How to best shape teacher policies?

Informal Meeting of Ministers of Education

25-26 June 2014
Tokyo
Over 100 thousand randomly selected lower secondary teachers and their school leaders from over 6500 schools

...representing more than 4 million teachers in 34 countries...

...took an internationally-agreed survey about the working conditions and learning environments in their schools...

...responding to questions about their background, their teaching practices, support and development, their relationships with colleagues and students and the leadership in their schools
*Note: TALIS only runs in a sub-national entity of the following countries: Belgium (Flemish Community), Canada (Alberta), United Arab Emirates (Abu Dhabi) and United Kingdom (England). This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
TALIS seeks to help with …

- Improve the societal view of teaching as a profession
- Recruit top candidates into the profession
- Developing Teaching as a profession
- Retain and recognise effective teachers – path for growth
- Support teachers in continued development of practice
Some students learn at high levels

Student inclusion

All students need to learn at high levels

The old bureaucratic system

Routine cognitive skills, rote learning

Curriculum, instruction and assessment

Learning to learn, complex ways of thinking, ways of working

Teacher quality

Few years more than secondary

High-level professional knowledge workers

Work organisation

‘Tayloristic’, hierarchical

Flat, collegial

Accountability

Primarily to authorities

Primarily to peers and stakeholders

The modern enabling system
Teachers' perceptions of the value of teaching

Percentage of lower secondary teachers who "agree" or "strongly agree" that teaching profession is a valued profession in society

Above-average performers in PISA
Countries where teachers believe their profession is valued show higher levels of student achievement

Relationship between lower secondary teachers’ views on the value of their profession in society and the country’s share of top mathematics performers in PISA 2012

- Countries where teachers believe their profession is valued show higher levels of student achievement.

- The scatter plot illustrates the relationship between the percentage of teachers who agree that teaching is valued in society and the share of mathematics top performers in PISA 2012.

- The correlation coefficient is $r = 0.49$.

- Countries such as Singapore, Korea, and Flanders (Belgium) have high percentages of teachers who agree that teaching is valued and also have a high share of mathematics top performers.

- Other countries, such as Brazil, Bulgaria, and Chile, have low percentages of teachers who agree that teaching is valued and also have low shares of mathematics top performers.

- The line of best fit has a coefficient of determination $R^2 = 0.24$, indicating a moderate relationship.
SESSION 1

How do we develop 21st century teachers to prepare 21st century learners?
Evolution of employment in occupational groups defined by problem-solving skills (PIAAC)
Changes in the demand for skills
Trends in different tasks in occupations (United States)

Mean task input in percentiles of 1960 task distribution

Most teachers value 21st century pedagogies...

Percentage of lower secondary teachers who "agree" or "strongly agree" that:

- My role as a teacher is to facilitate students' own inquiry
- Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved
- Thinking and reasoning processes are more important than specific curriculum content
- Students learn best by finding solutions to problems on their own

![Chart showing percentages for different countries]
Students work on projects that require at least one week to complete.

Students use ICT for projects or class work.

Give different work to the students who have difficulties learning and/or to those who can advance faster.

Students work in small groups to come up with a joint solution to a problem or task.

Let students practice similar tasks until teacher knows that every student has understood the subject matter.

Refer to a problem from everyday life or work to demonstrate why new knowledge is useful.

Check students’ exercise books or homework.

Present a summary of recently learned content.

Percentage of lower secondary teachers who report using the following teaching practices "frequently" or "in all or nearly all lessons"
Changes in instructional practice – PISA 2006-9

- Multiple-choice - reproducing knowledge
  - OECD: 0.8
  - Japan: 1.7

- Open-ended - constructing knowledge (21st century skills)
  - OECD: 1.7
  - Japan: 6.5

OECD
Japan
Percentage of lower secondary teachers who report doing the following activities at least once per month

- Discuss individual students
- Share resources
- Team conferences
- Collaborate for common standards
- Team teaching
- Collaborative PD
- Joint activities
- Classroom observations

**Exchange and co-ordination**

**Professional collaboration**

Percentage of teachers

- Average
- Japan
Drivers of job satisfaction

The more frequently that teachers report participating in *collaborative practices* with their colleagues, the higher their level of *self-efficacy*. The same is true for *job satisfaction*.
Not everywhere where induction programmes are accessible do teachers use them

Percentage of lower secondary teachers with less than 3 years experience at their school and as a teacher, who are working in schools with the following reported access to formal induction programmes, and their reported participation in such programmes.
Teachers' needs for professional development

Percentage of lower secondary teachers indicating they have a high level of need for professional development in the following areas

- Teaching students with special needs
- ICT skills for teaching
- New technologies in the workplace
- Student behaviour and classroom management
- Teaching in a multicultural or multilingual setting
- Approaches to individualised learning
- Student career guidance and counselling
- Student evaluation and assessment practice
- Teaching cross-curricular skills
- Developing competencies for future work
- Pedagogical competencies
- School management and administration
- Knowledge of the subject field(s)
- Knowledge of the curriculum
Barriers to professional development participation

Percentage of lower secondary teachers who "agree" or "strongly agree" that the following elements represent barriers to their participation in professional development activities:

- Professional development conflicts with my work schedule
- There are no incentives for participating in such activities
- Professional development is too expensive/unaffordable
- There is no relevant professional development offered
- Lack of time due to family responsibilities
- There is a lack of employer support
- Do not have the pre-requisites (e.g., qualifications, experience, seniority)

Bar chart showing the percentage of lower secondary teachers in Japan and the average across different countries.
Participation in professional development and level of support received by teachers

Percentage of teachers who had to pay for none of the professional development activities undertaken

Percentage of teachers who undertook some professional development activities in the 12 months prior to the survey
Regardless of the content, **over 3/4 of teachers** report that…

…the **professional development** in which they have participated has had a **positive impact on their teaching**.
A continuum of support

1. Make learning central, encourage engagement and responsibility
2. Be acutely sensitive to individual differences
3. Provide continual assessment with formative feedback
4. Be demanding for every student
5. Ensure that students feel valued and included and learning is collaborative
Find out more about TALIS at www.oecd.org/talis
  • All national and international publications
  • The complete micro-level database

Email: Andreas.Schleicher@OECD.org
Twitter: SchleicherEDU

and remember:
Without data, you are just another person with an opinion
Session 2

How can we foster more effective teaching
Average proportion of time lower secondary teachers report spending on each of these activities in an average lesson.

**Average**

- **Administrative tasks**: 8%
- **Keeping order in the classroom**: 7%
- **Actual teaching and learning**: 15%

**Japan**

- **Actual teaching and learning**: 79%
- **Keeping order in the classroom**: 13%
- **Administrative tasks**: 7%

**Distribution of class time**
Mean mathematics performance, by school location, after accounting for socio-economic status

Fig II.3

Teachers feedback: direct classroom observations

Principals ▲ School Management ▼ Other teachers

Percentage of teachers

Bulgaria
Poland
United States
Romania
Alberta (Canada)
Croatia
Czech Republic
Abu Dhabi (UAE)
Flanders (Belgium)
Serbia
Slovak Republic
Japan
Israel
Average
Singapore
Latvia
Brazil
Mexico
Malaysia
Sweden
Estonia
England (UK)
Norway
Finland
Portugal
Denmark
Korea
Chile
Italy
Netherlands
France
Spain
Iceland
Australia

Average

Percentage of teachers
Teachers feedback: never received

- Analysis of students' test scores
- Assessment of content knowledge
- Direct classroom observation

Percentage of teachers

Countries: Iceland, Finland, Sweden, Flanders (Belgium), France, Italy, Denmark, Netherlands, Norway, Spain, Australia, Croatia, Alberta (Canada), United States, Japan, Portugal, Average, Israel, England (UK), Chile, Estonia, Serbia, Czech Republic, Slovak Republic, Mexico, Singapore, Brazil, Korea, Poland, Bulgaria, Romania, Latvia, Malaysia.
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SESSION 3

What can Ministers do to change teaching?
What teachers do beyond teaching

Average number of 60-minute hours teachers report spending on the following tasks in an average week

- School management
- Communication with parents
- All other tasks
- Extracurricular activities
- Student counselling
- Team work
- Administrative work
- Marking
- Planning
On average across TALIS countries,

Just above half of the teachers report receiving **feedback** on their teaching from **one or two sources**

...and only one in 5 receive **feedback** from **three sources**.
Feedback and change in behavior

Percentage of lower secondary teachers who report a "moderate" or "large" positive change in the following issues after they received feedback on their work

Confidence as a teacher
Motivation
Job satisfaction
Knowledge and understanding of main subject field(s)
Teaching practices
Student assessments to improve student learning
Classroom management practices
Methods for teaching students with special needs
Public recognition
Job responsibilities
Role in school development initiatives
Amount of professional development
Likelihood of career advancement
Salary and/or financial bonus

Average
Japan

Personal
Pedagogical
Professional
Consequences of feedback

Percentage of lower secondary teachers who "agree" or "strongly agree" that:

- A development or training plan is established to improve their work as a teacher
- A mentor is appointed to help teachers improve his/her teaching
- Teacher appraisal and feedback have little impact upon the way teachers teach in the classroom
- The best performing teachers in this school receive the greatest recognition
- If a teacher is consistently underperforming, he/she would be dismissed
Average proportion of time lower secondary principals report spending on the following activities throughout the school year:

- Admin/leadership: 36%
- Curriculum/teaching: 25%
- Students: 15%
- Parents/guardians: 11%
- Community: 11%
- Other: 8%

Principals’ working time

Average
Elements not included in principals' formal education

Percentage of lower secondary principals whose formal education did not include:

- Instructional leadership training or course
- School administration or principal training programme or course
- Teacher training/education programme or course

Countries included in the graph:
- Poland
- Serbia
- Croatia
- Spain
- Portugal
- Slovak Republic
- England (United Kingdom)
- Israel
- Australia
- Czech Republic
- France
- Finland
- Norway
- Flanders (Belgium)
- Italy
- Average
- Bulgaria
- Latvia
- Romania
- Brazil
- Denmark
- Estonia
- Mexico
- Sweden
- Netherlands
- Chile
- Singapore
- Iceland
- Alberta (Canada)
- Abu Dhabi
- Korea
- Japan
- Malaysia
- United States
Lack of resources hindering the school's capacity for quality instruction

Percentage of lower secondary teachers whose school principal reports the following issues substantially hinder the school's capacity to provide quality instruction

- Teachers with competences in teaching students with special needs
- Support personnel
- Qualified and/or well-performing teachers
- Computers for instruction
- Computer software for instruction
- Internet access
- Library materials
- Instructional materials
- Vocational teachers

- Japan
- Average
Teachers' satisfaction with their working environment

Percentage of lower secondary teachers who "agree" or "strongly agree" with the following statements

- All in all, I am satisfied with my job
- I enjoy working at this school
- I would recommend my school as a good place to work

Comparison between Japan and Average:
- All in all, I am satisfied with my job: Japan 91, Average 91
- I enjoy working at this school: Japan 90, Average 90
- I would recommend my school as a good place to work: Japan 84, Average 84
Teachers' satisfaction with their profession

Percentage of lower secondary teachers who "agree" or "strongly agree" with the following statements:

- **The advantages of being a teacher clearly outweigh the disadvantages**
  - Japan: 77
  - Average: 77

- **If I could decide again, I would still choose to work as a teacher**
  - Japan: 78
  - Average: 78
Behavioural issues equate to lower job satisfaction, class size doesn’t

Teachers' job satisfaction level following the number of students in the classroom in relation to the percentage of students with behavioural problems.

Class size (number of students):
- 15 or less
- 16-20
- 21-25
- 26-30
- 31-35
- 36 or more

Students with behavioural problems:
- None
- 1% to 10%
- 11% to 30%
- 31% or more

Average vs. Japan comparison.
Teachers' job satisfaction and experience

Teachers' job satisfaction level in lower secondary according to their total years of teaching experience

Teacher job satisfaction (level)

Years of experience as a teacher in total

Average

Japan

5 or less
6-10
11-15
16-20
21-25
26-30
31 or more
Teachers' satisfaction with their profession

Percentage of lower secondary teachers who "agree" or "strongly agree" with the following statements

- I wonder whether it would have been better to choose another profession
  - Japan: 23%
  - Average: 32%

- I regret that I decided to become a teacher
  - Japan: 7%
  - Average: 9%
Teachers' perceptions of the value of teaching

Percentage of lower secondary teachers who "agree" or "strongly agree" that teaching profession is a valued profession in society

Malaysia, Singapore, Korea, Abu Dhabi (UAE), Finland, Mexico, Alberta (Canada), Flanders (Belgium), Netherlands, Australia, Sweden, England (UK), Norway, Japan, Latvia, Serbia, Bulgaria, Denmark, Poland, Iceland, Estonia, Brazil, Italy, Czech Republic, Portugal, Croatia, Spain, Sweden, France, Slovak Republic.

Average

Norway

Finland

Malaysia

Abu Dhabi (UAE)

Korea

Singapore

Alberta (Canada)

Flanders (Belgium)

Netherlands

Australia

Sweden

England (UK)

Norway

Japan

Latvia

Serbia

Bulgaria

Denmark

Poland

Iceland

Estonia

Brazil

Italy

Czech Republic

Portugal

Croatia

Spain

Sweden

France

Slovak Republic

Percentage of teachers
Countries where teachers believe their profession is valued show higher levels of student achievement

Relationship between lower secondary teachers' views on the value of their profession in society and the country's share of top mathematics performers in PISA 2012

Share of mathematics top performers

Percentage of teachers who agree that teaching is valued in society

$R^2 = 0.24$  
$r = 0.49$
Teachers' self-efficacy and experience

Teachers' self-efficacy level in lower secondary according to their total years of teaching experience

- **Years of experience as a teacher in total**
  - 5 or less
  - 6-10
  - 11-15
  - 16-20
  - 21-25
  - 26-30
  - 31 or more

- **Teacher self-efficacy (level)**
  - Average
  - Japan

Average of the self-efficacy levels for each category, with Japan comparing favorably in years 5 or less, 6-10, 11-15, and 16-20. The graph shows a consistent trend with Japan's self-efficacy levels generally higher than the average.
For a majority of TALIS countries,

Few countries attract the most experienced teachers...

...to the most challenging schools.
Distribution of experienced teachers in more and less challenging schools

Schools with more than 30% of students from socioeconomically disadvantaged homes

Difference in the proportion of teachers with more than 5 years teaching experience who work in more challenging schools and those who do not

Higher proportion of experienced teachers in more challenging schools

Higher proportion of experienced teachers in schools that are less challenging
Resilience in education
PISA performance by decile of social background

Source: PISA 2012
Increase average performance by 25 PISA points (Total 115 trillion $)

Potential long-term increase in economic output (bn $)
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