#### MENA DEVELOPMENT REPORT

## Collaboration Road: Dubai's Journey towards Improved School Quality

A World Bank Review

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with Abdo Said Abdo and Nicoleta Nichifor

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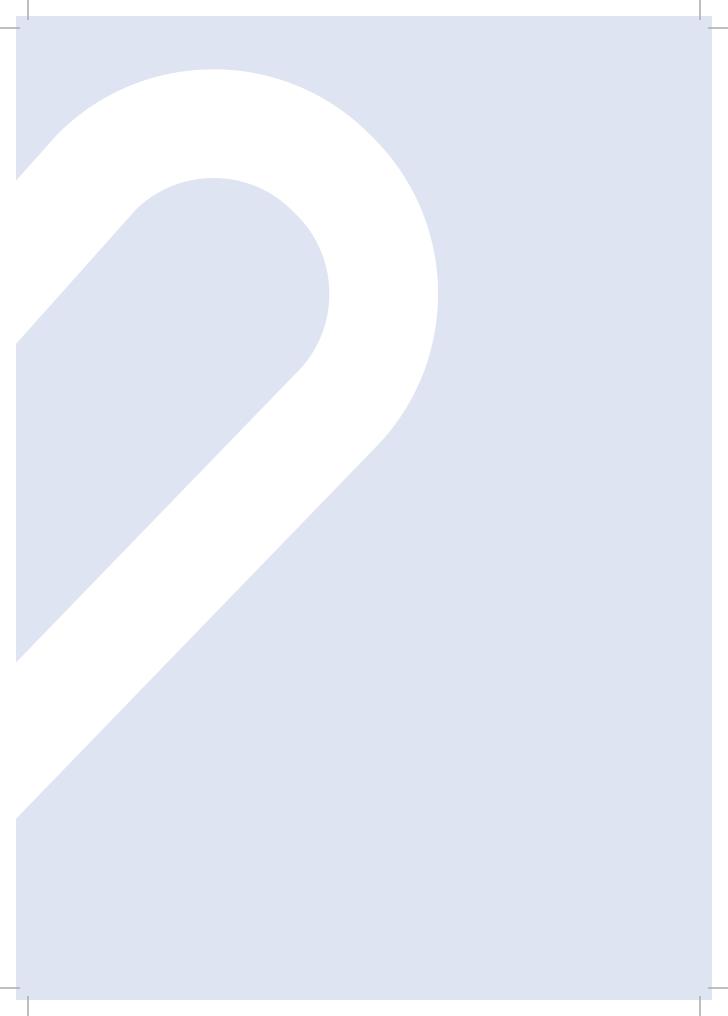
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## **Executive Summary**

In 2014, Dubai's Knowledge and Human Development Authority (KHDA), the Government entity responsible for overseeing the huge private education sector (which covers more than 90% of the city's school students), invited the World Bank to study a set of initiatives they had put into place to improve accountability in the sector in the quest for better outcomes. As a result, enrolment in better schools increased from 30 to 50 percent in five years. That study was entitled *The Road Traveled*. In an ongoing drive to improve the private education sector, the KHDA has now put into place a second complementary set of initiatives, this time related to encouraging schools to work together to improve together.

## FIGURE 1 The Four Collaborative Initiatives

#### **What Works**

Run *by* schools *for* schools Appreciative shared inquiry

#### Lighthouse

Networking between

principals

Representation of diversity across

curricula and fee levels

#### **Living Arabic**

Derives from What Works

Shared inquiry among Arab-language teachers

#### **Abundance**

Knowledge sharing from top-rated schools, who in turn were able to forgo one year of inspection The KHDA has now put into place a second complementary set of initiatives, this time related to encouraging schools to work together to improve together. The objective of the study is to assess the extent to which these initiatives contribute to improving the quality of the private education sector in Dubai.

The four collaborative initiatives include the *What Works* series of events, which bring educators from private schools together to share their best practices, to reflect on their work, and to support each other; *Living Arabic*, which holds events promoting the Arabic language by Arabic teachers for Arabic teachers; the *Abundance* project offers schools that rated 'Outstanding' or 'Very Good' the opportunity to share their knowledge and best practices with other schools in Dubai; and the *Lighthouse* project, which encouraged collaboration and networking between school principals around the study of specific topics.

#### **Objective**

The objective of the study is to assess the extent to which these initiatives contribute to improving the quality of the private education sector in Dubai. A mixed methods research approach was adopted. A literature review of collaboration was followed by an online survey sent to all Dubai schools and in-person focus group interviews that were conducted in November 2018 in 16 schools in Dubai.

#### **Findings**

The findings were conclusive. If the *Living Arabic* event has quietly grown to become a recognized resource-platform for Arabic teachers in the city, the well-established *What Works* event is appreciated as a 'big ideas' event that showcases the new, the bright, and the bold in Dubai teaching practices. The newer *Abundance* and *Lighthouse* projects have shown proof of concept, as well, as ways to bring school leaders together to network in the interest of school improvement. Many participants are convinced of the advantages of these initiatives and yet, surprisingly, 45% of respondents in our online survey had not participated in them.

#### **Limitations**

While the collaboration initiatives received widespread support among teachers and school leaders, there was also recognition of their limitations, specifically, a lack of time in teachers' schedules to participate in either in-school or between-school collaborations. Additionally, for in-school collaboration, school leaders indicated that teachers did not know how or with whom to collaborate. For between-school collaboration, school leaders felt that about a third of their teachers did not know with whom to collaborate, while some (13 percent) suggested that their school was too different from others to be able to work together.

Executive Summary 3

#### **Options to Improve Collaboration**

While successful, each of the four initiatives could be tweaked to further improve knowledge transfer across the system. The study suggested a range of ways to do this. The study also suggested that the diversity of Dubai's schools is an enormous potential to be potentially shared. The excellent quality of many of Dubai's schools and teachers are a great resource for lower performing schools to learn from and adapt to their own context. Finally, in the same way that students are encouraged to work collaboratively, so too should the city's teachers be encouraged to embed collaborative practices in their work.

The excellent quality of many of Dubai's schools and teaching practices are a clear source of best practice for lower performing schools to learn from and adapt for their own context.



### Introduction

A remarkable city in many respects, Dubai also stands out from an educational perspective.

Home to a large and diverse international population, the city has one of the most extensive private education sectors in the world. Nine out of ten students attend private schools following one of seventeen different school system curricula, which include education systems of the United Kingdom, India, the United States, the United Arab Emirates, the International Baccalaureate, Pakistan, Iran, France, Germany, Japan, and Canada, among others.

Recognizing the importance of education to Dubai, government authorities have been actively working to improve the quality of all schools. While the Ministry of Education manages public schools, the Knowledge and Human Development Authority (KHDA), a Government of Dubai authority, was developed to oversee private schools.<sup>1</sup>

For the KHDA, finding ways to improve quality in the sector is an ongoing pursuit. Many initiatives have been developed, several of which have been studied and revised, and new ideas are constantly being identified. Recently, the KHDA has promoted collaboration between schools as a catalyst for change through four specific initiatives it has promoted: the *What Works* events, *Living Arabic*, the *Lighthouse* project, and the *Abundance* project.

In 2014, the KHDA commissioned the World Bank (2014b) to study a set of initiatives related to accountability. Now it has asked the World Bank to study these four collaborative initiatives with the objective of assessing the extent to which they have contributed to improvements in the quality of the private education sector in Dubai. To evaluate this, the study considers two research questions:

- 1. How have collaborative initiatives contributed to improvements in Dubai's competitive private education sector?
- 2. In what ways have the collaborative initiatives been successful, and what can be done to sustain their best practices across the private education sector?

The study explores these two questions by first defining what collaboration is and how it applies to the four KHDA-promoted initiatives. Secondly, this paper explains its research methodology and findings about the KHDA initiatives. In the final section, the implications and suggested improvements of the initiatives are discussed.

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#### **ENDNOTES**

1 For more information on the KHDA, please see World Bank 2014b, or https://www.khda.gov.ae/en/.



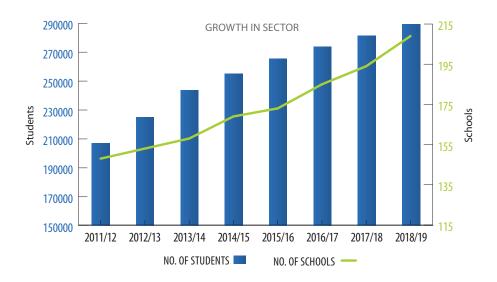
### **Definitions and the KHDA Context**

#### What is Collaboration?

Collaboration occurs quite commonly in school contexts. Schools collaborate all the time. There is collaboration between schools when they work together to hold sports events, debates, and student exchanges. There is also collaboration within schools when students work together in class, teachers gather for grade-level meetings, or school leadership teams plan sessions. However, for the purposes of this study, collaboration is defined in more specific terms.

In this study, collaboration refers to a central explicit objective for education improvement between or within schools. More specifically, in this study, collaboration between schools refers to schools working with other schools with the aim of school improvement, while collaboration within schools typically is used to describe teachers working with their peers in the interest of improving teaching and learning.

FIGURE 2
Increase in Students and Schools in Dubai (2011/12–2018/19)



Source: Adapted from KHDA (2019)

#### Why is the KHDA Interested in Collaboration?

The KHDA seeks
to encourage
investors to
enter the private
education
space, while
maintaining
quality standards.

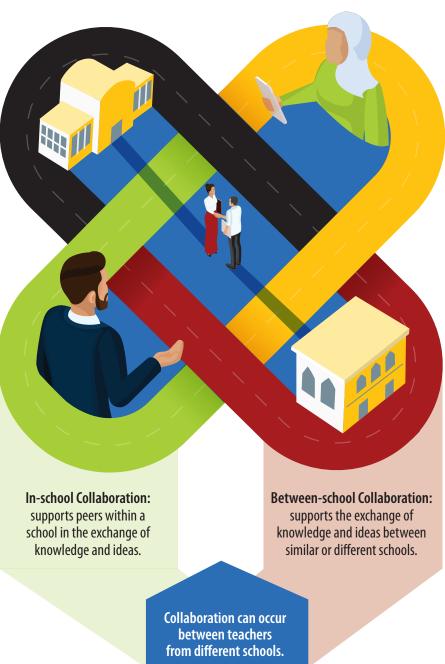
The KHDA, in its capacity to oversee the private education sector in Dubai, has great interest in considering collaboration as a policy issue.

The city state of Dubai is booming and the demand for places in schools continues to grow with it. School enrolment is expanding, and new schools are opening. In the last seven school years, there have been more than 80,000 new students (a 40% increase) and 76 new school openings.

In this context, the KHDA seeks to encourage investors to enter the private education space, while maintaining quality standards. In its first set of initiatives to improve the private education sector, the KHDA inspected all schools through its Dubai Schools Inspection Bureau (DSIB), and made the ratings public. These initiatives were the focus of the study produced in the 2014 World Bank report (World Bank 2014b). In this second study, the KHDA has commissioned the World Bank to examine a second set of initiatives, which focuses on KHDA's policy on collaboration and collaborative practices.

This second study draws on the significant potential that collaboration has as a policy option, something that the brief review of the literature provided in this study will make clear. The growing evidence on collaboration, both between and within schools, is quite robust.

FIGURE 3
In-school vs. Between-school Collaboration





## What does the Research Suggest?

Between-school and within-school collaboration are the subjects of increasing study.

#### **Between-school Collaboration**

Collaboration *between* schools, or 'school-to-school' collaboration, is a relatively recent development. It can take many forms; it can be between different school levels (a primary and secondary school working together); between small schools; between mainstream and special needs schools; between schools of the same faith (Islamic schools, for instance); between schools in the same academy (that is, with the same sponsor, owner, or approach); and, between schools with differing students or social outcomes (Muijs and others 2011).

In each of these cases, collaboration has been adopted as a mechanism to promote various, sometimes overlapping objectives in both the public and private sectors. They may be used (a) for financial motives to promote economies of scale; (b) to extend the range of provision on offer (for instance, when two technical and vocational schools with different but complementary curricula schools join forces to offer a multiplicity of options); (c) to create 'competitive alliances' that allow sets of schools to position themselves more forcefully in a market; (d) in the interest of promoting more equitable social outcomes, as when schools with different ethnic compositions collaborate to promote both diversity <u>and</u> inclusion; and (e) in the pursuit of school improvement (whether school management processes and/or student outcomes), when high- and low-achieving schools are matched together (see box 1).

Several reviews have demonstrated the impact of effective collaboration (Atkinson and others 2007; Chapman and others 2011; Chapman and Muijs 2013; Chapman and Muijs 2014). The literature so far presents an optimistic view of school-to-school collaboration as a means to improve the performance of low-performing schools, if the collaboration is structured meaningfully. However, there needs to be further empirical research conducted on the various forms of school-to-school collaborations, to assess their comparative effectiveness (Armstrong 2015).

Despite these benefits, there are a number of challenges schools may face. Before collaborating, schools need to achieve enough common ground to over-

## Collaboration Objectives

Financial motives to promote economies of scale

Extend the range of provision

Competitive alliances

More equitable social outcomes

School improvement

Before collaborating, schools need to achieve enough common ground to overcome challenges.

come challenges such as differences in management priorities, management style, and even changing parents' bias against low-performing schools (Liu 2018). The low-performing school may also try to replicate the high-performing school, without understanding conditions that led to its success (Chapman and Muijs 2013). It is policy-borrowing without policy-learning (Steiner-Khamsi 2006). Additionally, collaboration can create a culture of dependency for the low-performing schools (Harris and Chapman 2004). Regarding high-performing schools, there can be a capacity issue, where teachers and administrative staff are overwhelmed by additional time commitments (Allen 2007).

The research evidence suggests that there are several conditions under which school-to-school collaboration is more effective. Collaboration requires clearly defined, measurable and attainable goals that can be evaluated throughout the

#### **Box 1 Institutionalized Collaboration in Shanghai**

The Shanghai public school system has demonstrated outstanding academic results internationally, as seen in the OECD's Programme for International Assessment (PISA) scores. One of its key strategies lies in establishing empowered-management projects, in which collaboration between a high-performing and a low-performing school takes place.

In these situations, authorities contract a high-performing school to help in improving the performance of a low-performing school for a two-year period. Before engaging in the partnership, the principal of the high-performing school evaluates whether his or her staff has the necessary skills to improve areas that the low-performing school needs to address and whether it can do so without compromising its own performance. Once the two schools are matched, contractual agreements are established between both institutions, stipulating the timeline, costs, and evaluation mechanisms. The high-performing school first develops a strategic plan that assesses the initial situation and delineates steps toward achieving the performance targets established in the contract. While the high-performing school takes the lead in developing this plan, teachers from the low-performing school have to be on board with the strategic framework. Throughout the two-year contract, a municipality-assembled team conducts extensive monitoring and evaluation at the midpoint and end of the contract. The high-performing school is only paid if the set targets were met and the strategic plan has been successfully implemented.

The high-performing school is given complete authority to run the low-performing school. The school principal from the high-performing school spends considerable time in the low-performing school and moves staff members between the two institutions as needed. And it is common to have two or three senior teachers from the high-performing school permanently stationed at the low-performing schools.

While there is no quantitative data that demonstrates a direct link between school collaboration and improvement in the academic performance of students from the low-performing school, such collaboration programs are believed to be successful and have been expanded across China.

Source: Jensen and Farmer (2013)

period of collaboration. The collaboration should be divided into different stages, with the final stage ensuring that the low-performing school can operate independently (Mujis, 2015; West, 2010). Pairing schools with similar socioeconomic backgrounds allows schools to establish common ground that fosters better connections between parties (Allen, 2007). School collaborations that are initiated by school administrations are more resilient to competition (Haynes and Lynch, 2013). For collaboration to flourish, there should be effective leadership that allows all parties to take ownership of their shared work (Rudd and others, 2004; Muijs and others, 2011).

Over the last two decades, school-to-school collaboration has been leveraged in school systems as diverse as Canada, China, Singapore, Sweden, the UK, and the US. These collaborations have generally been between schools in the same school system (with the same curriculum, school organization, and so on). There have been a few exceptions. For example, the mathematics exchange program between the Departments of Education in the UK and Shanghai has been extended to 2020. This a flagship program for both governments; it has attracted considerable attention in both countries and around the world, showing how much teachers can and want to learn from other cultures when they are given the opportunities to do so (Boylan and others 2019).

Similarly, the kinds of collaboration promoted in Dubai are interesting precisely because they are often between schools in very different systems — remember Dubai has over 200 private schools following 17 different systems. This reflects a context in which collaboration might seem challenging, yet also where there is a remarkable opportunity to work across national and school cultures, and different ethnic and socioeconomic groups.

#### **In-school Collaboration**

The term 'in-school' collaboration refers to initiatives between school-level actors, usually teachers with teachers, *within* schools. Even if the central focus of this study is between-school collaboration, in-school collaboration is also implicated because there are clearly parallels between the two. For instance, while Dubai's What Works events are instances of collaboration across schools, they act at the level of the teacher — that is, teachers sharing with other teachers.

In-school collaboration has been studied extensively,¹ but a few comments are warranted here nevertheless. In its simplest form, it is a situation where two teachers work together in school to learn together.² Very often, this can be an open discussion between peers about what has worked, what has not, and what needs to be improved, whether in relation to a lesson, a lesson plan, managing a class, assessment, or whatever may be at hand. As such, these situations can be a productive means of lifting the burden of improvement from the shoulders of unsupported individual teachers and enabling them to tap into the collective knowledge and experience of a broader group of practitioners (Schnellert and Butler 2014). Additionally, this work can allow teachers to more fully understand their students' performance by comparing them with similar students who are taught the same subjects and given the same assessments by their colleagues (Hallman and others 2015). When teachers share insights, effective

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It should not be forgotten that collaboration is a comparatively inexpensive policy option.

instructional strategies, and expertise in general, a shared, collective sense of professional advancement takes place (Little 2003).

It is with this aim — of driving change in teacher practices from the ground up, and in so doing, making schools professional *learning institutions* — that these initiatives have often been promoted. Moreover, it is this principle that underlies professional learning communities, communities of practice, or learning networks.

Research has established the positive impact of such practice on teacher and student outcomes (Ning and others 2015). For example, there is evidence of a program linking high-performing teachers to lower-performing teachers that has demonstrated improved student outcomes (Sun and others 2013; Papay and others 2016). Research has also found that where better quality collaboration was reported by teachers, higher average mathematics and reading gains took place. In addition, there is evidence that teachers who reported better quality collaboration were more effective in their classrooms and improved at faster rates when working in schools with stronger collaborative practices (Ronfeldt and others 2015). Good quality collaborative practice in schools can, in short, be an important avenue for professional development for teachers, which translates into student learning gains.

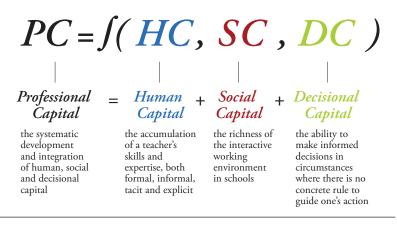
And, finally, it should not be forgotten that collaboration is a comparatively inexpensive policy option.

#### Another Way of Looking at it: Social and Network Capital

The KHDA has encouraged several forms of collaborative practice between schools. While 'collaboration' between these actors is quite clearly the key characteristic of these initiatives, the details differ considerably. Another way to look at this is to see collaboration as strengthening several kinds of capital — human,

#### FIGURE 4

**Professional Capital is the Addition of Three Capitals** 



social, professional, and network capital. These concepts of "capital" may have been in use for some time, but in the field of education they were brought to some prominence by Hargreaves and Fullan (2012). More specifically, research indicates that professional capital is a product of human, social and decisional capital.

Human capital is the accumulation of a teacher's skills and expertise, both formal, informal, tacit and explicit.<sup>3</sup> Moreover, social capital refers to the richness of the interactive working environment in schools. When teachers work together, when they have opportunities to interact with, learn from, and be supported by peers, they benefit from a significant form of socially-enabled knowledge transfer (Leana 2011; see box). Building social capital among teachers, but also between administrators, parents and students can lead to higher educational achievement. In turn, having strong human capital and social capital enhances the third type of capital — decisional capital. This capital represents the ability to make informed decisions in circumstances where there is no concrete rule to guide one's action.

When teachers need help with their work, they turn to a support network that may include online resources, colleagues, the school's administration, or teachers in other schools. This network can be as informal and formal. The resources made available through these ties represent a form of capital referred to as 'network capital'. Research on network capital seeks to understand whether the strength of these networks comes from the composition of the members of the network, the individual and aggregated characteristics of those members, the nature of the ties involved, or the structure of the network (formal, informal, loose, dense). In all cases, this network capital is understood to be a strong determinant in how well a teacher is supported professionally, and consequently, how effective the teacher is (Wellman and Frank 2001).

#### **Box 2 The Power of Social Capital**

**ENDNOTES** 

A study based on a sample of 130 elementary schools in New York City found that while schools with high social capital showed positive achievement outcomes, those with strong social and human capital together did even better. More strikingly, teachers with low human capital who happened to be working in a school with higher social capital got better outcomes than those in schools with lower social capital. In other words, just being part of a school in which others are working effectively influences teachers to engage in positive achievement outcomes.

Source: Leana (2011)

- 1 For an extensive meta-analysis of evidence on in-school collaboration, see Vangrieken and others (2015).
- 2 Collaborative learning draws on social constructivism learning theories and group or social cognition (Salomon and Perkins 1998), and it emphasizes that knowledge is co-constructed through social interaction.
- 3 It represents, when referring specifically to teachers, their knowledge, competence, and professional understanding gained through education, training and working experience. It may also include intangible qualities such as passion, empathy, and commitment to one's students.

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This network can
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and formal.



## Collaborative Initiatives Promoted by the KHDA

The KHDA first focused on school inspections as a quality improvement and accountability mechanism for each school, an approach studied in the first World Bank study (World Bank, 2014b). In a further and complementary move, it has focused on collaboration as a way to enable schools to share best practice and learn from each other. It has promoted four collaborative initiatives to do this: the *What Works* and *Living Arabic* events, and the *Lighthouse* and *Abundance* projects.

#### FIGURE 5

#### The Four Collaborative Initiatives

#### **What Works**

Run *by* schools *for* schools
Appreciative

shared inquiry

#### Wildt Works

#### Lighthouse

Networking between principals

Representation of

diversity across curricula and fee levels

#### **Living Arabic**

Derives from What Works

Shared inquiry among Arab-language teachers

#### **Abundance**

Knowledge sharing from top-rated schools, who in turn were able to forgo one year of inspection

#### **What Works**

The *What Works* events were launched in 2012 to bring private schools together to share their best practices. These events bring educators and education professionals together to share and reflect on their work, and to provide guidance and support to each other through structured workshops. These events emphasize the positive: run *by* schools *for* schools with support from the KHDA, they are based on the principle of appreciative shared inquiry.

#### **Living Arabic**

Living Arabic derives from What Works. It provides similar events as What Works, but ones specifically related to promoting the Arabic language by and for Arabic-language teachers.

#### Lighthouse

The *Lighthouse* project arose as a pilot project from *What Works*. It is designed to encourage collaboration and networking between principals. In its first year, 2015–2016, principals were organized into groups of 10 with attention paid to having representation of diversity across curricula and fee levels. Each principal group examined a country that had made progress in international assessments (in TIMSS, PIRLS or PISA). They then provided a report to the broader group about how each country had improved its academic performance. The intention was to learn from what other countries had done, and what could be applicable to Dubai. In its second year, 2016–2017, *Lighthouse* groups conducted research on 10 key characteristics of positive education. This second year's project was designed to facilitate discussion among the principals around a common theme and to establish personal connections of trust and shared interests.

#### **Abundance**

The *Abundance* project was developed with the aim of offering schools that rated either as 'Outstanding' or 'Very Good' the opportunity to share their knowledge and best practices with other schools in Dubai. While this project was administered just for the school year 2017–2018, it has been a good opportunity for successful schools to share *what* they do and *the way* they do it with other schools that they would normally not encounter. Twenty-nine schools in Dubai holding the top two ratings were invited to participate in the project. The program sought to address a wide range of topics, but the most common among them was teaching, middle and senior leadership, and assessment. In exchange for their participation, the top-rated schools were given the choice to forego their annual inspection that academic year.

#### **ENDNOTES**

1 TIMSS stands for Trends in Mathematics and Science Study; PIRLS stands for Progress in International Reading Literacy Study (see www.iea.nl); PISA stands for Programme for International Student Assessment (www.oecd.org/pisa)

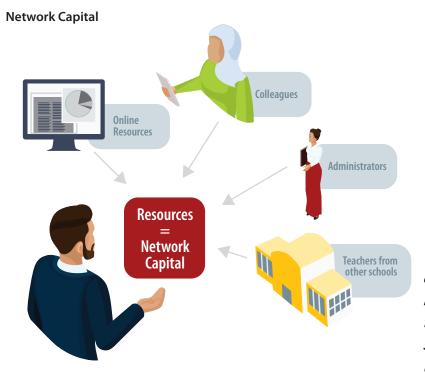


## **Study Approach**

#### **Theory of Change**

By promoting collaboration between schools in Dubai, the KHDA is looking to develop network capital. In turn, this increase of capital promotes knowledge transfer across schools and between teachers. Collaboration provides both ideas and a mechanism for schools and teachers to improve school management, teaching and learning, and overall school quality.

#### FIGURE 6



This increase of capital promotes knowledge transfer across schools and between teachers.

#### **Research Methodology**

It should not be forgotten that collaboration is a comparatively inexpensive policy option.

To investigate whether this theory of change holds in Dubai, this study applies a mixed methods approach.

The study began with a desk review of the literature on collaboration, which helped to identify how collaboration functions as a school improvement mechanism. This led to the design of two sets of questionnaires. The first set was sent to all schools and was intended to gauge the extent to which collaboration plays a part in the typical life of a school without the encouragement of the KHDA. The second set of questionnaires was addressed to those schools identified by the KHDA that had actively participated in KHDA-promoted collaborations. The questionnaires were in both English and Arabic, and sent via online to teachers, school heads, and others associated with school. The questionnaires included a range of questions including closed ('yes/no'), Likert-scale, and open-ended formats to explore Dubai schools' opinion and use of collaboration. The brief literature reviews found in this study reflect the findings from these questionnaires.

With assistance from the KHDA counterpart team on the ground, a team from the World Bank (that included an Arabic-speaker) visited 16 schools in Dubai over the course of two weeks. This interview sample included schools at the primary, middle, and high school level, of various curricula (Indian, US, English, and so forth), at very different price-points in terms of fees, and with various ratings (Outstanding, Good, and so on). The focus-group interviews were usually held with school heads and with teachers (usually seen in groups). This was an intentional sample that fairly represents the school network in Dubai. After the responses to these questionnaires were coded and compiled, they were then analyzed for correlations and trends. Our findings reveal the following limitations of the study.

#### Limitations

This study is limited by several factors. The sample of focus-groups from participating schools was small; only 16 were interviewed. Moreover, some of the collaborative initiatives had only recently been implemented. The *Abundance* project had been running for only one school year, while the *Lighthouse* project had been in effect for two to three years. *Living Arabic* had been running for two years, while *What Works* had been in place for five years. Had these initiatives been running longer, it might have been possible to identify more factors that influenced effective collaboration. Nevertheless, the findings of the study are instructive.

Study Approach 23

#### **ENDNOTES**

1 However, it cannot be considered fully acceptable in terms of random sampling and the findings in terms of statistical significance.



## To what Extent do Schools Collaborate (without the KHDA)?

In this section, the study provides findings from an online survey of 16 schools. The survey was sent to approximately 170 schools. In the survey, teachers and school leaders were asked to describe the ways in which they typically collaborated. The questions were designed to gauge the extent to which collaboration played a role in their schools on a daily basis, without the encouragement of the KHDA.

The World Bank collected surveys in Arabic and English from 331 teachers and 39 school leaders across Dubai to assess the degree to which collaboration takes place in and between schools. Among school leaders, 35 out of the 38 respondents agreed that collaboration plays a role in teaching improvement. However, teachers utilize in-school collaboration more frequently than resources outside their institutions. For example, less than 3 percent of teachers, 8 out of the 331 teacher respondents, stated that, when they need help with activities at work, such as developing teaching materials, they turn to a teacher from another school; whereas, more than 40 percent of the teachers indicated that they seek assistance from a fellow teacher or a formal mentor in the school.

In-school collaboration appears to be commonly practiced in the institutions surveyed. Over 90 percent of teachers agreed or strongly agreed with the statement that they frequently discuss teaching practices with other fellow colleagues. Moreover, 87 percent of teachers noted that their schools hold scheduled meetings for them to exchange ideas and experiences on teaching. Despite the fact that over 60 percent of participants noted differences in teaching methods among teachers in the same schools, current working environments appear to be conducive to collaboration within schools. Almost 33 percent of the participants agreed that most teachers in their schools find it easy to share their professional opinions with each other. Additionally, over 50 percent stated that most teachers consider their colleagues to be close friends and that most teachers go out of their way to help their colleagues.

In-school collaboration takes various forms. For example, when asked to designate a score on a scale from 0 to 100 indicating how often teachers work together, the results were the following: collaboration for development of lesson plans received a score of 75 (out of 100); dealing with a difficult student in school received a 74; and performing administrative tasks such as maintaining attendance records received a 71. In addition to assessing the extent to which in-school

#### Survey Statistics

#### Teachers

seek assistance from other teachers

<3% from another school

>40% from within school

In-school collaboration appears to be commonly practiced in the institutions surveyed.

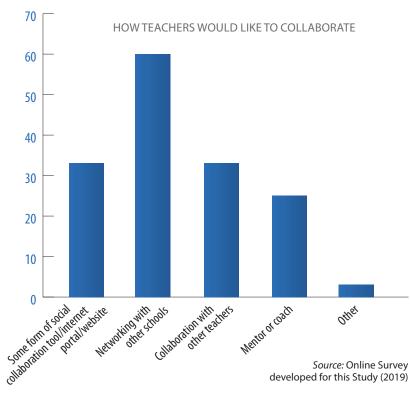


FIGURE 7
Findings from Online Survey on Teachers' Preferences for Support

**Teachers** 

>85%

agreed that collaboration is helpful or very helpful regarding

teaching difficult topics, learning new methods, dealing with poor performing students, providing moral support, and preparing lesson plans collaboration takes place, the results also highlighted the conviction that these initiatives improve teaching. Over 85 percent of teachers and school leaders find collaboration with other teachers to be helpful for preparing lesson plans, providing a source of moral support, dealing with poor performing students, learning new teaching methods, and overcoming teaching difficult topics.

While schools also engage in between-school collaboration, these initiatives are either predominantly within their school networks or organized by private organizations. For example, almost 50 percent of the teachers noted that their schools provide access to a network of teachers/mentors in the same school network. More than 50 percent of teachers indicated availability of sponsorships to training opportunities, conferences, and teaching courses from private organizations. However, less than 15 percent of the participants indicated that their institutions offer engagements or exchanges with other schools in Dubai. The results of the school leaders' survey reaffirmed the low engagement of between-school initiatives. Only 21 percent of teachers said that they provide resources for teachers from other schools to help them improve their teaching.

When teachers collaborate outside their institutions, they tend to bring back and share the acquired skills and knowledge. Over 90 percent of the participants either agreed or strongly agreed with the statement that they share with other teachers the resources they receive from professional organizations, friends and other sources. This could mean that outside school resources can strengthen within school collaboration if there exists an environment that encourages such collaborative initiatives. Moreover, when asked what kind of collaboration they want to have in the future approximately 60 percent of teachers expressed their interest in networking with peers from other schools.

Despite the willingness among teachers and school leaders, several challenges impede between-school collaborations. For example, 87 percent of teachers, and 86 percent of school leaders agreed that lack of time represents a challenge to engaging in collaborative initiatives. Additionally, 33 percent of school leaders believe that teachers do not know how to get in touch with other teachers outside of their institutions. Finally, preference for independent work on certain types of activities could account for the low engagement. When asked to identify the biggest challenge in collaboration, 33 percent of teachers said that most teachers prefer to work independently. Likewise, on a scale from 0 to 100, preference to work independently received a score of 63 from participating teachers.

Teachers utilize the KHDA's platforms less frequently compared to other between-school initiatives provided by private organizations and school networks. When asked if the school provided access to other resources outside of the school, nine percent of teachers indicated participation in KHDA events. Furthermore, among all KHDA initiatives, *What Works* events were the most attended, according to 33 percent of surveyed teachers. Fifty-six percent of the surveyed teachers stated that they have individually, or as part of their school, participated in any of the KHDA events.

#### School Leaders

21% provide resources for teachers from other schools

86% say lack of time represents a challenge

33% believe that teachers do not know how to get in touch with other teachers outside of their institutions



# To what Extent do the Four KHDA Initiatives Encourage Collaboration?

This section provides the findings of focus-group interviews with school leaders and teachers in Dubai on their participation in the four collaborative initiatives promoted by the KHDA. These findings are presented together with thoughts and recommendations.

#### **What Works**

The *What Works* events, in place since 2012, bring educators from all over Dubai together to participate in presentations and workshops developed by other educators. It is now well-established and well-attended.

A recent study of the event (Jaafar 2017), drawing on the responses of more than 800 educators, demonstrates how it influences the beliefs and practices of education practitioners and leaders in schools. What Works events support and promote better focus, relationships, collaboration, and leadership in schools and the education community in Dubai, all of which are key concepts associated with effective learning networks. Shared focus was one of the strongest enablers at play with respondents finding that the issues treated at the event were often priorities for many Dubai schools, ones that they could then work on in their classroom on return to their schools. Teaching practices in schools improved because of the high quality of the sessions and the networking support arising from the event. It helped foster relational trust between educators. The study also demonstrated that educators in the city look beyond narrow views of competition to act in the interest of students and the community, revealing that collaboration has an important place in furthering school improvement and promoting greater system-wide achievement in Dubai.

Those interviewed by the World Bank at the November 2018 What Works event and in the focus groups and the comments from the online survey echoed these findings. Many respondents mentioned there was direct impact from exposure to new ideas and new ways of doing things, exchange and knowledge sharing, and from new professional contacts. Many reported taking new ideas back to school, sharing them, and trying them in class, though sometimes with mixed results. Many reported re-contacting those they had met or joining learning circles. That said, two concerns were repeated by several respondents: a few felt that the event was too ambitious, trying to do too much, while others

Many respondents mentioned there was direct impact from exposure to new ideas and new ways of doing things, exchange and knowledge sharing, and from new professional contacts. The What Works event provides time for reflection — to think outside the box — and to do so with likeminded peers.

found that the presenters in the workshop had too great a spread of abilities. These concerns seemed to be the flip sides of the same coin: *What Works* events seemed to need more targeting of subject matter to its audiences.

Nevertheless, there are two other positive aspects of the *What Works* events requiring underlining. Almost all respondents interviewed mentioned how positive the experience had been and how enthusiastic they were when participating. This enthusiasm should not be underestimated. Participants appreciated having time to be able to step back and consider their teaching. The job of an educator is a very busy one that may include tasks that are both important and menial in the same day. There is little time for any reflection. The *What Works* event provides this time for reflection — to think outside the box — and to do so with like-minded peers. This is an asset that deserves to be explored. As one participant mentioned, "I feel my batteries have been charged. I am excited about teaching again."

What this suggests, in short, is that participation in these networking opportunities led to changes not only in participants' knowledge (often in pedagogy and pedagogical content knowledge), but also their attitudes, both of which could potentially impact their practice.

To further improve *What Works*, Dubai could use the diversity across its schools — some stronger, some weaker, some rich in resources, some less so. In order for all participating teachers — and so all schools — to profit from the event, that is, be able to apply what they learned at the events in their school, adding a "how-to" section would be beneficial to any workshop. When a presentation is given (usually by a teacher from a school in Dubai), the presenter might include a session or panel on ways to adapt that lesson to different schools, learners, and scenarios. As one person put it, "These are 50-minute TED talks. Wouldn't it be better to have workshops where people can get their hands dirty?"

To illustrate, consider a lesson on 'Innovation in the classroom,' which was one of the very well-attended workshops in the November 2018 *What Works* event. The speaker explained how he introduced this in his classroom through a sequence of lessons beginning with a presentation on the concept of 'design-thinking'. To do this, he used a visual pathway of octagon-shaped steps displayed on the whiteboard, which reflected how design-thinking advances in a progressive, yet iterative manner. He then went on to explain how he used this approach with his students to address a particular design challenge, for instance a mobile vacuum. He would lead students through the process of proposing solutions, testing hypotheses, and then reframing the question until a suitable idea had been identified. Only then would the students begin to create working solutions, which were, in this case, robots.

Now it should be clear that not all schools in Dubai can afford robotics. However, there were many principles from this presentation that could easily be applied to all schools. The presenter could have given three steps. **Step One:** how to introduce the concept of design-thinking using the 'octagon pathway'. This could be done in any school. **Step Two:** apply the concept to an every-day problem, which could also be done in any school. **Step Three:** have participants

suggest solutions in line with that thinking and, depending on the resources at hand in their school, develop solutions.<sup>3</sup>

Such a 'how-to' section added to any presentation would help teachers adapt the great ideas in the *What Works* events to their school context, to the resources available, and to the unique needs of their students. It would provide teachers with an opportunity to discuss the challenges that need to be overcome to successfully implement this idea in their school.

#### **Living Arabic**

A spin-off of the *What Works* event, the aim of *Living Arabic* is to be a day of learning, exchange, and celebration for Arabic teachers in Dubai. "We want to be a community resource, but also a catalyst for change." Arabic teachers are often poorly paid, and the profession can suffer from low esteem. The *Living Arabic* event looks to combat this, to improve the status of teachers. It is, as one spokesperson explained, a question of changing minds and mindsets. "Arabic is a beautiful language. Let's start with that realization and show others." This idea drives the event, that change takes time but with patience comes change. There is a ripple effect. Three years ago, no school offered to host the event; now, 16 schools offered to host the November 2018 event.

When asked for their thoughts, many respondents put the emphasis on what they learned at the event and what they could apply back at their school. It was with obvious enthusiasm that one teacher took out lessons plans he'd prepared after attending an inspiring presentation at the last event. "Living Arabic is very beneficial, and the benefit grows every year."

For attendees at the event, *Living Arabic* comes across as a more personal form of the *What Works* event tailored to their needs. Where *What Works* is an "exhibition with a Big Bang", *Living Arabic* is a dedicated platform that teachers identify with because it is practical, useful, and inspiring. There is a palpable sense of shared focus and community. "It is exciting in its own way because it is so relevant". This is an important lesson from the *Living Arabic* event: how can *What Works* become as relevant for all teachers?

An interesting angle on the success of *Living* Arabic comes from an analysis by Miyake and Kirschner (2014) of team learning. They suggest that four complementary factors have a positive effect on the occurrence of learning in teams: *task cohesion* — a shared commitment toward the task at hand; *interdependence*, the belief that team members need each other; *psychological safety*, the belief that team members will not be rejected for bringing in new ideas; and, *team potency*, that the team can use new information to generate useful results. If *Living Arabic* is successful today, it is because the collaboration that takes place resembles successful team learning that has achieved the happy union of these four factors.

There is one important challenge for the *Living Arabic* community: to expand the reach of the event to as many teachers as possible. The organizers speak of a 'ripple effect'— that the excitement will spread itself — but could this not be accelerated? There are many deserving teachers that need to join in.

Arabic teachers are often poorly paid, and the profession can suffer from low esteem. The Living Arabic event looks to combat this, to improve the status of teachers.

#### **Abundance**

High-performing schools wished to help out of a sense of civic engagement and, as some school leaders explained, the challenge of helping turn around a weak school provided opportunities for professional development for the school leadership teams.

The Abundance project aimed to encourage high-performing schools to support the improvement of low-performing ones. When interviewed, the immediate and overwhelming consensus from schools was that they were delighted to participate in the program. As a part of the Dubai school community, they wanted to help a neighboring school.<sup>4</sup> Even though this was meant to be collaboration (which suggested 'partnership', 'mutual effort', a 'two-way' or reciprocal relationship to respondents), many recognized that the highperforming schools would be doing much more than the low-performing ones. Some schools could not provide much in return, at least not immediately. Also, one or two low-performing schools mentioned it was difficult to find highperforming schools willing to collaborate and/or collaborate regularly. That said, there were at least two commentators who made clear that even weak schools have good practices and have good ideas to share. At any rate, highperforming schools wished to help out of a sense of civic engagement and, as some school leaders explained, the challenge of helping turn around a weak school provided opportunities for professional development for the school leadership teams.

Several challenges were identified for this project. The first, mentioned by some respondents, was that there were no ground rules. The KHDA designed an open-ended project; they simply asked the better rated schools to work with less well-rated schools. While KHDA's intention was to encourage deeper connections and promote innovation in sharing practices, without clear guidelines and objectives, some schools were unclear how to make their collaboration successful.

In general, the school leadership teams of the high- and low-performing schools began by discussing how they could work together and what they could work on. Areas of improvement were agreed upon. Depending on the school, this centered on school management, teaching and learning, and in some cases on very specific topics like introducing information and communication technologies (ICT) into the classroom. Interestingly, few participants focused on the weaker schools' DSIB school rating in their comments, which might serve as a starting point in discussions between school teams about school improvement.

In terms of how they worked together, one school team spoke convincingly of using a step-by-step approach: they helped to put into place a culture of learning in the classroom (focusing on classroom behavior), then developing appropriate lesson plans, modelling those lessons for the teachers with whom they worked, and coaching them. There was a strong sense of collaboration, a sharing of ideas, though at the same time the teachers needed to learn to contextualize these measures themselves.

Some schools found it difficult to work together. Some schools found that the low-performing school had too many areas requiring change. Some mentioned that the work agreed upon and carried out in that school 'did not stick' because the necessary capacity to absorb or adapt the measure was missing. Others mentioned serious contextual issues such as significant annual staff turnover of up to 30–40 percent which precluded reform from taking root. Others mentioned that there was not enough time (the *Abundance* project lasted

just one school year). Others suggested that there was not enough accountability; weaker schools did not have to comply with the changes. Impact was not measured.

Despite the obvious differences between schools, in terms of curricula, price-range, level, culture, socioeconomic background of teachers and students, no comment was ever made that these differences impeded the collaboration. Rather, the differences were appreciated for its representation of Dubai's diversity.

When asked whether they would continue, some schools did not hesitate, and responded 'Absolutely!' Others made several interesting suggestions. While they felt it had been a very positive experience, they could not (or their school board would not) allow it to continue. It was simply too time-consuming. "We do not have enough band-width." Other commitments had to be taken care of — for example, compliance with the Dubai teacher licensing demands, for example, that were taking place at that time. Interestingly, one primary school, a less well-rated school that had benefited from the help of a stronger school, reiterated this point. They mentioned that they had been collaborating with schools in their own network but had to stop because they had to take care of too many other Dubai or federal compliance issues.

One school commented that their commitment to help the weaker school had been costly in terms of time, human resources, and energy. They were pleased to have helped but they would have liked to see the weaker school contribute more. Another school commented that the conditions of the *Abundance* project — getting a pass on inspection alone (just three days) in exchange for the support to a weaker school — was not enough, because they were still expected to do the self-evaluation process, which remained a lengthy, time-consuming process.

Possibly the most radical approach taken in the *Abundance* project was when a stronger school realized that to help a weaker school would require more than collaboration. The school leadership team in question believed that to make the changes they felt were essential in the weaker school, they could not collaborate but would instead have to take it over, or as they put it, 'adopt the school'. There was no other choice. "When we help, we really mean to help... this won't be a 'band-aid' job." Many significant and sometimes difficult measures needed to be taken to begin the improvement process (see box 3). The weaker school could not be left to do this. Based on a preliminary gap analysis, the stronger school team asked that the owner of the weaker school sign a memorandum of understanding (MOU) giving them the authority to make these changes. This was a one-sided affair, they admitted, which is why the term 'collaboration' did not apply in their mind. Once the MOU was signed, the stronger school moved to have the weaker school's leadership team removed as well as 20 percent of the staff changed.

Though radical, this approach overcame a fundamental problem observed in the *Abundance* project: it permitted difficult changes to be made in the knowledge that they would remain in place. Today the weaker school is on a path toward improvement. In other cases, the changes proposed by higher performing schools were not imposed and did not remain in place. Some of these lower performing schools, to the frustration of many, did not improve convincingly.<sup>6</sup>

One school commented that their commitment to help the weaker school had been costly in terms of time, human resources, and energy.

#### Box 3 Washington DC Public School Board's Approach to School Turnaround

To turn a weak school around so that it might begin to improve, Washington DC Public School Board has set up a 'School Design and Continuous Improvement' unit that helps schools to put into place a three-step turnaround approach. First, a strong school leader is named to the school who in a first step will begin to develop a team of teachers. In a second step, a positive school environment is cultivated: students learn that their behavior and attitude in school is a prerequisite to success. Thirdly, the school leadership and teaching staff focus on teaching and learning, drawing on assessments to get a clear picture of what students really know and how they can improve, and calling on the central office of DC Public Schools to provide teachers with the support they need.

Source: https://dcps.dc.gov/biography/gene-pinkard

While universally applauded, the *Abundance* project suffered from a certain misalignment between ambition and realism. It was not always clear which reform measures high-performing schools could suggest and which would be successful given the time, capacity and resources available. Participants mentioned there was an issue of fit and context. One school suggested that there was a work of 'translation' needed — perhaps on the part of the inspectors to help with this — as what would work in one school may not work in another because it is not ready for that kind of intervention.

Research suggests that successful collaborations depend on similarities between schools. That is, school systems on similar improvement journeys often implement similar sets of interventions to move from one particular performance level to the next, irrespective of culture, geography, politics, or history (Mourshed and others 2010). For instance, the reform efforts undertaken by Madhya Pradesh in India, Minas Gerais in Brazil, and the Western Cape in South Africa reveal striking similarities as each of the three systems seek to progress from, in this case, poor to fair performance. Similarly, a set of interventions exists for each improvement journey, whether poor to fair, fair to good, good to great, and great to excellent.

Although this approach refers to school systems, we believe it could be applied to individual schools, as well. If so, it would have several implications for school improvement in Dubai. First, identifying which interventions are needed to move a school from a lower to higher rating might be a priority. Perhaps this could be the work of future *Lighthouse* project groups working in conjunction with the DSIB. Once identified, this framework which would include sets of interventions arranged by level and/or curriculum could be the basis on which the *Abundance* project could be retried in the future. Stronger schools would help weaker schools to put into place those interventions most

likely to succeed for the school at its particular level. Perhaps the DSIB could contribute to this collaboration and keep each school's improvement path in mind at every inspection. Another possibility is that schools might be matched differently. Perhaps a weak school could be paired with a school like it, one that has already begun and progressed on the same improvement path that the weak school is about to take. One school was very pleased that an inspector paired it to a school that was more or less at its level, though a little better. As one interviewee aptly put it, "Coaching is needed. A coach takes you from your level to the next."

In connection with this, a final suggestion stems from participants' comments about lack of time and resources for the *Abundance* project. Although convinced of the value of the initiative, many school leaders who participated mentioned that they had neither the time nor resources needed to sustain an effective long-term contribution to the school improvement of weaker schools. One way to overcome this might be to create a network of *Abundance* Schools, with each school offering one specialty in school improvement. So, for instance, a school already recognized for its expertise in the field, could offer a module on integrating IT in learning. Another school would offer a module on school management. And so on. In this scenario, when a school improvement plan is developed for a weaker school, by the *Lighthouse* taskforce in conjunction with the DSIB perhaps, it could include training modules that would be offered by this network of *Abundance* Schools. In this way, these schools could contribute to this initiative but, provided their participation is well organized, would not be overwhelmed by it.

#### Lighthouse

In the *Lighthouse* project, heads of schools from high- and low-performing schools met to research school improvement. In the first round of the initiative, the participants studied the results of countries that had participated in international assessments, such as PISA, to see whether the successful approaches used by those countries could be adopted in their school in Dubai or not.

Once again, many of the participants who were interviewed responded favorably to being involved. They were pleased to participate, pleased not only to meet and work with other principals in Dubai, out of a sense of 'goodneighborliness,' as one put it, but pleased to contribute and to offer their help, guidance, expertise to others. The exchange and free flow of very different points of view was rich, interesting and rewarding.

That said, two respondents did comment that, after the initial meetings, they found this to be an exercise that was too theoretical or too abstract, not practical enough, nor 'hands-on enough', in the sense that they could not see how these discussions could help weaker school leaders put into place practical measures to help them. Some mentioned that they were too busy to attend.

This is an important point: this sort of collaborative initiative seems to be <u>used</u> if it is found <u>useful</u>. A case in point is the British Schools of Dubai network. This grew out of an organic need. School leaders in this school network found

The participants studied the results of countries that had participated in international assessments, such as PISA, to see whether the successful approaches used by those countries could be adopted in their school in Duhai or not.

#### **Box 4 Beijing's Network of Schools**

Beijing has recognized the benefits of establishing a network of schools to collaborate and draw on each other's expertise and resources, with the purpose to provide quality education to all students. As such, over the years, local authorities have implemented a number of policies at the district level, including the 2008 school alliance project. Under this initiative, the authorities partnered one high-performing school with one low-performing school from the same school district. In the initial phase, the two schools maintained separate management of the two institutions. Gradually, both schools moved away from "two principals two schools" to "one principal two schools' model, as teachers and administrative staff across the institutions found the new model to be more suitable. By taking control over the low-performing school, confusion over who ultimately makes administrative decisions in schools and tensions between the two styles of management were eliminated.

In the later phase, schools shared their facilities, course schedules, evaluation standards, and admissions procedures. The schools made no distinction among students based on their original affiliation. This model of collaboration led to several benefits including teachers working together to share their expertise in teaching and class management. Additionally, the enrolment rate in the low-performing school increased as parents were aware of the availability of new resources and access to teachers from high-performing schools.

However, the school management still encountered a number of challenges. The two schools had different priorities, as they served two different student population: one focused on preparing for exams; while the other school focused on discipline and value of education. In addition to different management styles, there was also a lack of incentives and salary gap. Finally, parents from the high-performing school exhibited bias against the low-performing school and were dissatisfied with this partnership. Both the benefits and challenges highlight the need to establish enough consensus among the two schools to cooperate and overcome the above-mentioned barriers to a successful partnership.

Source: Liu (2018)

they often had the same questions about the evolving private school landscape in Dubai — questions about compliance, for instance, or the new teacher certification rules. What started out as a simple meeting to discuss these concerns grew to become a more formal network with time. Other schools mentioned they worked within their school network, as well, for similar reasons. As we will see later in connection with a discussion on teachers' informal and formal channels of professional development, the question is how to align these 'naturally occurring' networks with the initiatives proposed by the KHDA.

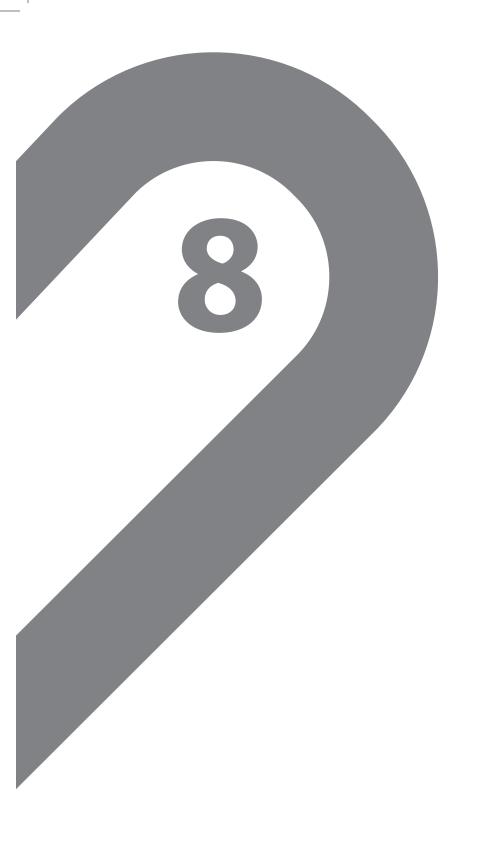
Apart from the idea of associating it with the *Abundance* project to identify sets of interventions that could help guide less-effective schools along their school improvement path, there is another idea that suggests itself. Instead of studying other countries, perhaps the *Lighthouse* group could study weak-performing schools in Dubai using DSIB data and propose a set of recommendations for these schools. It is important to note that school improvement is a slow, steady process, especially for the least effective schools. These schools in

Dubai need a clear, comprehensive medium-term plan (of three to five years) to help them improve. Not having a longer-term strategy for school was, as one respondent put it, "an opportunity missed". One suggestion would be that the DSIB consider developing medium-term school improvement plans for weaker schools with the help of a *Lighthouse* taskforce and then involve outstanding schools as specialists in mentoring these schools. As one respondent suggested, "Like a struggling teacher, a weak school needs an improvement plan."

It is interesting to note that the KHDA's approach this current academic year (2018/19) focuses on principal wellbeing and building peer support networks with and for them. In January 2019, 60 principals participated in a retreat to focus on measures to support principals — which is particularly important in a private school setting like Dubai where principals have great independence but may lack supporting structures that exist in many public-school contexts.

#### **ENDNOTES**

- 1 There is a well-established connection between a teacher's enthusiasm and effectiveness. See Patrick and others (2000); Kunter and others (2011); Mahler and others (2018).
- 2 Reflection is essential for professional development, as the research reveals (see Loughran (2002) among many others); finding time for reflection is equally important (Butler and others 2004).
- 3 Other equally complex issues in teaching and learning might be addressed in the same way. Consider another presentation at the same *What Works* event in November of 2018 that discussed introducing the SOLO taxonomy to primary school children. Despite their young age, the students profited from this taxonomy because it offered them a way to speak about their own learning. Once again, the presentation could have ended with 'how-to' suggestions how to adopt this idea in schools of varying capacity and resources. Step 1 might have suggested how to introduce 'talking about learning' to students and, without necessarily presenting the SOLO taxonomy, suggesting useful language to do so. Step 2 might have been an introduction to the SOLO taxonomy with, perhaps, a lesson plan to do so. And so on.
- 4 There was one notable dissenting opinion: "In Dubai, everyone is working in a silo for a rating. Collaboration is anathema, you'd lose trade secrets."
- 5 In response to this, a question: Could the KHDA work to better collaborate with the Ministries of Education of Dubai and of the UAE so as to streamline their communication with schools?
- 6 Indeed, two interviewees mentioned that two weaker schools were so weak in so many respects that it would be very difficult for them to get better without some radical intervention. These schools were caught in a low equilibrium trap; and this is why the collaboration had not been successful.
- 7 One low-performing school mentioned that when they adopted a set of measures to do with preschool, members of the Dubai Schools Inspection Bureau (DSIB) who subsequently inspected them found the measures inappropriate. This suggests two issues: first, whether the intervention was indeed appropriate that what worked in a strong school did or did not have a place in a weaker school; and second, whether the inspectorate needed to be part of the project to be in line with what was taking place.
- 8 Like all schools, for that matter.



# Options to Improve Collaboration

Collaboration depends on the willingness of schools and teachers to interact. The extent to which teachers will interact professionally depends on many factors: the culture of the school, their working style, and the expectations regarding teachers in that school. <sup>1</sup> In Dubai, teachers collaborate because they want to, they are asked to, or it is simply expected of them. <sup>2</sup>

Understanding a teacher's informal support network and comparing it to the formal professional support offered by an institution reveals how the two differ and suggests how they could be better aligned. A recent OECD report (Schleicher 2018) reveals that teachers report that they exchange and coordinate informally with other teachers much more often on average than they do through formal professional collaboration such as opportunities to collaborate that are offered by the institution, including team teaching, classroom observations, and so on. This is backed up by recent research on formal collaborative practices among teachers in the USA, which reveals how little it is practiced formally (Rand 2018b). As one researcher notes, "It is ironic that, with all we know about the benefits of collaborative, inquiry-based learning for students, we struggle to create the same rich learning opportunities for teachers" (Schnellert and Butler 2014). This is likely a missed opportunity because, as the OECD

FIGURE 8
Effective Learning is More Likely to Occur when Formal Learning
Opportunities Align with Informal Network



Teachers report that they exchange and coordinate informally with other teachers much more often on average than they do through formal professional collaboration. Top-down
imposed
initiatives do
less well than
bottom-up
approaches.
Teachers become
more fully
engaged in their
own learning
when they choose
to participate.

report goes on to show, the more frequently teachers engage in different kinds of collaborative activities, the higher their sense of self-perceived efficacy is.

In line with this, the report *Beyond PD: Teacher Professional Learning in High-Performing Systems* (Jensen 2016) looks at how Shanghai, British Columbia, Singapore, and Hong Kong offer professional learning to their teachers. These four high-performing systems all score near the top in mathematics, reading and science in PISA. Although these systems differ in many ways, central to them all is collaborative professional learning that has become part of the daily lives of teachers and school leaders.<sup>3</sup> In these systems, teachers engage in collaborative activities such as peer observation, lesson-planning, team-teaching, and mentoring, which provide them with opportunities to interact with more experienced and effective colleagues, allows them to experiment with new instructional approaches, and better understand policies and practices. In turn, all of these can inform their teaching practice.

A clear lesson, then, is that the old model of a single-teacher-in-solo-practice (Schleicher 2018) needs to evolve toward a new paradigm where teachers continuously develop their content knowledge and pedagogical skills through collaborative practice embedded in the daily fabric of their work, whether this means benefitting from collaboration with colleagues within their own schools or with others in other schools in Dubai or further afield.<sup>4</sup>

There is a caveat, however. There is a balance to be found in advocating for more professional instances of collaborative practice. Top-down imposed initiatives do less well than bottom-up approaches. Teachers become more fully engaged in their own learning when they choose to participate, engage in activities consciously, and develop a strong sense of interest in it. When activities are imposed, there can be the very distinct risk of a lack of ownership on the part of participants. There are studies that warn of contrived collegiality (Hargreaves and Dawe 1990) when imposed collaboration becomes merely a polite formality between colleagues, another obligation asked of them by management (see also Barrett (2017). At the same time, some guidance from management may be needed to direct teachers to take part in these activities earnestly, seriously and profitably. Accountability is needed.<sup>5</sup>

## What are the Conditions for Enhancing Collaboration in Dubai?

What conditions are needed for good collaboration to take place? Whether the collaboration is in-school or between-school, between teachers or schools, there appears to be a set of ground rules for successful collaboration. Ten questions need to be considered:<sup>6</sup>

- Is there institutional support for the activity, especially in terms of time set aside and accommodations made by management?
- Is there a mutual understanding of the aim of the activity?
- Has the current situation been evaluated? What concerns are the collaboration meant to address?

- Have research questions been identified?
- What evidence exists, and what further evidence is needed?
- Have targets been set?
- Are there realistic plans in place to reach targets? Is the plan realizable?
- What action needs to be taken? What changes need to be made?
- How can improvements and progress be measured?
- Are all actors in the collaboration held accountable?

#### **Suggestions to Promote Collaboration for Stakeholders**

#### The KHDA

The World Bank's online survey suggested that 45 percent of teachers interviewed had never participated in a KHDA-promoted collaborative initiative. Given the benefits, the challenge for the KHDA will be to encourage further participation in these collaborations. Schools need to appreciate that the formal and informal collaboration that occurs quite naturally and normally within the walls of their schools can occur outside those walls as well, where collaborations are extensive and valuable. The KHDA initiatives must continue to expand that network of possibilities.

Apart from revisiting and fine-tuning the four collaborative initiatives it already promotes, the KHDA might hold a *What Works* on "How to Collaborate." A virtual '*What Works*' event on "How to collaborate online" could led to valuable participation. In this way the *What Works* event could come into schools virtually and alleviate some time and logistical constraints for schools unable to find the opportunity to participate in in-person collaborative events.

To facilitate this, KHDA could create and provide a database for all teachers and schools to collaborate.

The KHDA might also promote collaboration between other stakeholders. The research suggests that stronger ties between teachers and parents, schools and communities, and older and younger students also have great benefits. Having promoted collaboration between school leaders and collaboration between teachers, the KHDA might continue this push for involvement at the student level; students are ultimately the most important beneficiaries and could benefit from student-to-student collaborations such peer tutoring.<sup>7</sup>

#### Schools and School Leaders

The online surveys and the in-person focus groups showed that school leaders would like to see more resources and time allocated to collaboration. School leaders can do much to encourage collaboration by creating and sustaining learning communities within schools and, in Dubai, across schools through the KHDA initiatives.

#### **KHDA**

Increase participation

Hold What Works event on "How to Collaborate"

Provide collaboration database

Promote collaboration between other stakeholders (parents, students and communities)

## Schools and School Leaders

Encourage collaboration by creating learning communities within school

Encourage participation in KHDA events

Carve out time in teachers' schedules

Allow participants to share what they have learned at events

#### **Educators**

Embrace collaboration in a meaningful way

Share own collaboration case studies to encourage participation

#### The DSIB

Build accreditation processes

Reconsider involvement of higher-performing schools

Help identify appropriate school improvement paths for schools Structures and processes that encourage teachers to co-operate, including providing time and opportunities for collective apprenticeships, are needed to foster collective teacher efficacy. Such activities can include teacher-initiated research projects, teacher networks, observation of colleagues, and mentoring or coaching. By supporting the conditions and activities most associated with effective teacher professional development, policy makers can increase the likelihood that students are positively affected too. (Schleicher 2018)

In the same way that school leaders can encourage collaboration within schools, they can help encourage teachers to collaborate across schools. They can help teachers attend the KHDA events by carving out time in their schedule and by including KHDA events in the professional development calendar of their schools. School leaders and heads of department also have a significant role to play in helping to bring the lessons from these events back into their school by allocating time to allow participants to share what they learned and to discuss with their colleagues how they might apply these new ideas in their classrooms. Formal and informal leadership is critical in reducing the transactional costs associated with collaborative activities. It is also important for developing accountability measures for that participation.

#### Educators

Teachers would like to see more coordination between parents and schools, exchanges with teachers from other schools, and a better reward system for their collaborative work. Teachers who have not tried collaborating, should recognize the advantages it holds within and across schools and push to adopt it for their own professional development growth. That said, they should also appreciate that collaboration needs to be carried out in a careful, thoughtful way to be effective. In addition, educators in Dubai could encourage others by providing case studies in their own voices — what they did, why they did it, what impact it had, and so on — through social media, for example.

#### The DSIB

The DSIB can build indicators of professional collaboration, both collaboration within- and between-school into school-inspection processes. The DSIB could also discuss with schools whether high-performing schools should again be asked to assist lower performing schools in order to be part of a less frequent inspection regime. Could a school only be rated outstanding if it collaborates with a low-performing school? The DSIB could also help to identify appropriate school improvement paths for schools and to help them match schools to accompany them on that improvement journey.

#### **ENDNOTES**

- 1 Recognizing, however, that this may change with time, school leadership, and evolving group dynamics.
- 2 Interestingly, in the French school system, while a certain liberté professionnelle has always been recognized allowing teachers to collaborate with peers as they see fit, this trend is fading, and newer generations of teachers seem to be moving toward working collaboratively for the benefits this procures.
- 3 However, there does not seem to be a clear correlation between collaborative practice and school effectiveness, as empirical evidence from the OECD's TALIS survey reveals. Using that data, Schleicher (2018) constructs an index of teacher professionalism that includes a teacher's knowledge, autonomy, and peer network (that is, availability and use of collaborative practice) by country. Countries that are often cited as high-performing, such as Finland, appear to have low levels of peer networks, while countries not known for their performance, such as Malaysia, have very high levels of collaboration.
- 4 ICT helps with this through the connectedness it offers, allowing teachers to stay in touch with other teachers within the same school or other schools easily and instantly. Facebook, WhatsApp, and other online networks that spring up constantly, as well as all the other resources that teachers use socially, should not be underestimated for their effectiveness in creating informal learning communities, as the research suggests (Chen and others 2018).
- Another caveat to consider is that given the research evidence on collaboration, a working hypothesis coming into this study was that collaboration would be observed in high-performing schools in Dubai and not observed in low-performing ones. But this was not the case, and it seemed paradoxical at first. When questioned, most schools — well-rated like less well-rated reported that teacher to teacher collaboration was indeed practiced in their schools on a regular basis (at least once a week). So why was it not leading to improvements in weaker schools? Further inquiry revealed that what weaker schools were calling collaboration in lesson planning maybe did not fit the definition of collaborative exchange used in this study. New, young, or inexperienced teachers in a subject matter were invited to develop a lesson plan but this would then be 'corrected' by the head of department during what was called a collaborative meeting. This quality-control was often necessary because there was such a high turnover of staff in some schools. It was true they were working together. Yet was this 'vertical' collaboration as effective as 'horizontal' collaboration? Certainly, it is important for heads of department to check the quality of a lesson plan, which does lead to better lessons, but if there is more control than exchange, then the development of what researchers call decisional capital — the ability to take informed decisions when there is no rule — will not easily be promoted among teachers. In other words, while important, this 'vertical' collaboration is to be distinguished from its 'horizontal' counterpart (Hargreaves and Fullan 2012).
- 6 These ideas have been adapted from Education Scotland (2015) and Jensen (2016).
- There are many benefits to peer-to-peer tutoring. The approach has been repeatedly shown to improve learning outcomes (Bowman-Perrott and others 2013). This is due, perhaps unsurprisingly, to the increased attention from the tutor, the frequency of interaction during the time spent together, and the greater time on task (in comparison to a group lesson). The program helps younger students to get their homework done, learn their lessons, and build their self-confidence. Learners of similar and different ages may identify more easily with one another, and possibly understand each other's ways of thinking more clearly and with less stress. Educators are often interested with this approach, too, because this can be a simple program, embraced by students and the community, that is helpful. And costs very little. There are other benefits, too, that touch on other skills. In the literature, these have been most recently referred to as 21st Century Skills with one unique subset called Citizenship Skills. These include such skills as personal and social responsibility, cultural awareness, and local and global citizenship. Program can create stronger inter-generational and inter-cultural ties between very different students. In this way, it can encourage tolerance and respect. This may provide a greater sense of community in the school, as the social fabric is becoming stronger. Peer tutoring should be encouraged within schools and across schools in Dubai.



### **Conclusion**

There are three broad conclusions to be drawn from this study.

# 1) Improving quality by harnessing diversity. The unique contribution of between-school collaboration in Dubai.

If the quality of teaching and learning depends on teacher effectiveness, as the literature and professional practice would suggest, then a significant issue in any school improvement process must be teacher improvement. The central challenge lies in introducing teachers to new, different ways of teaching and seeing them adopt these successfully to become more effective. Teachers who have been used to doing things in one way for some time, can learn to do things differently, but only if given the necessary tools and institutional support. The difficulty of successfully changing professional practices is well known. The usual cascade model of training is ill-suited to this task. Teachers need to see what new ways of teaching look like and then be supported in implementing these new approaches in their classrooms. There are many ways to do this: through teacher mentors, coaching, and by establishing professional learning communities. The whole point of doing so is to enable collaboration between teachers to occur more frequently and more easily. Teaching can become more effective and student achievement increases when teachers join forces to develop strong professional learning communities in their schools:

To meet the needs of today's learners, the tradition of artisan teaching in solo-practice classrooms will have to give way to a school culture in which teachers continuously develop their content knowledge and pedagogical skills through collaborative practice that is embedded in the daily fabric of their work. (Schleicher 2018).

This current study demonstrates how collaboration across different school systems in Dubai, despite the apparent differences, operates and how it can potentially improve schools, actors within schools, and student learning outcomes. It acts as a viable form of school improvement and professional development. The collaborative initiatives promoted by the KHDA do something interesting: by encouraging teachers and schools to collaborate, they open schools to the richness and diversity of the educational landscape around them and create a greater and richer community of practice.

Teachers who have been used to doing things in one way for some time, can learn to do things differently, but only if given the necessary tools and institutional support.

#### 2) A focus on local solutions and a way to implement them

Initiatives that
are successful
in local
contexts need
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because learning
from them
represents a
realistic way
forward for
education reform
policy, provided
of course they
can be adapted
and adopted.

There is a trend in education reform to look to high-performing systems—Shanghai, Singapore, and Finland are often cited—for answers. But it is always important to keep in mind that what works in these high-performing systems may not always work well in other contexts. Much can be lost in translation when policy-borrowing does not fit with the context of a given school system (Steiner-Khamsi 2006). Instead, initiatives that are successful in local contexts need to be identified because learning from them represents a realistic way forward for education reform policy, provided of course they can be adapted and adopted.

An example of this local approach is seen in a World Bank report that studied schools in Palestine, Learning from Local Practices: Improving Student Performance in West Bank and Gaza (World Bank 2014a). The aim was to identify good practices in high-performing schools, their classrooms, and their teachers in Palestine. By shedding light on the many factors that influence student learning, the study sought to identify what could be shared with other schools. What this study would like to suggest is that collaboration might be an effective mechanism to facilitate this knowledge transfer. It is not enough to identify good practice, it is also critical to find ways to transfer that knowledge effectively. While schools in Palestine might have read about the great practices of the schools, or even visited them, they may not have been able to readily adapt and adopt them to their own context. Would the opportunity to collaborate with effective schools have helped? We think so — and so does the research.<sup>2</sup>

#### 3) Extending Accountability through Collaboration

The earlier World Bank study of the KHDA (World Bank, 2014b) considered how the KHDA had adopted policies to strengthen accountability at the *system* level. By inspecting schools and making those school ratings available to all stakeholders — school owners, school level actors, families, the public — information-sharing measures encouraged transparency, awareness-raising, as well as greater accountability.

One of the other benefits of promoting collaborative initiatives in and across schools, a benefit that is perhaps less apparent, is that it extends accountability down to the *actor* level — to teachers and principals. How does this occur? Educators work to adhere to one or more systems of accountability.<sup>3</sup> In this instance, collaboration promotes *peer* accountability. Many high-performing systems that promote collaborative practices also observe high peer accountability. As teachers work with each other, whether providing feedback on effective practices or discouraging ineffective ones, the interaction that takes place is driven to a certain extent by peer pressure. A participant's respect for and desire to be in line with colleagues leads to change. It leads to self-improvement. Implicit in the term 'collaboration' is accountability (Jensen 2016). Indeed, many of the elements are the same:

Conclusion 47

Teachers are driven to improve through 'soft pressure' from their peers and school leaders. For example, although in most districts in British Columbia [Canada] there is no requirement for teachers to participate in inquiry groups, teachers are motivated to participate because they do not want to miss the opportunity to be part of school change, and because of the system-wide culture of high expectations and momentum to improve in British Columbia. Networks across schools and professional learning communities within schools have established the forms and values that encourage teachers to improve and school leaders to prioritize teacher professional learning. (Jensen 2016)

In turn, when schools collaborate with other schools there is a further level of peer accountability that is called into play. Through the relationships that form, schools may identify with a larger community of schools, and from participation in that community, also derive a sense of accountability from it.

Promoting collaborative practice, then, is also a way to promote actor-level accountability. Why is this important? If the earlier World Bank study focused on KHDA's choice of policy options promoting information for accountability to drive change at the <a href="sector-level">sector-level</a>, this present study focuses on collaboration as another way to promote accountability at the <a href="actor-level">actor-level</a>. Collaboration, then, should not be seen as a new policy stance on the part of the KHDA but rather as an evolution of their position on accountability. It represents another way, another policy lever, to introduce accountability into the system in a continuing quest for improvements in school and sector quality.

In summary, Dubai has a rich and extensive network of schools. Recognizing this as an extraordinary asset, the KHDA has promoted a set of initiatives based on the simple idea of collaboration, of working together, to tap into this enormous potential.

The four collaborative initiatives promoted by the KHDA have been largely successful. The *Living Arabic* event has grown to become appreciated as a resource platform for Arabic teachers in the city that has garnered almost unanimous support. The well-established *What Works series of* events are also appreciated, though differently. It is a 'big ideas' event that showcases the new, the bright, and the bold in teaching practices in the city. The newer *Abundance* and *Lighthouse* projects have shown proof of concept as ways to bring school leaders together to network in the interest of school improvement. All four initiatives could be improved, as the World Bank findings in this study indicate. Nevertheless, what these initiatives have led to is perhaps their most important unifying feature: these collaborative *initiatives* are encouraging collaborative *practice* across Dubai. Many stakeholders are now convinced of the advantages of this and support it both across schools and within schools.

As teachers work with each other, whether providing feedback on effective practices or discouraging ineffective ones, the interaction that takes place is driven to a certain extent by peer pressure. A participant's respect for and desire to be in line with colleagues leads to change.

#### **ENDNOTES**

- 1 This also reduces the stress in teachers making the profession more collegiate.
- 2 It may seem that this 'local solutions' approach contradicts the 'improvement journey approach' proposed by Mourshed and others (2010) discussed in Section 6 of this report, as the former seems precise and the latter general. We don't think so: there is simply a balance to be found between these two.
- 3 First and foremost, they are accountable to the rules and regulations of their school system, which could be called 'institutional accountability.' Second, if they choose to adhere to the professional norms of teaching associations or councils, they hold themselves accountable to a further set of standards, which is called 'professional accountability.' A third set of accountability measures is based upon results. The educator is held accountable for results in terms of student learning. The Australian National Education Performance Monitoring Task Force or the Ofsted League Tables in the UK are examples of this. A fourth kind of accountability, 'market accountability', induces schools and educators to be responsive to parent and student preferences. (Anderson 2005).

### References

- Allen, T. 2007. "Building successful partnerships: lessons from the Specialist Schools Achievement Programme (SSAP)." School Leadership and Management 27 (3): 301–312.
- Anderson, J. 2005. *Accountability in Education*. Paris, UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000140986. Accessed Jan 4, 2019.
- Armstrong, P. 2015. "Effective school partnerships and collaboration for school improvement: a review of the evidence." Research Report for UK Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/467855/DFE-RR466\_-\_School\_improvement\_effective\_school\_partnerships.pdf. Accessed May 30, 2018.
- Atkinson, M., I. Springate, F. Johnson, and K. Halsey. 2007. Inter-School Collaboration: A Literature Review. National Foundation for Educational Research. The Mere, Upton Park, Slough, Berkshire, SL1 2DQ, UK.
- Barrett, J. L. 2017. A Little Help from our Friends: The Benefits and Challenges of Mandatory Teacher Collaboration. (Doctoral dissertation). Retrieved from http://scholarcommons.sc.edu/etd/4160. Accessed February 20, 2019.
- Boylan, M., C. Wolstenholme, S. Demack, B. Maxwell, B., T. Jay, G. Adams, and S. Reaney. 2019. Longitudinal evaluation of the Mathematics Teacher Exchange: China-England Final Report. Sheffield Hallam University, Sheffield, UK. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/773320/MTE\_main\_report.pdf. Accessed February 20, 2019.
- Bowman-Perrott, L., H. Davis, K. Vannest, L. Williams, C. Greenwood, and R. Parker. 2013. "Academic Benefits of Peer Tutoring: A Meta-Analytic Review of Single-Case Research." School Psychology Review 42: 39–55.
- Butler D., H. Lauscher, S. Jarvis-Selinger, and B. Beckingham. 2004. Collaboration and self-regulation in teachers' professional development. *Teaching and Teacher Education* 20 (5): 435–455.
- Chapman, C., D. Muijs, and J. MacAllister. 2011. A Study of the Impact of Federations on Student Outcomes. Project Report. National College for School Leadership, Nottingham, UK. https://dera.ioe.ac.uk/12140/1/download%-3fid=155373&filename=the-impact-of-school-federation-on-student-outcomes.pdf. Accessed February 20, 2019.
- Chapman, C., and D. Muijs. 2013. "Collaborative school turnaround: A study of the impact of school federations on student outcomes." *Leadership and Policy in Schools* 12 (3): 200–226.
- 2014. "Does school-to-school collaboration promote school improvement? A study of the impact of school federations on student outcomes." School effectiveness and School Improvement 25 (3): 351–393.

- Chen, B (2104). Website accessed March 1, 2019. https://meefen.github.io/blog/2014-04-20-finland-education-system/
- Chen, J., M. Wang, P.A. Kirschner, and C. Tsai (2018). "The Role of Collaboration, Computer Use, Learning Environments, and Supporting Strategies in CSCL: A Meta-Analysis." *Review of Educational Research* 88 (6): 799–843. https://doi.org/10.3102/0034654318791584
- Education Scotland. 2015. Collaborative Action Research. Robert Own Center for Educational Change. Web document. https://education.gov.scot/improvement/documents/sacfi12b-car-overview.pdf. Accessed on December 12, 2018.
- Hargreaves, A., and R. Dawe. 1990. "Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching" *Teaching and Teacher Education* 6 (3): 227–241.
- Hargreaves, A. & M. Fullan. (2012). Professional Capital: Transforming Teaching in Every School. New York: Teachers College Press.
- Harris, A., and C. Chapman. 2004. "Improving schools in difficult contexts: Towards a differentiated approach." *British Journal of Educational Studies* 52 (4): 417–431.
- Haynes, G., and S. Lynch. 2013. "Local partnerships: blowing in the wind of national policy changes." *British Educational Research Journal* 39 (3): 425–446.
- Jaafar, S. 2017. Assessing the Influence of What Works on Schools in Dubai. EduE-val Consultants. Shared by the KHDA.
- Jensen, B. 2016. Beyond PD: Teacher Professional Learning in High-Performing Systems. National Center on Education and the Economy, Washington, DC.
- Jensen, B., and J. Farmer. 2013. "School Turnaround in Shanghai: The Empowered-Management Program Approach to Improving School Performance." Center for American Progress. https://files.eric.ed.gov/fulltext/ED561063.pdf. Accessed January 31, 2019.
- Kunter, M., A. Frenzel, G. Nagy, J. Baumert, and R. Pekrun. 2011. Teacher enthusiasm: Dimensionality and context specificity. *Contemporary Educa*tional Psychology 36 (4): 289–301.
- Leana, C. R. 2011. The Missing Link in School Reform. *Stanford Social Innovation Review* 9 (4): 34.
- Little, J. W. 2003. Inside teacher community: Representations of classroom practice. *Teachers College Record* 105 (6): 913–945.
- Liu, J. 2018. "Constructing resource sharing collaboration for quality public education in urban China: Case study of school alliance in Beijing." *International Journal of Educational Development* 59: 9–19.
- Loughran, J. 2002. Effective Reflective Practice: In Search of Meaning in Learning about Teaching. *Journal of Teacher Education* 53 (1): 33–43. https://doi.org/10.1177/0022487102053001004
- Mahler, D., J. Großschedl J, and U. Harms (2018). Does motivation matter? The relationship between teachers' self-efficacy and enthusiasm and students' performance. PLoS ONE 13 (11): e0207252. https://doi.org/10.1371/journal.pone.0207252

References 51

Miyake, N & P.A. Kirschner 2014. "The Social and Interactive Dimensions of Collaborative Learning." Chapter 21 in *The Cambridge Handbook of the Learning Sciences*. Edited by R. Keith Sawyer. 2<sup>nd</sup> edition. Cambridge University Press, Cambridge.

- Mourshed, M., M. Barber, and C. Chijioke. 2010. How the world's most improved school systems keep getting better. web document. https://www.mck-insey.com/industries/social-sector/our-insights/how-the-worlds-most-improved-school-systems-keep-getting-better. Accessed Feb 3, 2019.
- Muijs, D., M. Ainscow, C. Chapman, and M. West 2011. *Collaboration and networking in education*. New York: Springer Science and Business Media.
- Muijs, D. 2015. "Improving schools through collaboration: a mixed methods study of school-to-school partnerships in the primary sector." *Oxford Review of Education* 41 (5): 563–586.
- Ning, H. K., D. Lee, and W. O Lee. 2015. Relationships between teacher value orientations, collegiality, and collaboration in school professional learning communities. Social Psychology of Education: An International Journal 18 (2): 337–354.
- Papay, J., E. S. Taylor, J. Tyler, and M. Laski. 2016. Learning job skills from colleagues at work: Evidence from a field experiment using teacher performance data (NBER working paper No. 21986). Retrieved from http:// www.nber.org/papers/w21986. Accessed February 2, 2019.
- Patrick, B.C., J. Hisley, and T. Kempler. 2000. "What's Everybody So Excited About?": The Effects of Teacher Enthusiasm on Student Intrinsic Motivation and Vitality, *The Journal of Experimental Education* 68 (3): 217–236. DOI: 10.1080/00220970009600093
- Ronfeldt, M., S.O. Farmer, K. McQueen, and J.A. Grissom. 2015. Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal* 52: 475–514.
- Rudd, P., A. Lines, S. Schagen, R. Smith, and A. Reakes. 2004. "Partnership approaches to sharing best practice." *Slough: NFER*.
- **Salomon, G., and D. N. Perkins. 1998.** Individual and social aspects of learning. *Review of Research in Education* 23: 1–24.
- Schleicher, A. 2018. World Class: How to build a 21st-century school system, Strong Performers and Successful Reformers in Education. OECD: Paris. http://www.oecd.org/publications/world-class-9789264300002-en.htm.
- Schnellert, L., and D. Butler. 2014. Collaborative Inquiry: Empowering teachers in their professional development. Web-article. https://www.edcan.ca/articles/collaborative-inquiry. Accessed February 20, 2019.
- Steiner-Khamsi, G. 2006. The Economics of Policy Borrowing and Lending: A Study of Late Adopters. *Oxford Review of Education* 32 (5): 665–678. Retrieved from http://www.jstor.org/stable/4618688 February 26, 2019.
- Sun, M., W.R. Penuel, K.A. Frank, H. Gallagher, and P. Youngs. 2013. Shaping professional development to promote the diffusion of instructional expertise among teachers. *Educational Evaluation and Policy Analysis* 35: 344–369.

- Vangrieken, K., F. Dochy, E. Raes, and E. Kyndt. 2015. "Teacher collaboration: A systematic review," *Educational Research Review* 15: 17–40. https://doi.org/10.1016/j.edurev.2015.04.002.
- Wellman, B., and K. Frank. 2001. "Network Capital in a Multi-Level World: Getting Support from Personal Communities," chapter in *Social Capital: Theory and Research*, edited by Nan Lin, Ron Burt and Karen Cook. Chicago: Aldine De Gruyter.
- West, M. 2010. "School-to-school cooperation as a strategy for improving student outcomes in challenging contexts." *School effectiveness and School Improvement* 21 (1): 93–112.
- World Bank. 2014a. Learning from Local Practices: Improving Student Performance in West Bank and Gaza. Washington, DC: World Bank.
- ——. 2014b. The Road Traveled: Dubai's journey towards improving private education. Washington, DC: World Bank.