OECD Teaching and Learning International Survey TALIS 2009

'Creating Effective Teaching and Learning Environments: First Results from TALIS'

Education International analysis

Introduction

The OECD Teaching and Learning International Survey (TALIS) provides the first in a (intended) series of internationally comparative perspectives of teaching and learning conditions of lower secondary teachers in the public and private sectors in 23[1] OECD member and partner countries. The report claims to provide 'groundbreaking insights' into some factors that lie behind differences in learning outcomes in PISA. It should, however, be stressed that TALIS is not meant to be compared to PISA results for countries.[2]

The report aims to cover key issues that affect lower secondary teachers in their work, including: aspects of professional development, teacher beliefs, attitudes and practices, teacher appraisal and feedback, and school leadership. The intention is to examine how school and teacher policies are perceived and implemented in schools and classrooms.

The report stresses three aspects to bear in mind when considering the results: i) while the responses offer key insights, they remain subjective; ii) while associations can be made between school and teacher characteristics, cause and effect cannot be determined; iii) cross-country comparisons indicate that it is important to take cultural influences into account when seeking to understand the meaning of responses.

From this is should be borne in mind that the report does not aim to highlight a 'best' or a 'worst' country. Each individual country has a separate set of factors and conditions that are important, and that make a difference with regard to teaching and learning, and that do not necessarily apply across all countries. Ranking countries and comparing them for performance is not the aim of such international comparative analysis. In addition, it can be said that there are a variety of factors, such as curricular differences, pedagogical traditions, resources, which remain outside

[1] Participating OECD member countries include: Australia, Austria, Belgium (Flemish Community), Denmark, Hungary, Iceland, Ireland, Italy, Korea, Mexico, Norway, Poland, Portugal, Slovak Republic, Spain, Turkey. The OECD partner countries are: Brazil, Bulgaria, Estonia, Lithuania, Malaysia, Malta, and Slovenia.
TALIS was also conducted in the Netherlands, but their data has not been included in the comparison, because sampling standards were not met.

[2] There is inconsistency in OECD's approach – on the one hand TALIS and PISA are two separate and unrelated surveys and OECD insists on not comparing one with other. On the other hand, though, the TALIS report clearly states as one purpose to explain at least some factors behind students' performance in PISA. At the beginning of the TALIS project, the OECD offered to countries an option to link TALIS with PISA (i.e. including the schools that did take part in PISA 2006 in the sample of schools for TALIS). This offer, however, was not chosen by any country.

the scope of TALIS, but nevertheless are important variables for developing an objective analysis of aspects that lie behind effective teaching and learning.

With regard to certain associations between factors, variations identified in the report referred mainly to differences between individual teachers, rather than at the school or national level. TALIS stresses through-out that improving teaching and learning may require support and interventions focused primarily on individual teachers instead of system-wide interventions. EI, however, emphasises that attention should be given to teachers as a collective teams of professionals (rather than measuring their 'effectiveness' individually), and achieving a quality teaching and learning environment is possible only if school and national education systems act as integrated whole. Without a broader vision of education as a public good, TALIS fails to set a wider context for interpreting gathered data.

Conditions for Effective Learning

The TALIS report does not provide hard measures for conditions for effective learning – it does not directly measure student learning and learning outcomes -; instead it focuses on features that supposedly shape effective learning. Specifically, the report focuses on two variables: teachers' self-efficacy (the success of teachers in addressing educational challenges) and classroom disciplinary climate (safe, productive, orderly classrooms that are supportive to learning). TALIS focuses on what factors (aspects of professional development or different teaching practices and school leadership styles) are associated with these two variables. These two variables (teachers' self-efficacy and classroom disciplinary climate) are explicitly focused on in the final chapter of the report.

It should be noted that there are numerous other factors determining the classroom learning environment – the curriculum, then physical conditions (good/poor quality facilities) and material resources available at schools, the role of testing and examination in education systems, working time and conditions for teachers (including pay, social security and other benefits), students' motivation, marking and grading systems, and overall school culture. A deeper question could be asked: whether teachers' self-efficacy (determined as a personal success in addressing classroom challenges) and disciplinary climate in classrooms, important as they are, are indeed the most objective criteria for defining/determining an 'effective learning environment'? TALIS lacks a more substantial analysis of pedagogical literature to demonstrate the significance of these aspects.

Factors considered as influencing teachers' self efficacy and classroom disciplinary climate are: a) socio-economic backgrounds of students, b) teacher background characteristics, c) professional development of teachers, d) teachers' beliefs, practices and attitudes, e) school evaluation, f) appraisal and feedback of teachers, g) school leadership[3], h) school autonomy and resources.

The report argues that self-efficacy has been linked to productivity and influencing people's action in the workplace. Similarly, the classroom climate has been shown to affect students'

[3] Dimensions 'c' through 'g' are the main policy themes of TALIS.

outcomes and attainment. TALIS demonstrates that one teacher in four in the majority of countries loses at least 30% of lesson time because of disruptive student behaviour or administrative tasks[4]. In all countries, this loss of teaching time is a relatively big problem and represents a significant challenge to teachers.

In half of the countries, teachers who had received more professional development reported higher levels of self-efficacy, and it is suggested that teachers' participation in professional development is linked with a wider adoption of new teaching methods in the classroom. Additionally, appraisal and feedback which teachers receive can help to raise self-efficacy.

In almost half of the countries, teachers who engaged in collaboration with other teachers were likely to feel more effective in front of the class.

When comparing teachers beliefs with classroom disciplinary climate, in Hungary, Italy, Korea, Poland and Slovenia teachers with "constructivist" beliefs (teachers' role as a facilitator of active learning by students), are more likely to report positive classroom disciplinary climate, in comparison to teachers with "direct transmission" beliefs, who are more likely to support a negative classroom disciplinary environment, as found in Belgium (Fl.), Korea, Norway, Poland, Portugal, Slovenia and Spain. This reveals that "constructivist" beliefs have a more positive influence on the classroom environment, than "direct transmission" beliefs.

Yet, both "constructivist" and "direct transmission" beliefs are positively associated with teachers' self-efficacy in the majority of TALIS countries.

Structured teaching practices were associated with good classroom disciplinary climate in almost half of the countries, and associated with higher levels of teacher self-efficacy, including in Australia, Austria, Belgium, Ireland, Korea, Mexico, Portugal and Spain. Student-oriented teaching practices were also associated with good classroom disciplinary climate and teacher self efficacy, however in less countries. Female teachers are more likely to mix their teaching practices between student oriented and structured practices. They also collaborate more between teachers than male teachers on average.

Teachers who hold stronger beliefs about teaching methods, and report more collaboration behaviour with colleagues and more positive relations between teachers and students relations, feel more effective. The key message to draw from this is that collaboration and dialogue between teachers, and teachers with students, is an essential element in teachers' self efficacy, as well as a better classroom environment.

Preparing and supporting a high-quality teaching force

Over one in three teachers are working in schools whose principal considers that the school suffers from a shortage of qualified teachers.[5]

[4] In some countries, more than half of lesson time is lost to student behaviour and administrative tasks.
[5] This range goes from just 12% in Poland to the great majority in Estonia, Mexico and Turkey.

TALIS reports that the large majority of teachers (9 in 10) have taken part in professional development activities in the 18 months preceding the survey. However a number of variations and concerns are highlighted with regard to professional development:

- Proportion of participation: one in four teachers in Denmark, Slovak Republic and Turkey reported having no professional development in the previous 18 months.
- Time spent on professional development: in Mexico and Korea teachers participate in more than 30 days of professional development a year, whereas in other countries this is only a few days.
- Equity issues: on average there is no difference between genders (mostly female get more professional development, but not very significant). In Turkey and Italy, males receive more professional development, but not significant). Most consistent differences are between older (receive more) and younger (receive less) teachers. There are also imbalances between more qualified teachers, who receive on average more professional development than less qualified teacher, for example in Mexico (despite the percentage of teachers taking professional development and the number of days being high in Mexico).

Teachers' demand for professional development is focused on certain areas. (One in four teachers in the majority of countries reports losing around 30% of learning time because of disruptive student behaviour or administrative tasks).

The report states that the variations in loss of teaching time take place among individual teachers within schools, and therefore policy attention needs to focus on addressing the skills of individual teachers, rather than the overall school climate. EI supports attention to increased professional (skills) development not only for individual teachers, but as collective activity as part of a school improvement strategy. There should be equity of access to professional development for all teachers, in contrast with the repeated emphasis in the TALIS report on an individualised approach to the provision of professional development. The report concedes that general teachers' demand for more professional development appears to be concentrated in certain areas – one in three teachers' reports a need for teaching students with special learning needs. A need for more professional development in areas such as ICT teaching skills and student behaviour were also frequently cited by teachers as areas where they needed additional support and training.

On average, two-thirds of teachers did not pay for their professional development, and received time from their employers to undertake it. While the report states that this indicates a significant investment in teachers' professional development on the part of schools and public authorities, TALIS reports that the average number of days of professional development that teachers receive and do not paid for, is a little over 10 days per annum.

In contrast, teachers who paid for their own professional development, tended to undertake more on average. Those who paid full costs undertook more than double the amount of training than those who received it for free. TALIS thus gets to the conclusion that free provision is not necessarily the only way for stimulating participation. In Portugal the highest number of teachers (25%) was found who paid for their own professional development, and also in Mexico

and Brazil. TALIS found that self-paid professional development was often time-intensive as it often focused on acquiring professional qualifications. In Italy, for example, teachers undertake qualification programmes to get to the next stage of their career, amounting to 60 days of self paid development. In Bulgaria, where one of the highest rates of participations in qualifications programmes were found, teachers took up to 95 days of self-paid professional development, and in Spain an average of 60 days. Yet in Bulgaria, 74% of teachers do not pay for professional development, and take 20 days.

In Denmark, Slovak Republic and Turkey, where participation in professional development is lowest, a lack of suitable professional development opportunities was cited as the main reason for this, and in Denmark a lack of employer support was reported as a barrier.

Teacher research and qualification programmes were reported by the majority of teachers as having a moderate or high impact, although these were also activities in which fewer teachers participate. It can be assumed that this is because they are time intensive and costly programmes. The TALIS report claims that policy makers need to ensure support for professional development that teachers' themselves consider as effective, such as qualifications courses.

Key messages:

- In the majority of countries, teachers who receive more professional development feel more effective (reported significantly higher levels of self efficacy) and better able to deal with teaching challenges.
- On average 55% of teachers said that they wanted to do more development than they actually took, but work schedules often impede participation.
- nine in 10 teachers take part in professional development but consider that this does not meet their needs (in Brazil, Malaysia and Mexico over 80% consider they have not received enough professional development)
- Imbalance between demand and supply: teachers report a lack of suitable professional development and therefore undertake less, and teachers who take part in further professional development have to pay for it. This suggests a need to review the amount of time and money made available to teachers.
- Strong relationship between schools in which a shortage of instructional support staff and other support staff hinders effective instruction in the classroom.
- The report claims that since the variation is between individual teachers rather than between schools, the focus of education policy should be on addressing skills and dispositions of individual teachers, rather than on improving the overall school climate and discipline. EI rather supports that professional development should be an entitlement for all teachers.

Improving teaching practice

TALIS uses responses to questionnaire about teaching beliefs and practices to construct two different alternative views on teaching. In the "constructivist" model, the teachers' primary role is to facilitate active learning by students who seek out solutions for themselves. In the "direct

transmission" model, the teacher is transmitting knowledge and providing correct solutions to students.

In the majority of countries the "constructivist" belief is more strongly held by teachers than the "direct transmission" belief, particularly in Iceland, Australia and Denmark. Only in Italy are "direct transmission" beliefs more strongly held by teachers than "constructivist" beliefs. In Malaysia, Bulgaria, Spain and Portugal the "direct transmission" belief is also widely held.

However, as the report admits, this dichotomy itself is largely a theoretical construct, as teachers who support one view are not necessarily less likely to support the other, suggesting that many see them as complementary.

Teachers in all countries reported that they used 'structuring practices' more often than student-oriented practices (contrary to more popular 'constructivist' beliefs), and both are used more often that 'enhanced activities' (such as project work carried out by students)[6]. The report makes a link to student outcomes here, suggesting that countries could improve student results by making more use of student-oriented practices and enhanced activities. Although TALIS does not mention PISA directly, the report suggests that teachers could improve student outcomes and results if they expand their teaching methods.

An important finding of TALIS is the difference between curricular subject areas. Teachers of mathematics place greater emphasis on structuring, while teachers in humanities favour project work and other forms of enhanced activities and student-oriented practices are common in teaching practical skills.

Professional collaboration between teachers (such as team teaching) is a more common form of cooperation between teachers in Poland, Slovak Republic and Turkey. The TALIS reports that strengthening teachers' collaboration, beyond the exchange of ideas, has been shown to raise school effectiveness.

Concerning teacher-student relations, Norway stood as a country where more than 95% of teachers report better relations with students than the international average. In other countries, the main variation is between individual teachers and not schools, which lead TALIS to suggest that some teachers may need extra support to establish an effective learning environment.

Additionally, concerning teachers job satisfaction and self-efficacy (how successful they feel they are with regard to their students' education), Norway stands about average in both aspects. High job satisfaction was also noted by teachers in Austria and Belgium (Fl.). Korean teachers were on average the least positive about their self-efficacy.

Key messages:

- Countries should use more student-oriented and enhanced activities to raise student performance and outcomes

[6] Although the type of teaching practice varies with different subjects, i.e. mathematics teachers emphasize structuring, humanities teachers focus more on project activities.

- It is important to maintain a balanced curriculum to enable students to learn how to take responsibility for their learning
- There is a scope to enhance professional collaboration between teachers because this raises school effectiveness
- As variation is mainly among individual teachers, there is need to address the skills and dispositions of individual teachers, not just the overall school climate and discipline

Supporting effective teaching through appraisal and feedback

An important finding of TALIS is that teachers generally respond positively to appraisal and feedback. They tend to report that it is helpful for their work (improves their teaching skills) and that it increases their job satisfaction and, to a lesser extent, job security. In addition, teachers report that it significantly increases their development as teachers. The report recognises that school-level evaluation can be an important driver of school improvement.

Eight in ten teachers report that they have received some kind of appraisal or feedback on their work and most of it was carried out by managers or other teachers in their schools. Feedback focused on particular area is more likely to lead to changes in teaching practices than the general evaluation of teachers.

The report recognises that school evaluation *does* have a positive impact on the overall teachers' professional development.

However, TALIS strongly argues that there should be an improvement in the reward side of feedback and appraisal. Three quarters of teachers report that they would not receive recognition for the increased quality of their work. Around half of teachers in TALIS countries report that their school principals use effective methods to determine teachers' performance. In addition, three quarters of teachers report that, in their schools, the most effective teachers do not receive more recognition, that their principals do not take steps to alter the monetary rewards of persistently underperforming teachers, or that underperforming teachers are not being dismissed because of poor performance.

75% of teachers do not get rewarded for improving teaching and being innovative. On average across TALIS countries, only about 10% of teachers report that appraisal and feedback is linked to any kind of monetary reward, and for only 16% it is linked to some form of career advancement.

Thus, TALIS suggests that there should be more emphasis on performance management and paves the way for arguing in favour of performance-based pay. The report, however, does not provide evidence that teachers consider that feedback and appraisal should primarily consist of a monetary reward and career advancement. In other words, while they report that they do not receive feedback and appraisal in monetary forms, it does not mean that they would want to have them. Also, there is no evidence that monetary forms of feedback and appraisal in particular are associated with self-efficacy and disciplinary classroom climate.

Key messages:

- Teachers generally respond positively to appraisal and feedback, but such practices are not widespread
- Teachers who receive recognition for good performance from colleagues and employers feel more effective
- Teachers' positive perceptions of appraisal and feedback show that it is possible to overcome concerns that they may have about such practices.
- There are substantial opportunities for strengthening and, in most cases, creating links between teacher appraisal and feedback and the rewards and recognition teachers receive.
- EI stresses that appraisal should not only emphasise monetary forms of appraisal, but also peer reviews, reviews from colleagues.

Shaping the development of teachers through effective school leadership

The report defines two styles of leadership – instructional and administrative. Again, these are based on the interpretation of principals' responses to questionnaires, and they are not mutually exclusive. Instructional leadership is characterized by actions to support or improve teachers' instruction and to set schools goals and curriculum development, while administrative leadership is characterised by actions to manage the accountability to stakeholders and setting and managing administrative procedures.

Overall, TALIS concludes that school principals who are strong instructional leaders are more likely to be strong administrative leaders as well. This contradicts the notion that these are alternative styles.

There is a significant gender differentiation in TALIS regarding leadership. In around one-third of countries female school leaders are more likely than their male counterparts to adopt a stronger instructional leadership style.[7]

TALIS makes an important link between leadership style and teachers' appraisal and feedback, the latter which is more common in schools with strong disposition towards instructional leadership.

However, according to the report, there is no discernible relation between leadership style and the overall amount of teachers' professional development.

Key message:

- Varying degrees of instructional leadership are evident in all countries. In a number of countries, where school leaders adopt a stronger instructional leadership role, there is

[7] In Belgium (Fl), Estonia, Hungary, Malaysia, Norway, Poland, Spain and Turkey

more collaboration between teachers, better student-teacher relations, and greater recognition given to teachers for innovation.

A profile of lower secondary teachers and their schools

TALIS confirms the well-known trend that most teachers are female (almost 70% of respondents on average) and raises two concerns about this imbalance. One is that this situation leads to a lack of role models for disengaged boys and the second is that it carries a possible impact on teaching shortages if men do not consider teaching as a career. The second concern is particularly well documented by the age profile of the current teaching population. In most TALIS countries, the majority of teachers are over 40, and, on average, the percentage of teachers over 50 is double than those over 30. Many countries will soon need to replace a large number of retiring teachers. This argument leads to the plausible thesis that it is first and foremost young men who should be targeted as potential future teachers.

On the other hand, there is opposite gender imbalance in school leadership level. Only 45% of school principals are women, suggesting a "glass ceiling" for promotion possibilities within schools.

TALIS makes significant conclusions about employment conditions. Teaching is still a relatively stable profession with high job security. Across TALIS countries, 85% of teachers are on permanent contracts. However, some teachers, particularly those entering profession, face the uncertainty and challenge of a fixed-term contract usually of a year or less. In Brazil, Iceland, Ireland and Portugal, at least one teacher in four is on a fixed term contract on the basis that there are requirements to be fulfilled before being granted a permanent contract. The policy conclusion in TALIS is very blurred: policy-makers need to balance the advantage of supporting an experienced long-term serving teaching force, against the need for "dynamism and new blood". What is meant here may be clarified in another sentence calling for greater school autonomy, which is remarkably high in various areas such as curriculum, hiring and firing, budgeting and others, but not on teachers pay matters.

Conclusions

What makes a difference for teachers? More professional development, better student teacher relationships, more professional collaboration in school, appraisal of teachers in schools, according to TALIS.

1) Education International welcomes TALIS as an important first step to give particular attention to the conditions under which teachers carry out the most important part of their job, namely teaching and facilitating active learning.

2) The survey reveals that teachers have, in general, a strong interest in doing a good job, namely to facilitate effective learning. Regrettably, however, the survey also finds out that the work environment in which teachers are operating is not always conducive to achieving an equal and quality teaching and learning environment. However, factors such as poor school infrastructure as well as social factors are often a barrier against effective teaching should also be considered.

3) Nevertheless, the survey also reveals that the vast majority of teachers are interested and motivated to participate in professional development. Regrettably, however, opportunities to actively engage in professional development (free, of their own choice, and for a fair time period) are often lacking. Thus, it is not surprising than more than 40% of the teachers surveyed express concerns about the lack of suitable professional development on offer.

4) The high motivation of teachers to participate in professional development is also reflected in the finding that some have not hesitated to pay for their own development. However, neither this fact, nor the conditions under which teachers could pay for the acquisition of new qualifications, however, suggests that the provision of professional development by public authorities (often misleadingly characterised as "free" provision) should be reduced, or that the responsibility for investing in professional development should increasingly be shifted towards teachers.

5) The TALIS report places strong emphasis on the importance of feedback and appraisal for teachers to improve their self-efficacy. However, it tends to interpret the evident support by teachers for feedback and appraisal as a preference for pay-related measures. It is argued in the report that there are substantial opportunities for creating links between teacher appraisal and feedback and the rewards and recognition teachers receive. This is not supported by evidence in the report itself. While teachers probably are supportive in general of non pay-related appraisal, such as peer-reviews, there is no evidence that they would support or approve the introduction of performance-based evaluation, which is not in any case common in current practices.

6) The design of the TALIS survey and the analysis of data has to a large extent been informed by the "economics of education", which is most obvious in the section on how effective teaching is being rewarded by education systems. The underlying assumption in this respect is that performance-related pay for teachers would improve student performance. It is important to note that performance-related pay is increasingly perceived as an instrument of governance. At the same time, however, it is closely linked to a performance culture reflecting the trend towards *marketisation* in both public governance and education. Nevertheless, it is questionable whether performance-related pay for teachers is appropriate and coherent in an environment such as schools, which rely in particular on specific social relations in which learning, the acquisition of knowledge and values as well as effective teaching depend on cooperation and teacher collaboration. Limited experience with regard to performance related pay is not very encouraging. Evidence suggests that performance-oriented pay does seems not to work as it was intended because most of the basic assumptions are not valid. Studies available indicate that the connection between performance and pay seems to be arbitrary thus teachers often do not trust in the assessment of the quality of their work. Last but not least, it must be emphasized that recent studies found little evidence to suggest that payments have improved results or attracted more people into teaching.

7) Taking this reasoning a step further, there could be a potentially dangerous connection between TALIS and PISA. The emphasis on individual teachers and their style of teaching, beliefs, cooperative attitudes, and, above all, “effectiveness” can indeed be linked to how these teachers’ students perform in PISA, or PISA-like assessments, with dangerous consequences for individual teachers whose students do not perform high enough. In other

words, could individual teachers be evaluated according to how well their students perform in PISA-type assessments? Moreover, if a further step is made towards performance-based pay, what will be the consequences of the abovementioned evaluation on individual teacher salaries? (This is especially disturbing if, as envisaged by TALIS, teachers are not seen as collective but rather as single individuals performing their work.) There is also a clear link to school leadership, since, in TALIS, a stronger school leadership is associated with 'more effective' teaching – in other words, stronger school leaders, i.e. school leaders who tend to use 'instructional' (meaning actions to support or improve teachers' instruction and to set the school's goals and curriculum development) methods, are associated in the report with a better teaching environment, more effective teaching, and greater chances of teacher appraisal recognising the participation in professional development.

8) In the light of all this, the latest development in OECD research through TALIS could appear to provide the missing link between OECD work on School Leadership and PISA. In other words, teachers and, particularly, the fact that their attitudes, beliefs, style of working, level of professional development all have an impact on the effectiveness of their job – as clearly spotted out by TALIS –, allows for bridging the need for stronger, instructional-type school leadership, on the one hand, and outcomes reflected in higher student performance, on the other. In the future, we could expect the OECD to draw an association, which goes from stronger school leaders, through very effective teachers, to higher student performance as shown by PISA.

9) TALIS provides strong research support for the benefit of teachers receiving good levels of professional development, but suggests the notion that they should perhaps pay for it, as they seem to be more motivated when they have to pay for their own training. TALIS also support the concept of continuous feedback and appraisal for teachers through peer review. The area that needs continuing vigilance is the notion of linking such appraisal with PISA.

Education International

Research Unit

Brussels 2009