctly. The Deputy Ministry for Kindergartens needs to develop instructions that guide teachers in how to administer the assessment and how to interpret the results. Furthermore, they must explain to teachers the importance of diagnosing literacy levels and then individualising their instruction based upon the data that are produced. To reinforce the correct usage of assessments, it is recommended that settings and teachers be required to demonstrate how they are using diagnostic assessments as part of their self-evaluation and during external inspection.

Develop a set of nested learning areas, based on SELS, that guides the development of school readiness in all children but also considers the contexts of different early childhood education settings

While early childhood education settings are different in nature, their objectives should be similarly aligned around SELS. However, it is important to consider that the different settings have different resources and capacities and it is not realistic to expect, for example, a family daycare centre to develop children in the same way that formal kindergartens do. Therefore, MoE should provide all settings with general curricular expectations that are informed by SELS, but not necessarily have the same learning standards for each setting.

Internationally, Luxembourg is noted as a pioneer for integrating different settings into the same broad set of learning expectations. Its standards and curriculum set out specific learning domains that are encapsulated by broader learning areas. Non-formal settings, such as daycare centres, focus on developing students according to the broad learning areas, while formal institutions, such as kindergartens, instruct students according to the specific domains. For example, cycle 1 of formal education includes "logical reasoning and mathematics" and "discovery of the world through senses." The equivalent non-formal learning area is "science and technology." This provides non-formal settings with enough guidance to ensure that students who enter primary school are exposed to the same content areas, but also offers flexibility in consideration of what non-formal services can offer.

Figure 5.3. Learning areas for non-formal and formal education settings in Luxembourg's early childhood education and primary school curricula
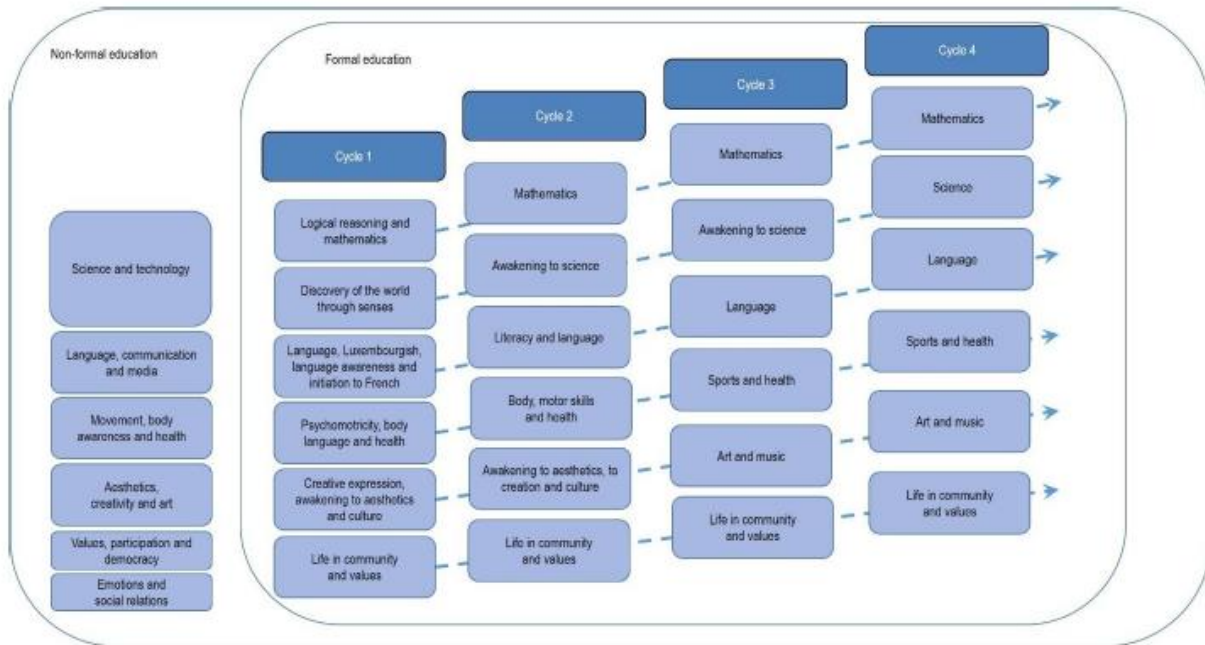
Source: (Ministère de l'Éducation nationale et de la Formation professionnelle, 2011[40])

The OECD recommends that Saudi Arabia create a set of learning areas based on SELS for non-formal settings. These learning areas will guide the activities of community centres and family daycare centres. Through this alignment, Saudi Arabian children not in kindergartens will be exposed to the same content areas as those who are, which will help prepare them for the transition into school. Tatweer should create guidelines and materials for all early childhood settings based upon the identified learning areas. This can be done in co-operation with NAEYC and Deputy Ministry for Kindergartens. For example, family daycare centres might be given specific instructions for activities that are meant to stimulate children in the learning areas. Community centres can be given toys or books that are aligned with the learning areas.

Workforce competencies

Work with the leadership academy to deliver targeted training to kindergarten principals

Kindergarten principals are the key agents in building the early childhood education sector. While they are positioned to significantly improve child development in their communities, what they need is greater professional development so they understand effective leadership practices and feel confident in exercising them.

The leadership academy recommended in Chapter 2 (which could be part of NIPED) can help develop kindergarten principals, but it will not be familiar with the specific expectations of kindergarten principals. Therefore, it is recommended that the Deputy Ministry of Kindergartens work closely with the leadership academy to develop targeted training modules for kindergarten principals. Key areas of focus should be using

the results of ECERS to drive improvement and using kindergarten space for after-school activities. Training modules developed through this partnership could be delivered through kindergarten training centres, Education Office training centres or via the previously recommended online methods. Other recommendations pertaining to principal professional development are summarised in Box 5.1.

Establish partnerships with universities to expand the pool of training resources

A persistent challenge in Saudi Arabia is expanding early childhood education without suffering a decrease in the quality of early childhood education staff. Training centres specifically for kindergarten teachers have been established to consolidate expertise, but there are too few to serve the entire rapidly expanding sector. In order to continuously train staff in new areas, it will be necessary to draw more fully upon all expertise that is available.

Saudi Arabia's tertiary education institutions have strong capacity in the area of early childhood education. Given the national requirement that early childhood educators must hold a bachelor's degree in early childhood education, universities have staff with considerable expertise and some, such as King Saud University, have staff who instruct master's level programmes. MoE should create partnerships with higher education institutions' faculties of education and home economics to extend the quality and reach of the professional development available to in-service early childhood education staff. This training could be offered on-site at the universities or at general education training centres, many of which are already being used for early childhood education training purposes. Incorporating tertiary institutions in this manner would also help improve equity by making higher education resources available to communities that would otherwise be unable to access them.

Use technology to extend the reach of kindergarten training centres

In addition to using university expertise to help train kindergarten staff, MoE can also take measures to expand the reach of its own kindergarten training centres by creating more digital training options. This has already been done in some cases (e.g., MOOCs were used to train supervisors in using ECERS) and this experience can be learned from and improved upon to train even more staff.

In situations where kindergarten teachers have difficulty accessing the technology needed to participate in digital learning, the Assistant Directorates for Kindergartens can work with their Directorates to allow kindergarten teachers to use resources in primary and secondary schools, or training centres for primary and secondary school staff. Elevating the status of kindergarten oversight to the Assistant Directorate level would help facilitate this co-operation.

Prioritise professional development on connecting a play-based philosophy with achieving learning outcomes and on adopting integrated approaches to literacy development

With more professional development resources available, MoE will need to decide what type of training should be provided. A critical need for Saudi Arabian early childhood educators is connecting a play-based philosophy with achieving educational outcomes. Interviews with stakeholders suggest that many educators think play in and of itself is the outcome, not a means to achieve a greater outcome. Therefore, it is important that they understand the role of play in the broader context of learning (Cutter-Mackenzie and

Edwards, 2013[41]; Samuelsson and Carlsson, 2008[42]) (see Box 5.8). An equally important need is to reorient teachers' approach to literacy development (see Box 5.9). Previous recommendations have suggested that classroom resources be overhauled to reflect an integrated approach to instructing students, but teachers will also need substantial training in adopting this approach themselves (Graham and Kelly, 2018[43]).

In Saudi Arabia, pre-service training at universities and in-service training offered through universities, kindergarten training centres and Education Offices need to urgently support teachers in these two areas. In general education, improvements in instructional practice have been impeded by inadequate capacity to implement the desired reform. There is a similar risk that the investment in SELS, or other proposals in this chapter, will not engender the desired changes because staff are not adequately trained. Short and limited training, such as those that accompanied the introduction of SELS, are helpful but not adequate for creating systematic transformation. Teachers need effective and sustained professional development in the two areas mentioned above, and this needs to become a priority for training providers to develop and deliver or, in the case of NIPED, identify third-party providers who can.

Box 5.8. The role of play in early learning

Research has shown that children can and do learn through playing and several early childhood curricula have taken advantage of this connection by centring student instruction around play. These approaches have been termed by some scholars as "pedagogical play" (Wood et al., 2010[44]). Nevertheless, research has also demonstrated that simply allowing children to engage in unstructured play is not necessarily educational. What is important is to structure children's activities in a way that engages their cognitive development.

Implicit in this approach is the importance of children interacting with adults during play to support their learning. Research into this area has identified important ideas such as sustained-shared thinking (Siraj-Blatchford, 2007[45]), co-constructing knowledge (Jordan, 2009[46]) and the development of contextualised understanding between children and adults during play (Fleer, 2010[47]). From a practitioner perspective, there are three general types of structured play that teachers can utilise to help children learn (Cutter-Mackenzie and Edwards, 2013[41]):

- **Open-ended play**: Where the teacher gives children materials and allows them to examine and explore the materials as a basis for learning with minimal intervention;

- **Modelled play**: Where the teacher illustrates or explains the use of materials before allowing children to use the materials with minimal intervention;

- **Purposefully framed**: Where the teacher provides children with materials, models the play and interacts with children as they play.

Empirical research shows that a play-based approach that integrates these three types of activities yields the greatest student outcomes. For example, difficult concepts might be more well-suited for instruction via the purposefully framed approach, which provides more guidance and frequent intervention by the teacher. These could range from basic scientific concepts to creating stories using simple phrases. Simpler concepts, or classes with advanced students, could rely more on modelled and open-ended play, in which students construct knowledge together to understand not only the concept but how to play with each other.

Box 5.9. Literacy for comprehension

Seminal research into how young persons learn has produced eight literacy development practices that have formed the basis for modern approaches to teaching children how to read. They are:

1. **Comprehension monitoring** in which the reader learns how to be aware of his or her understanding during reading and addresses problems in understanding as they arise.

2. **Co-operative learning** in which readers work together to learn reading strategies.

3. **Graphic and semantic organizers** that allow the reader to write or draw the meanings and relationships of ideas from a text.

4. **Story structure** in which the reader learns to ask and answer who, what, where, when, and why questions and, in some cases, explains the time line, characters, and events in stories.

5. **Question answering** in which the reader answers questions posed by the teacher and is given feedback.

6. **Question generating** in which the reader asks him or herself questions what, when, where, why, who, how and what will happen.

7. **Summarisation** in which the reader describes the most important ideas of a text.

8. **Multiple-strategy teaching** in which the reader uses several of the procedures in interaction with the teacher over the text.

Source: (Durkin, 1993[48])

Develop the teacher assistant positions

A combination of limited classroom space and strict requirements for student-to-teacher ratios have compelled several kindergartens to allocate multiple teachers to larger classrooms. While student-to-teacher requirements help maintain effective learning environments, allocating more than one to a single classroom might be inefficient given the already limited supply of qualified kindergarten teachers.

The OECD recommends that, in situations where a classroom already has one well qualified teacher, the student-to-teacher ratio can be met by supplying teacher assistants. These individuals assist the lead teacher in managing the classroom, tutoring students, planning lessons, assessing students and instruction. Teacher assistants' qualifications could be more general than those of a kindergarten teacher (e.g., a bachelor's degree in any field), which would make them easier to employ. However, because they are paired with a lead teacher, the students would still experience a sufficient level of pedagogical rigour, but the second lead teacher that is currently deployed in the same classroom would be free to lead separate activities. Countries such as Norway, the United Kingdom and the United States frequently employ teacher assistants in kindergartens in order to make more efficient use of fully qualified lead teachers (Broadley, n.d.[49]; UNISON, 2013[50]; Steinnes, 2014[51]). In France, assistants are systematically employed to support lead teachers with larger classes. They are responsible for assisting teachers with children's hygiene,

preparing the classroom and facilitating extracurricular activities (Ministère de l'Education Nationale et de la Jeunesse, 2019[52]).

Home learning environment

Ensure that initial and in-service staff preparation includes training on how to engage parents effectively in their children's education

In Saudi Arabia, awareness of the importance of the home environment of a child's development is relatively weak. Given that much parental engagement occurs through kindergartens, it is important that kindergarten teachers be trained in how to properly engage with parents and promote a healthy home learning environment. This should be an important component of both teacher preparation and in-service professional development. Not only will this improve the education of children enrolled in kindergarten, but will also help build public trust in kindergartens, which is not always strong in Saudi Arabia. For example, given that most mothers do not work, staff can be trained to involve them in the direct operations of kindergartens, such as leading reading activities in class or becoming formal teacher assistants. For parents who do work, staff can be trained to engage them at their places employment, especially in large employers such as government offices. Staff from local kindergartens can periodically visit these sites and inform them of observed educational needs and how parents can help address them at home.

Internationally, several initiatives have focused on strengthening parental engagement in early childhood education. These have focused on increasing awareness of different family backgrounds and lifestyles, techniques for improving two-way communication between home/community and the early childhood education settings and how settings can help meet families' social service needs (Litjens and Taguma, 2010[26]). Research emphasises, however, that early childhood educators need to be flexible when engaging with families in consideration of the socio-economic and cultural variation of communities (Rous and Hallam, 2003[53]). Families who feel that their unique circumstances are recognised will also be more engaged and responsive to outreach.

Use kindergartens as community centres

It was recommended that community centres feature strongly in Saudi Arabia's strategy for early childhood education. A challenge to creating community centres will be finding appropriate facilities to host them. In Saudi Arabia, most kindergartens end at 12:30 PM and are not used until the beginning of the next school day. These represent ideal spaces to host community centres because they have already been licensed as safe for children and contain learning resources.

The programming that occurs at community centres will be guided by the previously suggested broad learning areas that will be created based on SELS. Parents of kindergarten students can bring them to community centres for extra instruction, as can parents of children who are not enrolled in kindergarten due to space limitations or other considerations. Third party organisations, such as the Child Care Association, can take advantage of these centres to provide services and educate the community about the importance of the home environment to child development. Internationally, much early childhood education in Portugal for children between 3 and 5 is provided in community centres, especially in areas where it is difficult to maintain a kindergarten (OECD, 2006[12]). In Colombia, community centres serve families, especially those with two working parents, with children up to age five (OECD, 2016[54]). Mexico has had significant success in

providing care for young children through community centres, and its experience is described in Box 5.10.

Box 5.10. Providing care through community centres in Mexico

In Mexico, the Early Education Programme (Programa Educación Inicial, PEI) provides non-formal training to promote children's cognitive development and adequate parenting practices to pregnant women, parents and children caregivers who live in rural and isolated communities. This programme is carried out by community facilitators (promotoras) who receive two weeks of training every year, educational materials and are periodically coached and monitored by a regional supervisor. They organise up to 65 information sessions - once or twice a week - over nine months focused on four key competences of the national curriculum:

1. Language and communication (e.g. health, hygiene, and nutrition);

2. Protection and care (interactions with others);

3. Personal and social skills (movement, words, etc.); and

4. Exploration of one's environment (body control, fine and gross motor skills).

A recent evaluation showed that community-based programmes can be effectively implemented at a low cost. A randomised control trial found that the programme had strong, significant effects on parenting practices and child development (communication and gross motor skills).

Source: (Cardenas, Evans and Holland, 2017[55])

In areas without kindergartens, use primary schools and other communal areas to provide resources to families

Most areas in Saudi Arabia do not have a kindergarten. It will be important that these regions have access to some kind of early childhood education service. While less than 30% of eligible students are enrolled in kindergarten, primary school enrolment is near universal, indicating that nearly all families in the country do have access to a primary school. After school ends, those facilities that are judged safe and appropriate spaces for younger children can also be used as community centres. They will not be as adequately equipped for young children as kindergartens, but with proper support, especially around providing resources that are aligned with the non-formal education learnings areas, they can act as effective hubs for child development and parental education. In Pakistan, some community centres held in primary schools with sufficient space actually operate at the same time as the primary school, which is more convenient for families with both young children and children in primary school (UNICEF, n.d.[18]).

Conduct home visits to support families who cannot access physical community centres

A small number of families will not be able to access community centres, even those established in primary schools. They will need direct support to help create effective home learning environments for their children. Internationally, home visits are becoming a common method of directly providing services to families with young children (Michalopoulos, 2015[56]). Certified providers visit families and speak to parents about

child development, health and well-being. In the United States, the state of Massachusetts has conducted home visits for all adolescent mothers and the results of a programme evaluation are encouraging (Easterbrooks, 2017[57]).

In Saudi Arabia, home visits, similar to those conducted by the Educating Mother and Child Programme, should be used to support families who cannot access formal kindergartens or other settings. These could constitute visits by staff from kindergartens and nurseries, community centres, Directorates/Education Offices or health care providers. Home visits will be less frequent and more limited in scope than services offered through early childhood education settings, so their objectives, guided by learning areas for non-formal services, should be more narrowly focused. The OECD recommends that, in the context of Saudi Arabia, home visits should emphasise the importance of reading to children. Research shows that well designed home visiting programs can improve literacy outcomes in young children (Duffee et al., 2017[58]; Evans, 2006[59]). Box 5.11 describes several home visiting programs that focus on developing literacy in young children.

Certain regulations must govern home visits to ensure that they are conducted properly and are beneficial for children and their families. These should be defined in the standards for early childhood education settings. Quality assurance of home visits, defined in the inspection framework, should be conducted by service supervisors and should consist of visiting the providers of home visits (e.g., kindergartens or community centres) to speak with facilitators and collecting information from service recipients on a sample basis, either through direct conversations or surveys.

Box 5.11. Home visits that promote literacy

The Parent-Child Home Program (ParentChild, 2019[60]) sends educators into the homes of vulnerable children to provide families with books and toys and guidance on using them to promote learning. Evaluations have shown that participation in the program is related to the positive development of children's language and social-emotional skills.

Home Instruction for Parents of Preschool Youngsters (HIPPY) (HIPPY, 2019[61]) helps parents prepare their children for school, especially those most at risk because of family circumstances such as limited education or language fluency. Research shows that parents who are visited by HIPPY become more engaged in reading and talking with their children at home and that children's school-readiness improves.

Raising a Reader (RAR) (Raising a Reader, 2019[62]) helps families develop, practice, and maintain home-based literacy habits and routines. Community agencies-including schools, community centres and designated home visiting programmes-bring books into homes and encourage parents to read to their children. Research shows that the programme has helped improve children's oral language skills and is associated with improvements in parent-child reading behaviours.

Providence Talks was launched in Providence, Rhode Island in the United States and uses the Language Environment Analysis (LENA) recorder, which records conversations that parents have with their children. Caseworkers show to parents, using LENA recorders, how much they speak to their children and what the range of vocabulary they use is (Talbot, 2019[63]).

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Reviews of National Policies for Education

Education in Saudi Arabia

Saudi Arabia has embarked upon an unprecedented reform agenda known as Vision 2030, which aims to create a dynamic, diverse and sustainable economy. To meet the demands of a 21 st century, knowledge-based labour market, Saudi Arabia must develop a highly-skilled population, which puts education at the centre of Vision 2030.

Saudi Arabia has made tremendous progress in expanding access to education and has achieved universal enrolment rates at primary and lower secondary levels. Nevertheless, most young Saudi Arabians leave school without having mastered the basic competences needed for success in future academic and professional endeavours. There are also widening disparities between students in terms of their access to high quality education and their subsequent learning outcomes.

This review, developed in co-operation with the Ministry of Education of Saudi Arabia, analyses the strengths and challenges of the country's education system and makes recommendations to help improve student learning. It will be of interest to policy makers in Saudi Arabia and international audiences who wish to learn about the country's ambitious reform efforts.