OUTLINE OF THE TALIS INITIAL INTERNATIONAL REPORT

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OUTLINE OF THE TALIS INITIAL INTERNATIONAL REPORT

Introduction

1. At its 5th meeting, the TALIS BPC reviewed an outline of the TALIS initial report including proposed tables for each chapter [doc.ref EDU/INES/TALIS(2008)4]. The BPC agreed on the proposed outline and noted the importance of having a good quality and meaningful initial report that can provide policy insights and that goes beyond descriptive analysis. Along with specific points about the contents of the respective chapters, the BPC asked the Secretariat to clarify the extent to which the initial report will examine inter-relationships between TALIS variables. This document provides an outline of the TALIS initial international report addressing these issues.

2. The respective chapter outlines have been produced by the experts leading the analyses for these chapters. They do not necessarily follow a common format but they are each provided with the aim of conveying a clear picture to the TALIS BPC of the information that each chapter will yield and the policy insights that they will provide. Specific issues that BPC is asked to note or advise on are included at the beginning of each chapter outline.

3. Particularly in Chapters 4, 5 and 6, there is probably more analysis outlined than will finally appear in the chapter, partly because of space constraints and partly because the viability of the analysis will only be known when it is carried out. Chapter 7 remains necessarily more open at this stage. Currently, the idea is that, where possible, the analytic findings that are produced mainly from Chapters 4, 5 and 6 will be brought together in an attempt to take a more holistic view of the how school leadership, teachers appraisal and feedback, teaching practices, attitudes and beliefs and teachers’ professional development activities combine together to create a positive learning environment. The viability of Chapter 7 will depend partly on the extent to which the analysis in each chapter already explores this and partly on the time schedule for the production of the report (the Appendix provides the production timeline for the report leading to its publication on 16 June 2009).

4. The TALIS BPC is asked to:

   - REVIEW and COMMENT on the detailed outline of the TALIS initial report and the specific tables and analyses planned for each chapter and AGREE the proposed content.

   - AGREE on whether the descriptive tables of the characteristics of the teachers and their schools should be retained in the published book or whether they should be published only on the internet.

Outline of the initial report

5. The basic outline of the initial report remains as it was presented to the 5th meeting of the TALIS BPC [doc.ref EDU/INES/TALIS(2008)4]. It will be a report of around 300 pages with each of the main analytic chapters examining one of the main policy themes of TALIS through a mixture of analytic text, tables and charts. In order to ensure that the publication has space for more in depth analysis of the policy
themes that examines the inter-relationships between variables, it is possible that some of the more descriptive tables would be published only on the internet.

6. In summary, the structure of the report will be as follows:

- Executive summary
- Reader’s guide
- Chapter One: Introduction
- Chapter Two: A profile of the lower secondary teacher population and the schools in which they work
  - Section 2.1. A profile of lower secondary teachers
  - Section 2.2. A profile of the schools in which lower secondary teachers work
- Chapter Three: Professional development of lower secondary teachers
  - Section 3.1. Amount and type of professional development undertaken
  - Section 3.2. Impact of professional development
  - Section 3.3. Support received by teachers for professional development
  - Section 3.4. Professional development needs
  - Section 3.5. Induction and mentoring practices
  - Section 3.6. Conclusions
- Chapter Four: Teaching practices, beliefs and attitudes of lower secondary teachers
  - Section 4.1. Theoretical background and analytical framework
  - Section 4.2. Beliefs about the nature of teaching
  - Section 4.3. Classroom teaching practices
  - Section 4.4. Teachers’ professional activities: Cooperation among staff
  - Section 4.5. Classroom level environment
  - Section 4.6. School level environment: school climate
  - Section 4.7. Job-related attitudes: self efficacy and job satisfaction
  - Section 4.8. Explaining teaching practices, quality of the learning environment and perceived success
• Section 4.9. Policy implications

• Chapter Five: Appraisal and feedback for lower secondary teachers
  – Section 5.1. The nature and impact of school evaluations
  – Section 5.2. Form of feedback and appraisal
  – Section 5.3. Outcomes of feedback and appraisal
  – Section 5.4. Impact of feedback and appraisal
  – Section 5.5. Teacher feedback and appraisal and school development
  – Section 5.6. Discussion of key aspects of teachers’ appraisal and feedback

• Chapter Six: School leadership
  – Section 6.1. Context and importance of school leadership
  – Section 6.2. Research underpinning school leadership issues in TALIS
  – Section 6.3. Management behaviours and styles: 5 scales
  – Section 6.4. Cross-country comparisons of management behaviours
  – Section 6.5 Cross-country comparisons of management styles
  – Section 6.6 Association of management behaviour and styles with teachers’ professional development
  – Section 6.7 Association of management behaviour and styles with teacher practice, beliefs and attitudes
  – Section 6.8 Association of management behaviour and styles with appraisal and feedback to teachers
  – Section 6.9 Conclusions and policy implications

• Chapter Seven: Final analysis and conclusions

Executive summary and readers’ guide
7. The executive summary will provide a short description of the development of TALIS and present the key findings of the main report. These findings will, as aligned with the overall report, have a strong policy emphasis. The reader’s guide will enable the reader to better understand the analysis presented in the report and the notation used in the presentation of the analysis such as in tables and charts. This will include:

• Notes and symbols for the tables (m, a, etc denoting the reasons why country data is missing);
• Method for calculating international averages (including OECD average and OECD total);
• Criteria for using different indices of central tendency (i.e. mean and median);
• Definition of teachers, school principals, schools and other items;
• Rounding of the figures;
• Explanations for the various abbreviations used in the report (i.e. S.E., S.D.); and,
• TALIS data source on the web.

Chapter 1: Introduction

8. The introduction will provide a more detailed illustration of the development of TALIS and the key steps that have led to the production of the main report. Emphasis will be given to the key aspects of the survey to allow readers to better grasp the analytic contributions and policy implications of the discussion presented in the main report. A key facet is the sampling procedure implemented in TALIS and the implications this has for the presentation of country and school results. The introduction will also include a brief description of the organisation of the report to better guide the reader through the main content.

9. The remaining sections of this paper give the detailed outlines of the analytic chapters 2-7. The tables referred to mainly in chapters 2, 3 and 5 can be found in the Annex to this document. Countries’ names have been removed and the order of countries randomised to protect the confidentiality of the data.
CHAPTER 2: A PROFILE OF THE TEACHER POPULATION AND THE SCHOOLS IN WHICH THEY WORK

Introduction

10. In this chapter, demographic data and information of the profile of schools will be presented to provide context for the discussion presented in the main analytic chapters. This will emphasise differences in characteristics across countries that may affect interpretation of other key analytic issues. In addition to the contextual information presented in this Chapter, a number of policy-relevant areas will be highlighted.

11. Section 2.1 will provide a profile of lower-secondary teachers in terms of their age and gender distributions as well as their job profiles in terms of their employment status, and job tenure. The text will contrast the highs and the lows in terms of the percentage of teachers that are female, younger, older, permanently employed, on a fixed contract, those who are in their first year of teaching as opposed to having longer tenure. This could be particularly important for analysis of a number of school-level characteristics such as school climate and the appraisal and feedback teachers have received. The section could be expanded to examine how these characteristics vary between schools of different types, as described in Section 2.2.

12. A number of school characteristics have been collected in the data obtained from the school principal questionnaire and these will be the focus of Section 2.2. These provide important contextual characteristics for the discussion presented in the main analytic chapters that will highlight differences between these school characteristics. Key characteristics include:

- School sector, distinguishing between private and public schools and their main source of funding;
- The size of the community in which the school is located, distinguishing, for example, between rural or regional schools and those located in cities;
- The socio-economic status of students in the school. This will be calculated from the school principal questionnaire and feed into analysis of equity issues discussed in the main report. It is considered that this may be particularly important in analysis of various teacher and teaching characteristics and school-level variables;
- School size measures of the number of students and also the number of teachers and other personnel. This will provide information of the teacher-pupil ratio in each school and an indication of the workload of school principals and the size of their school management/administrative group;
- Analysis will be presented of differences in school admission policies that distinguish between six key factors that can be used by schools to choose their students. A key factor is the extent to
which schools use students’ academic record (including placement tests) to determine if students can attend their school. A scale to indicate the degree of selectivity in schools’ admission policies will be produced;

- School resources will be used in analysis of a number of key areas to analyse the relationship with issues such as school culture, teaching practices, job satisfaction and professional development. Measures of school resources are obtained from the principal questionnaire and focus upon eight areas that school principals consider may (or may not) hinder the school’s capacity to provide instruction. Differences between countries and school types will be presented in tabular form. Again, emphasis will be placed upon those issues that have been shown in the analysis to be related to the key analytic issues. A scale to indicate the degree of resource difficulties facing schools will be produced;

- School climate will be analysed with data obtained from both teachers and school principals. An index will be created of eleven actions by students within schools. In addition, three aspects of teachers’ behaviour will also be analysed. This will be discussed alongside a number of key analytical areas given the potential impact upon teachers and their teaching and school-level factors such as teacher cooperation. These relationships will be discussed in the main analytic chapters, particularly Chapter 4;

- Differences in school autonomy within or between countries will be presented with data on the distribution of decision-making between schools and education authorities. The chapter will illustrate differences between countries and potentially types of schools. School autonomy has clear implications for many of the aspects of TALIS, in particular the school leadership analysis. A scale to indicate the degree of autonomy that schools have will be produced.

13. Tables will be presented to illustrate these issues with a focus upon differences within and across countries. Emphasis in the discussion will be given to characteristics that have been found to be important in analysis presented in the main analytic chapters. This Chapter will include the following Tables, copies of which, with country names removed, are included in the Annex to this document (selected Charts may accompany such Tables):

- Table 2.1. Gender and age distribution of lower-secondary teachers
- Table 2.2. Employment status and job tenure of lower-secondary teachers
- Table 2.3. School sector and local school community
- Table 2.3a. Socio-economic characteristics of students
- Table 2.4. School size and student-teacher ratio and teacher support ratios
- Table 2.5. School admission policies
- Table 2.6 School resources
- Table 2.7 School climate – teacher related factors
- Table 2.7a School climate – student related factors
- Table 2.8. School autonomy
CHAPTER 3: PROFESSIONAL DEVELOPMENT OF TEACHERS

Issues for BPC to note

At the 5th meeting of the TALIS Board of Participating Countries it was agreed to produce a thematic report on teachers’ professional development in collaboration with the European Commission. The plans for the thematic report are discussed in [doc.ref EDU/INES/TALIS(2008)12]. To maintain the complementarity of the coverage of professional development in the initial report and the coverage in the thematic report, it is proposed that Chapter 3 of the initial report is confined to the main headline indicators on professional development. In contrast, the thematic report will make a more thorough examination of the school and teacher factors that are associated with participation in professional development and attempt to develop a model for participation. Chapter 3 of the initial report will nevertheless include some bivariate comparisons and other chapters of the initial report will examine how professional development interacts with school leadership, appraisal and feedback and teaching practices and beliefs.

Introduction

14. Teachers’ professional development activities seek to update, develop and broaden the knowledge teachers acquired during initial teacher education and/or provide them with new skills and professional understanding. Professional development may also accompany the implementation of educational reforms. There are strong demands for teachers to continuously update their knowledge and skills due to the introduction of new curricula, changes in the characteristics and learning needs of students, new research on teaching and learning, and increased pressure for accountability of teacher and school performance. Professional development provides a means for improving the quality of teachers and for retaining them in teaching.

15. This chapter examines the amount and type of professional development undertaken by teachers of lower secondary education, and the impact that teachers say that this has had on their development as teachers. It goes on to examine the types of support that teachers receive to undertake professional development activities and to investigate the barriers that have prevented them from having more development than they have received, as well as examining the development needs that teachers say remain unfulfilled. Finally, the extent to which new teachers are provided with induction and mentoring is compared across countries.

Section 3.1 Amount and type of professional development undertaken

16. The chapter will begin with an analysis of the amount and type of professional development undertaken by lower secondary teachers.

Key indicators will be:

- The percentage of teachers who received some professional development in the 18 months prior to the survey (Table 3.1)
• The average number of days professional development taken in the 18 months prior to the survey across all teachers (all survey respondents) (Table 3.1)

• (For those who have taken some professional development) the average number of days professional development taken in the 18 months prior to the survey, analysed by teacher (age, gender, contract status) and school (public/private) characteristics (Table 3.1)

• Percentage of days taken that were compulsory (Table 3.1)

• Profile of types of professional development undertaken (Table 3.2)

17. The section will not include a comprehensive analysis of teacher and school characteristics and their association with the take up of professional development (this will be reserved for the TALIS thematic report on professional development) but will look at the most frequently discussed dimensions of age, gender, experience, governance of school and school location.

Analyses involving these indicators will examine the following questions:

• How does the take-up of professional development vary according to the age, gender or contract status of the teacher or whether they are in public/private school?

• How is the variation in the number of days professional development undertaken associated with the profile of types of professional development undertaken?

• Can groups of countries be identified, characterised by the types of professional development undertaken?

Section 3.2 Impact of professional development

18. It is one issue to provide professional development opportunities it is another to provide activities that actually make a difference to teachers in their work. As a measure of the quality and effectiveness of professional development activities, TALIS asked teachers about the impact that they believed the development activities have had on their development as a teacher.

Key indicators in this section are:

• Extent of the impact on their development as a teacher of each type of development activity (Table 3.3)

Analysis involving this indicator will reveal:

• Which types of activities are perceived to have the greatest impact on teachers’ development?

• Do the types of development activities with the highest reported impact also have the highest levels of participation and vice versa?

• What can this say about the quality of professional development activities undertaken?
Section 3.3 Support received by teachers

19. The level and type of support received by teachers to take part in development activities can be expected to have an impact on the level of participation. This section examines the types of support teachers receive, the extent to which they wanted more development than they had received and what they saw as the barriers against receiving more.

Key indicators in this section are:

- Frequency that different types of support were provided to teachers for the development undertaken (Table 3.4)
- % of teachers who wanted more professional development than they received (Table 3.5)
- Frequency of barriers reported as preventing taking more professional development (Table 3.5)

Analysis involving these indicators will reveal:

- What is the association between the professional development undertaken and the types of support received? Does it make a difference if teachers have to pay all or some of the costs?
- What is the correlation between the amount of professional development undertaken and the extent to which more is wanted?
- What barriers are there to receiving the professional development that teachers want?
- What is the relationship between the support received and the barriers perceived? Do teachers who have to pay, actually report this as a barrier? Do teachers who do not receive time off for development report this as a barrier?

Section 3.4 Professional development needs

20. No analysis of professional development would be complete without an assessment of the development needs that teachers feel they have. This can help in understanding how well current professional development provision is meeting the needs of different teachers and what might be done to better address the needs.

Key indicators in this section are:

- Extent of development needs in various aspects of teachers’ work (Table 3.6)

Analysis involving this indicator will reveal:

- Which areas of their work do teachers’ see as the priority for further professional development?
- What is the relationship between the level of need overall and the amount of professional development undertaken?
- What is the relationship between the level of need and the extent to which barriers prevented professional development being taken?
• Can we calculate an aggregate index of teachers’ development needs across all aspects of their teaching?

• What is the relationship between level of development need for ‘Student discipline and behaviour problems’ and the disciplinary climate in the school?

Section 3.5 Induction and mentoring practices

21. The OECD review of teacher policy published in “Teachers Matter” in 2005 emphasised the importance of strengthening induction and mentoring programmes. Not only can these encourage the retention of new teachers into the profession but they can also allow new teachers more quickly to become effective in their work.

Key indicators in this section are:

• Percentage of teachers in schools where there is a formal induction process (Table 3.7)

• Percentage of teachers in schools where there is a mentoring programme or policy (Table 3.7)

Analysis involving these indicators will reveal

• How extensive are mentoring and induction practices in schools? Do they co-exist in schools?

• Are these practices targeted only at new teachers in the profession or do all teachers new to a school benefit from them?

Section 3.6 Conclusions

22. This section will draw out the key conclusions from the findings.

Tables

23. This Chapter would include the following tables, copies of which, with country names removed, are included in the Annex to this document (selected Charts will accompany the Tables):

• Table 3.1. Amount of professional development undertaken by teachers in the previous 18 months

• Table 3.2. Types of professional development undertaken by teachers

• Table 3.3. Impact of different types of professional development undertaken by teachers

• Table 3.4. Support for the professional development undertaken by teachers

• Table 3.5. Reasons for not participating in more professional development

• Table 3.6. Teachers' high professional development needs

• Table 3.7. Frequency of mentoring and induction programmes
CHAPTER 4: TEACHING PRACTICES, TEACHER BELIEFS AND ATTITUDES

4.1 Theoretical background and analytical framework

24. TALIS will examine teacher beliefs, attitudes and practices across and between teachers, schools and countries. Although TALIS is not aimed at explaining student achievement, achievement growth, student motivation, or motivational change, its study design highlights factors which have been shown to be related to such kinds of student outcome.

25. Numerous studies within the so-called process-product research paradigm have revealed aspects of teaching practice that are related to effective classroom learning and student outcome (Brophy & Good, 1986; Wang, Haertel & Walberg, 1993). Close monitoring, adequate pacing and classroom management as well as teacher clarity, structuredness of the lesson and the use of informative and encouraging feedback – known as key aspects of “direct instruction” – have generally shown to have positive impact on student achievement. However, these results have been challenged by constructivist positions (De Corte, 2004). Learning processes cannot be controlled from the outside; rather, the teacher provides learning opportunities that must be perceived and utilised by the student to be effective. Also, motivational processes and outcomes have to be taken into account as important goals. Accordingly, the framework of instructional quality has to be widened beyond the core aspects of direct instruction. Based on results from the TIMSS video study, Klieme et al. (2006) proposed three basic (second-order) dimensions of instructional quality: clear and well-structured classroom management (which includes key components of direct instruction), student-orientation (including supportive climate and individualized instruction), and cognitive activation (including use of deep content, higher order thinking tasks and other types of demanding activities). These dimensions are to be understood as “latent” factors that are related to, but not identical with specific instructional practices.

26. TALIS used a domain-general version of this triarchic model, identifying structure, student orientation, and enhanced activities as basic dimensions of teaching practices.

27. Instructional practices, in turn, depend on the prerequisites that teachers bring to the classroom. Earlier research identified such prerequisites as general characteristics, e.g. personality traits and “styles” for interaction. Recent research, however, focuses on specific characteristics which are the result of academic education and socialisation as a professional who understands and teaches a certain subject matter area. Professional competence is believed to be a crucial factor which determines classroom as well as school practices (for overviews, see Campbell et al. 2004; Baumert & Kunter 2006). In line with Lee Shulman’s (1987) seminal work, content knowledge and pedagogical content knowledge (including content-related beliefs) have been proven to impact on teaching practices, and finally on student outcome. Baumert and colleagues, for example, showed that math-related teacher knowledge and teacher enthusiasm had an impact on factors of teaching practices which they described as monitoring, social support, and...
cognitive challenge – much in line with the three basic dimensions of instructional quality mentioned above (see Kunter et al. 2007, 2008). Within mathematics, special attention has been given to effects of teachers’ epistemological beliefs (see, e.g., Stipek, Givvin, Salmon, & MacGvers, 2001; Diedrich, Thussbas & Klieme, 2002; Staub & Stern, 2002; Pauli, Reusser, & Grob, 2007). Measures of constructivist vs. more traditional or “reception/direct transmission”-oriented beliefs on teaching and learning developed by Peterson et al. (1989) have been taken up by a number of these authors.

28. The design of TALIS, however, does not allow for content-specific questions. Thus, TALIS is focusing on Shulman’s third strand of teacher competencies, namely general pedagogical knowledge (e.g., general beliefs about the nature of teaching and learning). A domain-general version of the two teaching and learning-related beliefs scales (constructivist vs. traditional/direct transmission) was implemented to cover teacher’s basic understanding of the nature of teaching and learning.

29. But teachers not only act in the classroom, instructing classes of students in more or less isolation from other classes and other teachers. A modern view of teachers will acknowledge professional activities on the school level, such as cooperating in teams of teachers, building professional learning communities, participating in school development and evaluating and changing working conditions (Darling-Hammond et al. 2005). Those activities shape the learning environment on the school level, i.e. school climate, ethos and culture, which directly and indirectly (via classroom level processes) impact on student learning. TALIS allows discriminating two kinds of cooperation within the teaching staff of a school (cf. Steinert et al. 2005): collaboration for teaching (e.g., exchanging instructional material or discussing learning problems of individual students) vs. more general, and more innovative kinds of collaboration which foster professional development (e.g., observing other teacher’s classes and giving feedback to them). We assume that both kinds of cooperative activities will be influenced by school level context variables like leadership or school policies on teacher evaluation, which are covered in other chapters of this report.

30. As we know from school effectiveness research (Scheerens & Bosker 1997; Hopkins 2005; Lee & Williams 2006; Harris & Chrispeels 2006), the quality of the learning environment is the most important malleable factor for student learning and student outcome – given that background variables such as cognitive and motivational capacities, socio-economic background, social and cultural capital are mostly beyond control for teachers and schools. TALIS aims at capturing student background by asking teachers and principals about the social composition and the relative achievement level of the student population they serve. More important, TALIS sets out to assess core factors of quality on the classroom as well as the school level, as perceived by the teachers. However, as this environment most often varies between subjects and teachers, it is not easy to identify domain-general indicators. TALIS chooses time on task – i.e. the proportion of lesson time that is actually used for teaching and learning - as one of the basic indicators for quality of the learning environment. Also, disciplinary climate is used, because this variable has a strong impact on cognitive as well as motivational aspects of student learning in different subjects, and because it has been shown that – unlike other features of classroom climate – there is a high level of agreement between teachers, students and observers with regard to this indicator (Clausen 2002). In addition to the classroom level environment, the school climate as an indicator for the school level environment was included in the survey. Here we define school climate as the quality of social relations between students and teachers (including the quality of support teachers give to students), which is known to have direct influence on motivational factors such as student’s commitment to school, learning motivation, and student satisfaction, and perhaps more indirect influence on student achievement.

31. Thus, TALIS is able to cover core aspects of teacher beliefs (general pedagogical knowledge), teacher activities (teaching practices and teacher cooperation) as well as quality indicators on classroom level (disciplinary climate, time on task) and school level (quality of social relations). Figure 1 illustrates those factors and their supposed interactions.
32. TALIS does not cover any criteria for the ultimate effects of classroom and school level activities and climate factors on student learning and outcomes. However, in accordance with TALIS being a teacher study (as opposed to an educational effectiveness study), we asked the teachers themselves to evaluate what they are doing. A very general indicator of teacher attitudes towards the quality of their work is the overall job satisfaction, which was explicitly asked for by a single item in the TALIS teacher questionnaire. In addition, TALIS assessed teachers self efficacy beliefs, adopting a construct and related measurement that is widely used in educational research (e.g., Schwarzer, Schmitz & Daytner 1999). Psychological research has shown that the expectation of being able to cope with demanding tasks (self efficacy expectancy) is linked to successful behaviour in a number of settings, including teaching (Bandura 19977, 1997; Pajares 1996).

Figure 1: Framework for the analysis of teaching practices and beliefs (Constructs that are covered by the survey highlighted in grey; single-item-measures indicated by *)

Notes on the interpretation of the measures

33. TALIS measures self reported beliefs, attitudes and behaviours. Different factors influence the resulting scores. National and regional culture, personal experiences, education and the school system among other things all contribute to the formation of attitudes and beliefs. But cultural factors also influence the interpretation of questions and response options and the ways in which responses are given (van de Vijver and Leung, 1997). Furthermore behavioural self-reports also depend on the ability to recall and estimate the frequency of one’s behaviour. This needs to be taken into account in the construction and interpretation of scales.
The questions concerning teaching beliefs and practices use items from scales which are well-established in national and, where possible, also in existing cross-national research. To establish cross-cultural comparability of the scales confirmatory factor analysis was conducted (cp. Technical Report). The chapter focuses on constructs for which the analysis confirmed a similar structure across countries. In the literature often three levels of invariance are differentiated: Configural, metric and scalar invariance. Scalar invariance is the most rigorous form. It implies that cross-country differences in the means of the observed items are a result of differences in the means of their corresponding factors (Davidov, 2008). At least partial scalar invariance is needed to make meaningful comparisons of mean scores across countries (Steenkamp and Baumgartner, 1998).

It is very promising that scalar (or at least partial scalar) invariance could be established for the three scales that appear to the right in Figure 1: disciplinary classroom climate, school climate, and teacher self efficacy. So, we are able to make direct comparisons between country means for those measures that best represent “dependent” variables or potentially “effects” of teacher beliefs and practices. The scales used to measure beliefs and practices (teaching as well as professional), however, did meet the criteria of (partial) metric invariance, but not scalar invariance. Thus, they will be used to compare the relations between constructs (i.e. profiles based on within-country differences, and correlational patterns) in different countries, but not for mean-score comparisons. In that case, figures and tables that show country mean scores and comparisons of distributions will not be reported.

Overview of the chapter

The remaining sections of this chapter are organized along the model described in figure 1.

Moving from the left (general pedagogical beliefs) to the right (overall job-related attitudes), we discuss each group (box) of variables by describing country profiles and – where appropriate – comparing country means. These results will be presented in sections 4.2 to 4.7.

Within each of these sections, we will explore the impact of teacher background factors (such as kind of training, certification and professional development, subject taught, age, gender, employment status and length of tenure) on the respective beliefs, practices, and attitudes. For teaching practices, in addition to teacher background we will take the classroom context into account: Are teaching practices “adaptive” with regard to students’ social and language background, grade level, achievement level, and class size? Here, we focus on effects that can be identified across countries, while single countries or groups of countries with specific patterns are identified if that helps to understand certain profiles of beliefs, practices, and attitudes in those countries.

Section 4.8 will contain a first attempt at using TALIS data to understand conditions of successful schooling and teaching within countries. We systematically test the hypotheses that are implied by our model (see figure 1) and previous research. So, from previous studies it can be inferred that teaching practices are influenced by teacher beliefs about the nature of teaching and learning (e.g., constructivist beliefs will lead to more emphasis on student-oriented practices and enhanced activities). Ultimately, applying multivariate multi-level models, we try to understand how job-related attitudes (self-efficacy and job satisfaction as proximal indicators for professional success) and the perceived quality of the learning environment (classroom and school climate) are related to teachers’ professional beliefs and activities. Once again, the section will focus on relations and effects that hold across or in a majority of countries.

Finally, the analytical model will be enhanced by additional school context variables, based on both the teacher and the school (principal) questionnaire: type and size of school, student composition and
school resources, leadership, appraisal and feedback, professional development. This enhanced model, however, is beyond the scope of the present chapter and will be dealt with in the final analytical chapter.

4.2 Beliefs about the nature of teaching and learning

41. Beliefs about the nature of teaching and learning that TALIS asks for are a “direct transmission view on learning and instruction” vs. a “constructivist view on learning and instruction”. These dimensions are well established in educational research (see section 4.1) – at least in Western countries, where most of the relevant research has been undertaken. Teachers with a direct transmission view of learning and instruction consider their major task to communicate concrete knowledge in a clear and structured way. Presenting facts as well as demonstrating and explaining correct solutions are seen as important instructional practices. A constructivist view on the other hand implies an emphasis on the facilitation of students’ own inquiry. Teachers, who endorse a constructivist approach, prefer to give students the chance to develop solutions to problems on their own and they allow students co-determination of instructional activities. Here, the development of thinking and reasoning processes are stressed more than the acqurirement of concrete knowledge. It is important to note the difference between beliefs on one hand, and concrete practices on the other hand. Both practices and beliefs are shaped by pedagogical and cultural traditions. They represent different, though related parts of the pedagogical context for student learning.

42. Beliefs were assessed on a 4 point-Likert-scale. Across countries, the same basic dimensions emerged in factor analyses:

- “Direct transmission beliefs”: 6 items, the most characteristic being: “Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly.”

- “Constructivist beliefs”: 4 items, e.g. “Students learn best by finding solutions to problems of their own.”

Research questions:

1. Are there differences between countries concerning attitudinal profiles of teachers? How many teachers clearly prefer a constructivist or traditional approach over the other? Are there differences in these preferences between countries?
Figure 2: Country profiles of beliefs about the nature of teaching and learning: Relative strength and variation of “direct transmission view on learning and instruction” and “constructivist view on learning and instruction”

Note: Ipsative data might be used for this analysis. Thus, mean scores would describe the relative strength of one belief scale compared to the other within countries, since (with only metric invariance, but no scalar invariance being established) it is not possible to compare the strength of – say – constructivist beliefs directly between countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Traditional view</th>
<th>Constructivist view</th>
<th>About equal endorsement of both views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>x%</td>
<td>y%</td>
<td>(100-x-y) %</td>
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<tr>
<td>Austria</td>
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</table>

2. Are the two beliefs correlated or uncorrelated within countries?

Based on research from western countries, it was expected that constructivist beliefs and traditional, direct-transmission beliefs would show negative or at most zero correlations, since both views are supposed to be contradictive in nature. This expectation was only met in certain cultural regions. (No figure or table; countries will be classified according to the strength of the correlation in the text.)

3. Are these beliefs and attitudes related to the level of formal education completed, and to other teacher background variables? E.g., are there differences between teachers who did not complete ISCED level 5, teacher who completed ISCED 5A and those who completed ISCED level 6
concerning their relative endorsement of a “direct transmission (traditional) view on learning and instruction” vs. a “constructivist view on learning and instruction”?

We will check for relations with age, gender, formal education completed, experience, and participation in various types of professional development.

For each background variable that has significant impact, a figure similar to figure 2 will be included, where lines represent different groups of teachers.

4.3 Classroom teaching practice

43. Practices were examined by teachers’ frequency estimations on a 5-point scale, ranging from “never or hardly ever” to “in almost every lesson”. Three scales were formed:

- “Structuring practices”: 5 Items, e.g. “I explicitly state learning goals.” Other items include summary of former lessons, homework review, checking the exercise book, and checking student understanding during classroom talk by questioning students.

- “Student-oriented practices”: 4 items, e.g.: “Students work in small groups to come up with a joint solution to a problem or task.” Other items include ability grouping, student self-evaluation and student participation in classroom planning.

- “Enhanced activities”: 4 items, e.g.: “Students work on projects that require at least one week to complete.” Other items include making a product, writing an essay, and debating arguments.

44. Researchers agree that there is no unique, well-defined best way of teaching. Rather, the effectiveness of classroom practice is domain-specific as well as goal-specific; it depends on cultural context and professional traditions. Thus, TALIS reaches out to identify different profiles in teaching practices rather than assessing just one kind of “optimal” practice.

45. As only (partial) metric invariance could be met, again relative data will be presented, i.e. scores that describe the relative importance of a dimension of teaching practices, compared to the overall intensity of teaching practices within that country.

46. Comparative research, especially the TIMSS video studies, has proven that more “traditional” activities are dominant in almost all countries. At least in highly standardized subjects such as mathematics and sciences, it seems that schemata and routines are existing that are common to schools in all countries, and these are mainly teacher-directed, well-structured activities like lecturing, students working on assignments, etc. Thus, we expect that the dimension “structured practices” is dominating the other two dimensions in every country. However, according to previous research in comparative education (including TIMSS, PIRLS and PISA studies), countries show quite different profiles with regard to “alternative” or enhanced teaching practices. Most probably groups of countries with similar cultural background and pedagogical traditions show similar profiles.

Research questions

4. How common are the different instructional practices covered by the survey? Are there any peculiar differences between countries? Is it possible to identify different patterns?

These analyses are reported both on the item level (Table 2) and the scale level (Figure 3).
Structured, teacher controlled instruction

- homework review
- checking exercises
- stating goals
- summarizing
- checking student understanding by asking questions

Student centred instruction

- small groups
- individualized tasks
- participation in planning of classroom activities
- tutoring
- self evaluation
- ability grouping
- projects
- making products
- essays
- debates

Cognitive activation

- enhanced activities

<table>
<thead>
<tr>
<th>Country</th>
<th>Structured, teacher controlled instruction</th>
<th>Student centred instruction</th>
<th>Cognitive activation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Austria</td>
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<td>Belgium</td>
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</tbody>
</table>

Table 2: Profile of teaching practices by country (the higher the endorsement the darker the grey)

Figure 3: Profile of basic dimensions of teaching practices by country
5. Do domains (school subjects) differ with regard to classroom practices?

![Figure 4: Profile of basic dimensions of teaching practices by subject](image)

6. Are teaching practices related to the level of formal education completed, and to other teacher background variables?

We will check for relations with gender, formal education completed, and participation in various types of professional development. A separate figure will be drawn for each background variable that has significant impact.

7. Are teaching practices related to classroom background variables?

We will check for relations with class size and student composition.

4.4 Teachers’ professional activities: Cooperation among staff

47. The Teacher Questionnaire covered various aspects of teacher cooperation. Cooperation of staff can take different forms: Teachers might exchange instructional material and meet regularly for discussions about single students (scale “Collaboration for teaching”). More sophisticated forms of cooperation include collective learning activities like observing others and providing feedback and teaching jointly as a team (Scale “Collaboration for professional development”). Again, mean values cannot be compared directly between countries. Therefore, we report relative (ipsative) scores within countries. However, to provide more concrete information, country means for individual items are also entered in a table.

Research questions:

8. Which forms of teacher cooperation are common in different countries?
In addition to this table with item-level information, profiles of the two dimensions of teacher cooperation by country will be provided (similar to figures 2 and 3): “Collaboration for teaching” and “Collaboration for professional development”.

9. Do teachers within a school agree on the level of cooperation? To which extent is this actually a school-level factor, rather than a matter of individual perception and evaluation?

For each country, the overall variance in each of the two cooperation scales will be decomposed into (a) between-school-variance and (b) within-school-variance.

4.5 Classroom level environment

48. To describe the classroom level environment TALIS measures disciplinary climate. Teachers are asked whether they have to cope with a lot of noise and interruptions during lessons and whether they perceive a pleasant learning atmosphere. In addition, an index for “time on task” was defined by asking teachers what percentage of time they typically spend on actual teaching and learning in the target class. Country means on both variables can be compared, as we were able to establish scalar invariance.

Research questions:

10. How much time is in an average lesson spent on actual teaching and learning in different countries? How is this indicator distributed between teachers within countries? The answer may be visualized by a a type of graph that is widely used in PISA publications:
Figure 5: Template for a graph on time on task, by country. (The vertical axis would be labelled “Proportion of lesson time actually used for teaching and learning”)

11 What is the overall level of classroom disciplinary climate and time-on-task reported by teachers from different countries?
Figure 6: Country means for two indicators of the quality of the classroom environment.

It can be shown that classroom climate and time on task are significantly related, both within and between countries.

12. What are the characteristics of teachers who report a comparably bad disciplinary climate? (We check for effects of teacher experience.)

13. Which impact do student background and classroom factors have on classroom climate and time-on-task? (We expect a significant relation between indicators of classroom climate and the level of student ability as estimated by teachers)
4.6 School level environment: school climate

49. Many important aspects of the school level environment will be addressed in the ‘recognition, feedback, reward and appraisal’ section. In addition, the teacher questionnaire provides an index for school climate, based on items about teacher-student-relations and teacher support. This is supplemented by an index of school climate in the principal questionnaire that concerns problems with absenteeism, drugs and violence among other things.

50. Again, mean scores may be compared directly. So, countries can be compared both on the item and the mean score level.

Research questions:

14. What is the overall level of school climate reported by teachers from different countries? (Figure similar to Figure 5)

15. Which problems with school climate are especially common in different countries? (Data based on principals questionnaire)

<table>
<thead>
<tr>
<th>Students’ behaviour</th>
<th>Teachers’ behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arriving late at school</td>
<td>Arriving late</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>Absenteeism</td>
</tr>
<tr>
<td>Classroom disturbance</td>
<td>Lack of pedagogical preparation</td>
</tr>
<tr>
<td>Cheating</td>
<td></td>
</tr>
<tr>
<td>Profanity/swearing</td>
<td></td>
</tr>
<tr>
<td>Vandalism</td>
<td></td>
</tr>
<tr>
<td>Theft</td>
<td></td>
</tr>
<tr>
<td>Intimidation or verbal abuse of other students</td>
<td></td>
</tr>
<tr>
<td>Physical injuries</td>
<td></td>
</tr>
<tr>
<td>Intimidation or verbal abuse of teachers/staff</td>
<td></td>
</tr>
<tr>
<td>Use/possession of drugs and or alcohol</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Profile of school climate by country (high endorsement indicated by dark grey)

16. Do teachers within a school agree on the quality of the school climate? To which extent is this actually a school-level factor, rather than a matter of individual perception and evaluation?

For each country, the overall variance in school climate will be decomposed into (a) between-school-variance and (b) within-school-variance.
4.7 Job-related attitudes: self efficacy and job satisfaction

51. In addition to pedagogical beliefs and attitudes, the teacher questionnaire addresses job-related attitudes, namely job satisfaction (single item) and teacher self-efficacy. Teachers with high self-efficacy feel that they are successful with teaching and that they can handle their students well. We know from research on teachers and teaching, that these beliefs are linked to instructional practices and student achievement.

52. Self efficacy was measured with scalar invariance across countries. Thus, means may be compared.

Research questions:

17. How strong are teachers’ self-efficacy beliefs, and how do these correlate with overall job satisfaction?

![Figure 8: Level of teacher self-efficacy and its correlation with job satisfaction by country.](image)

As expected, self-efficacy is correlated with job satisfaction within every country, although the strength of the correlation can vary. A lower coefficient of correlation between self-efficacy and job satisfaction may indicate that job satisfaction depends on external factors in addition to teachers’ personal feeling of being successful on the job.

18. Which characteristics do teachers have who report a comparably high level of self-efficacy and job satisfaction?
4.8 Explaining teaching practices, quality of the learning environment, and perceived success

53. Note that with cross-sectional data as TALIS provides, no direction of impact can be established. Thus, we are not able to decide empirically between, e.g., a model that describes school climate as dependent on teacher practices, and a model that describes teacher practices as dependent on school climate (see Figure 1, where this relation is symbolized by a double-headed arrow). The perspective we take, i.e. our choice of dependent (to be explained) and independent (explanatory) variables, is based upon purely theoretical considerations, as laid out in our analytical framework. We test the hypotheses indicated in Figure 1 from the left to the right.

19. Are teacher’s beliefs and self reported teaching practice associated and are the associations the same in all countries?

We expect that “constructivist” beliefs are correlated to student oriented practices and/or enhanced learning activities. This expectation holds in certain regions only, whereas in other regions constructivist beliefs were related to higher levels of structuring practices.

<table>
<thead>
<tr>
<th>Teaching practices:</th>
<th>Correlations with structured, teacher controlled instruction</th>
<th>Correlations with student centred instruction</th>
<th>Correlations with cognitive activating instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ beliefs:</td>
<td>Direct transmission</td>
<td>Constructivist</td>
<td>Direct transmission</td>
</tr>
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<td>Australia</td>
<td>.xy*</td>
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Table 5: Correlations of “direct transmission (traditional) view on learning and instruction” and “constructivist view on learning and instruction” with “structured practices”, “student oriented practices” and “enhanced activities” by country. (The stronger the correlation is, the darker the grey).

20. Does the perceived quality of the learning environment, i.e. classroom and school climate, depend on teacher beliefs, teaching practices, and teacher collaboration? Do effects exist on the school level (e.g., the average level of collaboration being reported by the schools staff having an impact on school climate) or on the individual level (within schools)?

The appropriate method to be used here is multilevel regression, discriminating between teacher level and school level. A number of variables will be taken into account, but the goal is to find a parsimonious model, using a minimal set of explanatory variables from the following list:

- **Teacher background (control variables):** Formal education completed, professional experience, age and gender.

- **School and classroom societal context (control variables):** percentage of students from well educated families and percentage of students with another first language than that of instruction, estimated ability level, class size.
Teacher beliefs, teaching practices, and teacher collaboration: Scale values of the dimensions studied in sections 4.2, 4.3, and 4.4, used as school context indicators (i.e. aggregated on the school level) as well as on the individual level (within schools).

The analysis will be done as a multi-group model, treating the countries separately. If possible, a reduced structural model would be preferred that is stable across countries, but allows for country-specific parameters.

The relative impact (beta-coefficient) associated with factors in the final model can be visualized in the way this has been done in the PISA report (see Figure 9 for a template).

Figure 9: Template for a graph on conditions for school climate (“Net effect of a unit improvement in teacher collaboration and other variables on perceived school climate”)

21. What can we learn from TALIS about the conditions of success in schooling and teaching?

Again, multilevel regression analyses will be run with teacher self-efficacy (and possibly also job satisfaction) as the dependent variable.
CHAPTER FIVE: APPRAISAL AND FEEDBACK FOR TEACHERS

Introduction

54. This Chapter will illustrate the types of feedback and appraisal systems that operate within schools across countries. Comparisons will be made between aspects of the systems and their outcomes, and the perceived impact of such systems. In addition, the analysis will consider the link between school evaluations and teacher appraisal and feedback. Analysis could be extended to consider the links with other indicators and issues (e.g. teacher cooperation, school leadership, specific teaching practices) or this could be presented in Chapter seven or a thematic report.

55. Section 5.1 introduces the Chapter with a discussion of the frequency, criteria and impact of school evaluations. Aspects are highlighted that are linked to teachers’ appraisal and feedback. This leads into Section 5.2 that presents the frequency and criteria of teacher appraisal and feedback. In these discussions, distinction will be drawn between systems, schools and teachers that do and do not receive evaluation and appraisal and feedback. Sections 5.3 and 5.4 discuss the outcomes and impact of teacher appraisal and feedback. Outcomes focus on the direct outcomes stemming from specific appraisal and feedback such as an increase in salary or change in work responsibilities. Impacts focus upon aspects of teachers’ work such as their teaching in the classroom. Section 5.5 takes a somewhat broader view and looks at teachers’ perceptions of the system of appraisal and feedback within their school and how this is connected to the recognition they and other teachers receive. This also includes discussion of the recognition teachers receive that is connected to their work in their school. More detailed statistical analysis would be presented in Section 5.6 that highlights key policy issues. Such analysis would focus upon multi-variate and/or multi-level modelling and path analysis. Depending upon the scope of the analysis and the structure of the report, aspects may be presented in Chapter seven rather than this Section.

Section 5.1 The nature and impact of school evaluations

56. The role of school evaluation has changed in a number of countries in recent years. Historically, school evaluation focused upon regulations, monitoring schools to ensure that they adhered to particular procedures and policies. In more recent times the focus in a number of countries has shifted to aspects of school accountability and school improvement. Systems of school evaluation can have multiple objectives that vary across countries. Some focus more on administrative issues that follow the more traditional methods of school evaluation. Other systems focus more on how evaluations can foster school improvement or support school principals and teachers. School accountability can also be a key criterion for the operation of systems of school evaluations and in some systems, school evaluative information is published to promote school choice. Given the breadth of these objectives, school-level data on a number of issues have been obtained through the TALIS programme.

57. A key aspect of school evaluations is their impact upon schools. Analysis of system-level data showed that in general, evaluations by inspectors were most likely to have greater implications for schools in regard to the evaluative and accountability structure. This supports the intuitive rationale that evaluations from an external body would be more likely to lead to actions imposed upon schools than internal self-evaluations. These may be used more for internal school improvement purposes and support decision-making within schools concerning specific policies and programmes and the allocation of
resources within schools. TALIS provides the first internationally comparable school-level data of these issues that can be linked to the other policy and analytic issues.

58. TALIS provides information on the frequency of school self-evaluations and external school evaluations (e.g. those conducted by a school inspector or an agent from a comparable institution). Considerable information is obtained on the criteria that were considered for these evaluations. School principals were asked to rate the importance of seventeen different potential criteria ranging from measures of student performance, teachers’ and teaching, to issues such as student discipline and behaviour. Information was also obtained on the influence of these evaluations upon key criteria that could affect schools and teachers. In addition, information was obtained regarding the publication of school evaluative information. It should be noted that given the time constraints in developing a workable questionnaire that was not overly burdensome upon respondents, information on the criteria and impact of school evaluations were asked of school principals only once. Therefore, this information does not, in the main, distinguish between the criteria and impact of school self-evaluations and external evaluations.

59. Of particular importance for the TALIS analysis are the links with teacher appraisal and feedback. These may shed light on the policy malleable aspects of the system of school evaluation have an impact upon teacher appraisal and feedback that has an influence upon teachers and their teaching. In addition, school evaluations could have an impact upon the types of school leadership enacted by school principals.

Frequency of school evaluation

60. There are considerable differences between countries in the structure of school evaluations with schools in some countries rarely being the subject of a school evaluation. In a number of countries, there are low levels of the frequency of school evaluations. In contrast, it is common for schools to have an evaluation in a number of countries. This contrasts starkly with schools that reported having no school evaluations at all in the previous five years. School evaluation conducted by an external inspectorate or equivalent agency were more common than school self-evaluations.

- Table 5.1. Frequency of school evaluations

Focus of school evaluations

61. School principals were asked to rate the importance of 17 criteria that were considered as potentially important in the school evaluations undertaken by the school. Given that the criteria (presented in Table 5.1a) would generally be considered important in their influence upon students’ education, it is not surprising that generally each of the 17 criteria were considered by school principals to be of moderate or high importance in the school evaluations that have been conducted at their school in the last five years. Given the relatively even spread for the sample as a whole in the importance given to each separate criteria, it is interesting to analyse differences within each country.

62. In regard to the role of student outcomes in school evaluations, distinctions were made between three different categories of student outcomes: student test scores; the retention and pass rates of students; and, a category simply defined as other student learning outcomes. Interestingly, school principals in some countries report that specific types of student outcomes are emphasised more than others in school evaluations.

63. Further key aspects of the work of teachers and their teaching in schools include teachers’ classroom management skills and issues such as their relations with students and student discipline and behaviour. The importance of these aspects was again generally considered to be relatively high. A facet of
the extent to which school evaluations emphasise teaching and the methods devoted to examine these issues can be somewhat captured in the responses of school principals to the importance placed upon the direct appraisal of classroom teaching. Direct appraisal and peer observation have been considered valuable evaluative and developmental tools in a number of schools and education systems.

- Table 5.1A. Criteria of school evaluations

**Influence of school evaluations**

64. To ascertain the functioning of the systems of school evaluations across countries, school principals were asked to identify the level of influence of school evaluations upon six different criteria. Table 5.2 depicts that school evaluations generally have a high or moderate level of influence upon performance appraisal and feedback but has relatively less financial impact. This school-level data supports the system-level data collected for OECD countries (OECD EAG 2008).

- Table 5.2. Impact of school evaluations upon schools

**Publication of school evaluation information**

65. Publication of measures of school performance has been a contentious policy issue in a number of countries. Teachers in some systems have had a negative reaction to the publication of performance measures or evaluative information that show their school to be performing poorly. These negative reactions often seem magnified when school results are published in comparative tables that highlight the performance of one school relative to another. Bethell (2005) highlights some of the negative reactions that have occurred in the U.K. following the publication of school results in league tables. Policymakers implementing such systems must believe the negative reaction from some teachers and school principals is outweighed by the positive impact upon education policies and programmes and, through these, upon school performance.

66. The publication of school evaluative information could be considered as part of broader school improvement programmes but it is generally considered most beneficial for policies and programmes aimed at facilitating school choice and school accountability. In some countries, it may also reflect beliefs concerning freedom of information or be a response to commensurate regulatory requirements. Evaluative information on school performance can promote school choice as it provides parents and families with greater information upon which to make their decisions concerning their choice of school for their children to attend. In doing so, the efficiency of the system should increase with resources flowing to the more effective schools and greater signals being sent to all stakeholders of the performance of different parts of the education system. Systems of school accountability often feature the publication of school results that offer comparisons between the performance of schools. This can be deemed to create an incentive for schools to lift their performance and be a suitable requirement for schools that accept or are resourced by public funds.

67. It should also be noted that the publication of school results can be enacted by schools themselves that believe it can be of assistance. This should not be viewed solely as a top-down information or management system that is imposed upon schools. Schools can choose to publish this information either at the national or local level in the belief it will assist their school. This could derive from a belief that it will lead to school improvements or reflect a desire to share this information with the local community. It may also be a requirement for particular non-government schools that publish their school information in a network of independent or non-government schools.
68. It should also be noted that there may be some misunderstandings of the extent of government involvement in the publication of these comparative tables. School principals were asked if these tables were compiled by Governments. Positive responses were received in countries where there is no government policy in this area. However, there have been instances where the media has published comparative tables and the information has become widespread. Hence, even with the lack of a government policy to compare the performance of individual schools in comparative tables, the ability of the media to make these comparisons appears to have led school principals to assume government involvement. This potentially is an important lesson for Governments in the information they make publicly available and their efforts to control the use of this information.

- Table 5.1B. Publication of school evaluations

Section 5.2 Form of feedback and appraisal of lower secondary teachers

69. Analysis on teacher appraisal and feedback would begin in Section 5.2 and focus on the form of teacher appraisal and feedback. This would follow discussion of the frequency of teacher appraisal and feedback. Forms of teacher appraisal and feedback would be distinguished by the frequency of such actions and their source within and outside of the school. The criteria used in providing feedback and appraising teachers would also be analysed and would focus on factors such as student outcomes, appraisals of teaching, feedback from stakeholders, professional development, and a variety of teaching and school activities. Analysis would attempt to distinguish specific systems that operate within schools.

70. Most of the criteria are considered to be of fairly high importance. Given the tendencies of countries to rank higher or lower, there is a need to discuss country differences in terms of their overall profiles. That is, what was rated higher or lower within countries.

- Table 5.3. Frequency and source of teacher appraisal and feedback
- Table 5.4. Criteria for teacher appraisal and feedback

Section 5.3 Outcomes of feedback and appraisal of lower secondary teachers

71. The outcomes of different systems of appraisal and feedback would be presented in Section 5.3. Outcomes focus on the more direct outcomes of such systems and include monetary rewards and career advancement, the level and nature of the feedback received, its focus upon teachers’ developmental needs, and a variety of non-monetary rewards. An additional aspect of the outcomes of teacher appraisal and feedback include the actions taken when specific weaknesses are identified. These would be presented and as well as illustrate differences between countries, draw links to the criteria and nature of appraisal and feedback.

- Table 5.5. Outcomes of teacher appraisal and feedback
- Table 5.6. Actions following identification of weaknesses during teacher appraisal and feedback

Section 5.4 Impact of feedback and appraisal of lower secondary teachers

72. The impact of systems of appraisal and feedback would be presented in Section 5.4 and would focus on individual impacts upon teachers (e.g. their job satisfaction), impacts upon their teaching, and upon broader school development. Of particular importance would be teachers that reported the appraisal and feedback they received to be a fair assessment of their work and that their appraisal and feedback did not contain suggestions for improving certain aspects of their work. These teachers receive no appraisal or
feedback that is constructive in a developmental sense. This is a particularly important issue given that attention from the introduction of new appraisal systems can often be framed in terms of school and teacher accountability which can hold negative connotations for these stakeholders. Stakeholders should emphasise the developmental benefits that teachers can receive from such systems and policy makers should understand the benefits of developmental systems of appraisal and feedback rather than strict accountability regimes. This section would also examine the impact of appraisal and feedback upon teachers’ job security and job satisfaction.

73. In regard to impact upon the work of teachers, namely their teaching, the section would analyse the impact upon different aspects of teaching. This is an important aspects of the analysis, as teachers’ appraisal and feedback that leads to actual changes in what teachers do can be viewed as an effective system (if the impact is positive) or at least one that is effective for policy makers. They can be particularly important for policy makers looking to influence what teachers do in the classroom. This includes Classroom management practices, knowledge and understanding of main subject field and of instructional practices, and other aspects such as the teaching of students with special learning needs.

- Table 5.8. Impact of teacher appraisal and feedback upon teaching

Section 5.5 Teacher feedback and appraisal and school development

74. This section will look at teachers’ perceptions of the teacher appraisal and feedback in their school, the recognition they and other teachers in their school receive, and the rewards to innovative and effective teaching. These aspects will be discussed in terms of not only the appraisal and feedback systems operating within schools but also for broader school development. For example, teachers that report they would receive no rewards or recognition for improving their effectiveness or being innovative would impact upon the culture and work practices in schools. Efforts to lift school improvement rely on improving the quality of teaching. In addition, a number of education systems an emphasis has been placed upon schools as learning organisations where new and existing teaching methods are continually refined to improve student learning. In these cases, one would assume there would be a link to the recognition received by teachers.

- Table 5.9. Impact of teacher appraisal and feedback upon broader school development

Section 5.6 Discussion of key aspects of teachers’ appraisal and feedback

75. This discussion would draw on the previous section and highlight the key aspects for policymakers regarding teacher feedback and appraisal. It would extend the analysis presented in the last section to better explore key relationships to better illustrate the key policy malleable factors. This includes multi-variate and multi-level modelling, path analysis (particularly to examine the relationships between teachers’ professional development needs, the criteria for their appraisal and feedback, and the impact of that appraisal and feedback), and perhaps some factor analysis or cluster analysis.

76. These analyses would focus on a number of different areas such as the impact of appraisal and feedback, the relationships with broader school development issues, school evaluation and pertinent aspects such as the publication of school evaluative information, and the impact of focusing upon specific aspects in teachers’ appraisal and feedback. Depending upon the breadth of this analysis, aspects may be presented in this section or in Chapter seven of the report.
CHAPTER SIX: SCHOOL LEADERSHIP

6.1 Overview of School Leadership.
A. School Leadership in the 21 century (material from OECD Improving School Leadership recommendations)

B. Short historical orientation of reader to the evolution of recent major issues in school leadership, such as instructional leadership, collaboration, lateral management and so forth.

6.2 Description of the research motivating the three key research questions on school leadership that the TALIS survey addresses.

• In an era of accountability and devolution of authority in education, what are the salient dimensions of the management behaviour and style of secondary school principals?

• To what degree have recent new trends in school leadership penetrated nations’ educational systems?

• How are school leadership styles associated with the management of teachers, across the three main areas of TALIS: 1) teacher professional development; 2) teacher practice, beliefs, and attitudes; and, 3) appraisal and feedback to teachers about teaching?


A. Description of each of five scales of management behaviour (including items):

1. Taking action to Framing and Communicating School Goals and Curriculum

2. Promoting Instructional Improvements and Professional Development of Faculty

3. Direct Supervision of Instruction in the School

4. Undertaking the Accountability Role of Principal

5. Focusing on Bureaucratic Rule-Following

B. Chart 6.1 Synopsis of Management Behaviour: Chart with brief definitions of each management behaviour scale for easy reference, as well as reference to items in each scale.

C. Management Styles: Analyses of pattern of association across the five scales yields two underlying patterns of management styles among principals in all countries.

1. School Management Style A: High Participation in Education Leadership
a. Framing and communicating the school’s goals and curricular development (6 items: PQ15 a, b, d, j, k, m)

b. Promoting instructional improvements and professional development (4 items: PQ15 g, h, l, m)

c. Supervision of instruction in the school (4 items: PQ15 c, e, f, i)

2. School Management Style B: High Participation in Administration

a. Accountability role of the principal (4 items: PQ16 a, d, e, f)

b. Bureaucratic Rule-Following (5 items: PQ16 h, i, j, k, o)

D. Chart 6.2 Synopsis of School Management Styles: Chart with brief definitions of the two management styles for easy reference, as well as reference to items in each scale.

6.4 Cross-country Comparison of Management Behaviour

A. Cross-country means and dispersion measure, such as percentage of principals above scale points, with analysis of overlapping standard errors for each management behaviour scale (section 6.3A). These will be the basic listings of country means and dispersion, one management behaviour scale per figure. Figures 6.4-A a-e.

B. Breakdown of management behaviour scales by principal background (education, age, number of schools to manage, experience). Figures 6.4-A f-j.

C. Breakdown of management behaviour scales by school characteristics (public/private, community type, school and staff size, family background of student body) Figures 6.4A j-l.

D. Prediction (association) of management behaviour scales by principal and school characteristics. Results from a multiple regression with each scale as the dependent variable and independent variables as in 6.4B and 6.4C.

6.5 Cross-country Comparison of Management Styles

A. Cross-country means and dispersion measure, such as percentage of principals above scale points, with analysis of overlapping standard errors for each of the two management styles (section 6.3-C). These will be the basic listings of country means, one management behaviour scale per figure. Figures 6.5 a-b.

B. Breakdown of management styles by principal background (education, age, number of schools to manage, experience). Figures 6.5 c-d.

C. Breakdown of management styles by school characteristics (public/private, community type, school and staff size, family background of student body) Figures 6.5 e-f.

D. Prediction (association) of management styles by principal and school characteristics. Results from a multiple regression with each style as the dependent variable and independent variables as in 6.5B and 6.5C. Figure 6.5 g-h.
6.6 Association of Management Behaviour and Styles with Teacher Professional Development.

A. Prediction (association) of teacher professional development scales for full sample and cross-countries by management behaviour and styles. Results from a multiple regression with each teacher professional development scale as the dependent variable and independent variables of management behaviour and style (there maybe too much co-linearity among scales and styles to put into one equation), plus control for principal background and school characteristics variables as in 6.5B and 6.5C. Figure 6.6 a-?

6.7 Association of Management Scales and Styles with Teacher Practice, Beliefs, and Attitudes.

A. Prediction (association) of teacher practices, beliefs and attitudes scales for full sample and cross-countries by management behaviour and styles. Results from a multiple regression with each teacher scale as the dependent variable and independent variables of management behaviour and style (there maybe too much co-linearity among scales and styles to put into one equation), plus control for principal background and school characteristics variables as in 6.5B and 6.5C. Figure 6.7 a-?

1. Disciplinary climate
2. School Climate
3. Self-efficacy
4. Teacher cooperation
5. Teacher beliefs
6. Teaching practices

6.8 Association of Management Scales and Styles with Appraisal and Feedback to Teachers about Teaching.

A. Prediction (association) of appraisal and feedback scales for full sample and cross-countries by management behaviour and styles. Results from a multiple regression with each teacher scale as the dependent variable and independent variables of management behaviour and style (there maybe too much co-linearity among scales and styles to put into one equation), plus control for principal background and school characteristics variables as in 6.5B and 6.5C. Figure 6.8 a-?

### MANAGEMENT BEHAVIOUR SCALES ACROSS COUNTRIES (ILLUSTRATION)

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CHAPTER 7: COMBINED ANALYSIS AND CONCLUSIONS

77. As noted by the BPC at its 5th meeting, the concluding chapter will aim to draw together the main policy implications from the chapter analyses to emphasise the relevance and importance of the TALIS findings for policy makers and stakeholders (EDU/INES/TALIS/M(2008)1).

78. At the meeting there was also discussion of Chapter 7 being a possible additional analytic chapter, seeking to better examine the key analytic and policy issues that set out in the TALIS analysis plans. These analyses will build on the analysis of descriptive statistics, more straightforward statistical analyses, scales and factor scores presented throughout the report.

79. The analyses would include a mix of multi-variate and multi-level modelling, path analysis, and possibly cluster or further factor analysis. The objective of such analyses would be to have a more thorough exploration of the relationships between key variables as the more complex statistical analysis can often better isolate the confounding effects of particular variables.

80. It is evident from the outlines of chapters 4-6 in particular that these chapters already plan to carry out some of these types of analyses and if that is the case it may not therefore be necessary to have a final chapter which does this. A final decision on this will depend upon the outcomes of the analysis conducted for the chapters, the timeline, and how, given the resources involved, the report can best be structured and the key issues illustrated to policy makers.
Appendix: Timeline for the production of the TALIS initial international report

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