

# CHAPTER 1

## Introduction

- 18 Overview of TALIS
- 19 Origins and aims of TALIS
- 19 Design of the TALIS survey
- 20 Population surveyed and sampling options
- 20 Choosing the policy focus of the first round of TALIS
- 21 Developing TALIS
- 22 Interpretation of the results
- 22 Organisation of the report

## OVERVIEW OF TALIS

The OECD's Teaching and Learning International Survey is the first international survey to focus on the working conditions of teachers and the learning environment in schools. Its aim is to help countries to review and develop policies that foster the conditions for effective schooling.

TALIS focuses on lower secondary education teachers and the principals of their schools and seeks to provide policy-relevant data and analysis on the following key aspects of schooling:

- the role and functioning of school leadership;
- how teachers' work is appraised and the feedback they receive;
- teachers' professional development; and
- teachers' beliefs and attitudes about teaching and their pedagogical practices.

In view of the important role that school leadership can play in creating effective schools, TALIS describes the role of school leaders and examines the support they give to their teachers. Because retaining and developing effective teachers is a priority in all school systems, TALIS looks at how teachers' work is recognised, appraised and rewarded and how well their professional development needs are being addressed. Finally, TALIS provides insights into the beliefs and attitudes about teaching that teachers bring to the classroom and the pedagogical practices that they adopt.

TALIS is a collaborative effort by member countries of the OECD and partner countries which has been conceptualised as a programme of surveys. This report presents the initial results from the first round of TALIS, which was implemented in 2007-08.

Figure 1.1

### Countries participating in TALIS

OECD countries	Partner countries
Australia	Brazil
Austria	Bulgaria
Belgium (Flemish Community)	Estonia
Denmark	Lithuania
Hungary	Malaysia
Iceland	Malta
Ireland	Slovenia
Italy	
Korea	
Mexico	
Norway	
Poland	
Portugal	
Slovak Republic	
Spain	
Turkey	

Note: TALIS was also conducted in the Netherlands but as the required sampling standards were not achieved, their data are not included in the international comparisons.

Source: OECD, *TALIS Database*.

In all, 24 countries participated in this first round of TALIS (see Figure 1.1). However, as the Netherlands did not meet the sampling standards, their data are not included in the international tables and analyses. A summary of the results for the Netherlands can be found in Annex A2 of this report.

## ORIGINS AND AIMS OF TALIS

TALIS has been developed as part of the OECD Indicators of Education Systems (INES) project. Over the past 20 years or so, INES has sought to create a coherent set of indicators that provide a reliable basis for the quantitative comparisons of the functioning and performance of education systems in OECD and partner countries. The main product from the INES project is the annual *Education at a Glance* (OECD, 2008a).

Although the INES programme has made considerable progress over the years in developing indicators on the learning environment and organisation of schools, as well as learning outcomes, significant gaps in the knowledge base on teachers and teaching remained. As a result, the INES General Assembly in 2000 in Tokyo called for increased attention to teachers and teaching in future work. At the meeting of deputy Ministers of Education in Dublin in 2003, the need for better information on the quality of learning and how teaching influences learning was further affirmed.

To address these deficiencies, a strategy was developed to improve the indicators on teachers, teaching and learning. One aspect was an international survey of teachers, which evolved into the TALIS programme. Another important impetus for TALIS came from the OECD review of teacher policy, which concluded with the report *Teachers Matter: Attracting, Developing and Retaining Effective Teachers* (OECD, 2005) and emphasised the need for better national and international information on teachers. The framework used in that policy review and the specific gaps in the data and priorities it highlighted were instrumental in the design of TALIS.

The overall objective of the TALIS surveys is therefore to provide, in a timely and cost-effective manner, robust international indicators and policy-relevant analysis on teachers and teaching in order to help countries to review and develop policies that create the conditions for effective schooling. Cross-country analyses provide the opportunity to compare countries facing similar challenges and to learn about different policy approaches and their impact on the learning environment in schools.

The guiding principles underlying the survey strategy are:

- *Policy relevance.* Clarity about the policy issues and a focus on the questions that are most relevant for participating countries are both essential.
- *Value added.* International comparisons should be a significant source of the study's benefits.
- *Indicator-oriented.* The results should yield information that can be used to develop indicators.
- *Validity, reliability, comparability and rigour.* Based on a rigorous review of the knowledge base, the survey should yield information that is valid, reliable and comparable across participating countries.
- *Interpretability.* Participating countries should be able to interpret the results in a meaningful way.
- *Efficiency and cost-effectiveness.* The work should be carried out in a timely and cost-effective way.

## DESIGN OF THE TALIS SURVEY

TALIS is conceived as a sequence of surveys which over time, will survey school teachers from all phases of schooling. Within this broad survey design, specific plans for further rounds of TALIS will be reviewed after the first round is completed.

## POPULATION SURVEYED AND SAMPLING OPTIONS

The international sampling and operational parameters applied in TALIS are shown in Box 1.1 and further details, including teacher and school participation rates by country are given in Annex A1.2.

### Box 1.1 The TALIS design

- **International target population:** lower secondary education teachers and the principals of their schools.
- **Sample size:** 200 schools per country, 20 teachers in each school.
- **Within school samples:** representative samples of schools and teachers within schools.
- **Target response rates:** 75% of the sampled schools (school considered responding if 50% of sampled teachers respond), aiming for a 75% response from all sampled teachers in the country.
- **Questionnaires:** separate questionnaires for teachers and principals, each requiring around 45 minutes to complete.
- **Mode of data capture:** questionnaires filled in on paper or on line.
- **Survey windows:** October-December 2007 for Southern Hemisphere countries and March-May 2008 for Northern Hemisphere countries.

The participating countries decided that the main focus of the first round of TALIS should be teachers of lower secondary education (level 2 of the 1997 revision of the International Standard Classification of Education, ISCED 97) and their school principals. The design of the first round also proposed international options which allowed countries to survey as well a representative sample of teachers of primary and/or upper secondary education and the principals of their schools. Another option was to survey a representative sample of teachers of 15-year-olds in schools that took part in PISA 2006 and principals of these schools. As too few countries expressed an interest in these options, they were not covered at the international level; however, Iceland and Mexico adopted some national sampling options.

TALIS defines teachers of ISCED level 2 as those who, as part of their regular duties, provide instruction in programmes at ISCED level 2. Teachers in the schools sampled who teach a mixture of programmes at different levels, including ISCED 2 programmes, were included in the target population. There was no minimum cut-off for the amount of their ISCED level 2 teaching. The following were excluded from the teacher target population: teachers only teaching special need students; substitute, emergency or occasional teachers; teachers teaching adults exclusively; teachers on long-term leave; and teachers who were also the principals of their schools.

## CHOOSING THE POLICY FOCUS OF THE FIRST ROUND OF TALIS

The original conceptual framework for the TALIS programme was developed by a joint taskforce comprising experts from the INES Network A (learning outcomes) and Network C (learning environment and school organisation). The taskforce was asked to develop a data strategy on teachers, teaching and learning in order to identify gaps in data at the international level and help make the coverage of the INES indicators more complete. A major part of that strategy was a survey programme which developed into TALIS.

The original conceptual framework was adapted to the policy issues that had been studied in the OECD teacher policy review (OECD, 2005): attracting, developing and retaining effective teachers; school policies; and effectiveness and quality teachers and teaching (see the forthcoming *TALIS Technical Report* for details of the framework). On the basis of the indicators included in the framework, the participating countries chose the following themes as the policy focus of the first round of TALIS:

- school leadership;
- appraisal of and feedback to teachers; and
- teaching practices, beliefs and attitudes.

TALIS also chose the professional development of teachers as an important theme. In part this was because of synergies with the three main themes and in part because it allowed TALIS to serve as a way for countries of the European Union to collect information on teachers which the Education Council had identified as important to monitor progress towards the Lisbon 2010 goals. In particular, the data on professional development of teachers are relevant for monitoring the common objective of improving the education and training of teachers and trainers (Council (Education) of the EU (2002; 2005; 2007)).

Aspects of other themes were also included in the survey when they were seen to provide important complementary analytical value to the main themes. In particular, aspects of “School climate” and “Division of working time” and a single item on “Job satisfaction” were also included.

Separate questionnaires for teachers and the principals of their schools were prepared to explore the policy and analytical questions agreed by the participating countries under these policy themes. Considerable effort was devoted to achieving cultural and linguistic validity of the survey instruments, and stringent quality assurance mechanisms were applied both for their translation and for the sampling and data collection (see Annex 1.3).

## DEVELOPING TALIS

The development of TALIS has been the result of productive co-operation between the member countries of the OECD and the partner countries participating in the first round. Engagement with bodies representing teachers and regular briefings and exchanges with the Trades Union Advisory Council at the OECD (TUAC) have been very important in the development and implementation of TALIS. In particular, the co-operation of the teachers and principals in the participating schools has been crucial in ensuring the success of TALIS.

A Board of Participating Countries, representing all of the countries taking part in the first round of TALIS, set out the policy objectives for the survey and established the standards for data collection and reporting. An Instrument Development Expert Group (IDEG) was established to translate the policy priorities into questionnaires in order to address the policy and analytical questions that had been agreed by the participating countries.

Participating countries implemented TALIS at the national level through National Project Managers (NPMs) and National Data Managers (NDMs), who were subject to rigorous technical and operational procedures. The NPMs played a crucial role in helping to secure the co-operation of schools, to validate the questionnaires, to manage the national data collection and processing and to verify the results from TALIS. The NDMs co-ordinated the data processing at the national level and liaised in the cleaning of the data.

The co-ordination and management of implementation at the international level was the responsibility of the appointed contractor, the Data Processing Centre of the International Association for the Evaluation of Educational Achievement (IEA). The IEA Secretariat was responsible for overseeing the verification of the translation and for quality control in general. Statistics Canada, as a sub-contractor of the IEA, developed the sampling plan, advised countries on its application, calculated the sampling weights and advised on the calculation of sampling errors.

The OECD Secretariat had overall responsibility for managing the programme, monitoring its implementation on a day-to-day basis and serving as the secretariat of the Board of Participating Countries.

Annex A3 provides the list of contributors to TALIS.

## INTERPRETATION OF THE RESULTS

It should be carefully borne in mind that the results derived are based on self-reports from teachers and principals and therefore represent their opinions, perceptions, beliefs and their accounts of their activities. This is powerful information, as it gives insight into how teachers perceive the learning environments in which they work, what motivates them, and how policies and practices that are put in place are carried out in practice. But, like any self-reported data, this information is subjective and therefore differs from objectively measured data. The same is true of school principals' reports about school characteristics, which may differ from descriptions provided by administrative data.

In addition, as a cross-sectional survey, TALIS cannot measure causality. For instance, in examining the relationship between school climate and teacher co-operation, it is not possible to establish whether a positive school climate depends on good teacher co-operation or whether good teacher co-operation depends on a positive school climate. The perspective taken in the analysis, *i.e.* the choice of predicted and predictor variables, is purely based upon theoretical considerations, as laid out in the analytical framework. When a reference is made to "effects", it is to be understood in a statistical sense – *i.e.* an "effect" is a statistical parameter that describes the linear relationship between a "predicted" variable (*e.g.* job satisfaction) and a "predictor" variable (*e.g.* participation in professional development activities) – taking effects of individual and school background as well as other "independent" variables into account. Thus, the "effects" reported are statistical net effects even if they do not imply causality.

Finally, the cross-cultural validity of the results is an important feature of the analysis, particularly with regard to the international scales and indices, developed mainly in Chapters 4 and 6 (see Annex A1.1). The analysis indicates the extent to which the indices can be directly compared among countries; where there appear to be limitations on the comparability of the indices, this is noted in the text. Full details of the cross-cultural validity analysis are provided in the *TALIS Technical Report* (forthcoming).

## ORGANISATION OF THE REPORT

The following chapters of this report present the results and the analyses from the first round of TALIS.

- **Chapter 2** presents a description of the characteristics of the lower secondary teacher populations and the schools in which they work. In doing so, it provides an important context for the later analytical chapters.
- **Chapter 3** presents and analyses the TALIS data relating to teachers' in-service professional development. It examines the extent to which teachers' professional development needs are provided for and their patterns of participation, as well as the support they receive and the barriers they perceive regarding their participation. It finishes by considering the types of development teachers find most effective.
- **Chapter 4** turns to an examination of teaching practices and teachers' beliefs and attitudes. Based on the conceptual model presented in the chapter, it analyses teachers' beliefs about the nature of teaching and learning, classroom teaching practices, teachers' professional activities, the classroom and school environments, and teachers' perceptions of their self-efficacy and job satisfaction.
- **Chapter 5** is concerned with teacher appraisal and feedback. It begins with an analysis of the nature and impact of school evaluations and then considers key aspects of teacher appraisal and feedback: its frequency and focus, its outcomes, and its impacts on and for teachers. The link between school evaluations, teacher appraisal and feedback and how this impacts on teachers and their teaching is then examined.

- **Chapter 6** turns to school leadership to present and compare management styles across countries. These are analysed in terms of the characteristics of the school principals and the schools in which they work. It then associates management styles to teachers' professional development, their practices, beliefs and attitudes, and the appraisal and feedback they receive.
- **Chapter 7** draws on the findings from Chapters 2 to 6 to build statistical models to examine the determinants of two important characteristics of a positive learning environment: classroom disciplinary climate and teachers' self-efficacy.

Chapters 2 to 7 all begin with a summary of the chapter's key findings and conclude with a discussion of the implications of these findings for policy and practice.