

TEACHING IN THE UNITED ARAB EMIRATES:

10 Lessons from TALIS



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FOREWORD

The mission of the Education Affairs Office (EAO) at the Crown Prince Court is to support our country's ambitious education goals through community engagement, superior education advisory, and high-impact initiatives that stimulate the potential of principals, teachers and students. Among these endeavours, the Qudwa Forum represents the most intense effort to place teachers in the UAE at the heart of the conversation about the future of education. Launched in 2016, Qudwa recognizes the invaluable role teachers play in shaping young minds and in its third edition, Qudwa 2019 examined how to prepare our future generations for a global context and a dynamic, interconnected future.

How can we improve our teaching systems to teach for global competence? With that goal in mind, Qudwa 2019 created a framework that invited teachers to explore techniques to illuminate students' connections to their communities and the world, to encourage their capacity for problem solving and collaboration, and to instil a lifelong learning mindset. The overwhelming feedback from teachers in the UAE was that teaching for global competence requires an update in teaching methods and, more importantly, a change in teachers' mindsets. To make our students and schools ready for the future, teachers need to become lifelong learners themselves.

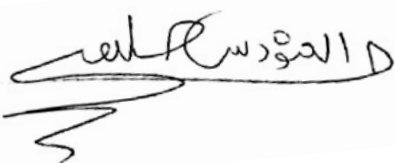
From our conversations with teachers, we know that teachers welcome innovation and that they especially value straightforward, directly applicable methods and materials for their classroom. Qudwa focused on providing effective professional development

opportunities that can inspire teachers' own education journeys, empowering their autonomy to test and apply unique perspectives in the classroom. Qudwa also acknowledged the importance of strong support systems and teacher networks in stimulating peer learning, and discussed the role that school leadership needs to play in nurturing those systems.

At EAO, we received a clear message from teachers attending Qudwa that they need better tools to create a positive change in our education system. To jump-start this transformation, Qudwa partnered with the OECD to create a playbook that aims to help teachers understand and use the TALIS 2018 survey results to understand the state of education in the UAE and which offers practical suggestions for teachers' day-to-day practice. By taking inspirations from education systems all over the world, this playbook affirms a fundamental tenet of global competence and of the UAE: appreciating diversity.

The diversity of our schools and our country is a significant strength as we move into a complex, globalized future. I encourage you to let our differences stimulate your curiosity, and to integrate the diverse perspectives of your colleagues, students, neighbours and friends in your teaching practice.

As teachers, you are the agents of change in our school system, and I hope this playbook helps you to grow professionally and work collaboratively to shape the educational environment of the future. I look forward to seeing what you will create in your classrooms.



Alanood Al Kaabi

Education Program Manager, Education Affairs Office,
Crown Prince Court - Abu Dhabi

FOREWORD

Research confirms what teachers have known for a long time: that teachers are central to the present and future quality of any education system, and it is they who are the most important influence on a child's education. Qudwa 2019 put teachers at the heart of the discussion about creating future-ready schools in the United Arab Emirates. This reflects a national commitment to place teachers and teaching at the centre of the UAE's education policies.

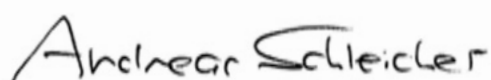
Conscious that the quality of an education system cannot exceed the quality of its teachers, governments around the world are developing policies and initiatives to attract and retain the highest-quality teachers to the profession, and to elevate the status of teaching as a career. The UAE has been at the forefront of this trend, and in recent years has introduced teaching policies aimed at building a high-performing school system and a highly skilled workforce. New measures include the development of the UAE Teacher and Educational Leadership Standards, the introduction of teacher licensing and a teaching career ladder, and an ongoing reform to transform the teacher education system.

The OECD's Teaching and Learning International Survey (TALIS) provides internationally comparable data to help governments and education systems – such as the UAE's – in their efforts to strengthen the teaching profession and the quality of teaching. The

TALIS data also provide findings that are useful for individual teachers and school leaders who wish to reflect on or develop their practice, their schools or their careers.

This report has been written for the teachers and school leaders in the UAE after an in-depth analysis of their TALIS 2018 data. It provides ten lessons for UAE educators on key areas to improve the quality of teaching in Emirati schools. Each lesson begins with a look at how the TALIS data and academic research for that topic can be applied to the unique national context of the UAE and its classrooms, and then offers suggestions of next steps and useful resources if teachers want to learn more or develop their practice.

The objectives that the UAE has set for its education system are high, but attainable. Furthermore, they are necessary to ensure that every child succeeds in education and life. This report aims to support the UAE in its efforts to become a knowledge economy that can compete in the global marketplace of the future. The OECD stands ready to support the UAE in its efforts to enhance the quality and equity of its education system and strengthen the contribution of education and skills to the economic and social growth of the country.



Andreas Schleicher

Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General
Organisation for Economic Co-operation and Development (OECD)

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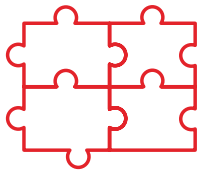
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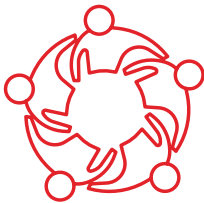


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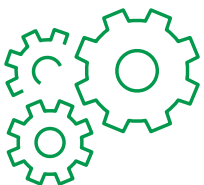
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INTRODUCTION

Research shows that effective teachers can positively influence students' achievement while in formal education, which in turn benefits their long-term outcomes. But teachers are so much more than that. We can all remember our favourite teachers and the difference they made on our lives. We have all heard the stories of accomplished people who credit that one teacher with helping them overcome personal challenges and who inspired their success. And the research concurs, providing empirical data that show teachers' positive influence on students' self-confidence and their happiness.

In today's world, quality teaching is more important than ever, as schools take on increasing responsibilities for the well-being of students, and as the global burdens facing our youth seem to intensify. On top of teaching content and traditional skills, teachers and schools are expected to prepare students for an interconnected and diverse world, with increasingly complex issues, such as climate change. This is particularly true in the United Arab Emirates (UAE) given its multicultural population and rapidly changing economy. Recognising the unique role that teachers play in preparing our youth to participate in our world, this report will look at the practices UAE teachers can

engage in to support the development of a future-ready education system.

This report builds on the discussions from Qudwa 2019, a teachers' forum organised by the Education Affairs Office of the Crown Prince Court of Abu Dhabi on 6 October 2019. At the forum, teachers, school leaders and decision makers focused on the practices that help build future-ready schools and students' global competences. Global competences include competences such as creativity, communication and self-regulation, as well as the capacity to examine local, global and intercultural issues, to understand and appreciate the perspectives and world views of others, to engage in open, appropriate and effective interactions with people from different cultures, and to act for the collective well-being and sustainable development (OECD, 2018). These competences are considered necessary to thrive in a globally competitive marketplace and increasingly complex society.

Building a high-quality education and training system ensures that the youth of the UAE receive the best education possible, supporting UAE government objectives to move towards a more knowledge-based and diversified economy.

PURPOSE OF THIS REPORT

This report was commissioned by the Crown Prince Court of Abu Dhabi as part of the OECD's input to Qudwa 2019. Its objective is to provide teachers in the UAE with practical guidance in areas identified as being relevant for them to help improve their practice. Such areas were identified through, the

analysis of UAE data from the OECD's Teaching and Learning International Survey (TALIS) in 2018 and the Programme for International Student Assessment (PISA), and taking into consideration the unique context of the UAE's education system.

Box 1. Qudwa 2019: Teaching for Global Competence

Launched in 2016, Qudwa is a forum that seeks to elevate the teaching profession in the UAE and improve the future of education. Qudwa sees teachers as the change agents of the education system and draws on their expertise to spur innovation, creativity, and collaboration. In that sense, it is an event for teachers, by teachers.

Organized by the Education Affairs Office of the Crown Prince Court of Abu Dhabi, Qudwa is held under the patronage of His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces.

Qudwa connects teachers with decision makers to discuss the education practices that will have the greatest positive impact on students in the UAE. Qudwa is an important part of the UAE's forward-thinking, multicultural educational environment, and of its ambition to become a global leader in education with a future-ready education system.

About Qudwa 2019

Under the theme of “Teaching for Global Competence”, the third edition of Qudwa continued to place teachers

at the heart of the conversation about making our schools future-ready.

The ability of students to thrive in a rapidly changing global context increasingly depends on the capacity of their teachers to impart a new set of skills for global competence, such as the ability to seek and evaluate information, weigh different points of view, and apply critical thinking to make a difference in their communities. To foster these skills, teachers in the UAE will need to become lifelong learners themselves –role models who continuously update their own skills and knowledge.

Qudwa 2019 promoted a vision of Continuous Professional Development for teachers as an essential element of quality teaching, and the UAE strives toward an educational environment where teachers are valued, supported knowledge workers who have opportunities to grow professionally and work collaboratively. Building on a series of focus groups held in 2019, the Forum created a culture of collaboration among teachers to support teaching for global competence.

Source: CPC (n.a), Qudwa Official Website, www.qudwa.com/en.

THE TEACHING AND LEARNING INTERNATIONAL SURVEY – TALIS 2018

TALIS is a large-scale survey of teachers and school leaders around the world that helps policy makers, researchers and educators understand the working conditions and learning environments in schools. The topics surveyed in TALIS are those which research has shown influence the quality of teaching and learning. Teachers and school leaders are asked about their own educational and professional backgrounds, their professional practices, how they are assessed and receive feedback on their practice, the professional development they receive, their school climate, how satisfied they are with their job and the profession and their feelings of self-efficacy.

TALIS began in 2008 with 24 participating countries and economies and has doubled its coverage for the 2018 survey to include data from 48 countries and economies, including the UAE. In each country, a representative sample of 4 000 teachers and their school principals from 200 schools were randomly selected.

The UAE participated for the first time¹ in the TALIS 2018 survey. In the UAE, over 8 600 lower secondary teachers and nearly 500 principals completed the TALIS questionnaires. The UAE also surveyed teachers and school leaders in primary and upper secondary schools in the public and private sectors. This provides a broad overview of the teaching workforce in the UAE's compulsory education.

¹ The Emirate of Abu Dhabi participated in the TALIS 2013 survey.

STRUCTURE OF THIS BOOK

This report includes ten lessons based on findings from the TALIS data that are relevant for the teachers and the UAE context. These lessons are divided into two parts.

- › **Part I, Effective classroom practices to develop students' global competences**, discusses teacher practices. What do teachers do in the classroom? How do they assess students? What kinds of practices do they use to teach various subjects? What procedures do they have in place to deal with issues of classroom management and discipline?
- › **Part II, Professional learning to improve the teaching of global competences**, is about providing support to teachers to help improve their classroom practice. What professional development do teachers receive already? Do teachers observe and receive feedback from peers? Are teachers part of a professional learning network?

Each section is structured in the following way:

Introductory text:

Each section provides lessons that begin with an introduction to the subject at hand, often describing what academic research exists on the particular topic.

What do the TALIS data tell us:

The second part of each lesson presents the data from TALIS 2018 and, when relevant, PISA. The data are used to explain the current context in the UAE in each of these areas and in relation to the other countries that participated in TALIS and PISA.

What teachers can do:

The final part of each lesson provides practical resources for teachers that include lesson plans, links to tools for classroom use or professional development or case study examples of best practices from around the world.

Box 2. A note about averages in TALIS

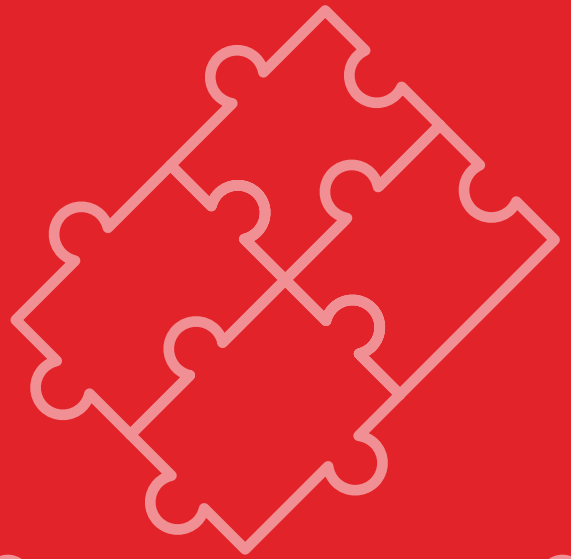
Throughout this publication you will see references to the “OECD average”. These correspond to the arithmetic mean of the respective country estimates calculated based on the main survey data for lower-secondary teachers and school principals. However, each average is slightly different.

- › The **OECD average-31** refers to the arithmetic average of teacher data across the 31 OECD countries with adjudicated data.

- › The **OECD average-30** refers to the arithmetic average of principal data across the 30 OECD countries and economies with adjudicated data.
- › The **TALIS average-48** refers to the arithmetic average of teacher data across the 48 TALIS countries and economies with adjudicated data.

For a more detailed explanation of these averages and a list of countries and economies included in each international average, see Volume I of the TALIS 2018 results.

Source: OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/1d0bc92a-en>.



PART

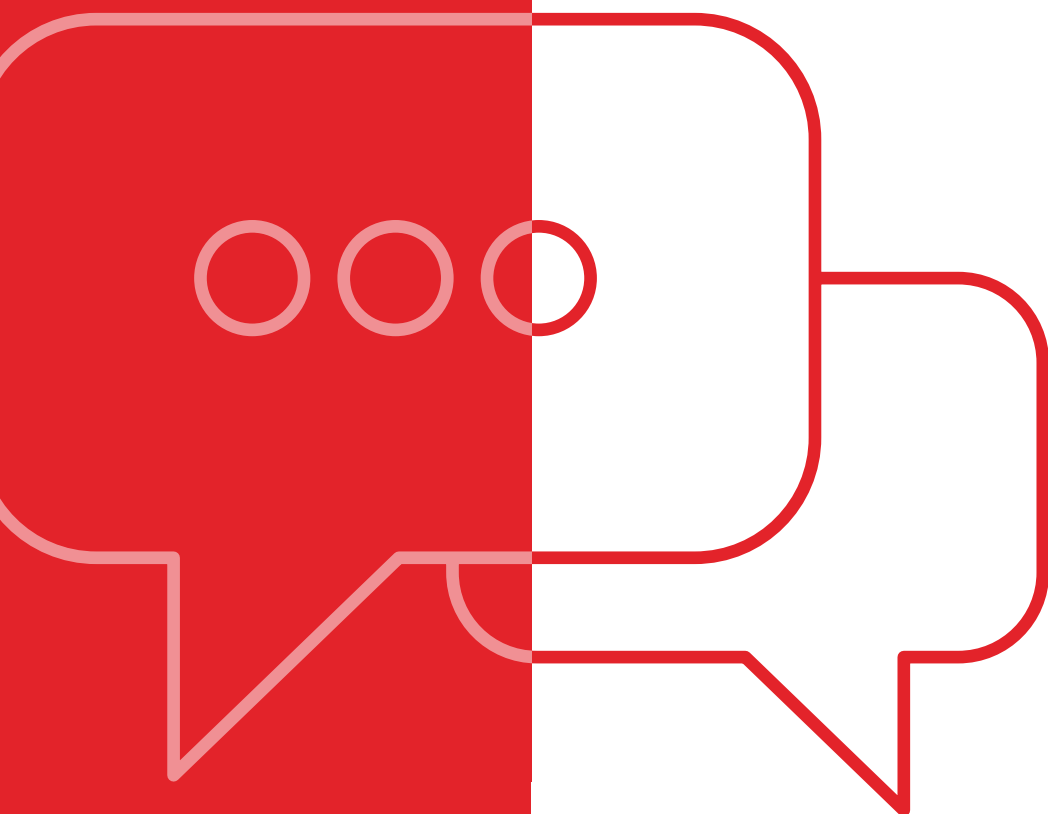
1

Effective classroom practices to develop students' global competences

Lessons in this section help teachers understand which teaching practices are needed to develop students' global competences, whether teachers in the UAE are actively using these practices and to what effect. Resources are provided to help teachers who wish to try new teaching techniques, lesson activities or develop new classroom procedures or structures in each of these areas.

LESSON 1

Teaching in a
multicultural and
multilingual classroom



There are few places in the world with more diverse schools than the UAE. The UAE has one of the largest populations of immigrant students of all the countries assessed in PISA 2018, with a 56% share of expatriate 15-year-old students across its schools. Half of all teachers in the UAE say that over 10% of the students in their classes speak a language that is different from the language of instruction (OECD average: 21%) (OECD, 2019). The student body is particularly diverse in the private sector (see Table 1).

Likewise, the UAE teaching workforce is very diverse. In the public sector, for example, around 90% male teachers and around 40% of female teachers are expatriates (Ridge et al., 2015). This implies that teachers may also speak other languages in addition to the language of instruction.

In such a diverse school system, teachers in the UAE have to be prepared to adapt their teaching to the cultural, religious and historical understanding of students with a wide variety of backgrounds. In addition, teachers must be sensitive to those students for whom the language of instruction is not their own native language. Teachers must also be aware of their own cultural biases that may emerge in their teaching practices.

Although these circumstances certainly present challenges for teachers and schools, they also present real opportunities. Few countries have environments in which students can naturally interact with peers from around the world to begin to realise skills around global competences.

Table 1. Student composition in the UAE school system, by sector and nationality

	Emiratis	Arab countries	GCC countries ¹	Other countries
Public sector	82%	11.5%	3.5%	3%
Private sector	16%	29%	1%	54%

Note 1: GCC refers to the Gulf Cooperation Council (GCC), a political and economic alliance of six Middle Eastern countries—Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman

Source: SCAD (2018), *Statistical Yearbook of Abu Dhabi 2018*, Statistics Centre - Abu Dhabi, Abu Dhabi
https://www.scad.gov.abudhabi/Release%20Documents/SYB_2018_EN_9Sep.pdf

WHAT DO THE TALIS 2018 DATA TELL US?



TALIS asked school principals about the diversity-related practices that are in place in their schools, including the following:

- › Adopting teaching and learning practices that integrate global issues throughout the curriculum
- › Teaching how to deal with ethnic and cultural discrimination
- › Supporting activities or organisations encouraging students' expression of diverse ethnic and cultural identities
- › Organising multicultural events

As shown in Figure 1, significantly higher percentages of teachers in the UAE attend a school where the principals report that these practices are in place than the average amongst OECD countries participating in TALIS.

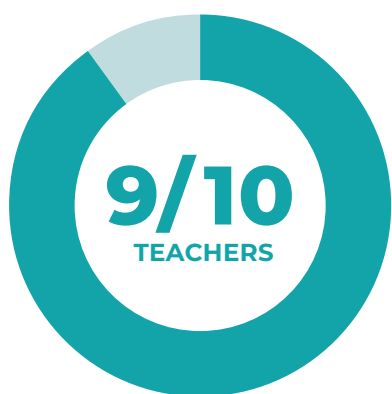
In addition, teachers in the UAE report feeling more confident, on average, than their colleagues in OECD countries in each of the areas measured. Around nine in ten teachers in the UAE feel that they can perform the following practices or behaviours “quite a bit” or “a lot” in teaching a culturally diverse class (Figure 2):

- › **Cope with the challenges of a multi-cultural classroom:** 90% of UAE teachers in comparison to 68% on average across OECD countries

- › **Adapt my teaching to the cultural diversity of students:** 91% of UAE teachers in comparison to 63% on average across OECD countries
- › **Ensure that students with and without a migrant background work together:** 89% of UAE teachers in comparison to 68% on average across OECD countries
- › **Raise awareness of cultural differences amongst students:** 87% of UAE teachers in comparison to 70% on average across OECD countries
- › **Reduce ethnic stereotyping amongst students:** 88% of UAE teachers in comparison to 74% on average across OECD countries

There is some disconnect between what principals and teachers report regarding the practices related to diversity that are in place at a school level in those schools in the UAE that school principals characterise as having a particularly diverse ethnic and cultural student background². As Figure 3 indicates, the percentage of teachers who report these practices are in place is lower than the percentage of principals who report that these practices exist, in every instance.

This could indicate that some school policies are not being taken up by individual teachers. School leaders may need to investigate this further to understand what may be preventing teachers from upholding school policy practice. Such investigation can allow schools to assess whether the policy or the practice need to change to ensure better participation from teachers, or whether teachers would require additional support to carry out these practices.

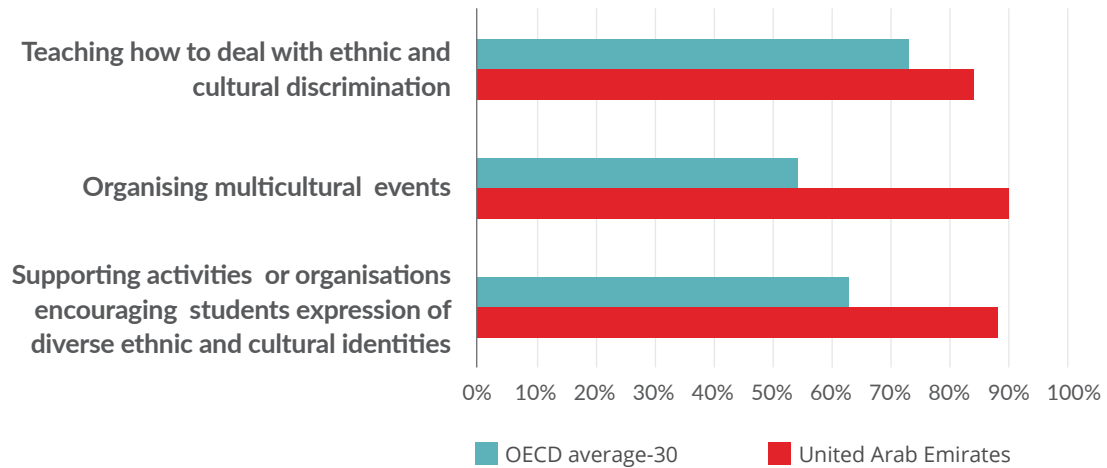


feel that they can perform diversity-related practices or behaviours ‘quite a bit’ or ‘a lot’

² According to TALIS, the sample is restricted to teachers who teach in schools that include students from “more than one cultural or ethnic background” based on both teachers and principals’ responses.

Figure 1. Use of diversity-related practices, TALIS 2018

Percentage of lower secondary teachers working in a school with a diverse ethnic and cultural student background where the principals report that the following practices take place^{1 2}



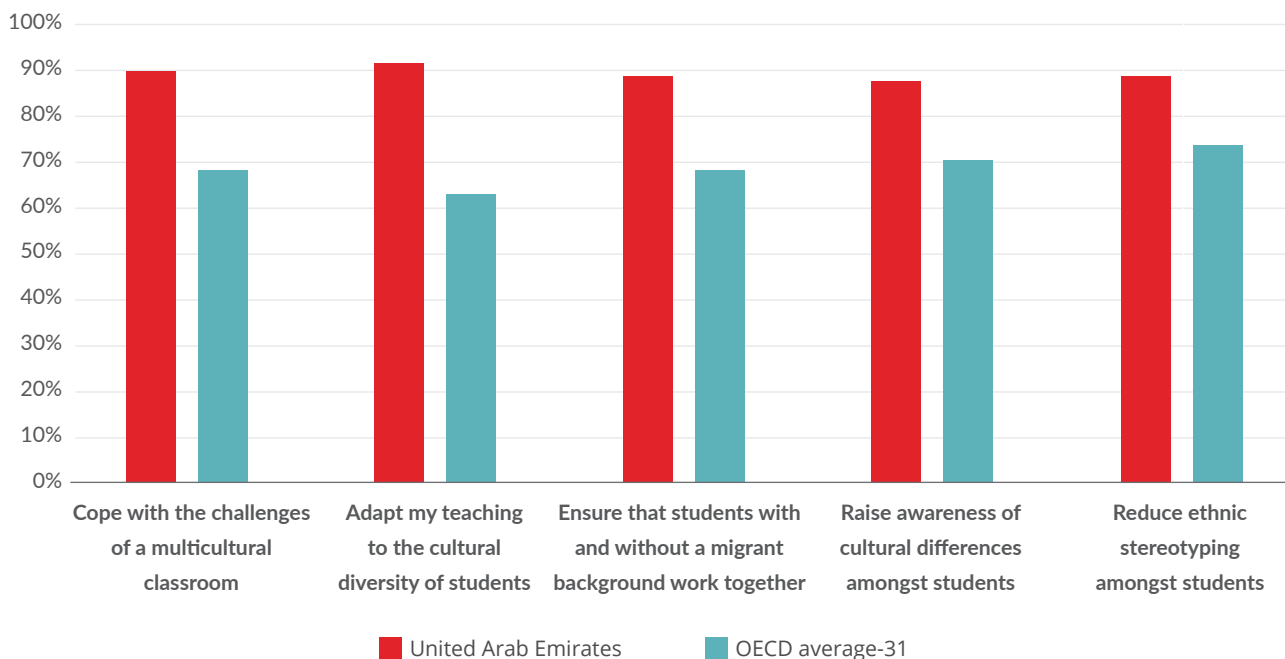
Note 1: The sample is restricted to teachers who teach in schools that include students from “more than one cultural or ethnic background” based on both teachers and principals’ responses.

Note 2: Principals’ responses were merged to teacher data and weighted using teacher final weights.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.3.35, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Figure 2. Teachers’ self-efficacy around diversity-related practices, TALIS 2018

Percentage of lower secondary teachers who have taught a classroom with students from different cultures who feel they can do the following “quite a bit” or “a lot” in teaching culturally diverse classrooms¹

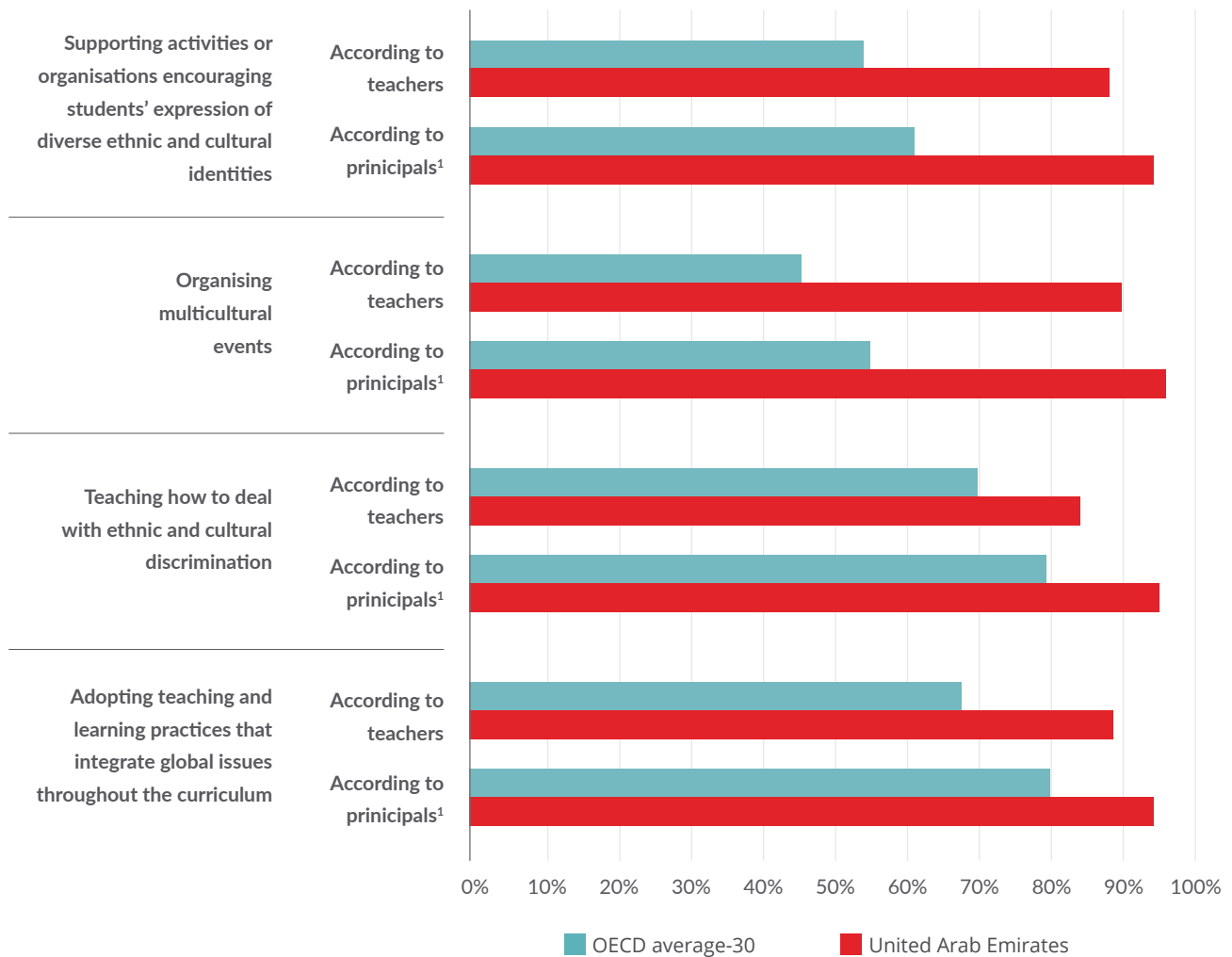


Note 1: The sample is restricted to teachers reporting that they have already taught a classroom with students from different cultures.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.3.38, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

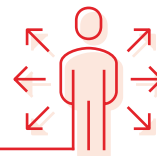
Figure 3. School practices related to diversity, according to principals and teachers in the UAE, TALIS 2018

Percentage of lower secondary teachers and principals working in a school with diverse ethnic and cultural student background where the following practices are implemented



Note: 1. Principals' responses were merged to teacher data and weighted using teacher final weights.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.3.35, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>



WHAT TEACHERS CAN DO

Multicultural education includes any teaching that encompasses multiple histories, texts, beliefs and values from diverse groups of people with differing cultural or ethnic backgrounds. There are a number of different approaches to multicultural education, but researchers tend to agree on some key points for effective multicultural education that can help you and your school (Morrison et al., 2008).

Below are some pointers to help you get started.



Top tips for introducing multicultural education approaches in your classroom

1 > Determine the level at which you need to institute multicultural education.

Programmes to help improve teaching for an ethnically or culturally diverse group of learners can be instituted at a school level, a classroom level or can be targeted to individual students. What your school needs can depend on your school's population and current objectives.

- If you have a diverse student body or a high number of immigrant students, you might want to work with colleagues and leadership to institute school-level approaches to multicultural education.
- If you have a fairly homogenous student population in which only a few students are from different backgrounds, targeting efforts around those students may be the most useful.

2 > Think about whether your curriculum needs to change.

A common way to institute multicultural education practices is by changing what is taught in the classroom. You could introduce lessons or projects on topics such as human rights or avoiding stereotypes in your classroom, or work with teachers of other subjects or year groups to design units of study on these topics across the school. Alternatively, you may want to work with department- or school-level leadership on a more extensive transformation of the school curriculum so that learning in every subject is grounded in multicultural values and content.

3 > Create programmes that extend multicultural learning beyond the classroom.

What happens in schools beyond the lessons is equally important. Socially-oriented programmes – alongside or instead of existing academically-oriented work – can help support multicultural education. Topics

for such programmes might include recognising and combatting stereotypes or prejudice, understanding controversial issues, or identifying bias in the media. In these programmes, the emphasis for students is placed on developing a tolerance of diverse populations, rather than an exclusive focus on academic development.

4 > Determine which students need individual support.

Certain students or groups of students may have specific requirements that should be addressed. For example, they may speak a different language from that used for instruction. In such cases, teachers can establish targeted programmes. For example, students who come from the same country or speak the same language may be taught together or given extra support to help bring them up to the same level as the rest of the student population (Burnett, 1994). OECD publications recommend that teachers be equipped with the skills to assess new arrivals to their classrooms from other countries who may need extra support in language learning, getting up to speed in curriculum or other special needs (OECD, 2019).

5 > Reflect on and acknowledge your own cultural biases.

It is important for teachers to acknowledge that introducing perspectives from their own culture into their teaching can pose issues, including alienating some students. While it can be very common for you to introduce examples from your own culture in your classroom, at best, these may not make sense to students from varying cultural or ethnic backgrounds; at worst, they could cause offense. This can be identified in regular classroom observation and professional development or mentoring can be offered to teachers for whom this is an issue.

Box 3. Moral Education in the UAE

The Moral Education Program (www.moraleducation.ae) is a comprehensively structured curriculum, for character and civic education, which is designed to support the fulfilment of the UAE National Vision to build a sustainable society, grounded in the happiness, tolerance, wellness and social well-being of its people.

The objectives of the Moral Education Program are to preserve and engrain the nation's long-standing and unique traditions, heritage, culture, values and moralities; promote character building to develop the next generation of role models and leaders; and promote tolerance in line with the UAE's broadened vision of building a sustainable society, grounded in the happiness, wellness and social well-being of its people.



التربية الأخلاقية
MORAL EDUCATION

The programme is organised into 4 pillars:

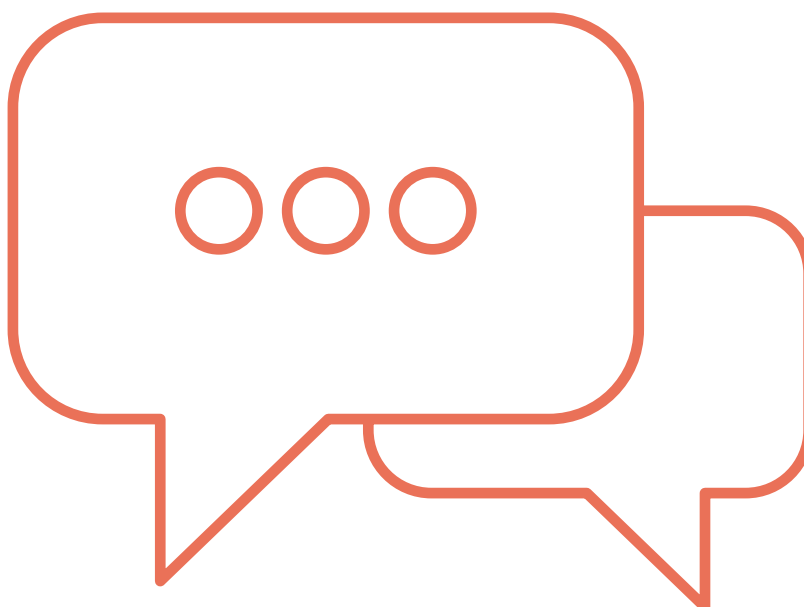
- 1 > Character and Morality
- 2 > Individual and Community
- 3 > Civic Studies
- 4 > Cultural Studies

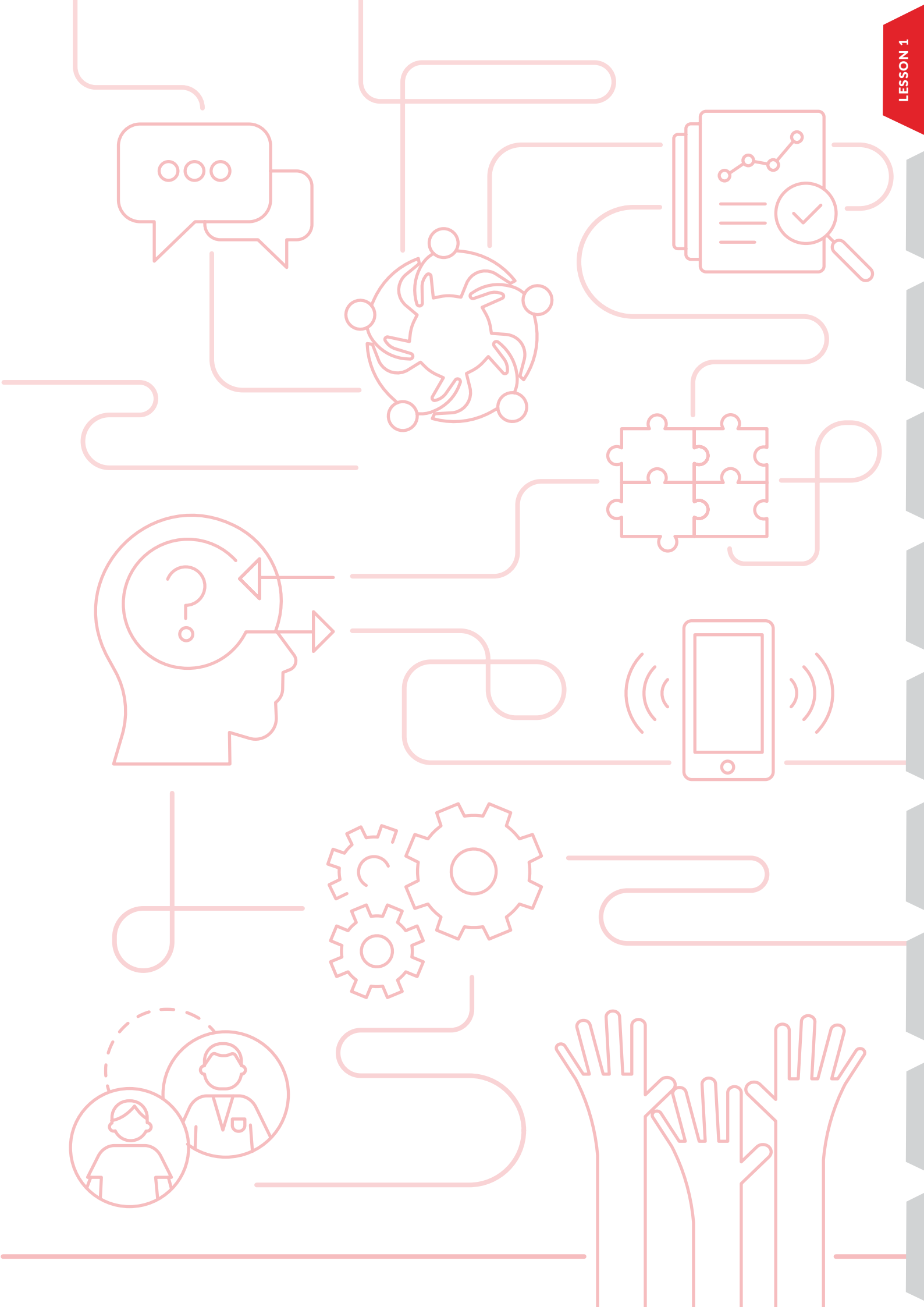
The Curriculum is designed to be taught for 45 to 60 minutes per week to all Grade 1 to Grade 12 students in the UAE across all public and private schools.

In the Individual and Community pillar, for example, students learn about moral issues confronting the individual in a variety of social contexts and in the Cultural Studies pillar, for example, students learn about the history and heritage of the UAE, including the customs, artefacts and traditions that make it unique.

In addition, the curriculum goes beyond the basic teaching of morals and values but extends into the practical knowledge, topics and learning deemed essential to be successful young adults in an increasingly interconnected world.

Source: Moral Education (2017), Moral Education Webpage, <https://moraleducation.ae/> (accessed 06th March 2020).





LESSON 2

Using ICTs in the
classroom: How to make
it work for you and your
students



There is a widespread consensus of the need to better integrate information and communication technologies (ICTs) in classrooms and ensure that they support student learning. The UAE has made important efforts in recent years to integrate ICTs in schools, recognising how important this is to develop global competences and other 21st century skills, as well as to support students' integration in today's digital world. In addition to providing ICT resources to schools, the UAE has provided teachers with ICT training and developed digital and online interfaces, such as eSIS and the Learning Curve platform.

However, even teachers who might be adept users of technology in their personal lives can often be daunted by the prospect of applying it to teaching. OECD research shows that applying ICTs is indeed a challenging undertaking. In fact, many education systems and teachers have failed to introduce them effectively despite their best efforts. For example, some countries have reduced their student to computer ratio, without significant gains in their students' PISA scores (OECD, 2015). In addition, students who reported using computers in all or nearly all of their lessons had slightly worse PISA results than those students who did not report using computers as frequently. Furthermore, the use of technology did not appear to help bridge the skills divide within countries. Even when countries provide more equitable access to computers, disadvantaged students are still held back by their lack of traditional educational skills.

However, there is evidence that ICT can support learning when *adequately* used. For example, the same

OECD study showed that moderate computer use at school was related to slightly better student outcomes. Other studies have found that the use of ICT can lead to benefits to student achievement, progress and non-cognitive outcomes such as student motivation and attitudes towards learning that can be realised through the use of ICT (OECD, 2015).

As a teacher facing the challenge to make ICTs work in your classroom, we encourage you to consider how ICTs can support your teaching. Which products are appropriate for achieving which objectives, and in what context should they be used to achieve these objectives? Thus, you and your school leaders not only need the skills to employ ICT in classroom teaching, but you also need the knowledge and confidence to select the right ICT tools and resources to achieve your objectives.



In addition to providing ICT resources to schools, the UAE has provided teachers with ICT training and developed digital and online interfaces, such as eSIS and the Learning Curve platform.”



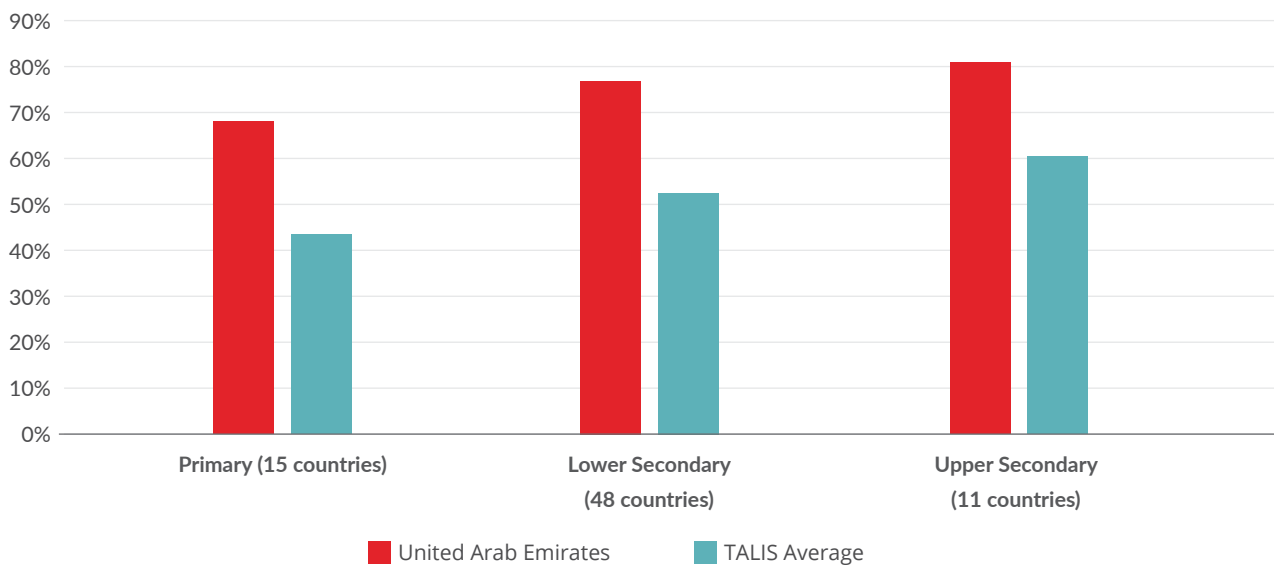
WHAT DO THE TALIS 2018 DATA TELL US?

It is evident from TALIS 2018 data that teachers in the UAE are confident and well-prepared users of ICT in the classroom. Teachers in the UAE report using ICT with students more than nearly every other country participating in TALIS. As shown in Figure 4, 77% of lower secondary teachers and 80% of upper secondary teachers say they frequently or always let students use ICT for projects or class work. For lower secondary teachers, only Denmark, New Zealand and Australia have higher percentages of teachers who report frequently or always letting students use ICT for class work (see (OECD, 2019)). A slightly lower percentage of UAE primary school teachers (68%) report frequent usage of ICT with their students, but it is still well above the average of 43% for those countries that surveyed their primary school teachers (Figure 4).

Furthermore, teachers in the UAE report feeling confident about teaching with ICT. As shown in Figure 5, an overwhelming majority (86%) of lower secondary teachers say that they feel prepared or very well prepared to use ICT in their teaching. This makes sense as, according to teachers in the UAE, they have received preparation to teach using ICT: over 87% of teachers report that the use of ICT for teaching was included in their initial teacher training, and 85% say that teaching with ICT was included in their recent professional development activities. In comparison, only 60% of lower secondary teachers across TALIS participating countries report that ICT was included in their formal training to become a teacher, and 63% say it was part of their recent professional development. As a result, only 10% of teachers in the UAE express a high level of need for professional development around ICT skills for teaching, as opposed to 20% on average across TALIS countries.

Figure 4. Use of ICT in classrooms, TALIS 2018

Percentage of teachers who report that they “frequently” or “always” let students use ICT for projects or class work in a typical class¹



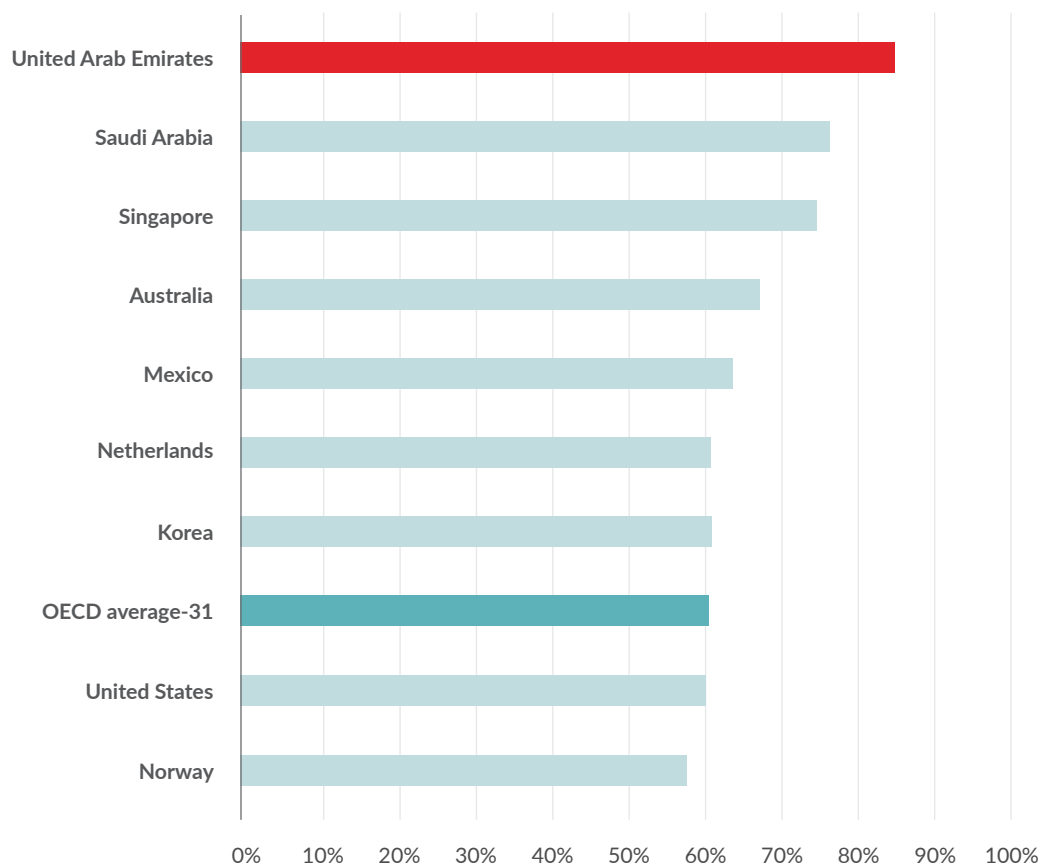
Note 1: These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable. The analysis is restricted to teachers reporting that their teaching in the target class is not directed entirely or mainly to Students of Determination.

Note: As indicated in the graph, the TALIS average refers to 48 TALIS-participating countries in lower secondary education, 15 TALIS-participating countries in primary education and 11 TALIS-participating countries in upper secondary education.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.2.1, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

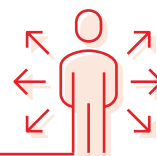
Figure 5. Preparation to teach with ICT, TALIS 2018

Percentage of lower secondary teachers for whom ICT skills for teaching were included in their professional development activities



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.5.18, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

WHAT TEACHERS CAN DO



If, as the research indicates, the way in which ICT is used is important to its efficacy, teachers need to make informed choices about both the technology they use and how they use it. With their preparation and confidence around teaching with ICT, teachers in the UAE will be well equipped to design truly innovative learning experiences for their students that make full use of digital tools and are impactful on learning outcomes.

While any lesson in any subject can use ICT, to design a successful lesson there are some principles that should be followed. It is easy to use online

“worksheets” to replace paper; a digital textbook to replace print, or an interactive whiteboard to replace a traditional one. But these uses of ICT do not harness its power to transport learners outside their classroom walls, or help them visualise concepts they cannot in two dimensions. Any successful lesson should allow students to engage in learning in a meaningful way. This should not change if the lesson includes students engaging with ICT.

This section provides five principles around designing successful lessons in any subject using ICT.

General principles for using ICTs in the classroom

1 > Before you even plan your lesson, **consider the outcomes you are trying to achieve**. Think about whether ICT is the best tool to achieve those outcomes, and if so, which digital tools are proven to work in that instance. Often ICT is seen to fail because teachers selected the wrong product to begin with. It is not enough to get a product recommendation from a peer or connection on social media. You need to think about whether that product will work with *your* students, in *your* school's context, and whether it will produce the desired learning outcomes.

2 > Next, you need to **think about your class' level of access to ICT**. If you only have one interactive whiteboard, what you can do with your students is different than if you have 1:1 access to devices. Still, just because you have an interactive whiteboard in front of the class, it does not mean that you have to stand in front of the class lecturing. For example:

- a.** You can have groups of students work on the whiteboard as you work with other groups.
- b.** You can show visualisations or manipulations of mathematics or science concepts.
- c.** You can use topic-specific games with the whole class or by dividing the class into teams.
- d.** You can use video-conferencing software to connect your students with a class in another part of your country or the world.

As your access to devices increases, so do your opportunities with ICT.

3 > ICT is a great connector, allowing students to experience the world beyond their school walls. It also enables collaboration among peers on everything from writing or editing shared documents to working as a team in multi-player games. Therefore, when designing your lessons with ICT, you should think about ways that ICT can **enable your students to work**

collaboratively and connect with others. As previously suggested, this can include using video conferencing to connect students with others around the world.

Other ideas include:

- a.** You can use messaging or communication apps in foreign language classes so that students can have authentic conversations with peers in another country who are also learning that language.
 - b.** You can visit art collections or take virtual tours of museums around the world.
 - c.** You can allow students to collaborate on writing stories or editing each other's written work.
- 4 >** For teachers, one of the best uses of ICT is to **get timely and meaningful feedback from your students or provide them with feedback** as well. This could be feedback about your teaching or the lesson, allowing you to improve your practice and design lessons that better meet your students' needs. Or it could be a form of formative assessment, allowing you instant feedback about your students' understanding of concepts or ideas. For example:
- a.** You can use polling apps or software to get instant feedback as to whether your students understand a concept before you move on to the next.
 - b.** You can use your school's learning management system to provide students and their parents with feedback on student work.
 - c.** You can take a screen cast or video while reviewing student work, recording your comments and suggestions in real time and sending this to the student.
 - d.** You can use online surveys as a way for students to provide anonymous feedback about your teaching, their progress, or any other issues they might want to share.

- 5 > Students need to **develop skills for inquiry and reflection**, which can support them in the processes of discovery and self-regulation. Giving students the skills to understand their own learning process will help them as independent, lifelong learners. Self-regulation is not only limited to the learning process, however; to avoid the sense of isolation that too much technology use can cause in today's teenagers, students need the skills to be able to self-regulate when it comes to screen time as well.
- a. You can use online journals or blogging on a regular basis for students to reflect on lessons, experiences or their own understanding of topics.
 - b. You can use apps to help students track and regulate their screen time, in and out of school.

Box 4. Computational thinking

It is not just using ICT with students that is important, but understanding and using technology concepts as well. The idea of teaching students computational thinking is becoming more popular as a way to help students develop the necessary foundations to learn computer science and coding.

Computational thinking is the process of converting messy, poorly defined real-world problems into a form that computers can tackle. Computational thinking involves using logic, understanding the steps and rules that constitute algorithms, breaking a problem into smaller parts, recognising patterns, and evaluating data to make a judgement. Learning about computational thinking can help learners develop 21st century skills such as problem solving, critical thinking and logical reasoning.

Computational thinking can be taught at any level, in any subject, and does not require ICT to teach it. For example, having students write all of the steps necessary to make a sandwich introduces them to

the concept of an algorithm. Having other students analyse these steps and recognise patterns introduces the concept of generalisation. Ideas like these, and many more, can be found in these communities:

- > **Computing at School (CAS)** is a grass-roots organisation founded by educators with lesson plans, professional development and other resources necessary to teach computing and computer science.

Source: (Computing at School, n.a), <https://www.computingatschool.org.uk/> (accessed 06th March 2020).

- > **Barefoot Computing** is the sister site to CAS and provides additional resources for teaching computing topics to students in primary school.

Source: (Barefoot Computing, n.a), <https://www.barefootcomputing.org/> (accessed 06th March 2020).



LESSON 3

Fostering cognitive
activation in the
classroom



Even for experienced teachers, it might not always be obvious which teaching strategy is the best to use for a particular topic or for a certain group of students, especially when teaching a new subject or using new materials or resources. In addition, it is demanding and time-consuming for teachers to keep up with the constant production of academic research that indicates which pedagogies work in certain instances and with certain students and which do not. As a result, most teachers tend to find a way of teaching that works for them and their classrooms and use it over and over again.

In recent years, a teaching method known as “cognitive activation” has received increased attention, in particular in countries working to promote 21st century skills in schools. Cognitive activation is a strategy aimed at developing students’ ability to solve complex problems by improving their capacity to summarise, question and predict, and then apply their knowledge

to arrive at a solution (see Box 5 for how PISA calculates the cognitive activation index). Students who use cognitive activation are challenged to confront problems that might not have an obvious answer. Cognitive activation focuses on the process of solving a problem rather than only rewarding students for finding the right solution.

These skills can help learners across a variety of subjects as they apply the knowledge they have learned to address real-world problems. Assessing work for which students have had to use cognitive activation also demonstrates mastery of the skills or content to teachers, since students have had to show evidence that they can apply their knowledge in varying contexts, as well as their understanding of concepts underlying the main topic. These kinds of assessments can provide much more information about the level of students’ understanding than a typical multiple-choice test.

Box 5. How PISA calculates the cognitive activation index

Cognitive activation is measured in PISA with an index of questions that asked students how frequently they experience the following teaching practices:

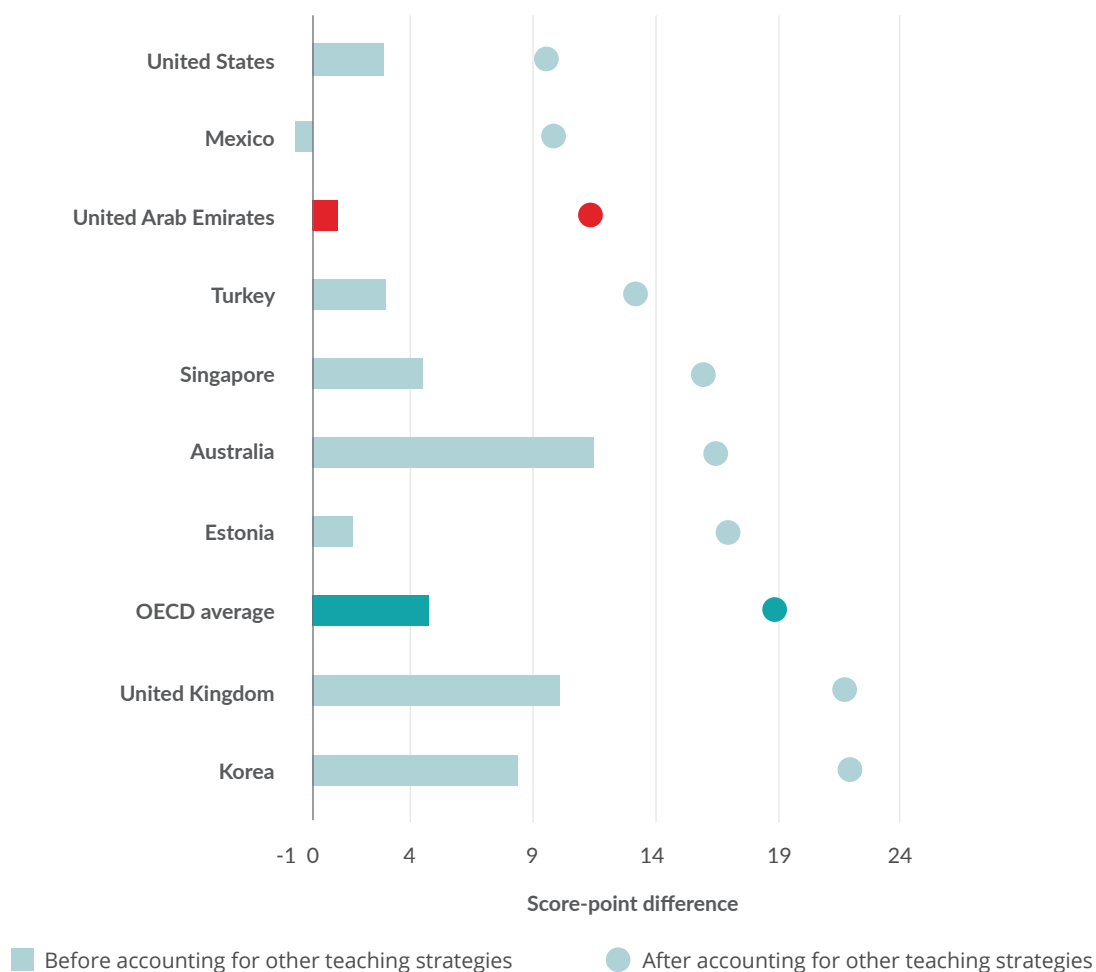
- The teacher asks questions that make us reflect on the problem
- The teacher gives problems that require us to think for an extended time
- The teacher asks us to decide on our own procedures for solving complex problems
- The teacher presents problems for which there is no immediately obvious method of solution
- The teacher presents problems in different contexts so that students know whether they have understood the concepts
- The teacher helps us to learn from mistakes we have made
- The teacher asks us to explain how we have solved a problem
- The teacher presents problems that require students to apply what they have learned to new contexts
- The teacher gives problems that can be solved in several different ways

Cognitive activation teaching strategies are most commonly associated with the teaching of mathematics. In PISA 2012, students in the UAE reported experiencing cognitive activation strategies far less than the other teaching strategies in mathematics (such as teacher directed learning), and well below the OECD average for cognitive activation (Figure 6). However,

the same analysis also indicate that students in the UAE who reported experiencing cognitive activation teaching strategies also performed better in the PISA mathematics assessment (Echazarra et al., 2016). Thus, encouraging the use of these teaching strategies, and ensuring that they are being used effectively, can support stronger learning outcomes.

Figure 6. Mathematics performance and cognitive-activation instruction, PISA 2012

Score-point difference in mathematics associated with one-unit increase in the index of cognitive activation instruction.



Note: "Other teaching strategies" refers to the PISA indices of teacher-directed, student-oriented and formative-assessment instruction. Countries and economies are ranked in ascending order of the score-point difference in mathematics, after accounting for other teaching strategies.

In PISA 2012, the OECD average corresponds to the arithmetic mean of the respective country estimates. In 2012, this includes 32 OECD member countries. For a full list of OECD PISA-participating countries, please check: <https://www.oecd.org/pisa/aboutpisa/pisa-2012-participants.htm>

Source: OECD (2012), PISA 2012 Database, Table 3.25, www.oecd.org/pisa/pisaproducts/pisa2012database-downloadabledata.htm (accessed 27th January).

WHAT DO THE TALIS 2018 DATA TELL US?



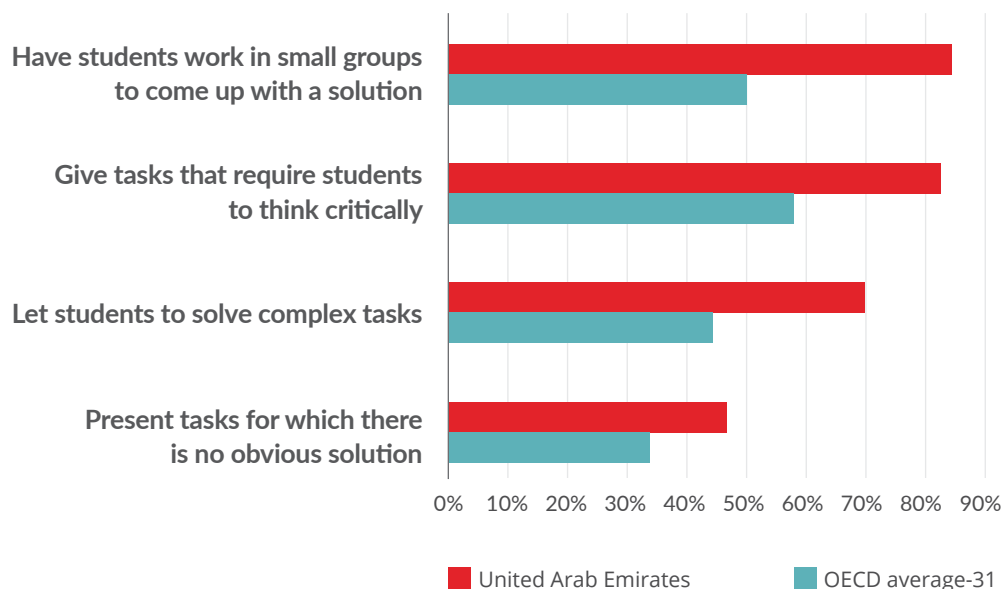
TALIS measures the use of cognitive activation by asking teachers how frequently they use each of the following practices:

- Present tasks for which there is no obvious solution
- Let students decide on their own procedures for solving complex tasks
- Have students work in small groups to come up with a solution
- Give tasks that require students to think critically

Teachers in the UAE report a higher frequency of using each of these practices than the OECD average. As Figure 7 indicates, 82% of teachers in the UAE report frequently or always giving students tasks that require them to think critically, in comparison to 58% on average across OECD countries participating in TALIS. On average 84% of teachers in the UAE report always or frequently having students work in groups (OECD average: 50%) and 70% report the same frequency for letting students decide on their own procedures for solving complex tasks (OECD average: 45%).

Figure 7. Use of classroom practices that support cognitive activation, TALIS 2018

Percentage of lower secondary teachers who reported that they “frequently” or “always” use the following practices in a typical class¹

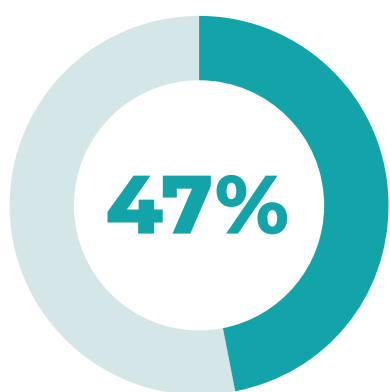


Note 1: These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable. The analysis is restricted to teachers reporting that their teaching in the target class is not directed entirely or mainly to Students of Determination. Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.2.1, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Even though above the OECD average of 34%, only 47% of UAE teachers report frequently presenting students with tasks for which there is no obvious solution. The kind of learning that is involved with this task is not only a great example of cognitive activation practice, but it helps prepare students for their future lives, when they will be required to solve problems that, in today's world, do not even exist.

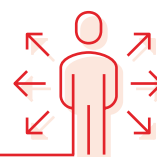
UAE policy makers and school leaders should consider investigating the disparity between what teachers reported in TALIS 2018 and what students reported in

PISA 2012. On one hand, it is possible that the situation in the UAE has improved since 2012 or that cognitive activation teaching strategies are used more frequently in other subjects than they are in mathematics. However, it might instead indicate that teachers are struggling to implement these methods in their classrooms. Considering the potential of such practices on student achievement, it is critical to understand what might explain this gap between student and teacher reports and whether this may mean that UAE teachers require additional training and/or support to use cognitive activation.



Less than half of UAE teachers report frequently presenting students with tasks for which there is no obvious solution.”

WHAT TEACHERS CAN DO



PISA research shows that there are certain classroom environments in which cognitive activation tends to be used more frequently, including:

- Academically-oriented schools, in comparison to vocational schools
- Socio-economically advantaged schools, in comparison to their less advantaged counterparts
- More advanced mathematics classes
- Classrooms where students are less likely to report disruption from behavioural issues

Given the impact that exposure to cognitive activation practices can have on student achievement in mathematics, teachers should be aware of these patterns in order to avoid limiting their use of cognitive activation practices to only these groups of students. While it is

understandable that teachers might prefer to use these practices in classrooms with good behaviour due to the group work that might be required when cognitive activation practices are employed, this tendency deprives certain students of the benefits of experiencing this kind of teaching. It is worth your consideration of these differences, both at the school and individual classroom levels, to ensure that as many conditions for success as possible are in place in your learning environment. For example, the results above emphasise the need for teachers to have strong classroom management and discipline skills to create a classroom environment that is conducive to this type of learning (OECD, 2016).

If you are interested in trying out cognitive activation teaching strategies with your class, or you want more support in building on the practices you have already mastered, the following section gives tips to try in your next lesson, next term, or next year.



Top tips for introducing cognitive activation strategies in your classroom

In your next lesson, try...

- › Relating the focus of your lesson to a real-world scenario. If you are learning about an event in history, you can ask students if it reminds them of any current events. If you are discussing a character in a novel, you can ask students if the character reminds them of a celebrity or anyone in their own lives. If you are studying a topic in mathematics, such as statistics, you can ask students where they see statistics in their daily lives.
- › Introducing questions that model cognitive activation for your students. During group discussions, you can ask students to consider “what if?” scenarios, introducing different possibilities to be considered. You can explore how alternative actions might have changed the course of history or create different endings to stories.
- › Using concept maps to help students make connections. Allow students time to draw concept or mind maps that connect new information to topics they have learned before. Observing these connections will help them make sense of new ideas.
- › Giving students adequate time to process new information. After reading or hearing about a new topic, give students a set amount of time to take notes or draw a picture to help summarise their understanding of the topic.

Next term, try...

- › Allowing students to assess their own understanding. During a lesson, plan time for students to “self-test” by asking themselves questions about something they have just read. You might also have students make up their own test or quiz questions on a particular topic.
- › Encouraging students to explore their ideas during classroom discussions. Developing a classroom culture in which no idea is a bad idea can give students the freedom to brainstorm without feeling judged. This enables them to consider a range of solutions to problems they might face.
- › Scheduling brief breaks for students during lessons. You can provide activities for students during these breaks to help them activate their minds or practice associating ideas. This could include allowing students to draw a picture from something they have read, role-play a scene from history or listen to music from the period in time you are studying.

Next year, try...

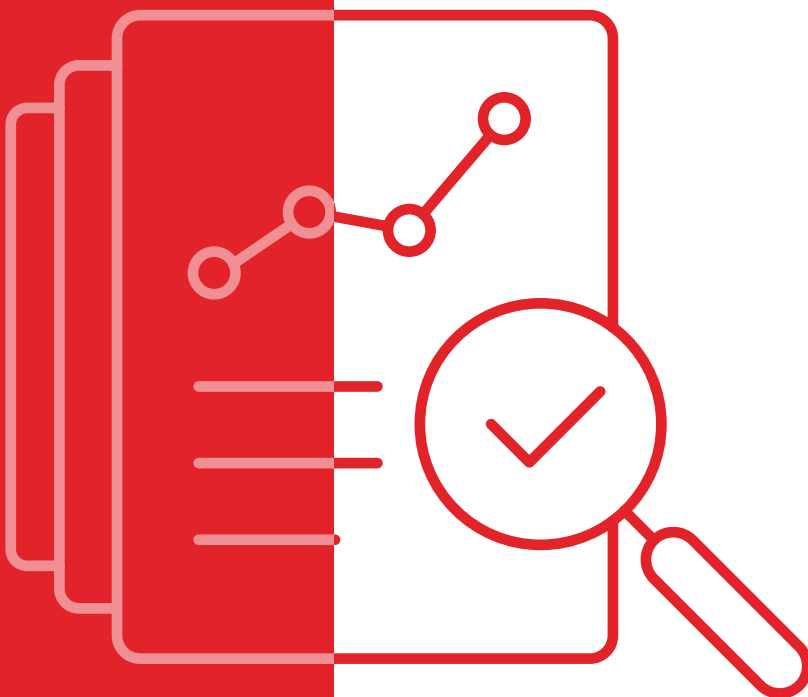
- › Working with colleagues to create cross-curricular lessons. You can work with colleagues in your school who teach different subjects to create problem or project-based lessons in which students work across disciplines to solve real-world problems.
- › Connect with teachers in or out of your school who are using cognitive activation. Being part of a community of teachers who use these teaching strategies can help you find new ideas for activities to use in your own class. It can also provide you with peers you can turn to if you have questions.

Sources: Burge, Lenkeit and Sizmur (2015), *PISA in Practice: Cognitive Activation in Maths*, Slough: NFER, www.nfer.ac.uk/media/2090/pquk04.pdf.

All Kinds of Minds (n.a), *Reach More Learners: Developing Cognitive Activation*, <https://www.allkindsofminds.org/attending-to-important-information-developing-cognitive-activation> (accessed 06th March, 2020).

LESSON 4

Learning from formative assessment practices



Assessment of student learning typically takes one of two forms: formative assessment or summative assessment, the latter being that with which students and teachers tend to be most familiar. Summative assessment, or assessment of learning, occurs at the end of a project or unit of study and offers a formal evaluation of a student's mastery of the content or concepts. Formative assessment, or assessment for learning, is ongoing. It provides feedback to students as they work so that they can become aware of their own progress. Just as important, the information derived from formative assessment allows teachers to adapt their teaching to make sure students' learning needs are being met.

Students all over the world – and in particular in the UAE – frequently take part in summative assessment and experience the stress of formal testing, often from a very young age. These summative exams are meant to measure a learner's level of attainment against that of their peers locally, nationally or against certain expected learning outcomes. What they frequently capture, however, is the student's capacity for memorisation or their skill at test-taking. At the end of the exam, students are given a letter or number grade that is supposed to represent all of their work in that class or during that year. However, there is often no record of the learning journey, the pitfalls and successes, and the understanding and ability to apply the knowledge the child has acquired.

In contrast, formative assessment helps teachers target their teaching to students, and positively impacts student learning and agency. In terms of learning, multiple studies show that the use of formative assessment produces some of the largest student achievement gains of any education intervention (Black and Wiliam, 1998). A systematic review of the literature on formative assessment practices in primary schools examined the effects of different types of formative assessment on student achievement in different subject areas (Klute et al., 2017).

Research found the following benefits:

- Across all studies examined, students who had participated in formative assessment as part of their learning performed better than those who had not. On average, the effects of formative assessment in mathematics lessons were larger than in reading or writing lessons.
- Formative assessment practices have also been shown to be particularly effective for low-achieving students, which can aid in closing the achievement gap between these students and their higher-achieving peers (Black and Wiliam, 1998).
- Formative assessment that was directed by teachers or other agents (rather than student-directed) had larger impacts on student achievement across all subjects, although in mathematics, student-directed formative assessment was also effective.

With regards to student agency, formative assessment encourages the students themselves to understand where they are in their learning and where they need to get to, rather than keeping this knowledge under the jurisdiction of the teacher alone. The OECD's *Synergies for Better Learning: An International Perspective on Evaluation and Assessment* (OECD, 2013) report emphasises the importance of putting students at the centre of assessment so that they are engaged in the process of measuring their progress, thus giving them a degree of ownership over their own development. Practices such as self-evaluation or writing reflections on their own learning allow students to develop valuable meta-cognitive skills, which can help them regulate their own learning throughout their lives.

The UAE has a strong tradition of summative assessments, however formative assessment practices

are starting to take hold in classrooms. For example, new curriculum practices encourage a more 'balanced' approach to student assessments whereby 30% to 70% of assessments should be formative (depending on the subject and grade). The Emirati School Model's vision also promises to further reinforce formative practices in the country, by highlighting the central role of feedback in developing student agency and autonomy as self-monitoring learners. Moreover, teachers in the UAE are increasingly aware of the importance of formative approaches for student learning and development and many are introducing them in their classrooms. However, there is still a need for stronger support to teachers and schools to introduce an effective and balanced assessment culture in the UAE.

WHAT DO THE TALIS 2018 DATA TELL US?



Both the TALIS 2018 data and the PISA results provide information from teachers in the UAE regarding the kinds of assessments they regularly administer. It is clear from these sources that summative assessment is a firmly embedded practice in the UAE. For example, teachers in the UAE are more likely to report using summative assessment practices such as administering their own assessment frequently (87%) than their peers in OECD countries (77%) (Figure 8).

Once the assessment reform linked to the Emirati School Model has been fully rolled out, students in the UAE will be among the most tested in the world. In public schools, students will be required to take EmSAT Advantage tests every two years (Grades 4, 6, 8, 10), as well as a EmSAT Baseline Test in Grade 1. In addition, students at the end of Grade 12 in public schools take the Thanawiya (also known as Secondary School Certificate or GSC) to complete Cycle 3. For those who wish to enter tertiary education in the UAE passing EmSAT Achieve in Grade 12 is now also required. In addition, students in MoE schools sit multiple mid-term and end-of-term tests. Research commissioned

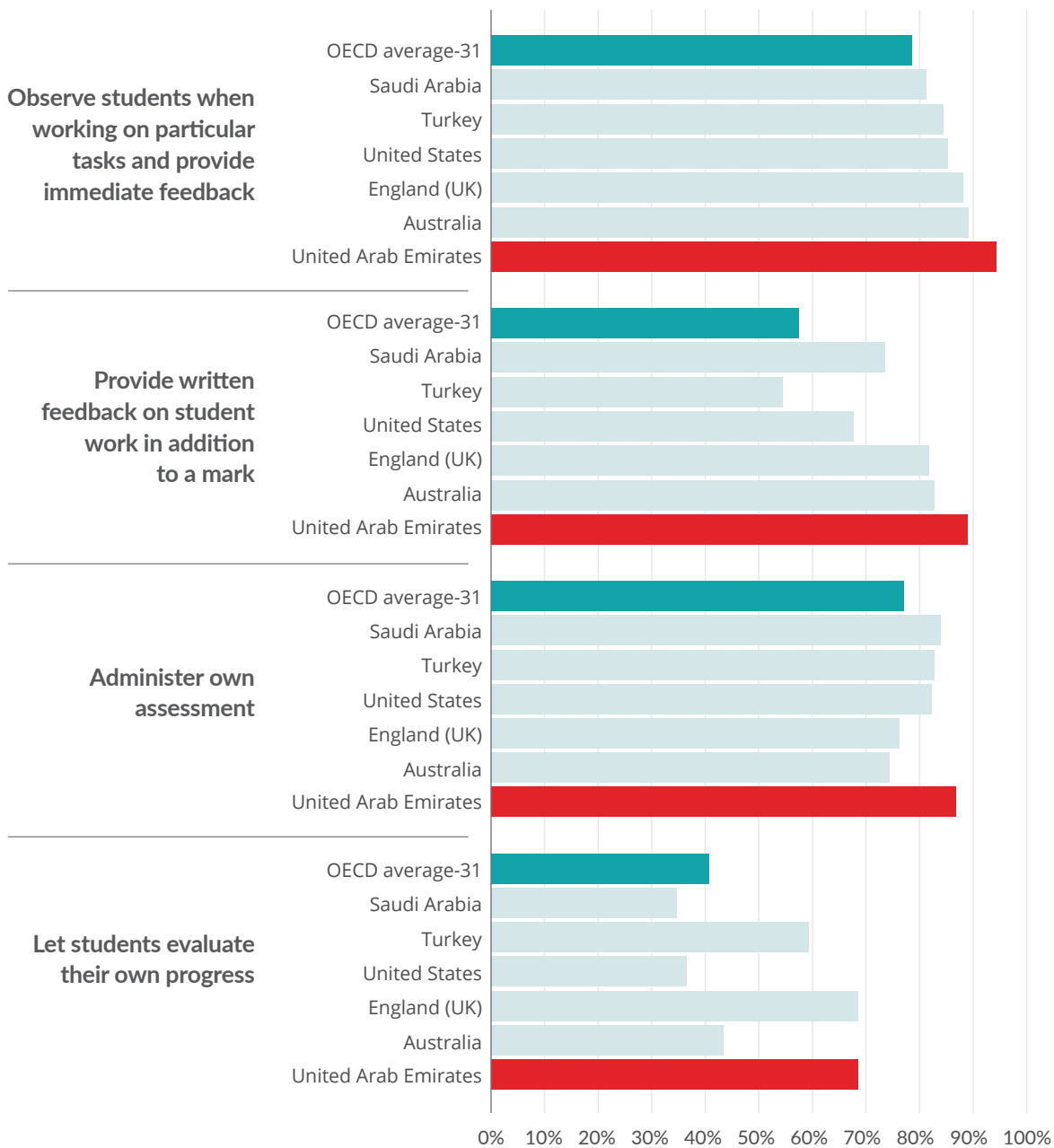
nationally shows that they can be subject to around 150 external assessments annually (EduEval, 2016). PISA 2015 data confirm such findings; around 8.7% of students in schools sat mandatory standardised tests and 80.5% sat teacher-developed tests monthly or more frequently, compared to 3.4% and 65.5% on average in OECD countries (OECD, 2016).

Teachers in the UAE are also well above the OECD average on other assessment practices, such as providing written feedback on student work. In addition, a higher percentage of teachers in the UAE report that they frequently or always provide immediate feedback to students as they observe them working, than in any other country.

However, the data also show that formative practices are common in the UAE. As Figure 8 indicates, some 69% of teachers in the UAE report that they frequently or always let students evaluate their own progress (in comparison to 41% on average across OECD countries). Nevertheless, it is still the least-used assessment practice by teachers in the UAE.

Figure 8. Reported assessment practices for teachers in the UAE, TALIS 2018

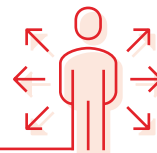
Percentage of lower secondary teachers who reported that they “frequently” or “always” use the following assessment methods in a typical class¹



Note 1: These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable. The analysis is restricted to teachers reporting that their teaching in the target class is not directed entirely or mainly to Students of Determination.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.2.7. OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

WHAT TEACHERS CAN DO



The evidence that formative assessment practices are starting to take hold in classrooms in the UAE suggests that there is a good foundation on which to build. However, formative assessment can be challenging to implement if you are not accustomed to it. It is more time-consuming than writing, administering and marking an exam, as it is more individualised. For teachers new to formative assessment, it is not always obvious how to best apply the results to impact your teaching.

According to the research, formative assessment is a cycle that involves three phases, shown here:

- 1 Students and teachers determine targets for the learning
- 2 Students and teachers establish where learners are now in their learning
- 3 Students and teachers take decisions to help learners improve (Klute et al., 2017)

Information is gathered by teachers for each of these phases, and then decisions are made by applying insights from the data to guide teaching for individual students, groups of students or the class as a whole.

Box 6. Teacher-directed or student-directed formative assessment?

Formative assessment can be directed by students, teachers or other outside sources (such as software programmes that might monitor student work).

› **Student-directed formative assessment** can take the form of students monitoring or evaluating their own or their peers' work and reflecting on the results of these assessments to plan next steps in learning. This kind of formative assessment promotes growth of meta-cognitive skills by giving students a role in their own assessment through self-evaluation and feedback about their own learning and mastery. This practice comes highly recommended from learning scientists as a way to help students regulate and direct their own learning process in the future.

› **Teacher-directed formative assessment** can be as simple as asking students questions about the learning process or the content of the lesson itself. Teachers might ask students what they found easiest or most difficult to learn about the particular topic, which can inform their teaching of the topic the next time and help both teachers and students understand the learning process for individual students. Students might also write journal entries each day or complete "exit tickets," or small notes at the end of teach lesson describing their understanding of the topic covered.

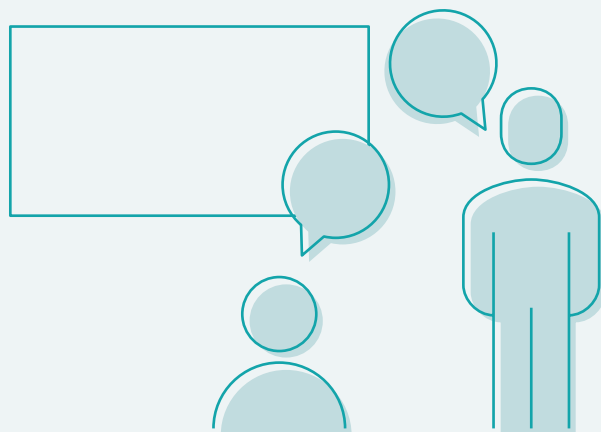
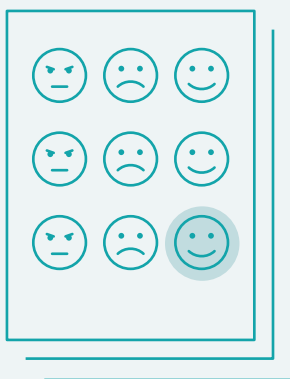


Below are a few key suggestions of ways to employ formative assessment in your classroom tomorrow (Thomas, 2019); (Regional Educational Laboratory Programme, n.a).



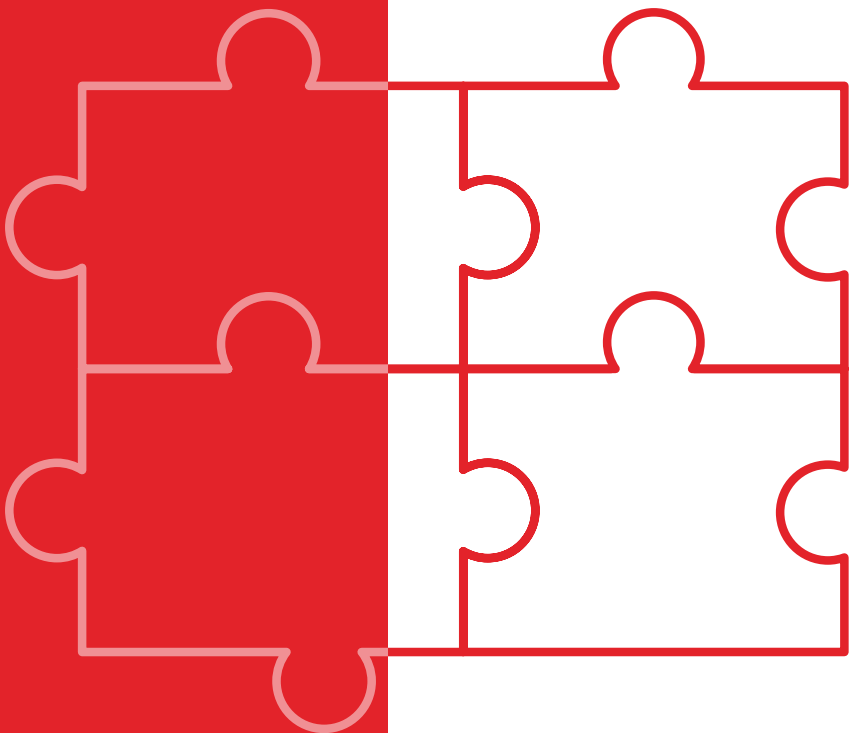
Top tips for introducing formative assessment practices in your classroom

- Provide students with slips of paper at the end of class with lists of emojis expressing a variety of different emotions. Ask them to circle the emoji that best represents how they are feeling at the end of class, and to explain why they chose that emoji.
- Use an online poll or quiz app to quickly assess student understanding. You can do this at the beginning, middle or end of the lesson to guide your teaching.
- Give students “participation cards” that they can hold up during class discussions. These might say “I agree/I disagree/I don’t know how to respond”. This helps you lead the class conversation and make sure all viewpoints are represented but also notifies you which students might not be following the discussion.
- Take notes on what you observe as students work individually or in groups or participate in class discussions. These notes then become data you can analyse when deciding what interventions that child might need.
- Ask parents or other educators for their impressions, opinions or observations of certain students in settings outside of your classroom. These data will help provide you with a more complete picture of a student and his or her needs.
- Ask students to write for one minute responding to a variety of prompts, such as: “what is one thing you learned, one thing you are curious about and one thing you don’t understand?”
- Conduct your own five-minute interview with individual students to assess deeper levels of understanding of a topic or concept. You can do this while other students are working in groups or on their own, and you don’t have to interview every student for every topic.
- Use art as a way for students to express their understanding. Students can paint, sculpt, dance or compose a piece of music that represents what they have learned.



LESSON 5

**Introducing co-operative
project-based learning
in the classroom**



Nowadays, innovation is rarely the product of individuals working in isolation; instead, it is an outcome of how we mobilise, share and integrate knowledge. Societies that nurture collaboration and pluralism have always been more creative, as they can draw on and bring to bear the best talent from anywhere, build on multiple perspectives, and nurture creativity and innovation. As a result, these days, schools also need to become better at preparing students to live and work in a world in which most people will need to collaborate with people from different cultures, and appreciate a range of ideas and perspectives; a world in which people need to trust and collaborate with others despite those differences, often bridging space and time through technology; and a world in which individual lives will be affected by issues that transcend national boundaries. This requires that education systems, such as the UAE, give greater importance to the development of students' collaboration skills and their attitudes towards co-operation.

One pedagogical approach that promotes student collaboration and is proven to impact a variety of student outcomes is called project- or problem-based learning (PBL). In the PBL method, learners work in groups to solve a problem or answer a question. The learning in PBL does not have to be separated into subject areas, as in traditional schooling; rather, PBL can be cross-curricular and interdisciplinary, which allows teachers to incorporate content from different subject areas and students to practice a variety of skills (Dochy et al., 2003). Most critically, PBL provides the context needed to develop global competences and 21st century skills, including collaboration, but also problem-solving, systems thinking, communication, and more. Unlike more traditional, teacher-directed pedagogies, PBL allows learning to be student-centred, as students identify the new information or competences they



Societies that nurture collaboration and pluralism have always been more creative, as they can draw on and bring to bear the best talent from anywhere, build on multiple perspectives, and nurture creativity and innovation.”

need to acquire in order to solve the problem. The teacher becomes a guide who facilitates access to this new knowledge, and students are able to apply new information and skills as the project progresses, rather than in an isolated, summative assessment at the end (Merritt et al., 2017).

Teachers can also employ cognitive activation teaching strategies (see Lesson 3: Fostering cognitive activation in the classroom) by having students apply their existing knowledge to solve new problems. In many ways, a PBL approach to curriculum mimics the work learners will experience in any kind of knowledge-based profession later in life. They learn at a young age to work in teams and build on their existing knowledge by directing their own acquisition of new information. Such skills will be critical for the UAE in its path to a more knowledge-intensive economy.

There is a vast body of research on project- and problem-based learning, much of it showing a positive impact on students' acquisition of cognitive and non-cognitive skills and their attitudes and motivations towards learning (Holmes and Hwang, 2016). For example, the use of PBL is:

- Positively associated with skill development in students, regardless of the level of expertise of the student at the beginning of the project (Merritt et al., 2017)
- Shown to help students retain more of the knowledge they acquired during their PBL project over a two-year period than their peers who were taught with traditional methods (Dochy et al., 2003)
- Associated with more positive attitudes and increased motivation to learn (Merritt et al., 2017)
- Associated with better-developed critical thinking skills (Holmes and Hwang, 2016)

- Shown to benefit students considered “at risk” who may come from challenging home circumstances, for example. In mathematics education in particular, use of PBL has decreased the achievement gap between these at-risk pupils and their peers (Holmes and Hwang, 2016).

The benefits of project-based learning are vast, which makes it a pedagogy worth trying for any teacher. The Emirati School Model (ESM) has introduced many elements that can support this type of instruction practice. For starters, the ESM has introduced integrated subjects, such as design and technology, which allows teachers to better situate the content in authentic real-world contexts and students to mobilise knowledge and skills across domains. Nevertheless, UAE teachers will need the tools and information to ensure that they are able to implement these practices effectively in their classrooms.

WHAT DO THE TALIS 2018 DATA TELL US?



In TALIS 2018, 84% of UAE teachers said that they frequently or always have students work in small groups to come up with a joint solution to a problem or task, in comparison to 50% on average across OECD countries (Figure 9).

PISA 2015's innovative domain focused on students' collaborative problem-solving skills and attitudes. As part of the student questionnaire, PISA 2015 looked at how much students valued interpersonal relationships and teamwork within school. Students were asked how strongly they agreed or disagreed with statements such as:

- I prefer working as part of a team to working alone
- I enjoy seeing my classmates be successful

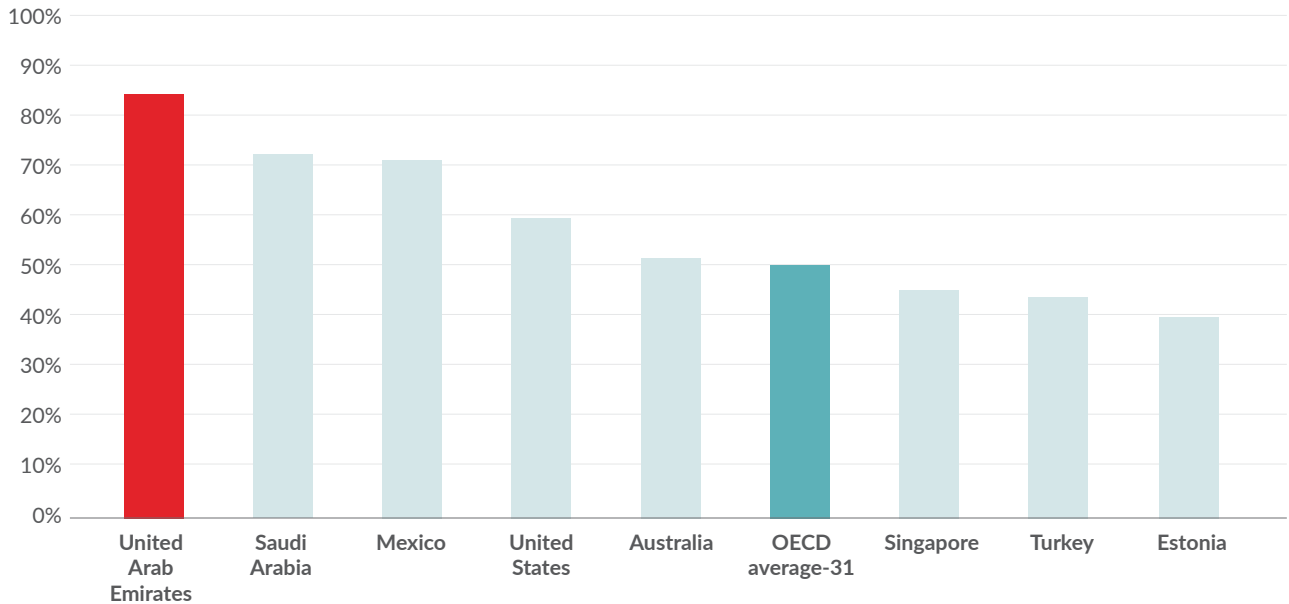
Students' familiarity with collaborative work, as reported by teachers, may partly explain why students in the UAE report valuing interpersonal relationships as much as students in Singapore, the highest-scoring country on the collaborative problem solving assessment (OECD, 2017).

In fact, students in the UAE are among the ones who most value relationships across PISA-participating countries (index score: 0.32), behind only two countries: Portugal (index score: 0.37) and Costa Rica (index score: 0.35).

While students in the UAE report the interest or willingness to collaborate with their peers in class work, and value the relationships they have with their fellow students, their performance in collaborating with others was well below the average of PISA-participating countries. Students in the UAE scored only 435 points, over two years behind their peers in OECD countries (500 score points). The UAE's performance is comparable with countries like Bulgaria, Costa Rica, Thailand, Mexico and Colombia, as shown in Figure 10. This suggests that teachers in the UAE may need additional support to introduce effective collaborative activities and prepare students to work with others successfully.

Figure 9. Frequency of group work, TALIS 2018

Percentage of lower secondary teachers who reported that they “frequently” or “always” have students work in small groups to come up with a joint solution to a problem or task in a typical class¹

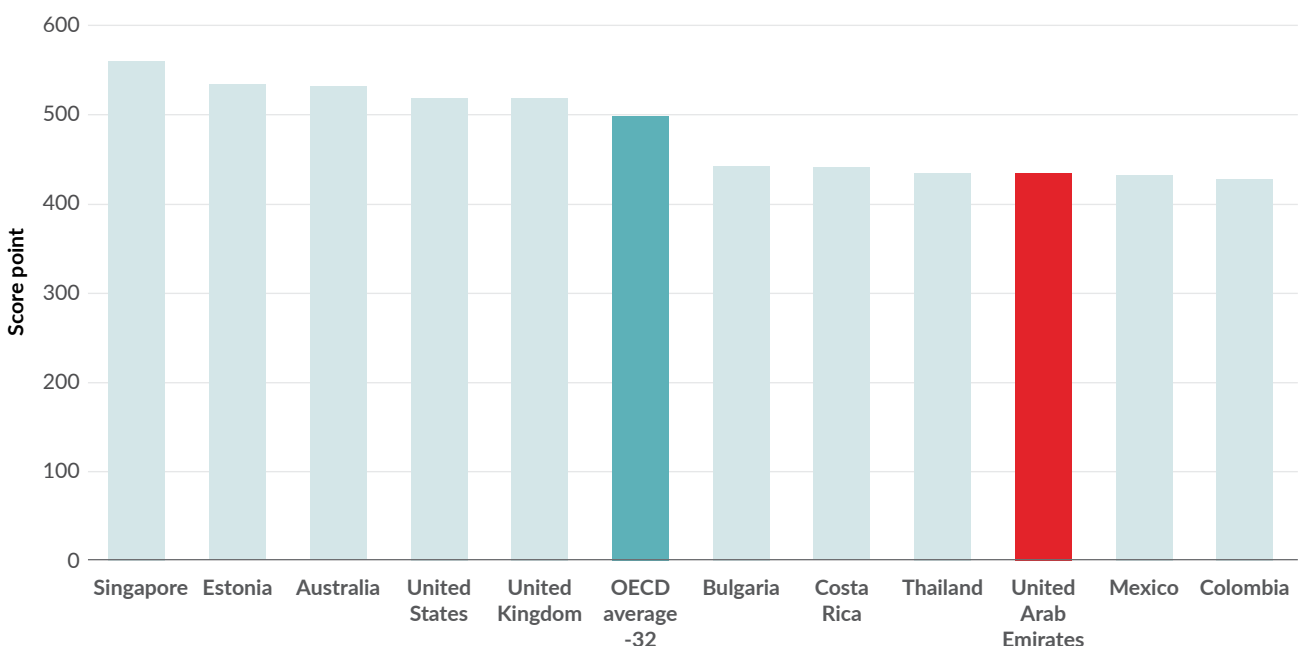


Note 1: These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable. The analysis is restricted to teachers reporting that their teaching in the target class is not directed entirely or mainly to Students of Determination.

Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.2.1, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Figure 10. Student performance in collaborative problem solving, PISA 2015

Collaborative problem solving mean score



Source: OECD (2016), PISA 2015 Data – Volume I, Figure V.1.1, OECD Publishing, Paris <https://www.oecd.org/pisa/data/2015database/>

WHAT TEACHERS CAN DO



Adopting a project or problem-based learning approach to teaching can help improve students' ability to work with others. However, such activities can seem challenging and time consuming at first and, as a result, require additional professional development for teachers who have never used it before. It also

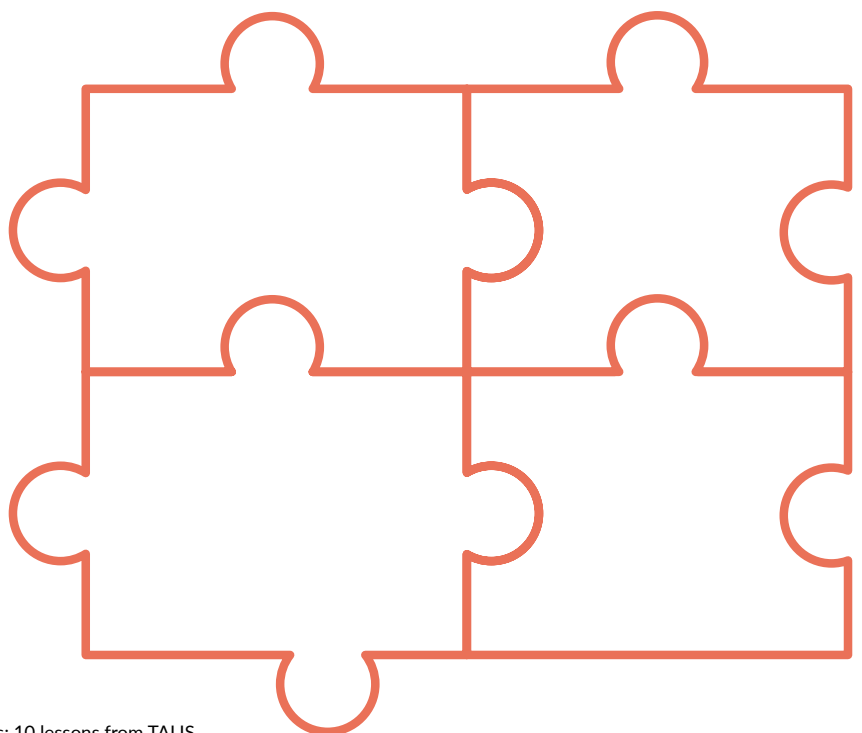
necessitates teachers collaborating with colleagues who teach other subjects, since this kind of teaching is cross-curricular. There are many research-based, tried and tested resources online that can help. This section contains some top tips for teachers new to project-based learning (PBL).

Box 7. Project-based learning for beginners

- 1 > Start with a simple, short project.
- 2 > Select two or three learning outcomes or skills to cover.
- 3 > Inquiry is key.
- 4 > Not every topic is suitable for PBL.
- 5 > Adapt an existing project rather than creating your own.
- 6 > Gather student feedback.
- 7 > Scaffold learning for students.

And, most importantly, do not give up!

[Find out more in the top tips](#)





Top tips for teachers getting started with project-based learning

1 > If you are just getting started with project-based learning, one of the best pieces of advice is to **start with a simple, short project**. Assigning students a complex, multi-week project with more than one deliverable might not be the best way for both you and your students to get used to this new way of working. For your first project, start with something that lasts only a few class sessions and includes one deliverable at the end, so that both you and your students can get used to the new classroom norms and practices that accompany this kind of inquiry-led group work.

2 > Along these lines, longer and more complex projects often require students to demonstrate mastery of many different topics or skills. While trying to plan your first project, **select two or three learning outcomes**, skills or competencies for your students to cover during the course of the project. This will make it easier for you to plan activities and assess them during your first project.

3 > Those new to project-based learning need to remember that it is through working on the project that students are to learn the prescribed knowledge and skills. Teachers new to this way of teaching may forget this point and start a project with direct instruction in the topic area before allowing students to work together on the project. This is not project-based learning. In PBL, **inquiry is key**. It is when students try to answer the question or solve the problem that they need to draw on knowledge and skills they already possess, identify what they lack, and seek out and learn the new information that is needed.

4 > As fun as PBL can be, **not every topic is suitable**. Some content or concepts are not deep enough to warrant a lengthy learning project. If you are planning lessons containing content that might only take one class period to teach, do not build a multi-week learning project around it. Save PBL for more complex or nuanced topics.

5 > One of the challenges for teachers who are just starting out with project-based learning is to develop a compelling question or problem to drive student learning. For your initial foray into this type of teaching, it is best to try to **adapt an existing project** rather than develop your own. There are many sites online that offer project-based learning activities and examples. Find one

that is appropriate for your subject and students and adapt that to your specific content and needs.

6 > As with any teaching practice, it is important to understand whether it works – for you and your students – by soliciting regular student feedback. One simple way to **gather student feedback from PBL sessions** is to have students write in a journal for five minutes at the end of class. As the teacher, you can prompt their writing with a different question each day, such as “Summarise what you found the most confusing in class today. What did you find the most clear? What did you like the most? What did you like the least? What is the first task your group will start with tomorrow?” Teachers can then collect these short writings and use the feedback to help plan the next day’s session.

7 > Students who are not used to this kind of learning might find it challenging to learn more complex topics without constant direction from the teacher. Yet just because teachers are not using direct instruction, it does not mean they cannot **take steps to scaffold learning for students**. Students need guidance during PBL just as they do in any other lesson. Teachers can accomplish this by breaking up larger objectives into smaller tasks. For example, if students are to design the front page of a news website, you might have them describe their target audience first, then outline the kinds of stories that would appeal to this audience, then prioritise and determine placement of these articles, then write the introductory text that will appear next the links to each of these stories, then source any graphics that should be included, and so forth.

Most importantly, if a project does not work, **do not give up**. If you have been gathering feedback from students you should have a good idea as to why it did not work, and you can select or create a project that avoids these pitfalls the next time. Alternatively, if you are having problems with students working together, create new groups and put practices in place to ensure that students stay on task. For example, at the beginning of each class session, students can have a status meeting in groups to discuss the objectives for that day and start to hold each other accountable for outputs. There are so many benefits to PBL, it is well worth giving it another try (Edutopia, n.a).

LESSON 6

Reaching all learners
in the classroom



When you walk into the classroom at the beginning of a new school year, you find an average of 25 unfamiliar faces staring back at you. You have the class register and will learn the names of each child sitting in each seat. You may have reviewed their academic results from the previous school year. Some students' former teachers may even have given some additional information about these students. Beyond this, it is likely that you will have little other knowledge of your new class of students. You will be unaware of their likes, dislikes and interests. You will not know what extra-curricular activities they participate in. You will be unacquainted with the details of their home life, and how it may influence their learning. But all of this will become familiar to you over time, and it is information you will need in order to establish the best learning approach for each individual student.

It is a teacher's job to ensure that all students can access the curriculum and master core skills, regardless of their particular learning style or background. Students enter the class at different levels, from different educational backgrounds and with varying abilities and skills. In some cases, some students may naturally learn at a pace that is faster and more advanced than that of their classmates. Others may struggle for a variety of reasons, such as learning, social or emotional difficulties. Some may have special needs and be accompanied in the classroom by teaching assistants or outside by tutors. A teacher will need to take all of this into consideration when planning their classes.

Individually tailoring instruction for each learner in a classroom is one of the most challenging aspects of being a teacher – and one of the most important. There is a substantial body of academic literature that supports instituting differentiation practices in teaching. Research indicates that when differentiation is practiced effectively, it can support higher levels of student achievement as well as attitudes and motivation towards learning (OECD, 2017).

However, many teachers who believe they are differentiating instruction are doing so ineffectively, often changing their teaching only as a reaction to a behaviour, question or confusion observed in class, rather than planning a lesson targeting varying abilities (Tomlinson et al., 2003). Effective differentiation of instruction is a challenging and time-consuming task, which requires altering lesson materials and assessments, which teachers are also often reluctant or unable to do.

Given the multicultural nature of the UAE, teachers are not only expected to deal with students with varying skills and learning profiles, but also with students from very diverse cultural, educational and linguistic backgrounds. In addition, the public sector is now expected to accommodate Students of Determination³ in mainstream schools. In order to successfully reach *all* of the students in their classes, UAE teachers must be equipped with the skills to differentiate instruction to ensure that every child succeeds and reaches at least a basic minimum level of skill. This is an important challenge and one that teachers need significant support with.

³The TALIS 2018 International Questionnaire uses the terminology “special needs” to refer to the students for whom a special learning need has been formally identified because they are mentally, physically or emotionally disadvantaged. Often they will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education. In this report and in light of the terminology used in the UAE, these students are referred to as “Students of Determination”.

WHAT DO THE TALIS 2018 DATA TELL US?



The TALIS data do not enable us to understand whether teachers in the UAE are able to differentiate instruction effectively. However, the data do provide an understanding of teachers' initial and continued training and feelings of self-efficacy around teaching to a group of students with diverse educational needs.

The majority of UAE teachers (88%) say that they feel well prepared or very well prepared for teaching in a mixed-ability setting. This is double the percentage of teachers across OECD countries (44%) who express the same level of confidence in this area.

TALIS also provides data on whether teachers report receiving support for teaching Students of Determination or for using individualised learning approaches in teaching as part of their recent professional development. On average, 83% of teachers in the UAE report that their recent professional development activities included approaches to individualised learning, and 70% of teachers in the UAE reported the same for teaching Students of Determination – much higher levels than the OECD average.

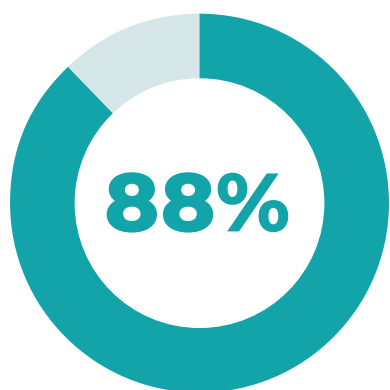
Breaking down the data by teacher characteristics provides an interesting story. As Figure 11 shows, a smaller percentage of novice teachers than experienced teachers report that approaches to differentiating instruction were included in their

professional development. The percentage of novice and experienced teachers who report attending professional development that included teaching Students of Determination is virtually the same.

High participation in professional development around individualised learning or teaching Students of Determination might explain why only 8% of teachers in the UAE report a high level of need for professional development that covers approaches for individualised learning, as opposed to 14% on average across the OECD. The percentage of UAE teachers with a high level of need for teaching students with special educational needs is slightly higher, at 18%, but this is still lower than the OECD average of 22%.

However, if we look at Figure 12, differences once again emerge based on teacher characteristics. For example, a higher percentage of female teachers say they need professional development in this area in comparison to male teachers. Additionally, younger and novice teachers are also more likely to voice a need for support in this area, in relation to their older or more experienced counterparts.

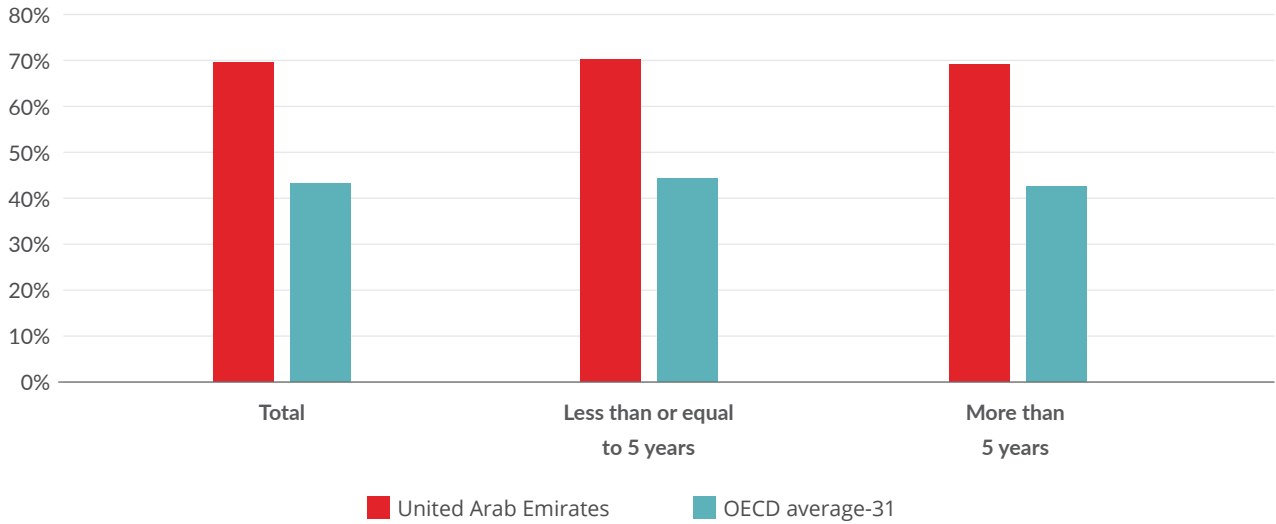
This indicates that new teachers in the UAE who have less experience teaching to diverse groups of learners are not being provided the help and support they need in what is one of the most challenging aspects of teaching practice.



Around nine in ten UAE teachers (88%) say that they feel well prepared or very well prepared for teaching in a mixed-ability setting.”

Figure 11. Teacher training for teaching diverse learners, TALIS 2018

Percentage of lower secondary teachers for whom approaches to individualised learning were included in their professional development activities, by teachers' experience



Source: OECD (2019), TALIS 2018 data - Volume I, Table I.5.18, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

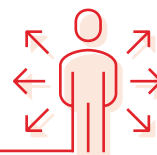
Figure 12. Teachers' needs for support for teaching Students of Determination, TALIS 2018

Percentage of lower secondary teachers reporting a high level of need for professional development in teaching Students of Determination



Source: OECD (2019), TALIS 2018 data - Volume I, Table I.5.21, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

WHAT TEACHERS CAN DO



Teaching to the individual needs of diverse learners involves rethinking your current teaching and the tools, resources, lesson plans and assessments you use entirely. Because you will need to take into account the individual needs of specific children in their classroom, it is difficult to provide general lessons or activities that will work for everyone.

To address differentiation across your practice, a great place to start is **REACH**. Researchers in the United States have created the REACH framework which has been well-used by teachers to help transform what they call “undifferentiated” practices into differentiated instruction (Rock et al., 2008). It consists of five steps:

1 > Reflect on will and skill: This step is all about the teacher. You, as the teacher, are the most important actor in the process of differentiating instruction. You need to reflect on your own practice, beliefs and the habits that you have developed over your career. Ask yourself whether there are teaching practices or materials that you tend to rely on again and again. Most teachers will answer yes. Now think about those practices or materials. Do they help all of your learners, every time? If those practices are not effective for all learners in your classes, the same learners will miss out time after time. This kind of reflection is essentially the first step on your path towards differentiation. If you realise that some of your learners fail to benefit from your teaching practices, you should set goals for their own learning and development in terms of differentiation and create a timeline for how you will develop your practice to reach all students.

2 > Evaluate the curriculum: Next, look at the curriculum you teach and ask yourself “does this content relate to the lives and interests of the students?” To do this, you might want to conduct

a survey that asks students what they already know about a particular topic before you start to teach it. This kind of data can help you order the content within the curriculum in a way that makes sense to students, while relating it to their own lives in a way that is interesting and motivating to them.

3 > Analyse the learner: This is where the idea of personalising instruction comes in. It is different from just looking at the content and interests of the students. This step involves evaluating student readiness for learning as well as any strengths and weakness students might have in this area. You could add questions to a student survey that would help you ascertain students’ motivation and attitudes towards learning this topic.

4 > Plan lessons in advance: Differentiating instruction requires advanced planning. You should first create an overall plan for the objectives and content that need to be covered and then select the learning activities you will use. At this point, you need to adapt the plan so that you have activities to address learners of different levels, and match your students to those levels.

5 > Use your data: The last step is about assessment and involves not only understanding whether your students have mastered the necessary content and skills but using the data to inform your teaching. This requires using multiple methods to assess students before, during and after your teaching. Formative assessment can also help you in this regard (see Lesson 4: Learning from formative assessment practices).



Box 8. Olympic Unified Champion Schools to promote school inclusion

In 2010, the UAE expressed its commitment to improve inclusiveness in schools through its ratification and adoption of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). This commitment has been reiterated in the UAE Vision 2021 and in the UAE Centennial 2071, where inclusiveness is also seen as a key to educational excellence. The UAE also initiated the Special Olympics World Games in 2019, as the world's most inclusive humanitarian sporting event.



inclusiveness is seen as a key to educational excellence”



***Special
Olympics
United Arab Emirates***

The Special Olympics Unified Champion Schools (UCS) programme is aimed at promoting social inclusion through intentionally planned and implemented activities affecting systems-wide change. The programme was created as an education and sports-based strategy, to promote acceptance, diversity, equity and community engagement. It includes three main components:

- 1 > Whole-school engagement
- 2 > Inclusive youth leadership, and
- 3 > Inclusive sports.

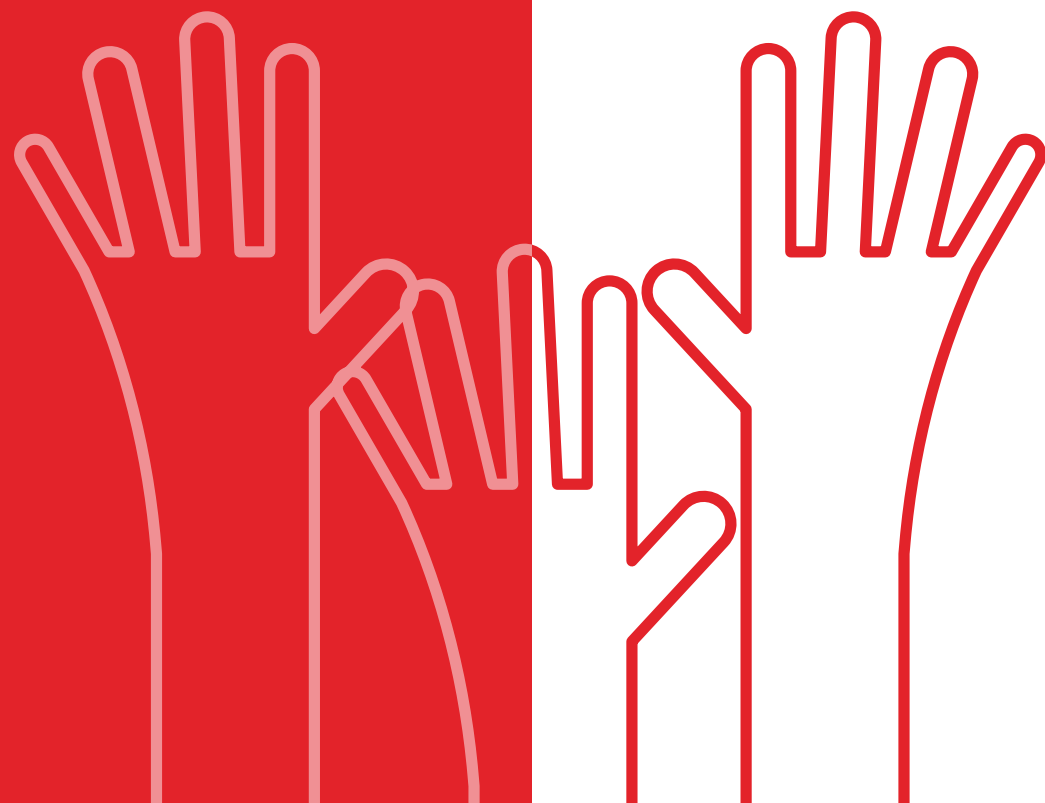
To support the implementation of this programme among all students, the Education Affairs Office of the Crown Prince Court in Abu Dhabi, in coordination with Special Olympics UAE, launched four special Olympics UCS Playbooks. Their main objective is to provide teachers with key strategies, and implementation guidance to create an inclusive education atmosphere in schools. Each of them focuses on one level of schooling and the fourth one provides physical education resources for the three cycles. An accompanying Assessments Booklet is also provided to enhance tools used to measure and monitor social inclusion.

Source: Unified Champion Schools (n.a), Resources Webpage, www.unifiedchampionschools.ae/ (accessed 06th March 2020).



LESSON 7

Creating a classroom
climate conducive to
learning



Issues of classroom discipline and misbehaviour can have multiple negative implications for students and schools. First, and perhaps the most obvious is that disruption takes away time from actual teaching and learning. Every minute that a teacher loses dealing with classroom management issues is a minute taken away from academic content. Moreover, dealing with



Every minute that a teacher loses dealing with classroom management issues is a minute taken away from academic content. Moreover, dealing with unmotivated and undisciplined students can be wearing on teachers as well.”

unmotivated and undisciplined students can be wearing on teachers as well. They can negatively impact their job satisfaction and feelings of confidence in their ability as teachers (OECD, 2014). This can lead to stress, burnout and a desire to leave the current school or even the profession.

For these reasons, how to address classroom disruption and misbehaviour are pressing issues for education systems around the world. These issues are particularly pronounced in schools across the UAE, as will be discussed in the next section. Both TALIS 2018 and PISA 2018 data revealed that issues such as bullying, noise and disorder are very common, in particular in boys' schools and classrooms. Teachers who attended the Qudwa 2019 Forum confirmed such findings and noted that these types of issues were among the most challenging aspects of their jobs and often prevent them from teaching.

Making sure school-wide procedures and programmes are in place to promote a positive school climate and combat negative behaviour is a first step, but teachers also need to be well-equipped to deal with any issues that arise in the classroom so that minimal learning time is lost.

WHAT DO THE TALIS 2018 DATA TELL US?



Lower-secondary school teachers in the UAE say they are very confident in their abilities where classroom management is concerned. Furthermore, 80% of teachers reported having participated in professional development involving classroom management in the 12 months prior to the survey, as opposed to only 50% of teachers on average across OECD countries.

Yet, even with seemingly strong foundations in classroom management and high levels of confidence in this area, TALIS data also tell us that teachers in the UAE report spending a slightly larger share of their time (14%) trying to keep order in the classroom than the average for other countries in the OECD (13%) in lower secondary schools (Figure 13).

Teachers in the UAE are more likely than teachers in OECD countries to report frequently engaging in practices that aim to maintain an orderly classroom, such as telling students to follow classroom rules or telling students to listen to what they say. On average 84% of teachers in the UAE report frequently or always telling students to follow classroom rules (OECD average: 71%) and 78% of UAE teachers report telling students to listen to what they say with the same frequency (OECD average: 70%). A similar share of teachers report that they frequently or always take measures to react to disruptions from students in the classroom, such as calming students who are disruptive (80% of teachers in the UAE, in comparison to 65% on

average across OECD countries) and asking students to quiet down quickly (77% of teachers in the UAE, in comparison to 61% on average in OECD countries). PISA 2018 data may help explain why this frequent use of teaching practices to maintain classroom discipline is necessary. Both teachers and students surveyed in PISA 2018 report significant disruptive behaviour in classrooms in the UAE (see Figure 14) (OECD, 2019).

- One in four students in the UAE (26%) reported that students in their classes are never or rarely able to listen to the teacher or that there is noise and disorder in the classroom (OECD average: 31%)
- Around one in five UAE teachers report that they have to wait quite a long time for students to quiet down, they lose time because students interrupt lessons, and that there is disruptive noise in the classroom (OECD average: 26%)

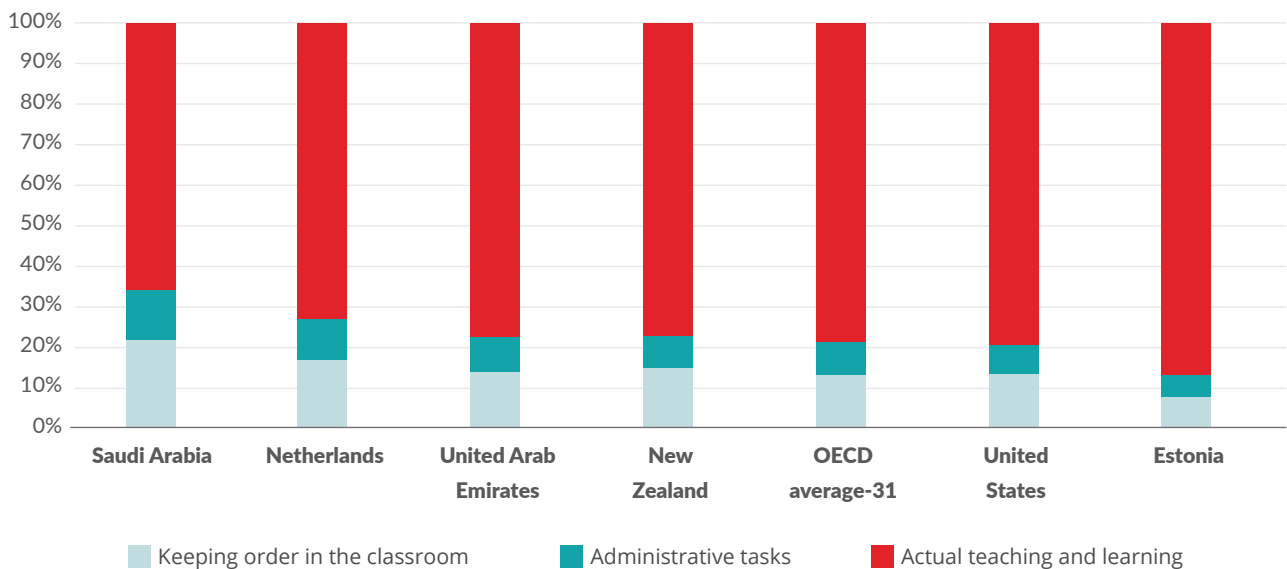
Teachers in the UAE lose a lot of time dealing with bad behaviour on a daily basis. Addressing this issue can help ensure that students devote more time to actual learning. It can also create a more conducive environment for teachers to implement more challenging instructional methods, such as cognitive activation (see Lesson 3: Fostering cognitive activation in the classroom) and collaborative learning approaches (see Lesson 5: Introducing co-operative project-based learning in the classroom).



Teachers in the UAE report spending 14% of their time trying to keep order in the classroom”

Figure 13. Teachers' use of classroom management teaching practices, TALIS 2018

Average proportion of time lower secondary teachers report spending on each of these activities in an average lesson



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.2.10, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Figure 14. Classroom disruption, PISA 2018

Percentage of students who reported that, in every or most lessons, there is noise and disorder in their language-of-instruction lesson



Note : *Data did not meet the PISA technical standards but were accepted as largely comparable.

Source: OECD (2019), PISA 2018 Database - Volume III, Table III.B1.3.3, OECD, Paris, <https://www.oecd.org/pisa/data/2018database/>

WHAT TEACHERS CAN DO



Every teacher was once a new teacher, faced with classrooms of students and unsure how to react when behaviour was not ideal. It takes time and courage to try new behavioural strategies in class; if they do not

work right away it is easy to feel discouraged. This section contains a few general principles about classroom management as well as some tried and tested tips to improve your practice.

Box 9. General principles for classroom management

1 > When thinking about the kind of classroom management approach you need for your classroom, you can consider a classroom-wide approach or working at an individual student level. In many classes, you are likely to need both.

- **Classroom level:** These are teacher-led approaches to improving behaviour in a classroom. Research indicates that successful classroom-level approaches focus on students' emotional development and encourage them to have empathy for others (Korpershoek et al., 2016).
- **Individual student level:** These strategies are targeted towards the specific behavioural issues of individual children, and are often delivered one-to-one outside the classroom (Wilson et al., 2007). This can be challenging to manage at first, as you must be familiar with a number of strategies and when to apply them. However, aiming certain tactics at the behaviours they are designed to manage can be very effective.

2 > According to research from the Education Endowment Foundation, interventions with the most success in this area have one or more of the following characteristics.

- They are targeted at the specific needs of individual children (as in the individual student-level interventions mentioned previously).
- They are not one-off interventions but programmes that last two to six months. Both students and teachers need this amount of time to understand and follow new classroom rules, norms and procedures.
- They involve parents or the outside community. As with teaching, interventions in discipline are more impactful with students if they relate to life beyond the classroom. Involving parents can help ensure continuity of behaviour outside of school, and parent support can reinforce the teacher's objectives.

Source: Education Endowment Foundation (n.a), Behaviour Interventions Webpage, <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/behaviour-interventions> (accessed 06th March 2020).

Below are a few classroom management guidelines to help get you started (Diva, n.a).



Checklist for developing a conducive learning environment in your classroom

Every classroom should have a few rules, and students should know what they are. You can post these somewhere in the class where they are always visible to students. They can be broad and can align with the school's vision or values. For example, "no one should interrupt the learning of another student."

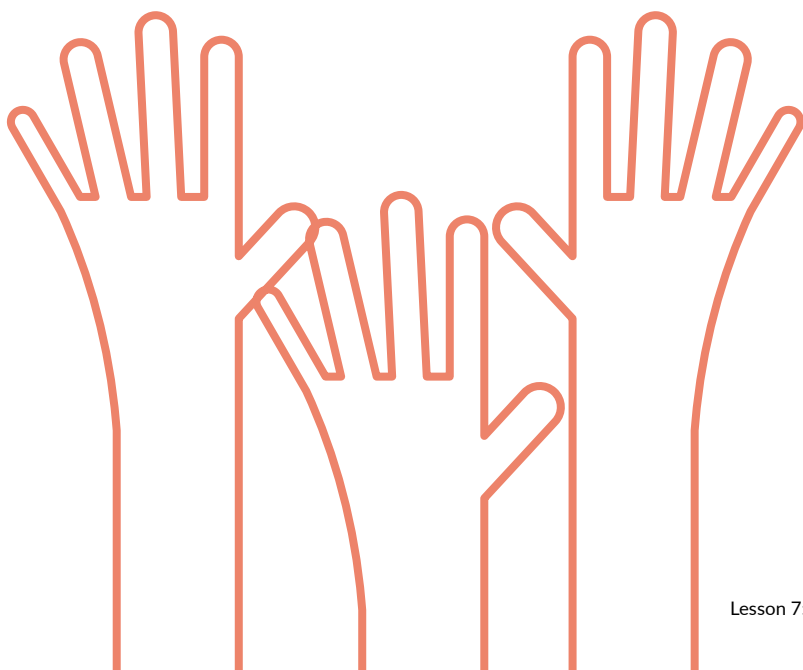
- ✓ Following those rules, there need to be a set of clear consequences that are consistently enforced when students break rules. Again, these can be aligned with a school-wide discipline policy, but it is important that students know what these consequences are. As the teacher, if you say you are going to enforce these consequences, then you need to do it.

Consequences can vary in severity according to whether the behaviour is repeated. If a student only breaks a rule once, they might receive a warning. However, if they repeatedly ignore classroom rules, the consequences should be more severe.

- ✓ You should develop a set of consistent procedures for everything that students do in the classroom, so that there is no time for misbehaviour. Students should know what to do as soon as they enter class, if they need to speak with you, if they need to leave the classroom for some reason, and when they need to hand in work, and so forth. Introduce and remind

students of these procedures in the first month of class and they will be quickly adopted.

- ✓ Your job as a teacher is to focus on teaching all of the students in your class. You do not want to spend time with students who have issues that they can easily solve themselves. If students forget their book or other materials, they should know what to do to and should not disrupt you and the class because they do not have their resources. Likewise, if students have missed class, you can set up a place in the classroom where they can find their missed work so that you do not have to take time out of class to address this.
- ✓ Do not try to talk over your students if the classroom is noisy. Develop a signal that you give to students when you need their attention and use it consistently. This could be a bell that you ring, a series of claps or a hand signal.
- ✓ Reinforce positive behaviour, rather than drawing attention to negative behaviour whenever possible. Teachers can employ many kinds of point or reward systems for this, but it is often easiest just to thank a student in front of his or her peers when they are following rules and staying on task.





PART

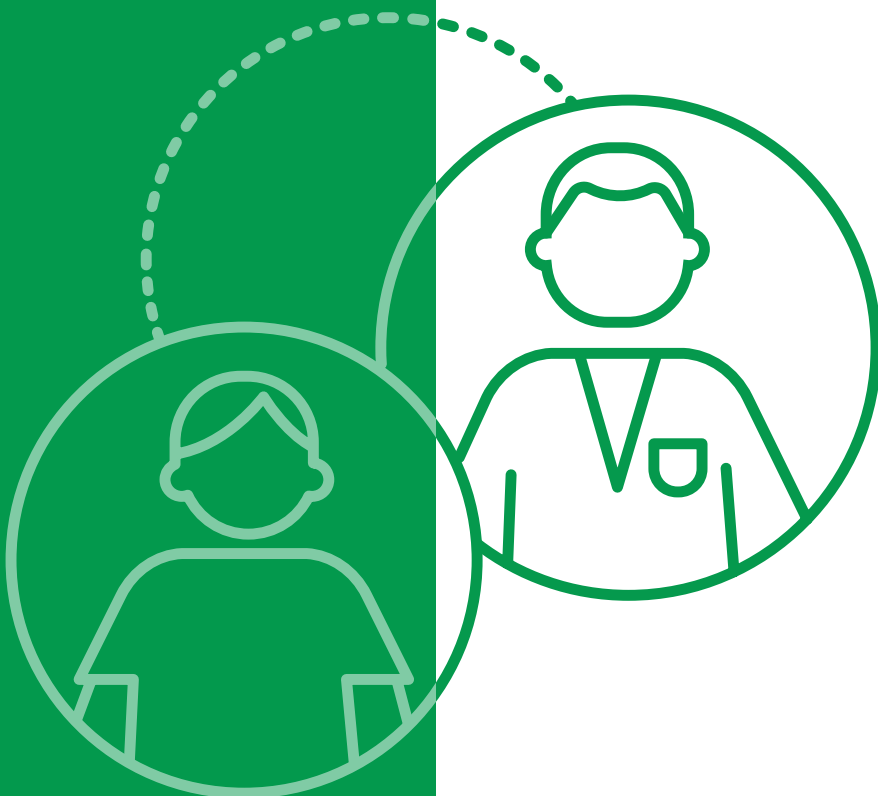
2

Professional learning to improve the teaching of global competences

Lessons in this section examine the support that teachers receive to develop their own practice in the ways outlined in Part I. Resources are provided to help teachers and school leaders understand the benefits of and take part in induction and mentoring, observing and providing feedback to peers and joining a network of teachers for professional development.

LESSON 1

Providing induction and mentoring for new teachers



Being a new teacher can be daunting. The minute the bell rings and the classroom door closes on your first morning, you find yourself on your own, in front of a classroom of expecting students, relying solely on your education, skills and willpower. As a new teacher, you may have felt (or still feel) like the preparation you received was insufficient to deal with the multiple pressures and practical challenges of the job. For example, you may struggle with managing the classroom in order to have sufficient time for teaching your subject, or find it difficult to resolve disputes among students that disturb your classroom. You may not know what are the best strategies to use when students appear unmotivated or when certain ones start falling behind. You are not alone in feeling like this. The first few years of teaching are particularly challenging, as new teachers try to find practices, policies and procedures that work for them. This is part of the reason for the high rate of teacher attrition in the first five years of teaching in the UAE and around the world.

One of the ways to keep new teachers teaching and to ensure that they are developing their capacity to deliver high-quality instruction is to provide them with extra support and guidance in these critical years (Darling-Hammond, 2003). Two methods of providing support to new teachers include induction and mentoring.

Induction is a period of formal support for new teachers or teachers new to a school. It could involve extra supervision of teaching practice or professional development to familiarise teachers with the school culture and procedures. It can serve as an opportunity to learn critical pedagogical approaches and practices, such as cognitive activation strategies and PBL, which may not have been sufficiently covered in initial teacher education. Research indicates that effective induction programmes can improve the quality of teaching as well as rates of teacher retention (Ingersoll and Smith, 2004). In addition, there is empirical evidence that

the majority of students of new teachers who had participated in an induction demonstrated higher levels of academic achievement (Ingersoll and Strong, 2011).

Mentoring occurs when there is a formal arrangement whereby a more experienced teacher provides support to a less experienced teacher. As with induction, mentoring programmes could be put in place for all teachers in a school, or only for new teachers. Some teachers who have been teaching for a while might be teaching a new subject for the first time or may be using new resources (such as ICT) in their teaching. Such teachers could also benefit from mentoring. Another question that arises regards the importance of training for the mentors themselves. Given that mentoring is usually led by older and more experienced teachers, there is the risk that they will be unfamiliar with more modern approaches to pedagogy and instruction such as those that the UAE is seeking to introduce with a more modern and global-competence focused curriculum.

Regardless of the level of teaching experience, formal mentoring arrangements in schools produce positive outcomes for both teachers and their students. Strong relationships have been shown between the quality of mentoring, teacher perceptions of mentoring quality, the amount of time spent engaging in mentoring and student achievement. There is empirical evidence that students' achievement in mathematics and reading improves when the amount of time their teachers receive mentoring increases. However mentoring *quality* is also important, as is whether the mentor has worked as a mentor or teacher in the same school as the teacher he or she is mentoring. Research indicates that contextual commonalities may even be more important than experience teaching the same subject area (Rockoff, 2008). These findings tell us that mentoring is important, but not just any mentoring will do; schools need to consider the amount of time they can allocate to mentoring, the training required by mentors, and how to match mentor to mentee as well.

WHAT DO THE TALIS 2018 DATA TELL US?



According to TALIS data, most teachers in the UAE report working in a school in which they have had an induction or mentoring as part of a formal arrangement. This is another instance in which the participation rate of UAE teachers is above the OECD average. However, a further examination of the data produces some interesting findings that should be further investigated.

Induction activities in the UAE appear to make a positive impact on teachers. In the UAE, teachers who have participated in induction programmes report higher levels of confidence in their own abilities as teachers. There is a reported 0.48 change in the index of self-efficacy associated with teachers having participated in induction activities at their current school compared to a change of 0.16 on average in OECD countries. As Figure 15 shows, this impact is the second largest amongst TALIS participating countries after Saudi Arabia. However, nearly one third of UAE teachers do not get induction in their current school (OECD average: 58%). Where can these teachers turn to for support when joining a new school or even the profession?

The extent to which induction is structured – or not – is also of significance. Although induction practices are mandatory in public schools in the UAE and a majority of teachers participate in them, they are generally less formalised than in most OECD countries (OECD, 2019). When taking into account the extent of teacher turnover and the high rates of expatriates in the teaching workforce in the UAE, induction should not only be extended to all teachers, but would also benefit from being more structured, systematic and sustained for longer periods of time. Offering more effective on-boarding support to experienced teachers changing schools or to teachers from other countries upon first entering the UAE would not only improve the quality of their teaching, but could also reduce attrition and help them better integrate into the local community.

The data on formal mentoring arrangements in the UAE are also positive but worth examining closer in terms of the UAE context. As shown in Figure 16, 43% of novice teachers in the UAE report having a mentor assigned to them, which is well above the

OECD average of 22%. And it is not just novice teachers who receive mentoring; 42% of all teachers in the UAE report having a mentor assigned to them, as opposed to only 9% across all OECD countries.

Nevertheless, this means that there are still 57% of novice teachers without a mentor assigned to them, in addition to nearly a third of teachers who have not participated in an induction at their school. Where do these teachers turn for support?

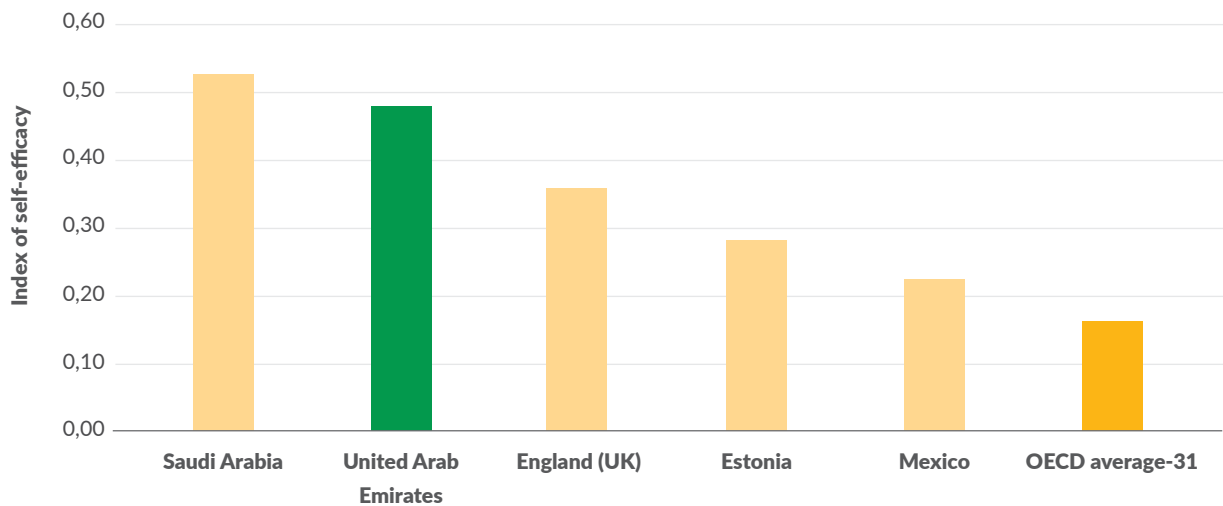
As with induction, although many teachers in the UAE benefit from peer mentorship, evidence suggests that the quality is inconsistent. Some teachers reported rarely engaging in classroom observations or that their principals' feedback was not sufficiently focused on pedagogical practice (OECD, 2019). In addition, some public schools lack the subject leaders or teacher mentors who could foster peer learning. Given the rich benefits of mentoring to teaching and learning, investing the time and resources in instituting high-quality mentoring programmes across UAE schools would be worthwhile. The introduction of the new teaching career ladder in the public sector offers an opportunity to develop the role of the teacher-mentor into a structured pathway for experienced and highly-qualified teachers.



In the UAE, teachers who have participated in induction programmes report higher levels of confidence in their own abilities as teachers”

Figure 15. Impact of participation in induction activities on teachers' self-efficacy, TALIS 2018

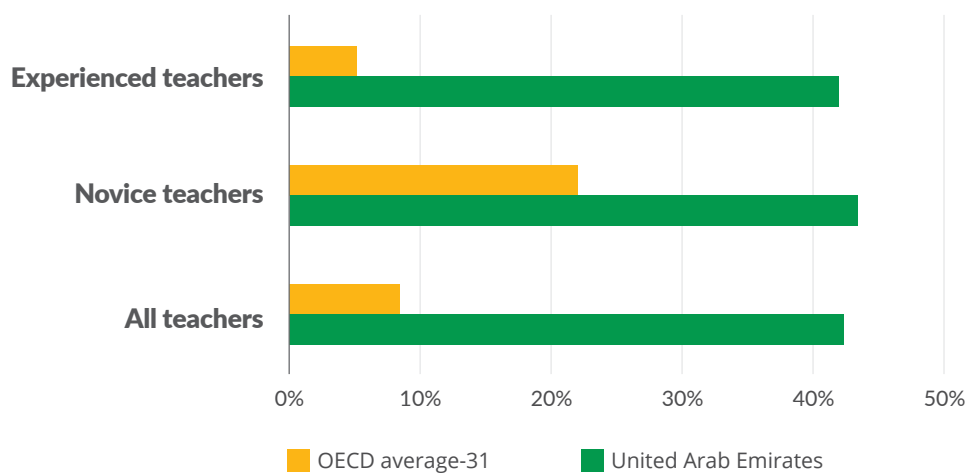
Change in the index of self-efficacy associated with having participated in induction activities in lower secondary teachers' current school



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.4.47, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

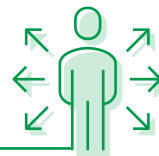
Figure 16. Participation in formal mentoring, TALIS 2018

Percentage of lower secondary teachers taking part in formal mentoring arrangements, by level of experience



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.4.64, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

WHAT TEACHERS CAN DO



There are many countries in which mentoring and induction programmes are thriving and demonstrating their value to schools and teachers alike, The *Teacher Education around the World: Changing Policies and Practices* report provides case studies of education systems that have longstanding successful induction and mentoring programmes, including Singapore and Ontario (Canada) (Darling-Hammond and Lieberman, 2012).

- › **Singapore:** In Singapore, each year new members of the teaching profession take part in an official, national induction ceremony that is attended by the Minister of Education and covered in the press. During this ceremony, teachers recite an official pledge, signifying their commitment to their work and the students they serve. When they begin work at their new schools, Singaporean teachers are all enrolled in systematic and structured induction programmes. Each programme includes a number of formal classes that teachers must take within their first two years of teaching. These courses are designed to be especially relevant to novice teachers and include subjects such as classroom management and working with parents.

Additional support is provided for new teachers by the Ministry of Education in order to keep teachers in the profession and ensure that they have the highest level of success possible. The government has instituted two other programmes aimed to support new teachers:

- **Teacher Renewal Journey** is a formal programme that comprises four full days of training over the course of one year. The aim of the programme is to help teachers manage the stress of the profession by giving them time to reflect on their practice and their purpose as teachers.
- **Individual Consultation and Advisory Resource for Teachers (iCare)** offers in-person and online support for whatever issues new teacher might be facing, whether they be personal or professional. New teachers can speak to more experienced peers or access resources online.



In Singapore, new teachers start out with less workload than their more experienced colleagues (...) and are required to teach only two-thirds of the classes of a more experienced teacher.”

Furthermore, in Singapore, new teachers start out with less workload than their more experienced colleagues so that they might have an easier time finding their footing. New teachers are required to teach only two-thirds of the classes of a more experienced teacher. In addition, they are provided with a formal mentor as well as a “buddy” who is a fellow teacher in the same subject area who can help when needed.

- › **Ontario (Canada):** The government of the province of Ontario introduced education reforms in 2003 that put in place the foundations of the current induction programmes that exists across schools. At the time, the government felt that the quality of initial teacher training was high, but that there was not enough support for teachers once they entered schools. Thus a four-year model of induction was introduced. First-year teachers are provided with extra time away from teaching and specialised professional development offerings that they can take advantage of during this time. There are formal mentoring programmes in which professional development is provided for both mentors and mentees on how to engage in successful mentoring partnerships. These reforms have proven successful, with research showing that over 98% of newly-hired teachers have stayed in their jobs over a five-year period.



Top tips for introducing mentoring in your school

To foster successful mentoring relationships at your school, the GROW model, developed by Manchester Metropolitan University in the United Kingdom, provides a good structure to start the relationship and guide conversations between mentor and mentee. GROW is an acronym for four steps in the mentoring cycle: Goal, Reality, Options and Way forward.

- › **Goal:** Mentors should ask the mentee to think about the future and list their personal or professional objectives. These should be the goals of the mentee, and not what the mentor feels they should do.
- › **Reality:** Mentors should ask the mentee questions to understand where they are now. Mentee teachers can also ask for feedback from peers or

managers to provide both mentor and mentee with a more complete picture of their current level of development.

- › **Options:** Mentors should check whether the mentee understands what options for development might be available to him or her, and which ones are realistic for the mentee's own situation.
- › **Way forward:** Mentors should help the mentee design an action plan to work toward his or her goals, and create measurable metrics for success that have timescales attached.

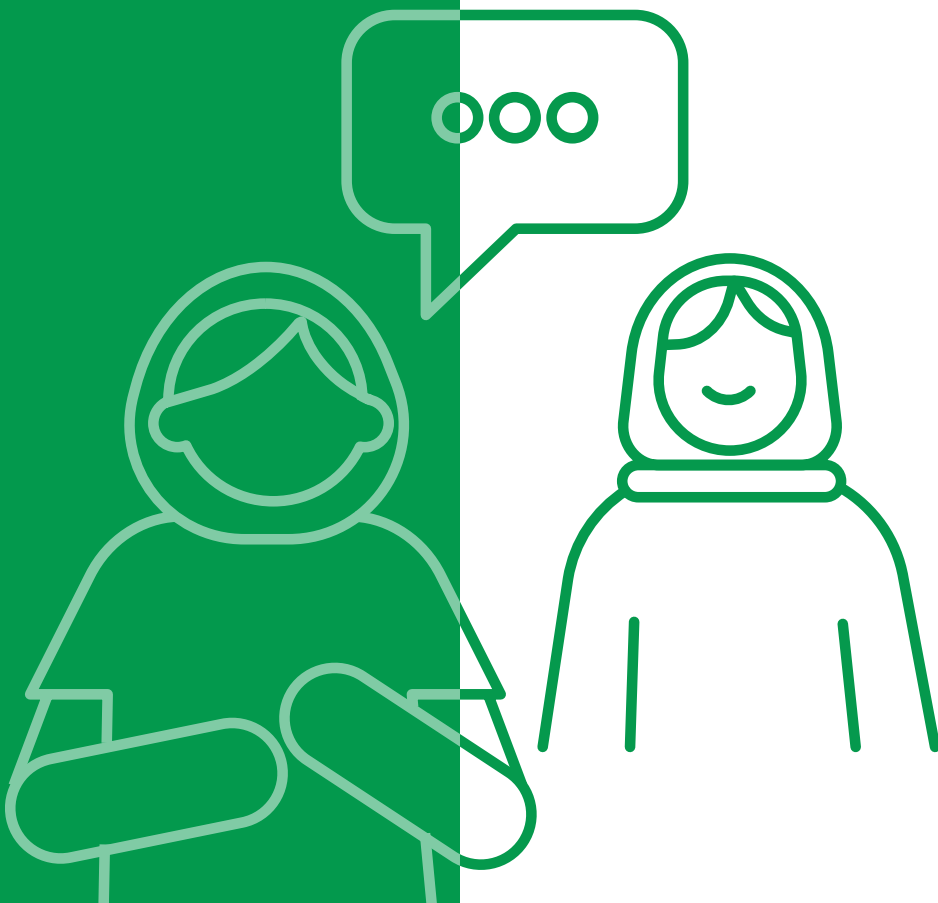
The GROW model



Source: Manchester Metropolitan University (n.a), *Mentoring Guidelines*, Human Resources, Organisational Development Training and Diversity, DOI: https://www2.mmu.ac.uk/media/mmuacuk/content/documents/human-resources/a-z/guidance-procedures-and-handbooks/Mentoring_Guidelines.pdf

LESSON 2

Encouraging peer appraisal and feedback



Providing feedback to teachers on their practice is imperative in their development and for improving the quality of their teaching. Peer or self-observation and its accompanying feedback on practice exhibit many of the characteristics of effective professional development for teachers (Cordingley et al., 2015): it takes place within a teacher's own context, which means teachers do not have to spend extra time adapting feedback to fit within the constraints of their own classroom. Moreover, teachers receive immediate, personalised advice and guidance to help improve their own teaching. Developing the habit of self-reflection amongst teachers allows them to continually strive to improve their own teaching, while having others observe a class and give guidance can provide teachers with another point of view and new ideas to implement. Moreover, a culture of continuous peer feedback can help promote a sense of ownership over practice, putting teachers at the centre of the decision on which practices work and which do not. It is through mechanisms like this that new 21st century teaching methods – such as those geared towards fostering global competence – can be trialled.

Research has shown that it matters who in the school is providing the feedback (teachers, school leaders, or department leaders, for example) as well as how soon after the observation the feedback is provided (Scheeler, Ruhl and McAfee, 2004). Studies indicate characteristics of effective feedback to be as follows:

- Direct feedback focuses on existing teacher behaviours or practices that need to be improved. To be effective, it should be specific so that the teacher knows what to target.

- Corrective feedback targets practices or actions that need to be ceased or changed. Comments to teachers on their practice should be positive and constructive. Input needs to be delivered with sensitivity so that teachers know that the practice rather than the person is the target of the correction.
- Only feedback that is provided immediately after the practice is effective for teachers on the receiving end.

One way to introduce a system of peer observation and feedback that embodies the characteristics of effective feedback is to institute a programme of peer coaching across the school. Peer coaching in teaching has been around for decades and was originally adapted from the type of clinical supervision that occurs in between senior and junior doctors in medical practice. The benefits to peer-to-peer feedback include empowering less experienced teachers to find their own solutions and helping them gain the courage to try out new practices (Hooker, 2013). Research shows that the feedback delivered by peers to teachers as part of a peer coaching relationship has just as much impact as that delivered by supervisors as part of a teacher's initial teacher training (Pierce and Peterson Miller, 1994).

As the Ministry of Education rolls out the Emirati School Model, a system of high-quality peer observation and feedback will be critical to support new and experienced teachers alike to introduce innovative approaches to pedagogy and curriculum.

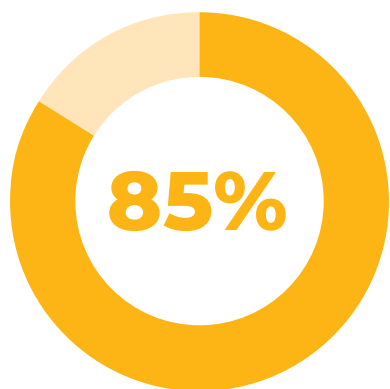
WHAT DO THE TALIS 2018 DATA TELL US?



Teachers across all levels of education in the UAE report widespread participation in observing peers, being observed and giving and receiving feedback as a result of these observations. As Figure 17 indicates, more than 85% of UAE teachers across all levels of education (primary, lower secondary and upper secondary) report having undertaken either peer or self-observation and feedback as result of a formal school arrangement. In primary and upper secondary, a higher percentage of UAE teachers report this than in any other country surveyed at those levels. Amongst lower secondary teachers, the only education system in which teachers report this with more frequency is Shanghai (China).

In addition, when teachers in the UAE were surveyed as part of the teacher questionnaire in PISA 2015, they also reported higher frequency of observing other teachers' classes than teachers in OECD countries, as indicated in Table 2.

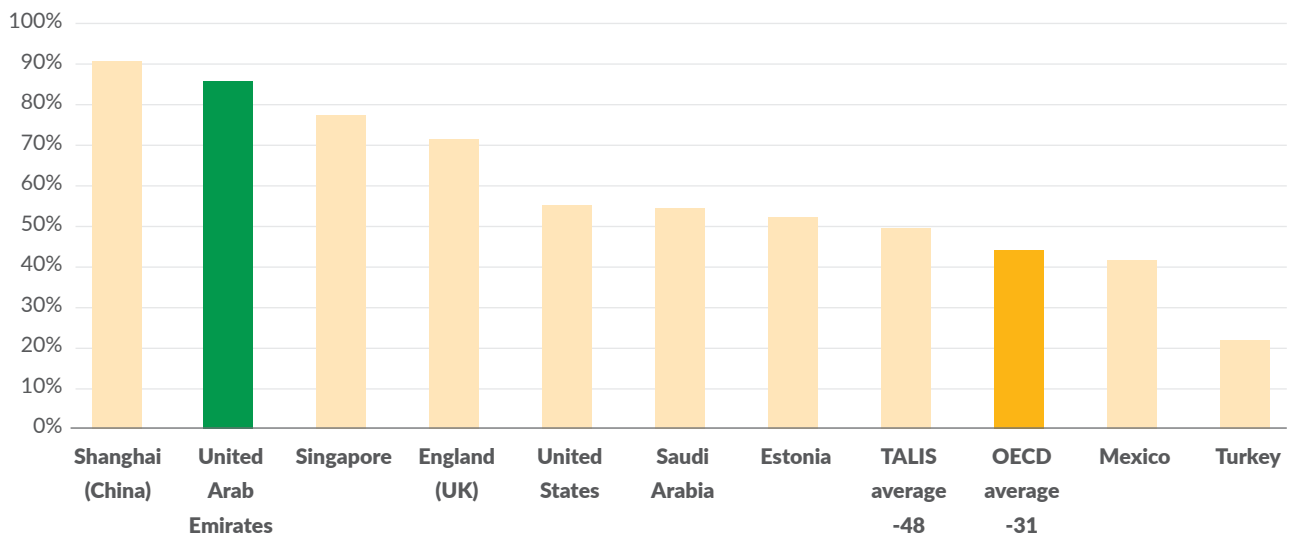
However, TALIS data across countries also uncover a trend regarding the relationships between teachers' level of experience and their participation in peer or self-observation and feedback (OECD, 2019). Across nine countries participating in TALIS 2018, the share of less experienced teachers who reported taking part in this type of training was significantly lower than their more experienced counterparts. Teachers in the UAE were part of this group, along with teachers in Latvia, Lithuania, Portugal, Romania, the Russian Federation and the Kingdom of Saudi Arabia, among others. In the UAE, 79% of teachers with less than five years teaching experience reported participating in peer or self-observation and feedback, in contrast with 87% of teachers with more than five years of teaching experience. This could mean that novice teachers in the UAE are less comfortable asking for feedback from more experienced colleagues or school leadership, or that supervision or observation of their practice might not always be included in their induction upon arrival to the school.



More than 85% of UAE teachers report having undertaken either peer or self-observation and feedback.”

Figure 17. Teacher participation in peer or self-observation, TALIS 2018

Peer and/or self-observation and coaching as part of a formal school arrangement, lower secondary teachers



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.5.7, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Table 2. Teachers' reported frequency of observing other teachers and providing feedback, PISA 2015

Frequency of observing other teachers and providing feedback	UAE Average	OECD Average
Never	9	44
Once a year or less	14	25
2-4 times a year	32	18
5-10 times a year	18	5
1-3 times a month	18	4
Once a week or more	9	4

Source: OECD (2016), PISA 2015 Database, OECD Publishing, Paris, <https://www.oecd.org/pisa/data/2015database/>

WHAT TEACHERS CAN DO



As mentioned previously, peer coaching has developed as a practice in schools around the world. There are many resources online that are free or for a fee and can help you build a system of peer coaching in your school. Some peer coaching programmes are focused around a specific topic, such as technology integration or the teaching of a certain subject.

Others are generalist in nature and aim to help teachers improve their practice, regardless of the subject or age they teach.

To set up a successful peer coaching programme, there are some conditions that are necessary for success (Peer-Ed, n.a).



Checklist for setting up successful peer coaching programmes

- ✓ Understand that coaches are peers, not universal experts. It is key to understand that the coach may not have all of the answers – and is not supposed to. A coach may well be a more experienced teacher but he or she does not know everything. Coach and teacher should work together to identify any unknowns and to find resources to solve problems or answer questions.
- ✓ Along those lines, coaches should not tell teachers what to do. The coach does not have a higher status than the teacher, and they should not direct their thinking or actions. Successful coaching relationships involve asking questions and offering advice.
- ✓ Define roles and responsibilities in the coaching relationships up front. The coach is not responsible for planning and driving the relationship. Both parties will get out of the relationship what they put into it, and appropriate expectations should be set up front.
- ✓ Coaching relationships should be built on trust. A teacher and coach need to be confident that what they discuss with each other will be kept confidential. This helps give teachers the courage to ask questions or try new ideas without feeling that they will be judged by others outside the coaching relationship.
- ✓ Coaching is not about evaluation. Peer coaching is about supporting teachers to improve their practice, so teachers should feel like they have the freedom to experiment, innovate and fail without repercussion.
- ✓ Remember that this is ultimately about students. The teacher may be looking to improve his or her practice through this relationship, but both parties need to remember that everything that the coach and teacher do should have the overall objective of improving learning for students.

Box 10. Case Study: Peer Coaching in New South Wales (Australia)

The Department of Education in New South Wales (Australia) has implemented a province-wide peer coaching programme. In order to ensure success, they advise the following steps to set up successful peer coaching on a large scale.

- 1 > Establish partnerships:** There needs to be a system in place to help teachers find and set up partnerships with a peer coach. Schools or school systems need to determine whether teachers should be able to find their own coach or if coaches should be assigned based on the age or subject the teachers teach.
- 2 > Develop the relationship and set goals:** Once partnered, teachers need time to develop a trusting relationship and plan what they will work on together. There are many planning templates

online that can help teachers and their coaches determine the goals of the relationships and set up the steps toward achieving those goals.

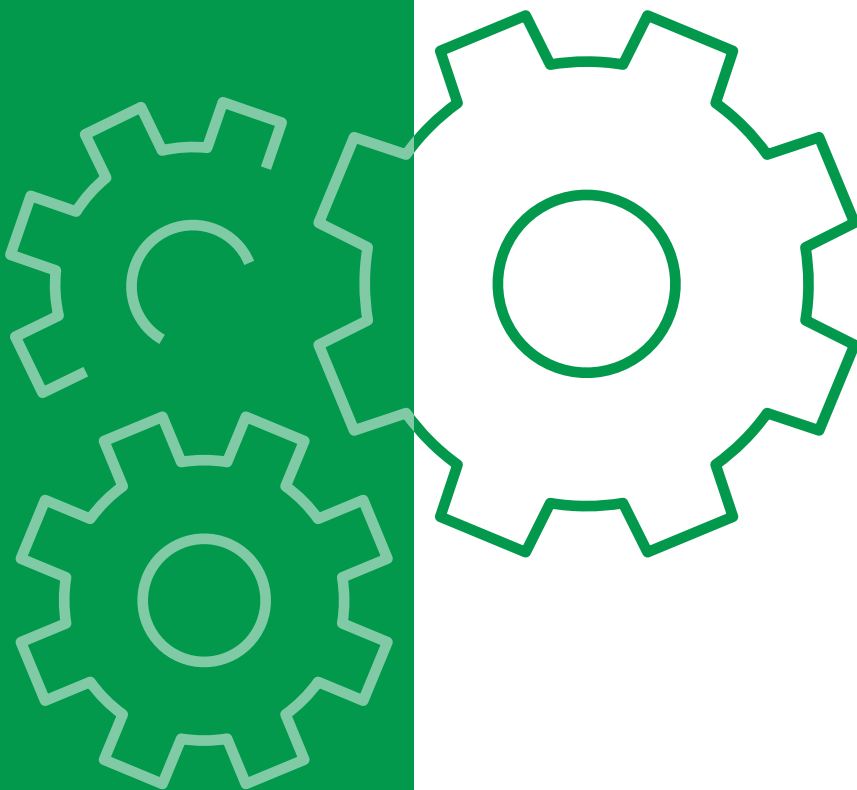
- 3 > Run peer coaching sessions:** Coaches and teachers should agree on the typical format of a peer coaching session. Coaches will have some advice here from their training, and will be able to offer guidance on what topics should be covered. Both coaches and teacher should discuss how to keep the momentum of the relationship going over time.
- 4 > Reflect on the experience and evaluating success:** Coaches and teachers need to set an objective for their partnership and check in on a regular basis to make sure their work together is helping them reach the shared objective.

Source: Government (n.a), Learning for the Future Webpage, www.education.nsw.gov.au/teaching-and-learning/curriculum/learning-for-the-future (accessed 06th March 2020).



LESSON 3

Taking advantage of
professional
development networks



In the UAE, as in many countries around the world, teaching has traditionally been an isolating profession, with teachers practicing behind classroom doors and with limited interaction with peers. As a result, many teachers still find collaboration with other teachers challenging, both inside and outside of their schools. In addition, the majority of teacher professional development still consists of courses or seminars, which teachers often attend by themselves, outside of their school context. It is often difficult for them to transfer what they have learned in the environment of the training, course or seminar back into the reality of their own school, classroom and students.

In the business sector, there has long been a culture of networking and connecting to peers within and outside of one's organisation in order to improve one's own professional practice. Networks like these are extremely valuable, as they provide professionals with a group of trusted colleagues who can be contacted at any time for guidance, support or professional opportunities. These kinds of networks can be formal or informal and are developed over time. In recent years, the concept of networks for professional development has found its way into the teaching profession as well. More and more communities for learning are present for teachers, both online and offline.

Learning communities, or networks, for teachers embody many of the qualities of highly-effective professional development, offering support over time, peer-to-peer learning, ongoing development opportunities and acknowledgment of the larger culture and context of teaching. For example, they can support teachers adopt new methods or approaches (e.g. a new Arabic curriculum or more formative assessment practices). Such communities can be particularly valuable for a diverse and mobile teaching workforce, such as the one in the UAE, by providing a degree of continuity in terms of professional support as teachers move across schools and regions.

In the past, deliberate efforts were made under the Abu Dhabi School Model to develop such networks in the Emirate of Abu Dhabi. They have since been

taken up by the Ministry of Education in the UAE public sector with the development of a new school organisation model. In the private sector, some important networks have emerged, in particular structured around certain school chains or teachers' country of origin. Nevertheless, compared with OECD countries, Abu Dhabi's teacher professional networks are weakly developed and tend to be centralised, which limits their capacity to foster knowledge sharing, internal accountability and a shared professional commitment to high standards.

In education, the concept of community or network learning has manifested itself in many ways, two of the most popular being professional learning communities (PLCs) and professional learning networks (PLNs).

› **Professional learning communities (PLCs)**

are formal communities of professionals based within a school, which do not cross organisational boundaries. The members of a PLC share a vision or goal of improving outcomes within their school (Dufour, 1998).

› **Professional learning networks (PLNs)** are

informal networks of people that individual teachers develop and grow to support their own learning. Interactions between members of your PLN could take place in-person (at trainings, conferences, or other teacher meet-ups) or, increasingly, online (through Twitter, social media and other online teacher communities).

This lesson will focus on the second type of teacher community, namely those networks that teachers form or join for their own professional development, since this is the focus of the TALIS data. The academic research on professional learning networks such as these is very positive, indicating that as a result of interactions with others in their network, teachers learn from what has worked for other teachers in their network and may change their teaching practices as well as their thinking about how to teach. In addition, teachers believe that their membership in a PLN positively impacts their students' learning (Trust, Krutka and Carpenter, 2016).

WHAT DO THE TALIS 2018 DATA TELL US?



In terms of professional learning networks, on average in all three levels of education (primary, lower secondary and upper secondary), TALIS data show that the UAE has the highest share of teachers participating in a network of teachers formed specifically for professional development purposes. As Figure 18 indicates, 70% of lower secondary teachers in the UAE report having participated in a network of teachers formed specifically for the professional development of teachers, compared to 40% on average amongst the participating OECD countries.

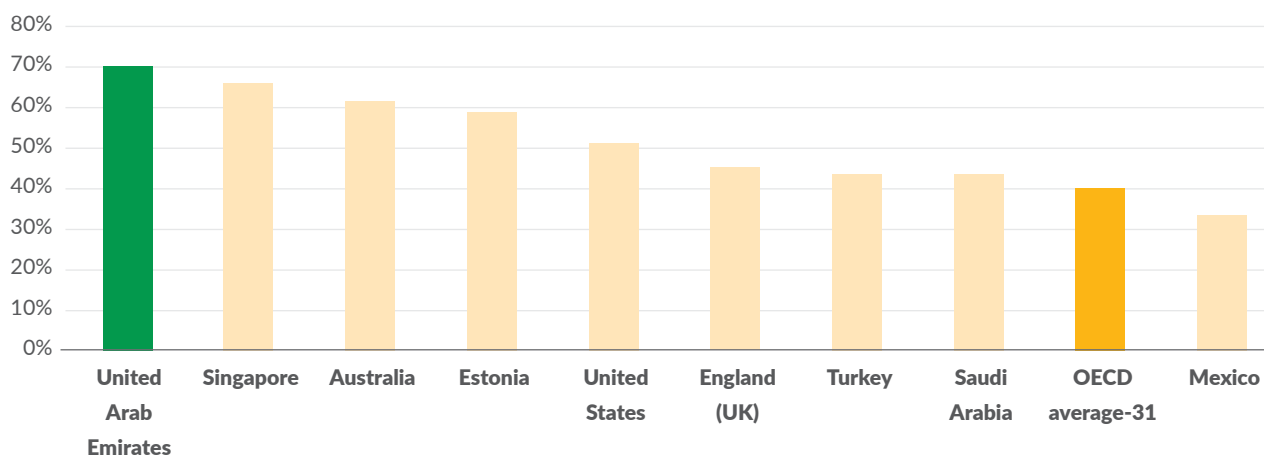
The quality of professional development opportunities is key to make it a useful experience for teachers. But again, teachers in the UAE report mostly positive experiences with their professional development. Amongst lower secondary teachers in the UAE, 88% reported that their professional development activities in the 12 months prior to the survey had a positive impact on their teaching practices compared to 82% on average in OECD countries. However, there is a slight difference between the responses of experienced teachers (who have taught more than five years) and novice teachers (who have taught less than five years), as indicated in Figure 19. An

overwhelming 89% of experienced teachers reported that the professional development activities they had undertaken in the 12 months prior to the survey had a positive impact on their teaching practices (OECD average: 82%), whereas only 82% of novice teachers in the UAE (and 83% in OECD countries) reported the same.

While it is still the majority of novice teachers in the UAE who have found their recent professional development to have had a positive impact on their teaching practices, it is interesting that it is a lower percentage than both experienced teachers in the UAE and across OECD countries. There could be a variety of reasons for this, including that the professional development available to novice teachers in the UAE might simply be something different than what they actually need at this point in their teaching careers. For instance, reports suggest that the UAE's induction programmes focus on administrative procedures in a school rather than providing the direct support (e.g. instruction practices focused on competence-based learning and the development of global competence skills) that might help improve their practice.

Figure 18. Participation in professional development networks, TALIS 2018

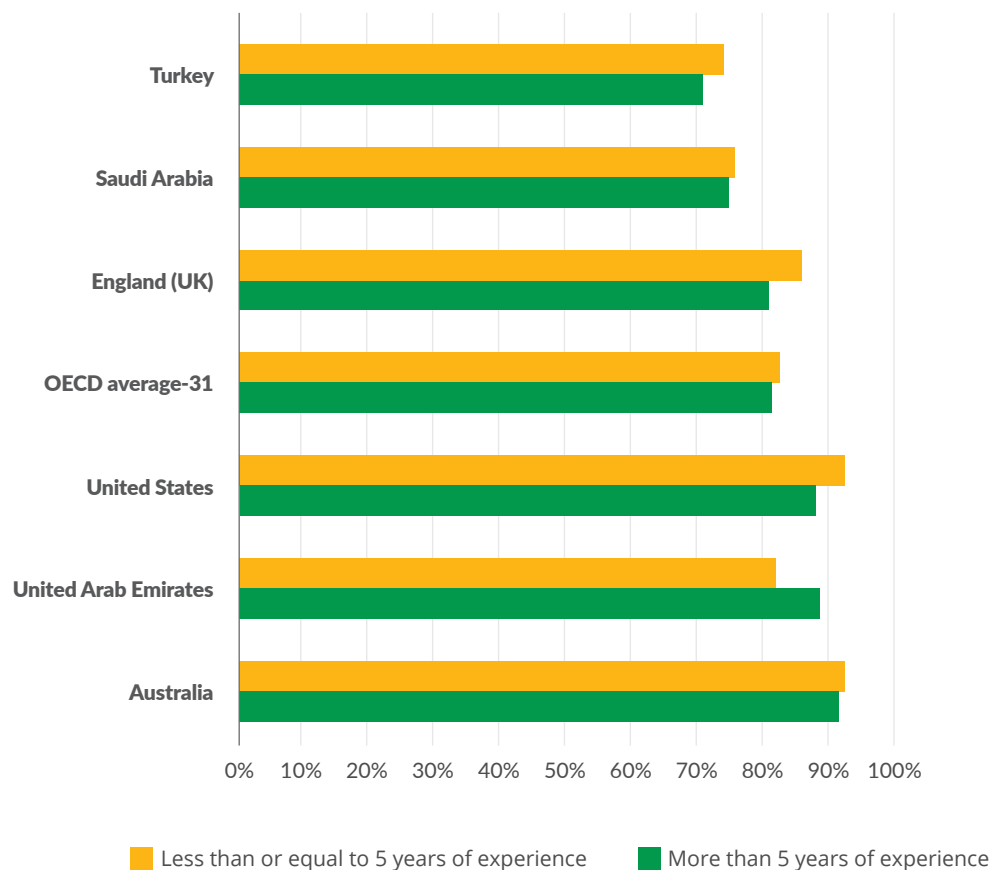
Percentage of lower secondary teachers participating in a network of teachers formed specifically for the professional development of teachers



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.5.7, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>

Figure 19. Impact of professional development for experienced and novice teachers, TALIS 2018

Percentage of lower secondary teachers who feel professional development activities in the 12 months prior to the survey had a positive impact on their teaching activities



Source: OECD (2019), TALIS 2018 Data – Volume I, Table I.5.7, OECD Publishing, Paris <https://www.oecd.org/education/talis/talis-2018-data.htm>



70% of lower secondary teachers in the UAE report having participated in a professional development network of teachers”

WHAT TEACHERS CAN DO



As with any community, it takes time to develop a professional network. New teachers or those coming from abroad – as is often the case in the UAE – might feel especially challenged in this area as they know fewer teachers outside of their own school. However, new teachers may come to teaching with a built-in network of colleagues from their initial teacher training programmes, and foreign teachers often team up with fellow nationals. Nurturing and sustaining these relationships is valuable as they enable new teachers to maintain connections with peers in exactly the same stage of their careers.

However, it is not necessary to hand-pick every member of a PLN. There are organisations or communities that you can join to meet people with similar backgrounds or who teach the same subject.

It should be noted, though, that the challenges that exist in finding high-quality teaching resources are similar to the challenges in developing a useful and reliable PLN – especially in today’s digital world. For example, the persona that a teacher presents online might not accurately represent the quality of their teaching. In addition, it can be difficult to develop long-lasting relationships or build trust with someone you encounter in a short conversation on Facebook or in 140 characters of a Tweet (Edwards, Biesta and Thorpe, 2009). This section includes a case study of a successful online community for professional development in the United Kingdom, which should offer you guidance on what to look for in a high-quality online community, as well as suggestions for how you might find contacts to build your own PLN using social media.



Top tips for getting the most out of a Professional Learning Network

- 1 > Collaboration is key:** You might have joined a PLN to get something out of it, but people can only benefit if other members share. Remember that a PLN is about collaboration, and that means you have to contribute as well.
- 2 > Join an online community:** An online community that reflects your interests and profession will by design contain members that have similar needs and interests to yours. This is an easy way to find resources and to network with people like you.
- 3 > Ask questions:** Do not be shy or afraid that your question is too small or too basic. PLNs exist for your learning, so ask away.
- 4 > Be an active participant:** It is always easier to lurk in an online community, reading what others have posted and benefitting from their ideas. But do not forget that you have good ideas as well. Your experiences and expertise are valuable to others who can learn from you. So share your ideas, lesson plans and resources and contribute actively to discussions.
- 5 > Acknowledge others:** If you are using or adapting others’ ideas or resources, give them credit. Posting to the community that you have had success with a colleague’s materials will also let other teachers know that these resources have been tried in more than one classroom and work in a variety of contexts.

Case study: Computing at School

The **Computing at School (CAS)** community (<https://www.computingatschool.org.uk/>) is an online community for teachers of computing in schools in the United Kingdom. The computing curriculum was introduced into schools in England in 2012, with very little time for teachers and schools to prepare. In addition, in schools in England, computing or computer science departments are often quite small – sometimes consisting of only one teacher. Thus, when the computing curriculum was introduced there was a real need for a community to support teachers who had never taught it before and might not get any help within their own school walls.

Computing at School is run by volunteers and populated with content from its members, most of whom are current classroom teachers of computing or computer science through all levels of schooling. CAS provides online discussions, teacher-created resources and access to in-person and virtual events to support these teachers.

The community has grown immensely since it started, but one of the reasons that its members continue to use its resources is that they trust the quality of the lesson plans, trainings, discussions and other resources they have access to in the CAS community (Weatherby, 2017). The online nature of the CAS community means that teachers have access to resources anytime – even

when planning their lessons on the weekends or during school holidays. CAS also includes a wide variety of in-person events that teachers can attend, which enables them to meet in person those connections they have made on the online community. In addition to an annual conference held during every summer holiday, volunteer teachers run free, regional “hub” meetings for teachers focused on different levels of schooling (primary, secondary, further education). The CAS organisation provides budget for refreshments at the meetings and the meetings are held in schools or universities. All of these events, and the combination of online and in-person interactions provided by CAS, further help teachers build trusting relationships with peers and add to their own professional learning networks. In addition, the majority of CAS member teachers report that their participation in the online community has impacted their teaching in one of the following ways:

- Improved teachers’ understanding of a topic or taught them something new
- Changed how teachers run their classroom or their approach to teaching a topic or concept
- Influenced their planning of curriculum or assessment (Weatherby, 2017)

Box 11. Using social media to create a community

Social media can be a useful place for finding like-minded teachers with a similar background or professional interests to you – if you know where to look. Teachers often find communities of like-minded teachers on all of the large social media platforms.

Twitter, for example, has countless hashtags pertaining to teachers. Some are subject based, for teachers of modern foreign language or history, for example. You can find hashtags for communities of teachers in various countries, such as #TeachJAEchat in the UAE and #EdChatMENA for the Middle East and North Africa region. There are even hashtags for teachers

discussing pedagogies mentioned in this volume, such as formative assessment, project-based learning, and gifted and talented education.

Networks such as these enable teachers to meet others through comments on the hashtag and then connect through direct messaging and “follows”. It is through these initial connections that teachers continue conversations outside of Twitter, sometimes meeting in person or forging longer-term relationships, thereby adding to their own professional learning network (Weatherby, 2017).

CONCLUSION

This report aims to help teachers in the UAE use the results from the TALIS 2018 survey to understand the state of the teaching profession across the country, in light of its unique national context, and how it compares to other countries. In light of these findings, this report provides teachers in the UAE with a set of practical suggestions to help improve the quality of their practice and, at the same time, support their professional development.

Based on the evidence and academic research, this report highlights ten lessons that can help improve the quality of teaching in UAE and promote the development of global competences among the nation's students. Each lesson highlights what the research says about improving student outcomes, and then provides evidence-based resources and activities to give teachers a place to start developing their own practice and incorporate these teachings into their own classroom. Key lessons learned are:

- UAE classrooms and schools are among the most diverse in the world. Although these circumstances present challenges for teachers and schools in terms of adapting to different student profiles and needs, they also present real opportunities to develop global competences. A number of tips are suggested for introducing multicultural education approaches in your classroom. (Part I, Lesson 1: Teaching in a multicultural and multilingual classroom)
- ICT can be effective in classrooms if the right products are used for the right purposes. Teachers should follow the evidence-based principles for designing effective lessons using ICT and make sure that the digital resources they choose produce the stated outcomes. (Part I, Lesson 2: Using ICTs in the classroom: How to make it work for you)
- Cognitive activation practices can help students improve their performance and develop many key aspects of global competence. UAE teachers are advised to consider adopting these practices across the curriculum. (Part I, Lesson 3: Fostering cognitive activation in the classroom)
- Academic research indicates that the use of formative assessment can have large impacts on student achievement, and can support more targeted instruction. Since formative assessment can be challenging to implement, guidance is provided on how teachers can get started, as well as resources that teachers can use in their teaching right away. (Part 1, Lesson 4: Learning from formative assessment practices)
- Developing students' collaborative problem-solving skills is essential for preparing them to enter a future-ready knowledge economy in the UAE. Such skills are beneficial to both the cognitive and non-cognitive aspects of the learning process, as well as helping to foster students' global competence. Lesson 5 offers suggestions on how teachers in the UAE could adopt more project- or problem-based learning in their teaching. (Part 1, Lesson 5: Introducing co-operative project-based learning in the classroom)
- In light of national policies to support greater inclusion in UAE schools and classrooms, teachers are making an important effort to adapt the content, activities and assessments to each individual learner, in light of their needs. Lesson 6 discusses ways in which teachers can adapt instruction to help make learning more relevant and increase student motivation. (Part 1, Lesson 6: Reaching all learners in the classroom)
- Teachers in the UAE often face an unruly classroom which can negatively impact the learning of all students by taking time away from teaching, and can be detrimental to a teacher's job satisfaction. There are a number of strategies that can be implemented at the classroom or individual student level to help address classroom disruption and improve the learning environment for all students. (Part 1, Lesson 7: Creating a classroom climate conducive to learning)



Many of the approaches suggested in this report will take time, effort, co-operation and patience. But the Qudwa 2019 Forum reminds us that teachers are not only ready for this challenge, but conscious of how important it will be in order to build a high-performing education system.”

- Induction and mentoring practices have been shown to provide great support for teachers new to the profession. Induction can also help teachers who have just joined a new school become more familiar with the culture, policies and procedures of the school, which is crucial in the UAE because of the large share of expatriate teachers and high rates of teacher turnover. Likewise, mentoring can also help more experienced teachers who are trying to develop their practice. Case studies are provided to help schools in the UAE develop systems of induction and mentoring across all schools to reach the largest number of teachers possible. (Part 2, Lesson 1: Providing induction and mentoring for new teachers)
- Teachers need feedback on their teaching in order to improve, and peer observation, coaching and feedback programmes have been shown to be quite successful. Several school-wide programmes around peer coaching have been suggested. Peer coaching can focus on specific areas for improvement, the development of new practices or the use of new tools. (Part 2, Lesson 2: Encouraging peer appraisal and feedback)

- As in other professions, creating professional development networks for teachers is key to providing teachers with ongoing peer-to-peer professional development and support within their own context. This is particularly important in the UAE, given its diverse and mobile teacher body. This lesson offers advice on how teachers can develop their own professional learning network and provides some examples of existing networks. (Part 2, Lesson 3: Taking advantage of professional development networks)

By discussing the views of UAE teachers as expressed in TALIS, this report also highlights certain discrepancies between education policies, and the reality observed in classrooms. This is a common phenomenon across OECD and partner economies and often reflects how challenging it can be for teachers to carry out certain practices (e.g. cognitive activation practices) and/or how differently students, teachers and principals perceive their experiences in the classroom. This report suggests a number of practical tools and resources to help teachers bridge these gaps and, in doing so, help improve the quality of teaching and learning in their classrooms.

None of this will be easy, none of it will be done overnight. Many of the approaches suggested in this report will take time, effort, co-operation and patience. But the Qudwa 2019 Forum reminds us that teachers are not only ready for this challenge, but conscious of how important it will be in order to build a high-performing education system. And the TALIS 2018 results confirm this: the vast majority of UAE teachers say that their schools are open to innovative practices and have the capacity to adopt them. We hope this report provided you with the information, tools and inspiration that you require in your journey for improvement.

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