Teaching as a knowledge profession

Modern teachers are expected to develop students’ 21st century skills in increasingly diverse classrooms, informed by new research on teaching and learning. To do this, teachers must update teaching methods and employ innovative teaching practices and mobilise multiple sources of evidence. This continuous renewal of teachers’ professional knowledge is critical to their professionalisation.

The ambition is great: to continue to improve student outcomes, the quality of teaching must also be enhanced. Understanding how to do this means exploring what has hitherto been referred to as the “black box” in teaching: teachers’ professionalism and their knowledge base.

The Teacher Knowledge Survey (TKS) assessment module is currently being developed as part of the Teaching and Learning International Survey (TALIS) 2024. It is guided by the following policy questions:

- How can we improve pedagogy for more effective learning?
- How can we improve teacher learning for more effective teaching?
- How can we improve the selection and retention of teachers?

Value for countries

The Teacher Knowledge Survey assessment module will provide information on:

- whether teachers are prepared with the knowledge and skills for 21st century teaching, in particular, for teaching diverse classrooms and for using modern pedagogical approaches
- the strengths and weaknesses of teachers’ current pedagogical knowledge base.

Results can be used to:

- improve initial teacher education, teacher induction and continuing professional development to ensure a robust knowledge base in the profession in line with national policy priorities
- support policies in attracting and retaining a high-quality teaching workforce
- empower the teaching profession to take charge of its knowledge base.

Approach

The Teacher Knowledge Survey assessment module generates pedagogical “knowledge profiles” that paint a picture of the relative strengths of the knowledge base of the teaching profession in each country/system (Figure).

The assessment module targets lower-secondary teachers, and it is also possible to sample new teachers. Participants complete:

- an assessment of general pedagogical knowledge on key dimensions such as instructional processes, learning processes and assessment
- a questionnaire on the content and quality of opportunities to learn in initial teacher education and professional development

The results of the assessment module will also be analysed in relation to key constructs on teacher professionalism in the TALIS main questionnaire such as teachers’ affective and motivational characteristics (e.g. self-efficacy, career values) and self-reported teaching practices.

The purpose of the instrument is to map system-level knowledge profiles, and interpret them in line with the national contexts and priorities, rather than in a normative way.
Examples of key policy questions addressed by the survey

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<tr>
<th>What matters for high quality instruction?</th>
<th>What are quality features of teacher education and how can they be improved?</th>
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<td>The joint analysis of the Teacher Knowledge Survey assessment module and the TALIS main questionnaire can identify relationships between different teacher profiles and the quality of instruction (measured through self-reported use of effective practices). For example, data can reveal that high levels of knowledge with equally high levels of self-efficacy are linked to higher quality instruction. It can also indicate what kind of profiles are associated with stronger intent to persist in the profession, thus giving valuable information for where support and incentives are needed.</td>
<td>The Teacher Knowledge Survey assessment module allows for identifying strengths and weaknesses in the content and quality of professional development and initial teacher education programmes. For example, data can reveal relationships between different features – e.g. pedagogical content elements, active learning, feedback – and teachers’ knowledge. If a country opts for sampling new teachers, the TKS design can give insight into the content and quality of induction programmes and early career support mechanisms.</td>
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Participate / Join us

Recruitment of countries/systems has now begun. Contact EDUITEL@oecd.org to express your interest by May 2020.

Preliminary timeline for TALIS 2024

The final timeline will be determined in the second half of 2020.

Frequently Asked Questions

What are the target populations and how can participating countries ensure appropriate sample sizes?

Core sampling strategies and criteria for the Teacher Knowledge Survey assessment module will be developed in line with other OECD surveys and similar international studies such as TEDS-M. The core and optional populations are the following:

- Teachers (ISCED 2 level): core target population, the same as the TALIS main survey sample
- Novice teachers (ISCED 2 level): optional target population for countries participating in the TALIS novice-teacher module.

Countries will receive support in developing strategies to ensure good sample sizes drawing on the experience of other surveys. The sampling criteria for new teachers will take country contexts into account to the extent possible in order to ensure a sufficient number of respondents even in small countries.
How can the Teacher Knowledge Survey assessment module capture the complexity of pedagogical knowledge?

Teachers’ specialised knowledge encompasses a range of fields and types of knowledge. While there is substantial proof of the relevance of pedagogical content and content knowledge in quality teaching, evidence on general pedagogical knowledge is scarcer (Guerriero, 2017[1]; Baumert et al., 2010[2]; Voss, Kunter and Baumert, 2011[3]). The Teacher Knowledge Survey assessment module focuses on general pedagogical knowledge to fill this evidence gap in key domains such as instruction, learning and assessment.

The assessment instrument will aim to map teachers’ knowledge to teach diverse classrooms, use digital skills and develop 21st century skills such as critical thinking and collaboration across the main domains. It will take account of theoretical/scientific knowledge (i.e. formal knowledge of concepts and theories) as well as practice-based knowledge (i.e. the ability to apply professional judgement in a given classroom situation).

Participating countries are free to develop and include additional elements as a national option, such as pedagogical content knowledge or content knowledge. Including additional components is at the expense of the countries and must align with the implementation timeline of TALIS 2024.

Is this a normative assessment of knowledge?

While the assessment component of the Teacher Knowledge Survey module intends to provide an objective measure of teachers’ knowledge, the purpose of the instrument is to map system-level knowledge profiles rather than assess individual teachers. Knowledge profiles will be interpreted taking the national contexts into account and in line with national priorities, rather than in a normative way.

In addition, the study adopts analytical approaches that allows for mapping the spectrum of options for teaching in the classroom. Teachers will judge teaching approaches on a scale range (e.g. from more to less effective, less to more suitable) rather than simply on a binary scale (right or wrong). While multiple choice items that necessitate one correct answer that is clearly justifiable based on research evidence can be suited to assess theoretical/scientific knowledge, an extended scale range is more appropriate for measuring practice-based knowledge. Drawing on recent research developments in the field, new scoring methods can be used for situation-based items. This involves using likert-scales (e.g. for judging the effectiveness of certain teaching approaches, etc.) and comparing respondents’ answers to answers of a designated board of experts.

How can the Teacher Knowledge Survey assessment module empower the profession to take charge of its knowledge base?

Implementing the Teacher Knowledge Survey assessment module can be used as an inclusive system-level reflection tool to help empower actors to engage in a collective endeavour to improve teaching quality.

In order to empower teacher educators and teachers themselves to take charge of their knowledge base, countries may wish to establish national teams to implement the study that includes these key actors. For example, universities / teacher education institutions can be well placed to co-ordinate study implementation, participate in data analyses and interpretation at the national level. This can enable them to induce change at the institutional level, as well as propose policy recommendations for the national level. Similarly, teachers can be involved in review processes, study implementation and the interpretation of the results.

How can the Teacher Knowledge Survey assessment module strike the optimal balance between depth and breadth?

The TKS assessment module will be designed to take 30 minutes to complete.

In addition to the assessment component, the conceptual framework of the TKS assessment module will include concepts and constructs that provide a deep understanding of professional competence and allow for a wide range of analyses of the relationship between its components. To optimise the length of the module, synergies between key contextual factors (opportunities to learn, motivational and affective competencies and teaching practices) and the TALIS main survey will be exploited to the extent possible. Some elements will be measured:

- within the TALIS main questionnaire by using existing overlaps (i.e. constructs or similar constructs relevant for the TKS assessment module and the main TALIS survey) or aligning the Surveys (e.g. elements of TKS instruments that can be adapted and used for the TALIS main questionnaire)
- within the TKS assessment module in addition to knowledge assessment (for essential constructs that cannot be included in the TALIS main questionnaire).
REFERENCES

