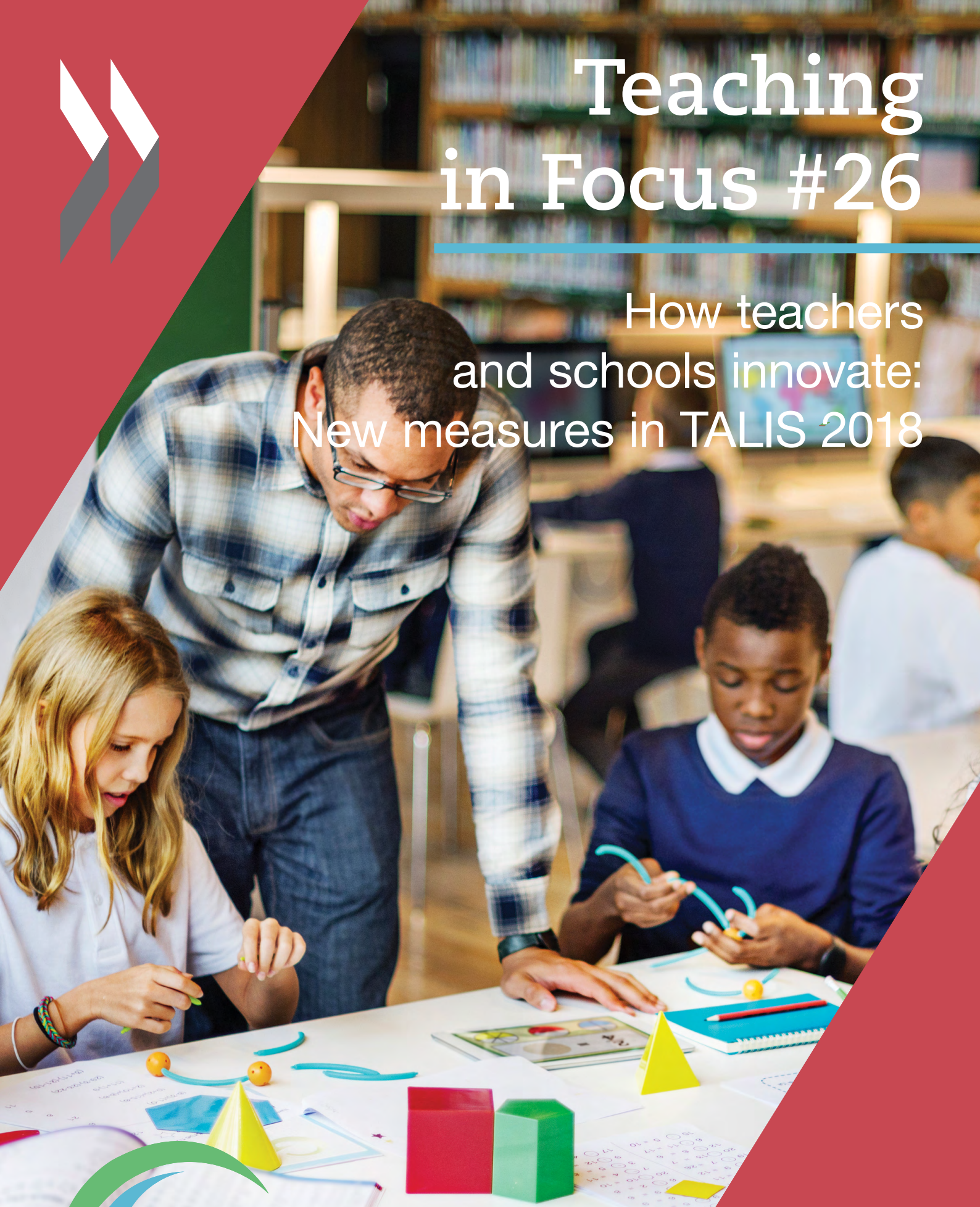
Teaching in Focus #26

How teachers and schools innovate: New measures in TALIS 2018



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How teachers and schools innovate: New measures in TALIS 2018

- The implementation of innovation strategies at the school and classroom level is a cross-cutting theme in the third cycle of the OECD Teaching and Learning International Survey (TALIS 2018).
- A range of teaching practices that allow students to think, evaluate, collaborate and build a variety of skills across the curriculum can be considered innovative. These practices are identified in TALIS as "cognitive activation practices" and "enhanced activities".
- TALIS emphasises that the attitudes of teachers and organisations are critical conditions for fostering innovation in education.
- TALIS indicators on the professional development needs of teachers shed light on the barriers to using innovative teaching and learning approaches in the classroom.

What is TALIS?

The Teaching and Learning International Survey (TALIS), established in 2008, is the first major international survey of teachers and school leaders on their working conditions and the learning environments in their schools. It is designed to help countries face diverse challenges, learn from each other and advance policy.

TALIS 2018, the first results of which will be released in mid-2019, has continued to focus on lower secondary education, with the added options of primary and upper secondary levels. It now covers close to 50 countries around the world. TALIS 2018 results come from nationally representative data covering more than 20 000 teachers and school principals.

Key parameters in brief:

- Questionnaires: separate, adaptable questionnaires for teachers and principals, each requiring around 45-60 minutes to complete.
- Modes of data collection: self-administered on line or using paper and pencil.
- Phases: pilot study (focus group pre-testing), field trial and main data collection.
- Target response rates: 75% of sampled schools, aiming for a 75% response rate from all sampled teachers in the country.

TALIS conceptual themes:

The TALIS framework for the 2018 cycle is organised under 11 themes that address both emerging issues in teaching and learning, and enduring issues from the 2008 and 2013 cycles. The enduring themes are: teachers' background and initial teacher education, human resources, instructional practices, teachers' professional practices, teacher feedback and development, teacher self-efficacy, job satisfaction, school leadership, and school climate. The new themes introduced in TALIS 2018 are innovation, and equity and diversity, which are viewed as cutting across the other themes.

More information is available at: www.oecd.org/education/talis

Recent discussions about the shifting landscape of education emphasise the need to supplement the teaching and learning of traditional subject matters and knowledge with the development of socio-emotional and life skills. The present notion of quality education, also referred to as 21st century education, is holistic and comprises the knowledge, skills and attitudes that will enable the students of today to thrive as the actors of a global society in the future. Education systems across the world are attempting to incorporate this myriad of knowledge, skills and attitudes through reforms in school curricula, assessment frameworks and teacher training. School leaders and teachers lie at the root of creating learning experiences for students, and their role is essential in realising a holistic vision of education.

This *Teaching in Focus* brief discusses the unique opportunity that TALIS 2018 offers for capturing how teachers and schools reinvent and shape their practices so that students' learning experiences are more holistic and aligned to a broader set of learning objectives.

Innovation was identified as a response to the emerging issues in teaching and learning for the third cycle of TALIS. The 48 TALIS participating countries and economies prioritised innovation as a focal point of examination in the policy issue of school effectiveness. As school leaders and teachers are viewed as the drivers of innovation in schools and classrooms, TALIS places emphasis on understanding their pedagogical practices and attitudes.

Innovation in instructional practices

One way of understanding innovation in education is by looking at innovative teaching practices. For example, practices that deviate from the traditional lecture model and seek to develop high-level skills for students could be considered innovative. Some examples of these practices are captured by TALIS, which examines teachers' self-reports to learn how often specific instructional practices are used in classroom teaching. These practices can be grouped into four categories: 1) classroom management; 2) clarity of instruction; 3) cognitive activation; and 4) enhanced practices. Some of these practices, particularly cognitive activation and enhanced practices, aim to foster high-end skills in students, such as critical thinking and creativity, and can shed light on the degree of innovation in classrooms. Practices such as enabling the use of ICT in the classroom (part of the enhanced activities strategy) or offering students opportunities for collaborative work and critical thinking (both part of the cognitive activation) support the building of cross-curricular skills among students. The emphasis on these practices is relatively new in the context of 21st century education and, therefore, demands that teachers reinvent and shape their approaches to teaching accordingly.

It is important to acknowledge that the identification of innovation in teaching practices also varies depending on the context in which these practices are being implemented. For example, the use of ICT may be more prevalent in certain parts of the world where there have long been the resources to implement ICT-integrated teaching; however, in other contexts, where these provisions are relatively new, teachers may face a general lack of training and materials and will, therefore, struggle to incorporate ICT into their teaching and to be innovative in this regard. As such, TALIS also seeks to get a broader perspective of innovation that goes beyond classroom practices by inquiring how schools as organisations foster innovation.

Figure 1. Examples of innovation in pedagogical practices within the framework of effective teaching practices: Snapshot from the TALIS 2018 teacher questionnaire

Examples of innovation

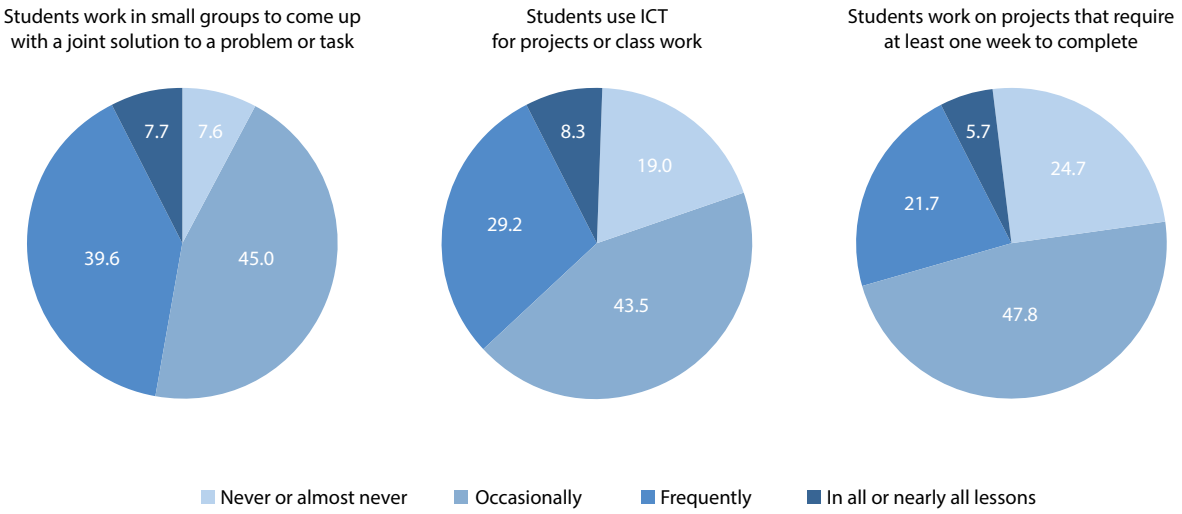
Cognitive activation	Give tasks that require students to think critically
	Have students work in small groups to come up with a joint solution to a problem or task
	Ask students to decide on their own procedures for solving complex tasks
	Present tasks for which there is no obvious solution
Enhanced activities	Let students use ICT for projects or class work
	Give students projects that require at least one week to complete
Classroom management	Tell students to follow classroom rules
	Tell students to listen to what I say
	Calm students who are disruptive
	When the lesson begins, tell students to quieten down quickly
Clarity of instruction	Explain what I expect students to learn
	Explain how new and old topics are related
	Set goals at the beginning of instruction
	Refer to a problem from everyday life or work to demonstrate why new knowledge is useful
	Present a summary of recently learned content
	Let students practise similar tasks until I know that every student has understood the subject matter

Source: OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire", www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf.

Three of these exemplar practices provided in Figure 1 were included in the indicators of teaching practices in the second cycle of TALIS in 2013. Therefore, it provides an introduction to and baseline information on the measure of innovation in classrooms. This evidence indicated that there was a limited use of innovative teaching practices across OECD countries and economies and also provides an opportunity for comparison with the TALIS results of 2018.

The self-reported nature of TALIS may present some limitations to fully understanding the implementation of innovative practices in schools and classrooms, as teachers may respond based on what they think is a desirable response instead of what they actually do in their practice. Despite this limitation, TALIS considers the data to be of high policy value, especially alongside additional indicators on teachers' beliefs and attitudes regarding innovation, which are discussed in the following sections.

Figure 2. Evidence from TALIS 2013: Percentage of lower secondary teachers who use the following teaching practices (OECD average)



Source: Based on OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, Figure 6.2, https://doi.org/10.1787/9789264196261-en.

Teachers' openness to innovation

The ability of teachers to innovate could be demonstrated through a range of actions: a new way to organise the classroom into teams, a hands-on activity associated with the real life of students, and the use of classroom presentations in student groups to assess learning and collaborative skills, etc. However, in order to try new approaches to facilitate student learning, teachers' openness to change is essential.

TALIS enables education systems to understand and measure conditions for innovation in their learning environments by asking teachers how much they perceive their schools and themselves as being predisposed to design, adapt and implement new policies and strategies in their school. By understanding teachers' attitudes to innovation and change and especially by understanding the relationships between teachers' attitudes with the use of innovative practices in the classroom (i.e. cognitive activation and enhanced activities), education systems can understand the readiness of their workforce to adapt to the new learning objectives of education.

Organisational innovativeness

In order to understand how schools as organisations provide a conducive environment for innovative practices, TALIS asks school principals about the organisational culture and support available for teachers. In particular, principals report on to what extent they agree with the following: the school quickly identifies the need to do things differently, the school quickly responds to changes when needed, the school readily accepts new ideas, and the school makes assistance readily available for the development of new ideas.

Figure 3. Snapshot of TALIS 2018 indicators on openness to innovation

Teachers' openness to innovation
(Snapshot from TALIS 2018 teacher questionnaire)

Thinking about teachers in this school, to what extent do you agree with the following?

- Most teachers in this school strive to develop new ideas for teaching and learning.
- Most teachers in this school are open to change.
- Most teachers in this school search new ways to solve problems.
- Most teachers in this school provide practical support to each other for the application of new ideas.

Organisational innovativeness
(Snapshot from TALIS 2018 principal questionnaire)

Thinking about teachers in this school, to what extent do you agree with the following?

- The school quickly identifies the need to do things differently.
- The school quickly responds to changes when needed.
- The school readily accepts new ideas.
- The school makes assistance readily available for the development of new ideas.

Source: OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire", www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf; OECD (2018), "Teaching and Learning International Survey (TALIS): Principal Questionnaire",www.oecd.org/education/school/TALIS-2018-MS-Principal-Questionnaire-ENG.pdf.

Professional support to foster innovation

Education systems play a key role in fostering the innovativeness of their teachers by providing relevant training that covers emerging areas and topics, such as the use of ICT in the classroom or the adoption of cross-curricular approaches to teaching. TALIS offers in-depth information on the professional characteristics of teachers that signal their innovativeness. It has addressed the issue of teachers' professional development in its last three cycles by aligning participation in specific professional development activities with areas in which teachers need professional development, as well as the perceived impact of development activities. Following the same approach, TALIS can understand the conditions that support innovation by examining teachers' initial training and professional development, as well as their sense of preparedness, in specific areas.

Figure 4. TALIS indicators to measure conditions that support teacher innovation

Professional support to foster innovation
(Snapshot of TALIS Indicators from teacher questionnaire)

- Inclusion of ICT and cross-curricular skills in teacher pre-service education
- Inclusion of ICT and cross-curricular skills in professional development activities undertaken within the previous 12 months
- Sense of preparedness to teach cross-curricular skills and technology
- Professional development need in using ICT in classrooms

Source: OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire", www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf.

The bottom line

TALIS aims to measure two points of interest: the degree to which innovation is implemented in learning environments, and the conditions for innovation in schools and classrooms. The former is examined through teachers' self-reports of how often they use specific practices in their teaching to help students build cross-curricular skills and think critically. Conditions for innovation are examined through indicators on how open teachers and schools are to innovation, as well as the need and participation in professional development activities that enable teachers to use innovative practices in their work. Information on both of these areas will be valuable to feed into evidence-based policy making for building teacher capacity to meet the demands of 21st century learning.

Visit

www.oecd.org/talis

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To learn more

Ainley, J. and R. Carstens (2018), "Teaching and Learning International Survey (TALIS) 2018 Conceptual Framework", *OECD Education Working Papers*, No. 187, OECD Publishing, Paris, https://doi.org/10.1787/799337c2-en.

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