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:

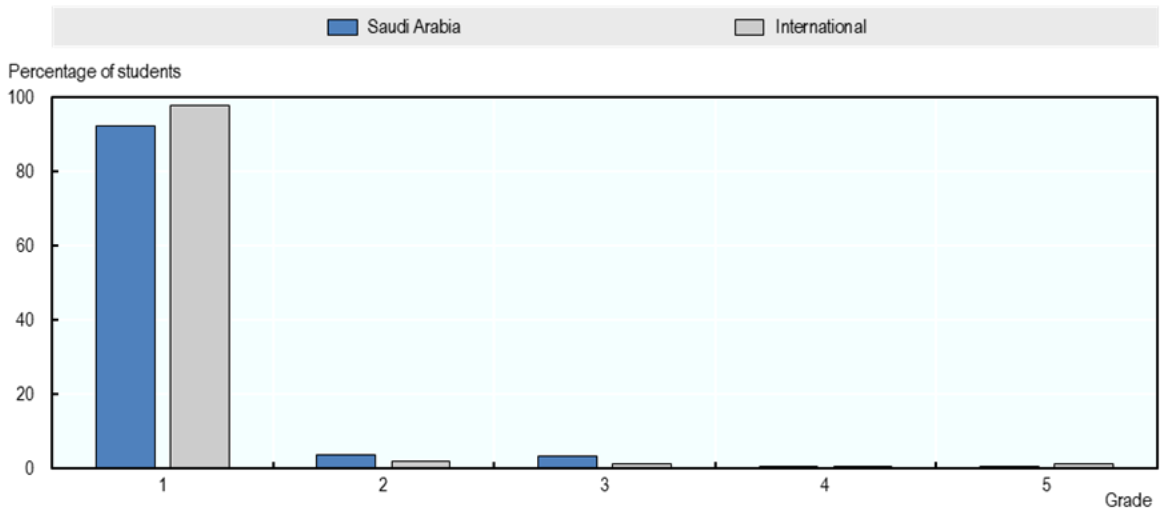
- Understand how sounds are represented by print and apply this understanding to read words;
- Practice reading to become fluent readers;
- Learn new vocabulary words;
- Read for meaning and self-correct if what they read does not make sense (Snow, Burns and Griffin, 1998[22]).

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

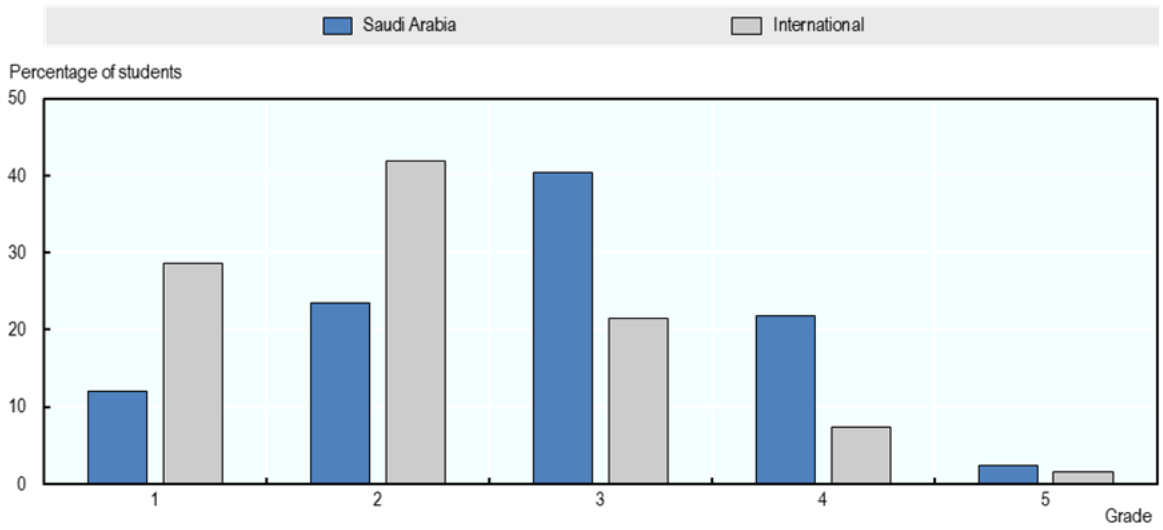
situation by expecting students to demonstrate higher-order skills in the areas of reading and writing. However, unless teachers' instruction is made consistent with the goals of SELS, it will be difficult to improve student achievement in literacy.

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.

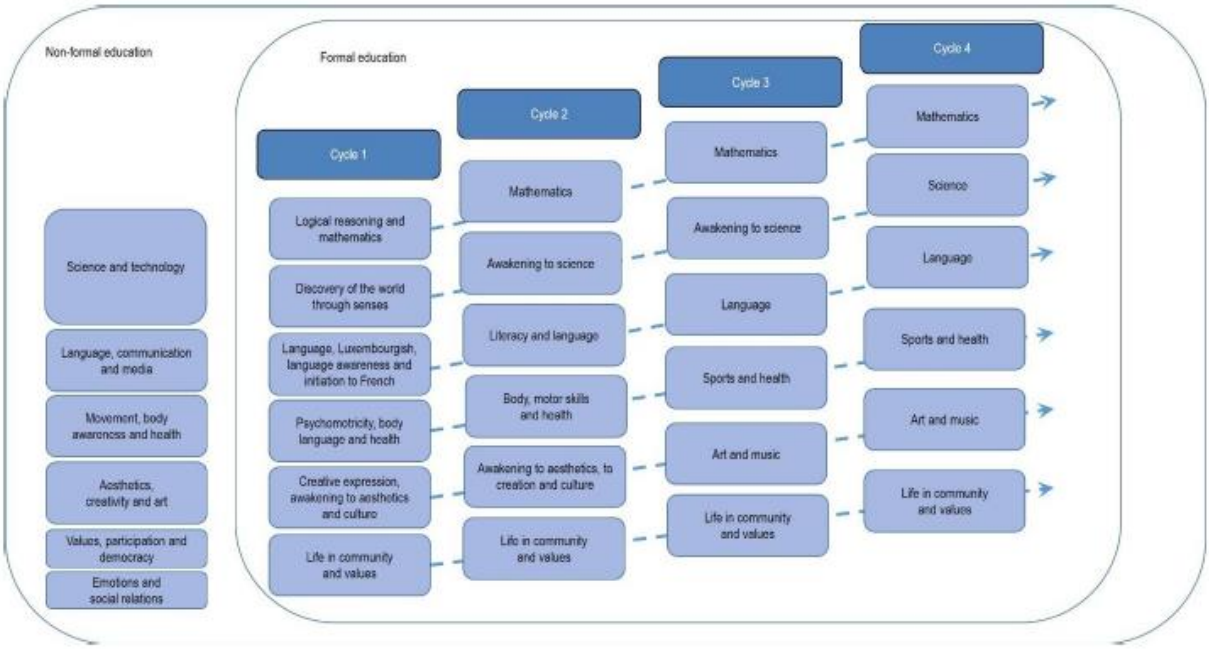
However, simply giving teachers access to assessment materials is not enough to ensure that they are used correctly. The Deputy Ministry for Kindergartens needs to develop instructions that guide teachers in how to administer the assessment and how to interpret the results. Furthermore, they must explain 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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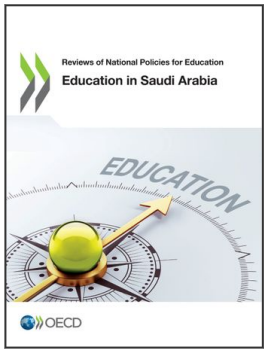

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