

# OECD

## Programme for International Student Assessment



## PISA 2015 School Feedback

European School I Luxembourg

Luxembourg, 16 June 2017

SCRIPT



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Éducation nationale,  
de l'Enfance et de la Jeunesse

Service de coordination de la recherche  
et de l'innovation pédagogiques  
et technologiques



SCRIPT

Service de Coordination de la Recherche  
et de l'innovation pédagogiques et technologiques



# INTRODUCTION



# What is PISA?

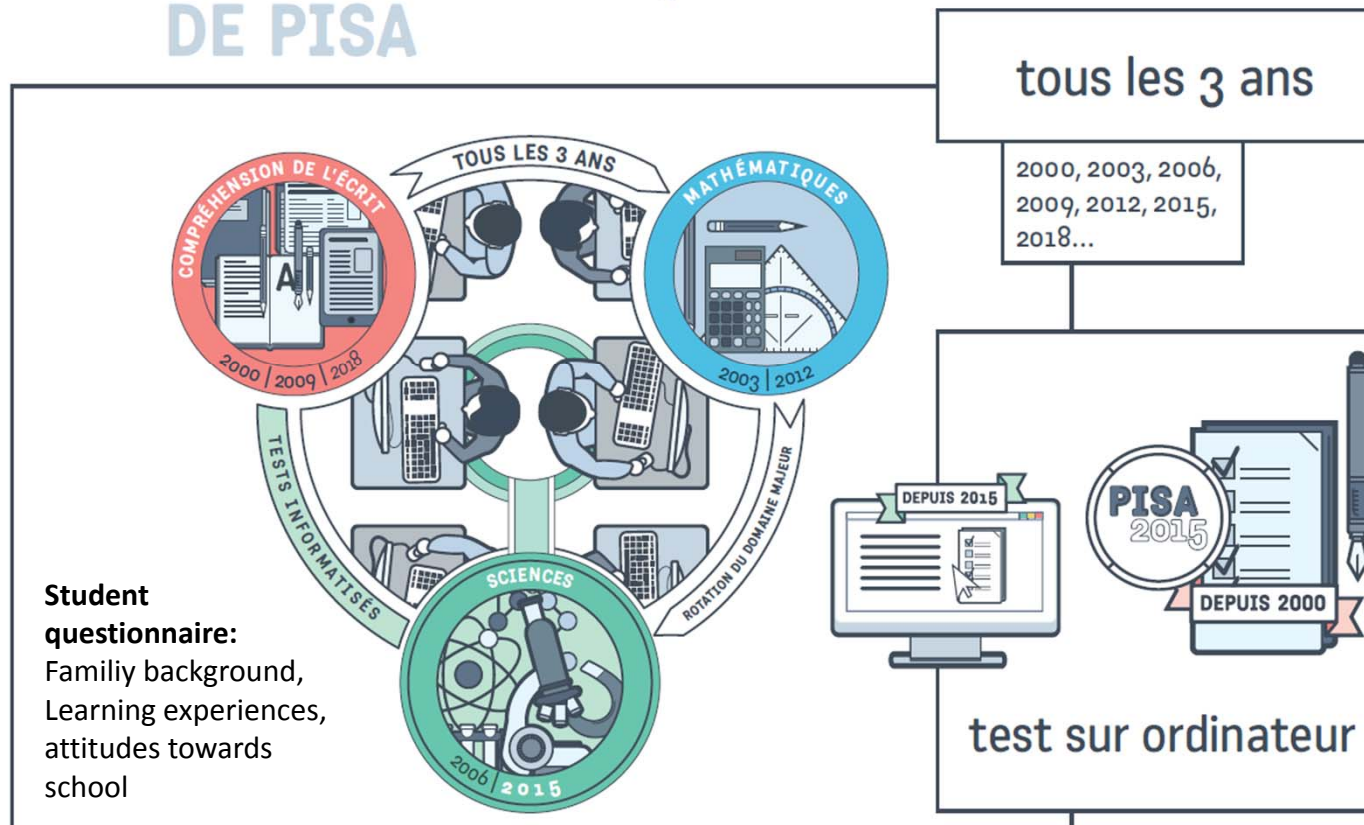


- Initiative by the OECD
- “What is important for citizens to know and be able to do?”
- Internationally comparable evidence on student performance
- At the end of compulsory education  
→ *15-year-old students*

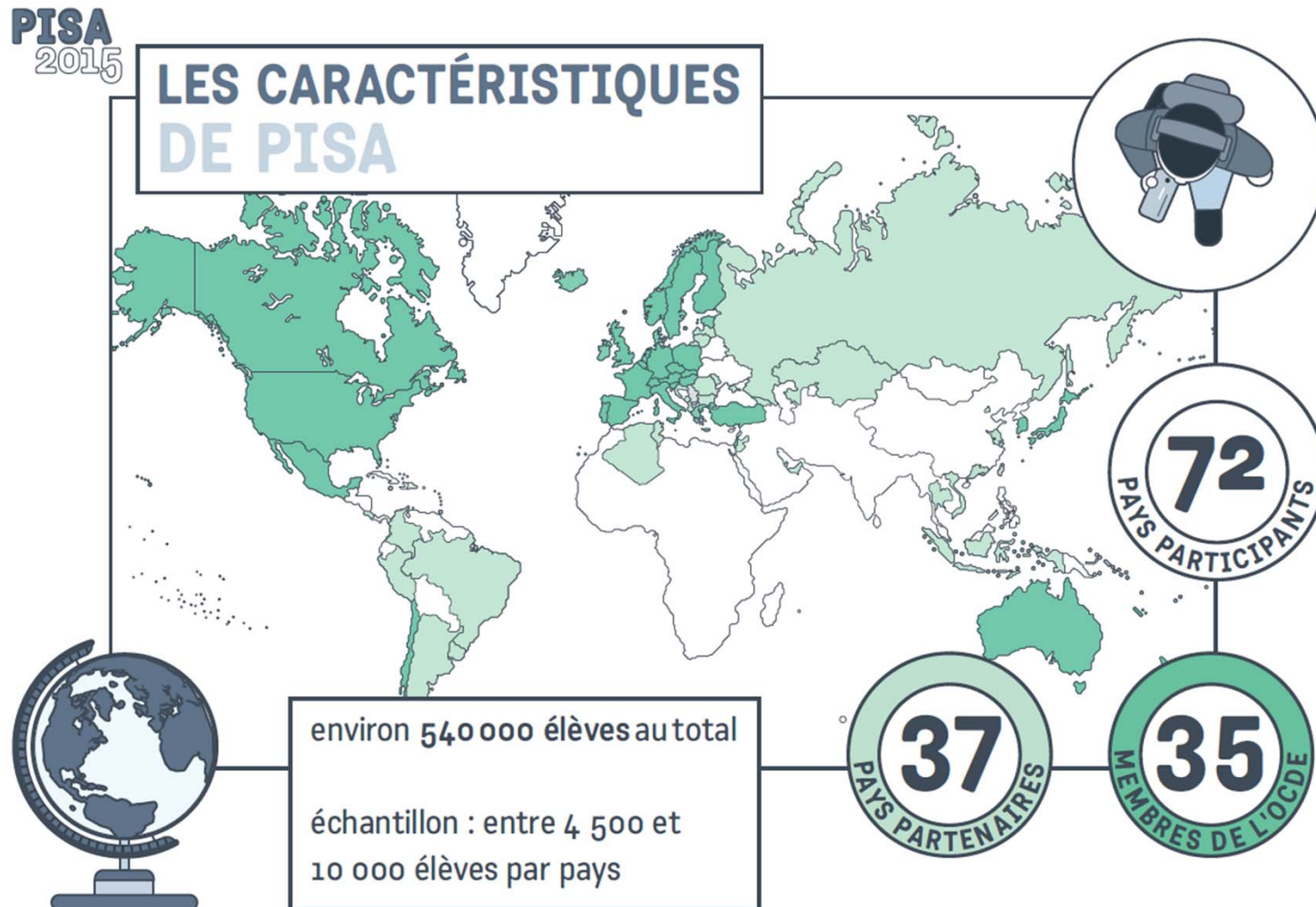
# Key Features (1)

PISA  
2015

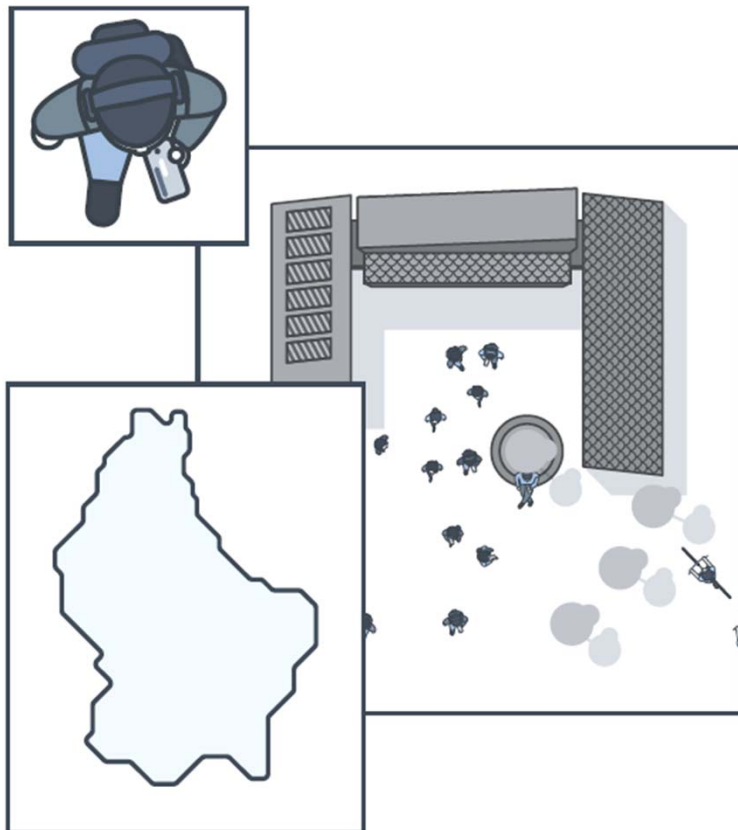
## LES CARACTÉRISTIQUES DE PISA



# Key Features (2)



# Participants in Luxembourg



- **44 schools**  
*(public, private, and international)*
- **5300 students**  
*Born in 1999*

# Participants at your school

## L1 students:

**n=98** students

Students assessed in their first language of instruction

- English, French or German

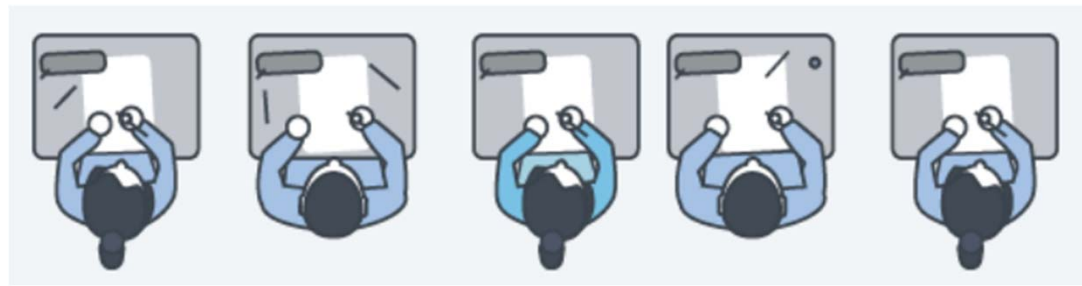
→ *International sample*

## L2 students:

**n=93** students

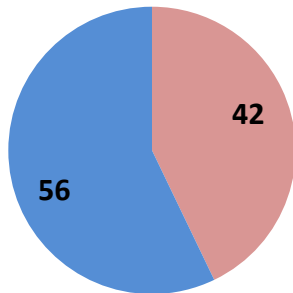
Students assessed in their first foreign language (English, French or German)

→ *National option, not in the international sample*



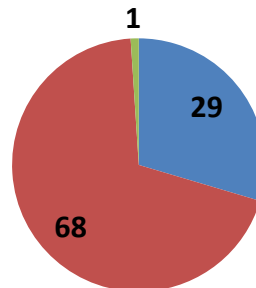
# Composition of L1-students at your school

Number of boys and girls



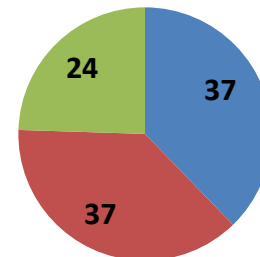
■ Girls ■ Boys

Number of students in each grade



■ Grade 9 ■ Grade 10 ■ Grade 11

Number of students tested in English, French or German

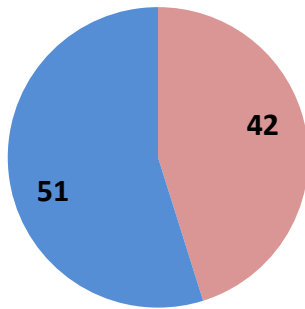


■ English ■ French ■ German



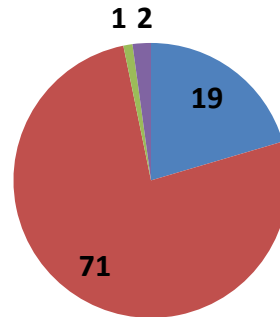
# Composition of L2-students at your school

Number of boys and girls



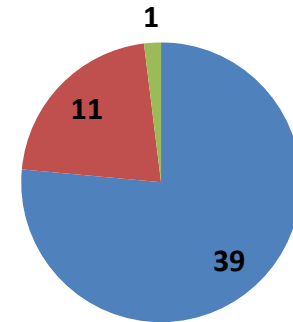
Girls Boys

Number of students in each grade



Grade 9 Grade 10 Grade 11 Grade 8

Number of students tested in English, French or German



English French German

# Limitations

- PISA School Feedback is only valid for a certain group of students at the school
  - 15-year-old students
- *Not representative for the whole school*
- But incentive for further pedagogical discussions



# **HOW YOUR SCHOOL RESULTS ARE COMPARED**

# Fair comparison

- *“A consistent finding throughout PISA assessments is that socio-economic status is related to performance at the system, school and student levels” (OECD, 2016, p. 205)*
- In PISA, the socio-economic status is measured by the Index of economic, social and cultural status (ESCS)



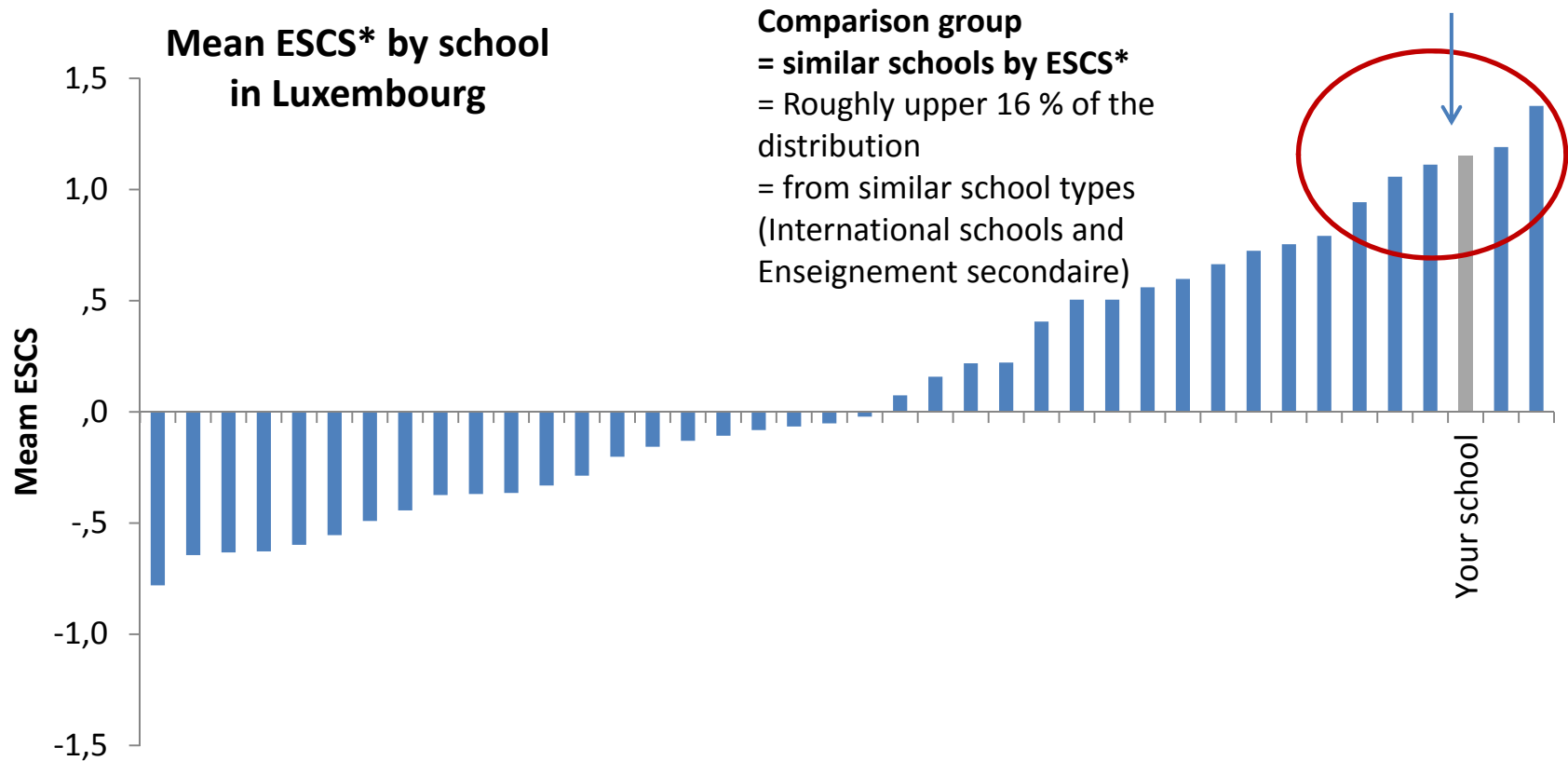
# ESCS Index



- ESCS includes the following three aspects:
  1. highest parents' education
  2. highest parents' occupation
  3. material resources  
(e.g. possession of cultural goods,  
educational resources, material possessions,  
number of books at home)

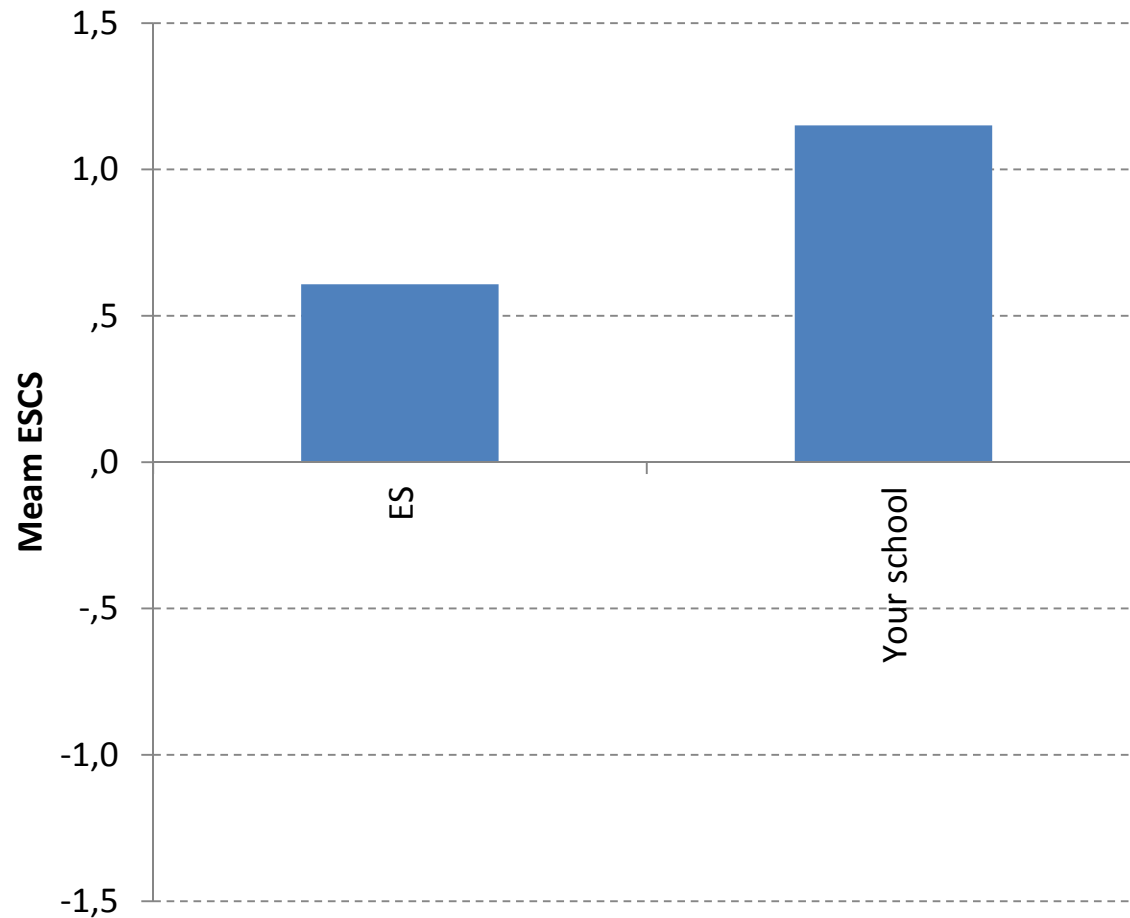


# Distribution of mean ESCS by school in Luxembourg



\*Index of economic, social and cultural status (ESCS): Highest parents' education, highest parents' occupation and material resources  
 Only schools in Luxembourg with more than 20 students are included in the graph

## Difference in mean ESCS between “Enseignement Secondaire” (ES) and your school



Mean ESCS is significantly lower in ES compared to your school.

This difference needs to be taken into account when comparing results between your school and the ES.

## Names in the graphs

**Your school:** Students tested in their first language of instruction at your school (= **L1-students**)

**Similar schools:** Schools in the upper 16 % of the distribution by ESCS in Luxembourg

**Comparison group:** arithmetic mean of results across the 5 schools in the upper 16 % of the ESCS distribution in Luxembourg

**ES:** Enseignement secondaire

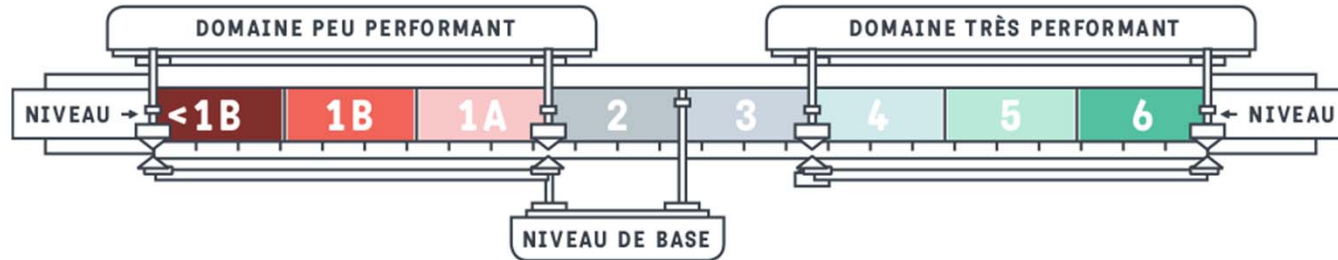
**L2-students:** Students tested in their first foreign language at your school (national option, not in the international sample)





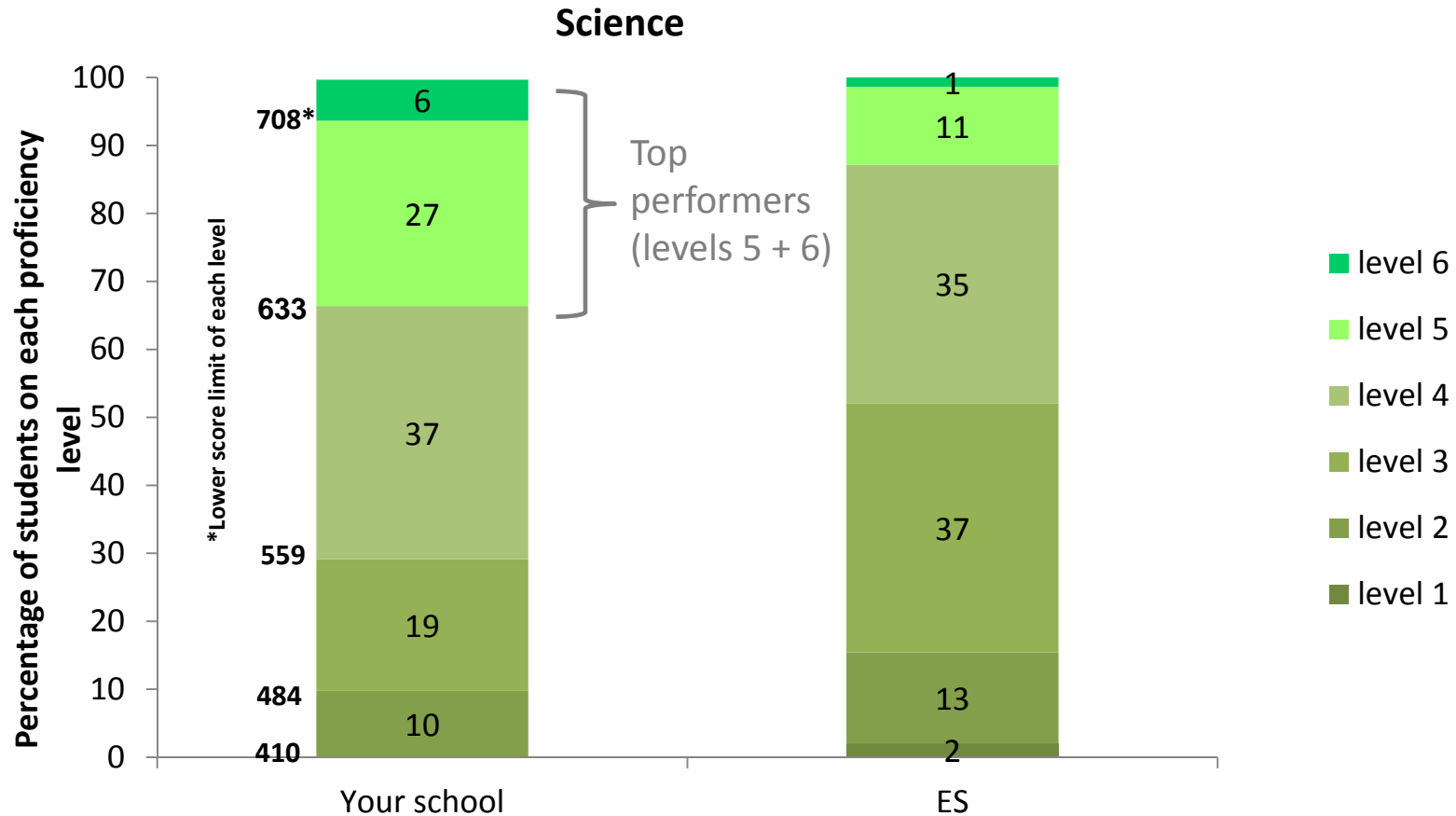
# PISA 2015 RESULTS

# Proficiency levels



- Levels 1 (lowest) to 6 (highest)
- Each level is characterized by a description of competencies
- Level 2: baseline
- Level 5 and 6: top performers
- For further information (e.g. a detailed description of what students know and can do at each level), please refer to OECD PISA 2015 Volume I  
 → <http://www.oecd.org/publications/pisa-2015-results-volume-i-9789264266490-en.htm>

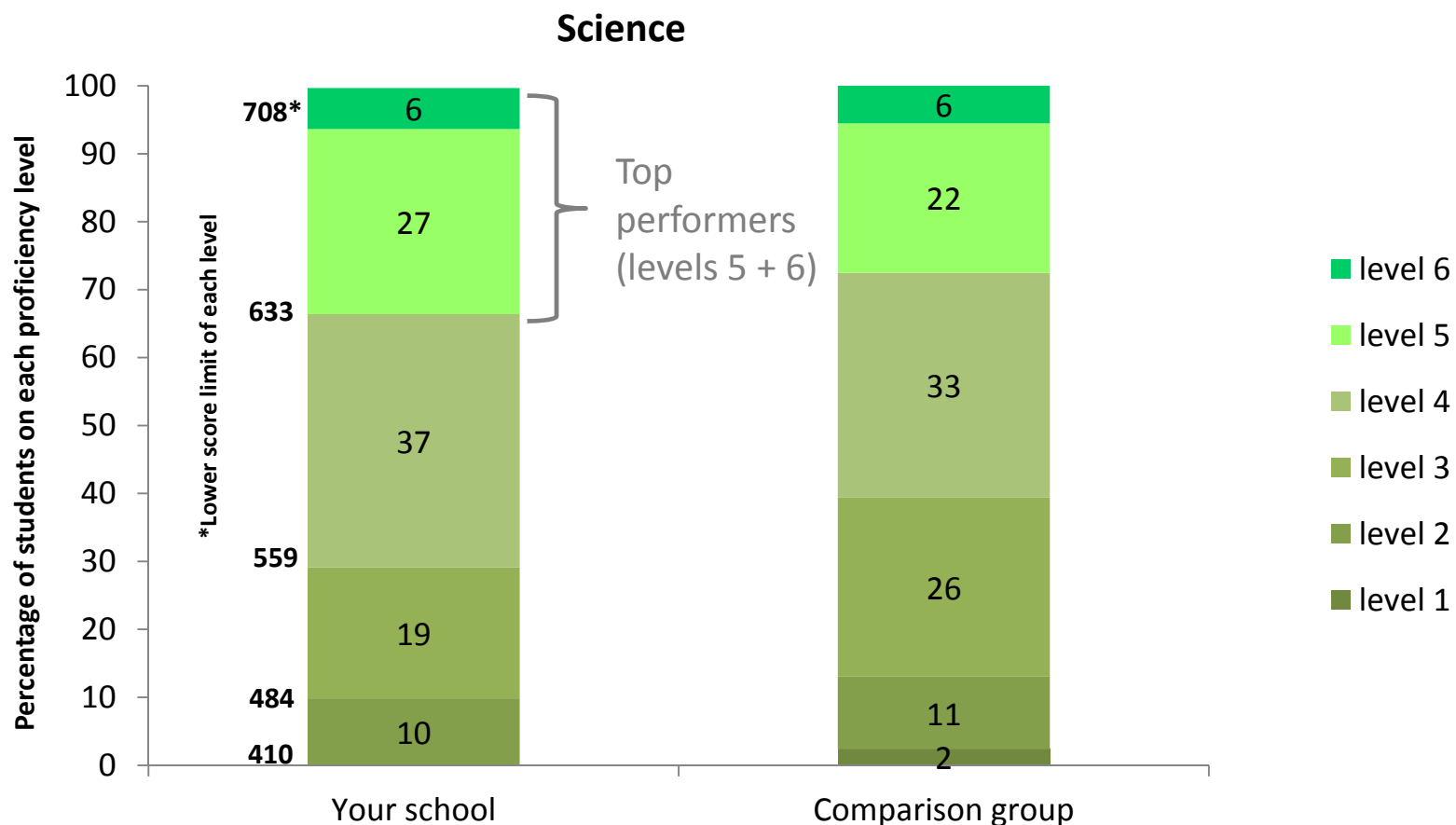
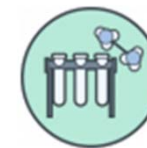
# Proficiency levels – Science



Your school: L1-students  
 ES: Luxembourg's "Enseignement secondaire" (ES)



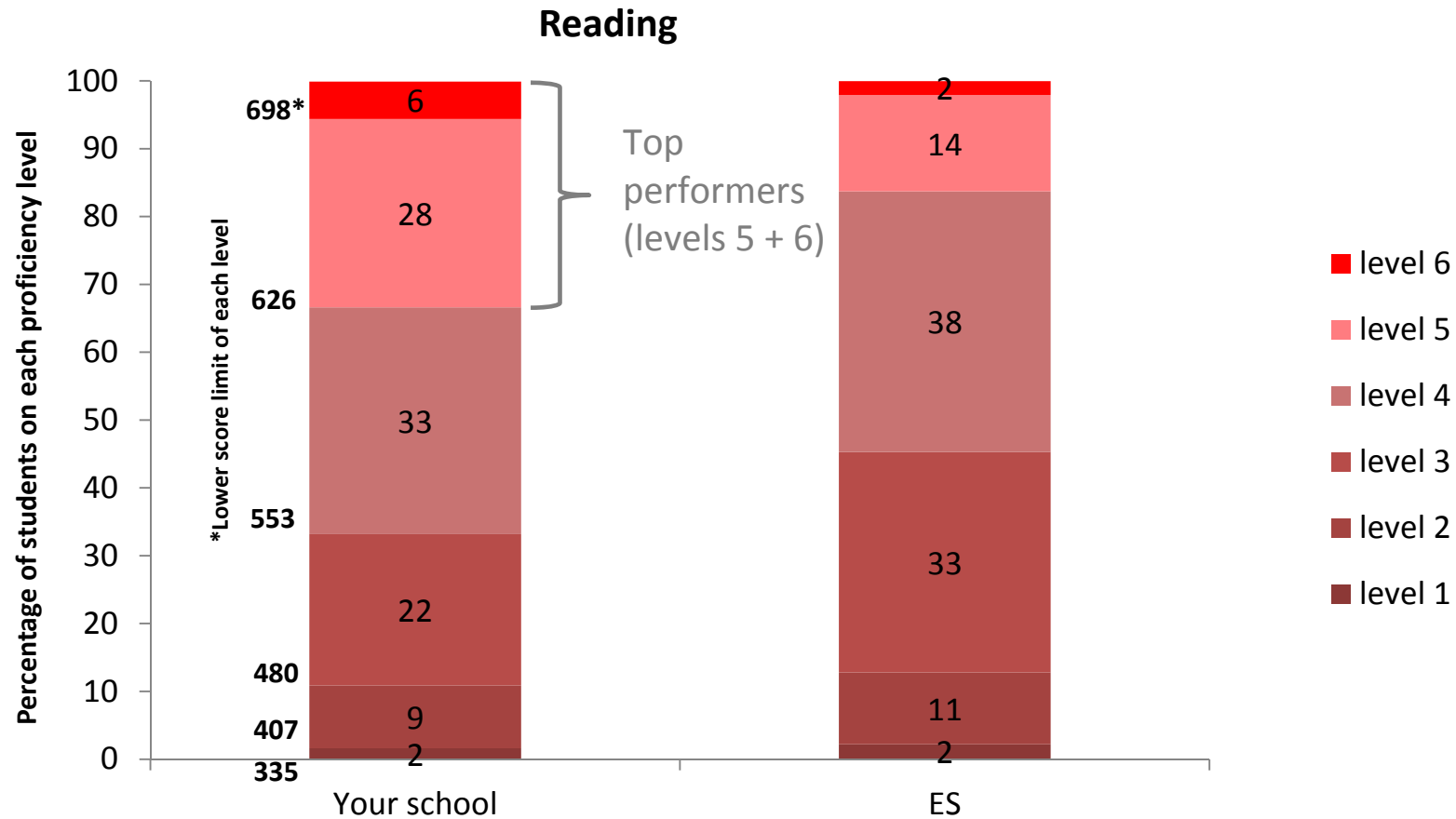
# Proficiency levels - Science



Your school: L1-students

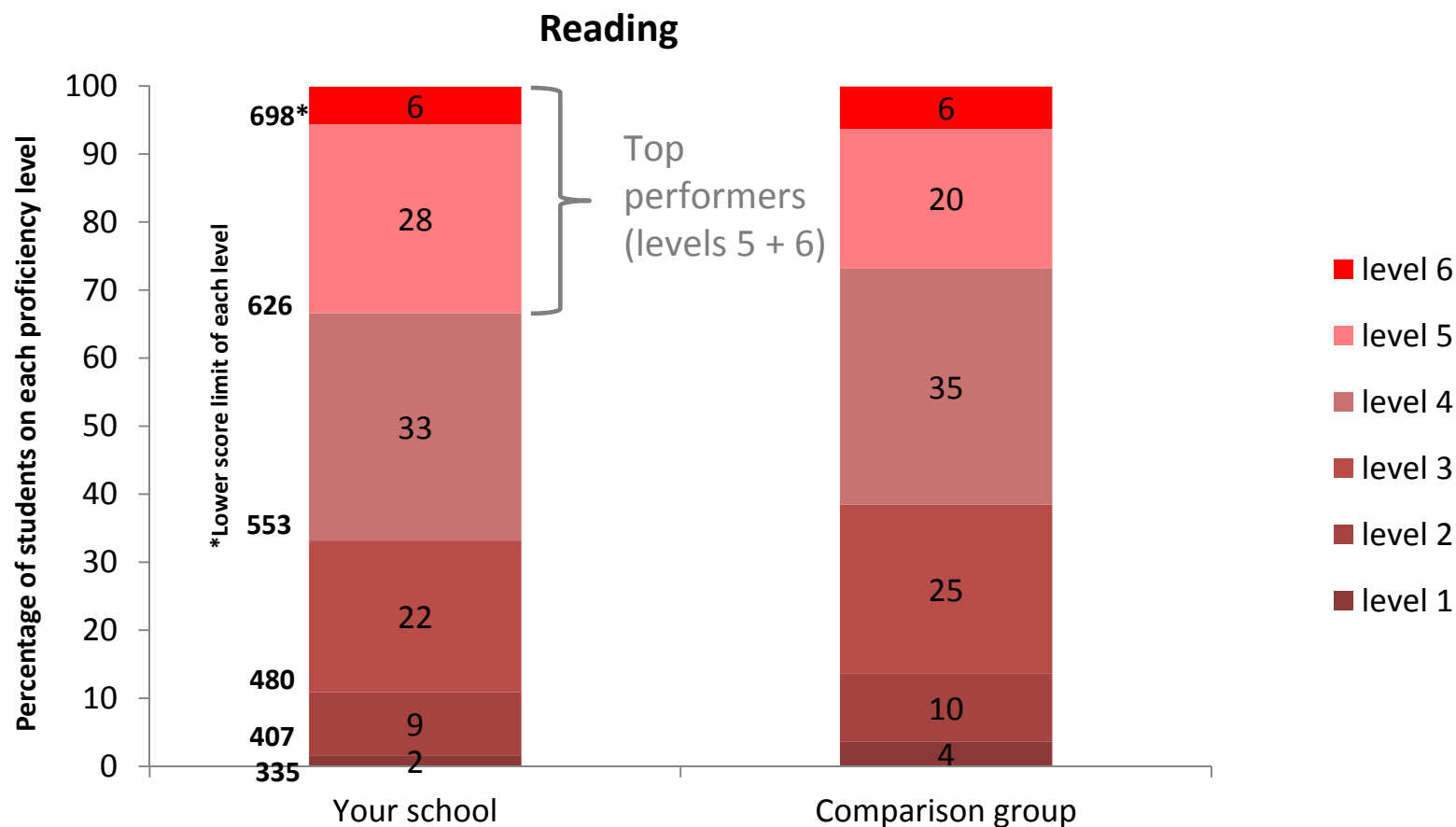
Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS

# Proficiency levels - Reading



Your school: L1-students  
 ES: Luxembourg's "Enseignement secondaire" (ES)

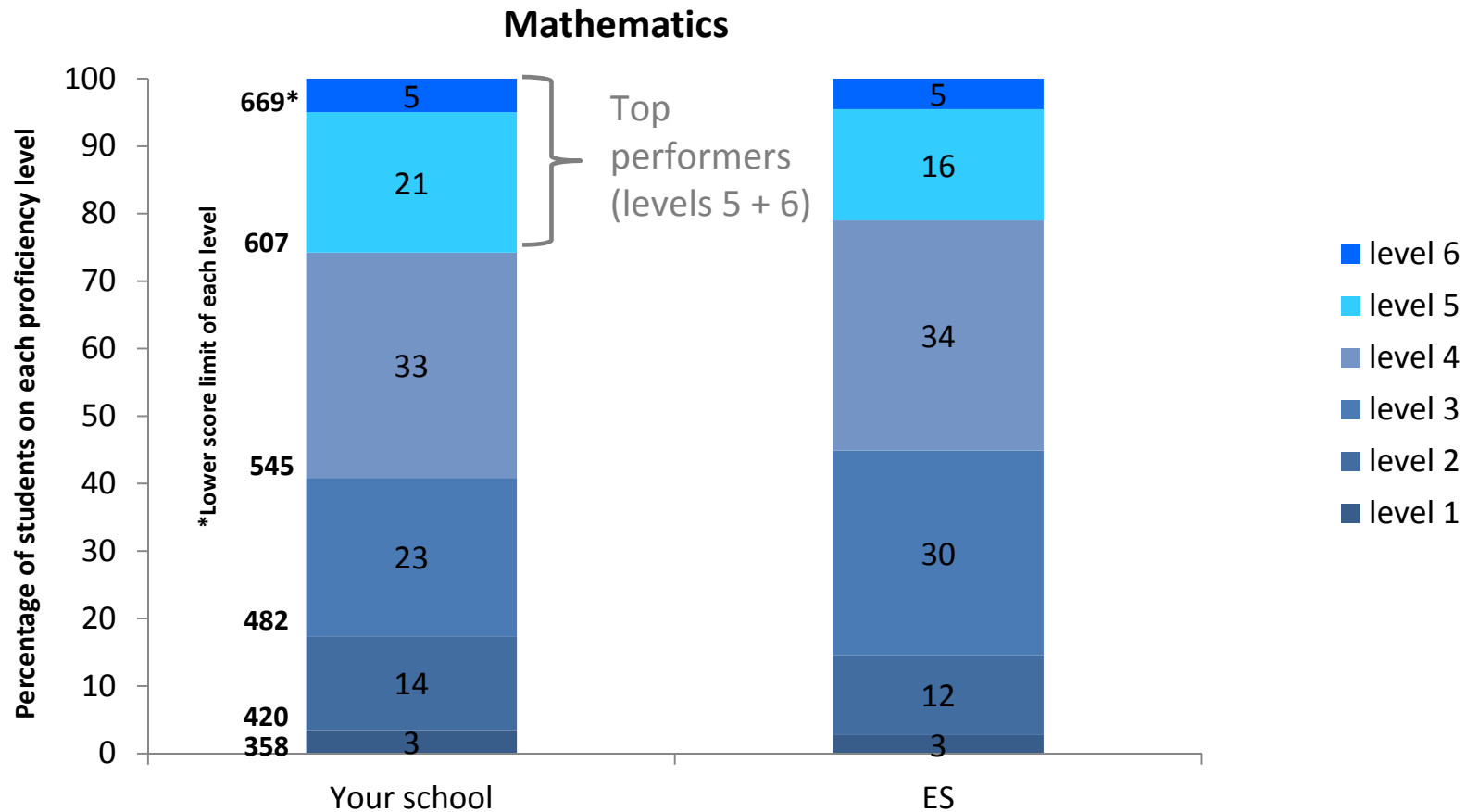
# Proficiency levels - Reading



Your school: L1-students

Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS

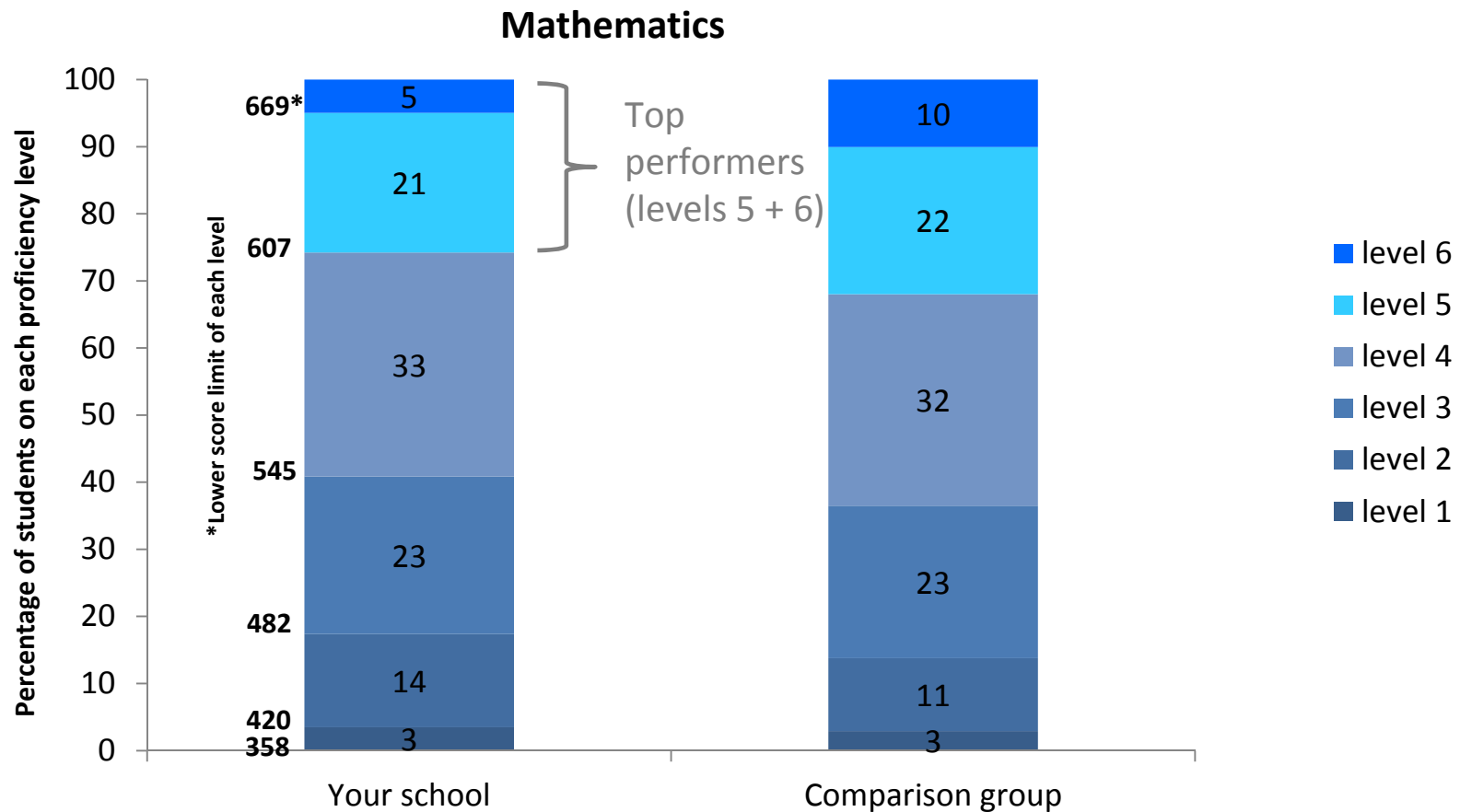
# Proficiency levels - Mathematics



Your school: L1-students

ES: Luxembourg's "Enseignement secondaire" (ES)

# Proficiency levels - Mathematics



Your school: L1-students

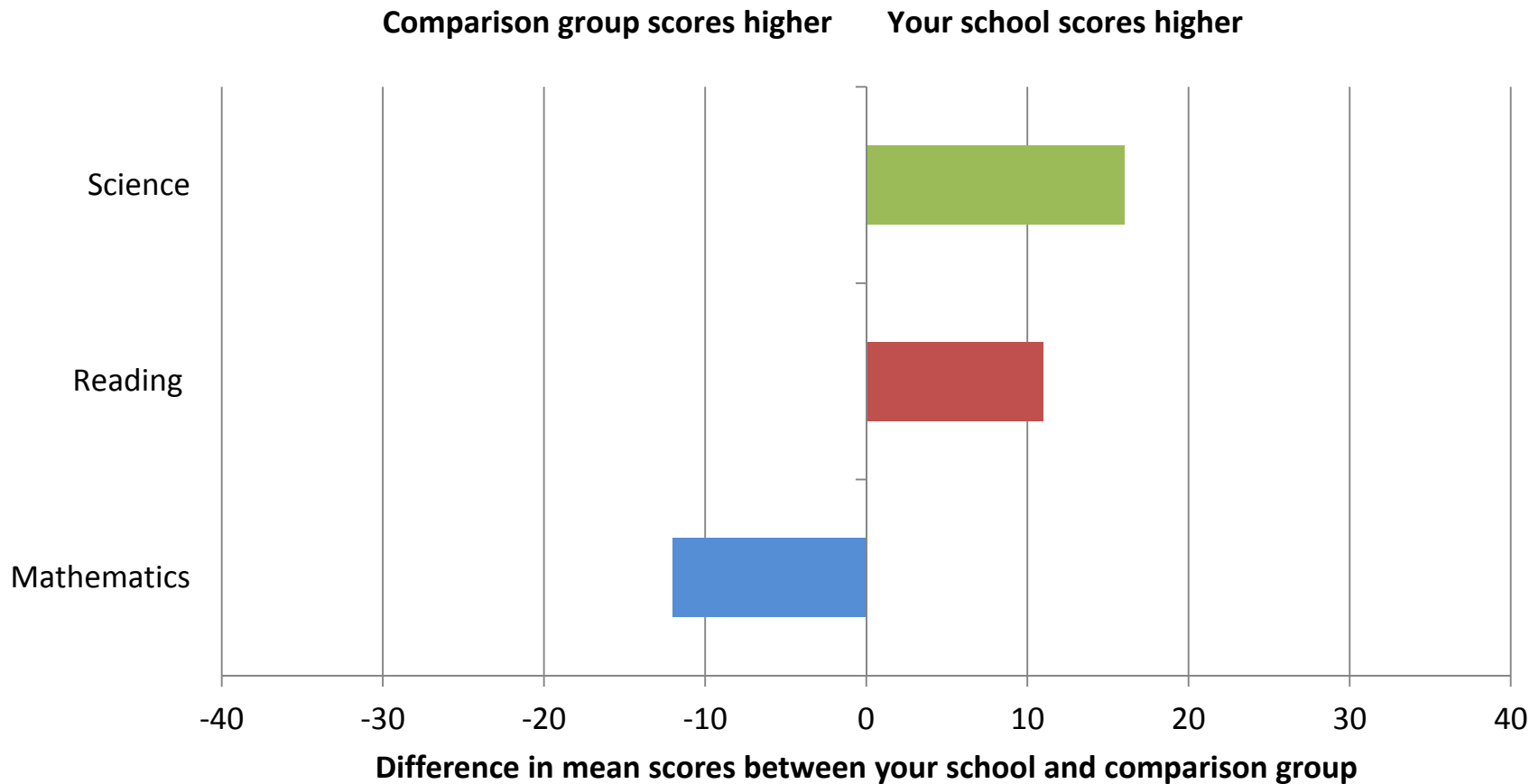
Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS





COMPARISON TO THE AVERAGE OF SCHOOLS WITH A SIMILAR MEAN SOCIO-ECONOMIC STATUS

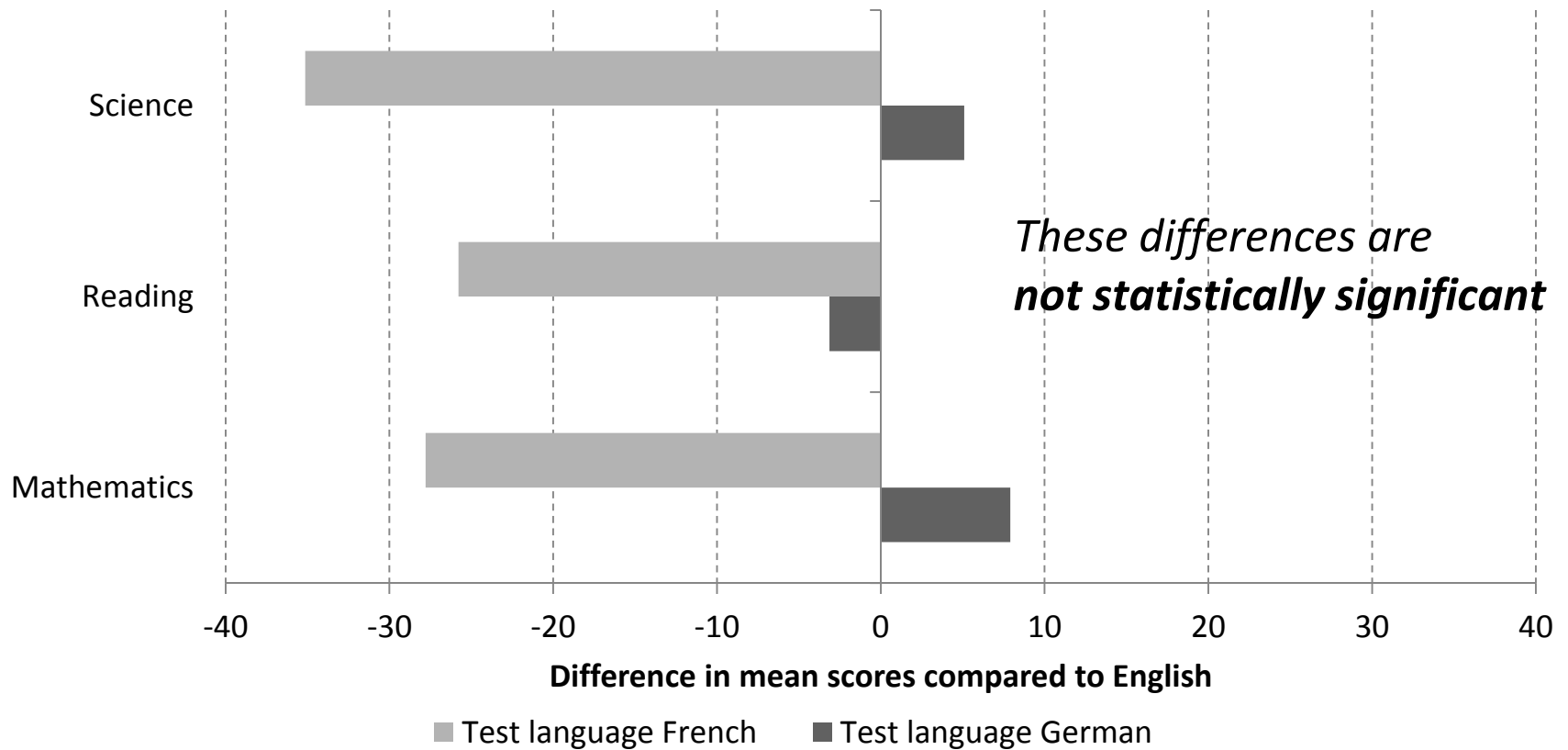
# Mean scores in science, reading and mathematics



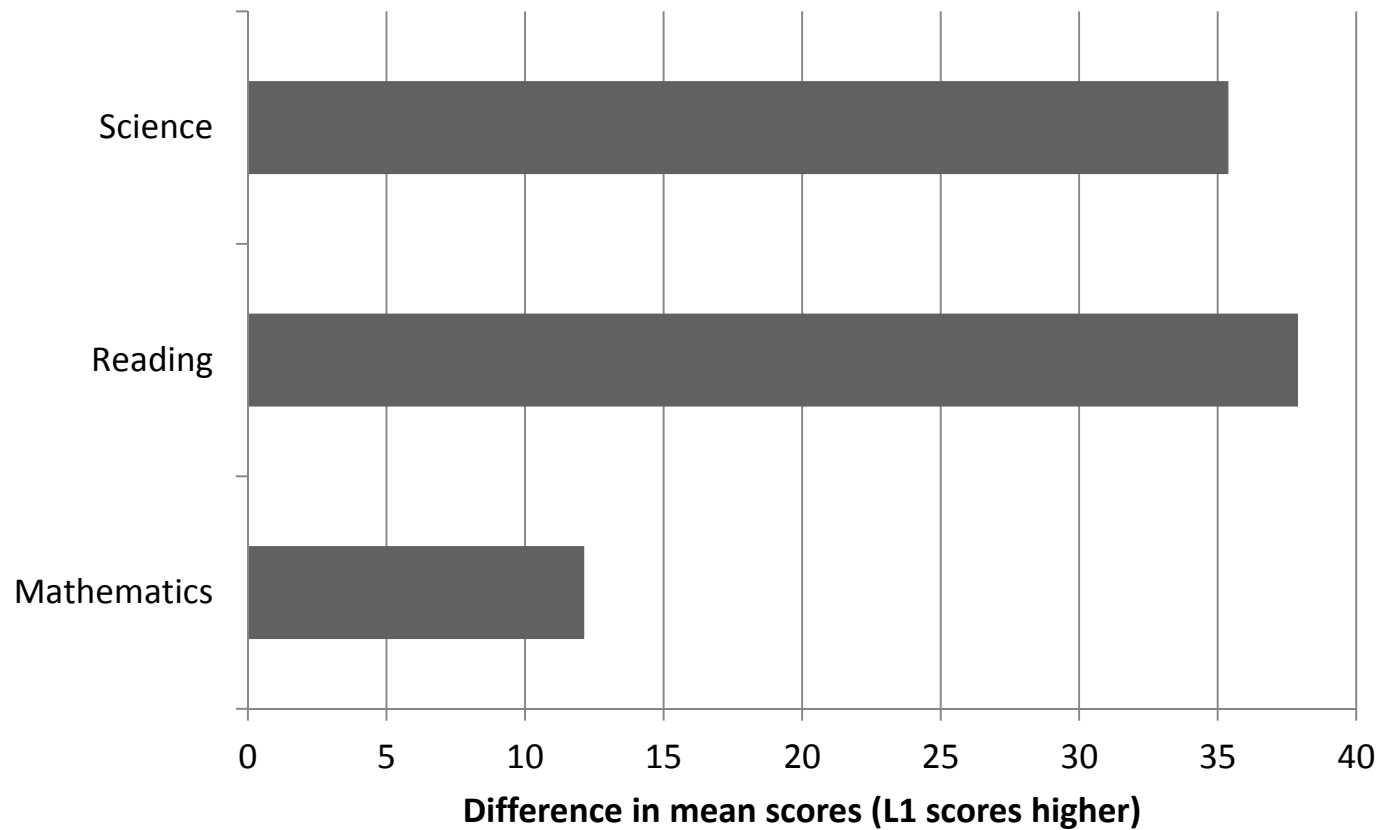
Your school: L1-students

Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS

## Differences in mean scores by test language at your school (L1-students)



## Differences in mean scores between **L1 and L2 students** at your school





## **Explain phenomena scientifically**

- *Recognise, offer and evaluate explanations for a range of natural and technological phenomena*

## **Evaluate and design scientific enquiry**

- *Describe and appraise scientific investigations and propose ways of addressing questions scientifically*

## **Interpret data and evidence scientifically**

- *Analyse and evaluate data, claims and arguments in a variety of representations and draw appropriate scientific conclusions*

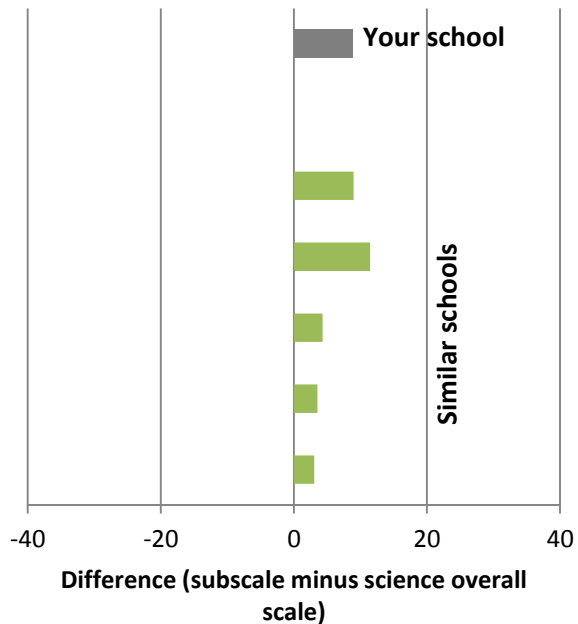
# Science subscales



## Explain phenomena scientifically

Scores in subscale are **lower** than in total science scale

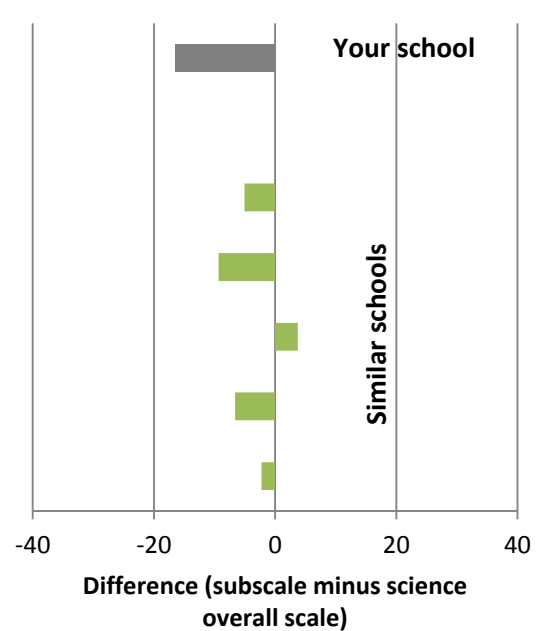
Scores in subscale are **higher** than in total science scale



## Evaluate and design scientific enquiry

Scores in subscale are **lower** than in total science scale

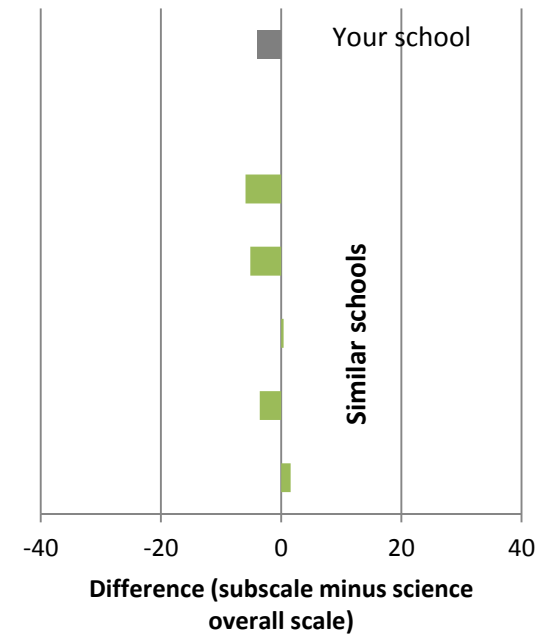
Scores in subscale are **higher** than in total science scale



## Interpret data and evidence scientifically

Scores in subscale are **lower** than in total science scale

Scores in subscale are **higher** than in total science scale



Your school: L1-students

Similar schools: schools in Luxembourg with a similar mean ESCS



# STUDENT MOTIVATION AND EXPERIENCES AT SCHOOL\*

\*On the following slides, results are shown for “your school” and the “comparison group” (arithmetic mean of schools in Luxembourg with a similar ESCS).

All results for Luxembourg’s Enseignement secondaire, the Luxembourg national average, or the OECD-average can be found under [www.pisaluxembourg.lu](http://www.pisaluxembourg.lu)

## Student motivation in science

### Enjoyment of science

- *E.g. "I generally have fun when I am learning broad science topics."*

### Interest in science topics

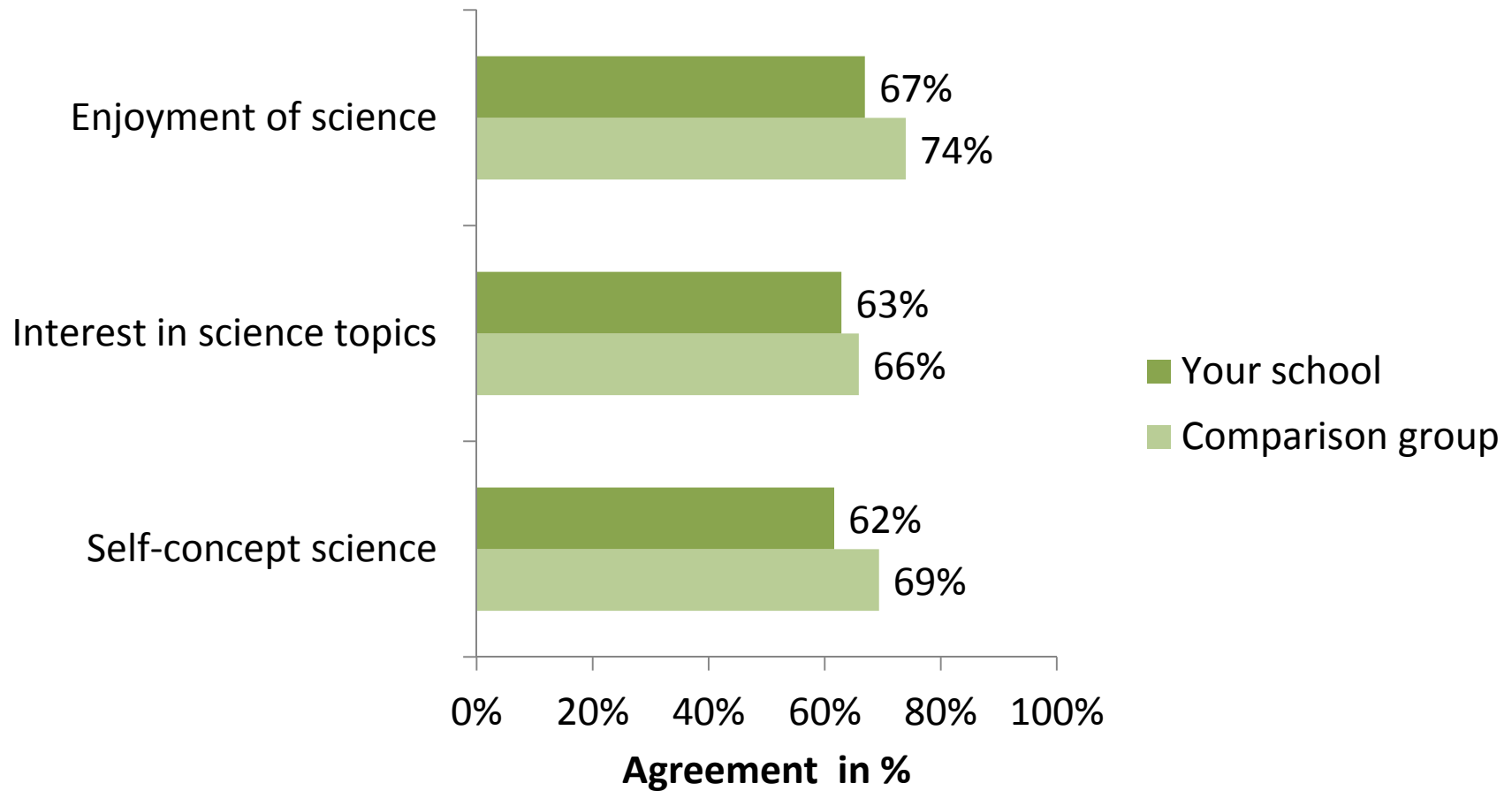
- *E.g. "How science can help us prevent disease"*

### Self-concept in science

- *E.g. "I learn school science topics quickly."*

- Answer categories: *"Strongly disagree", "Disagree", "Agree", "Strongly agree"*
- Agreement comprises *"Strongly agree" + "Agree"*

# Student motivation in science



Your school: L1-students

Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS



# Students' perception of science instruction

## Discipline

- E.g. *"Students don't listen to what the teacher says."*

## Teacher support

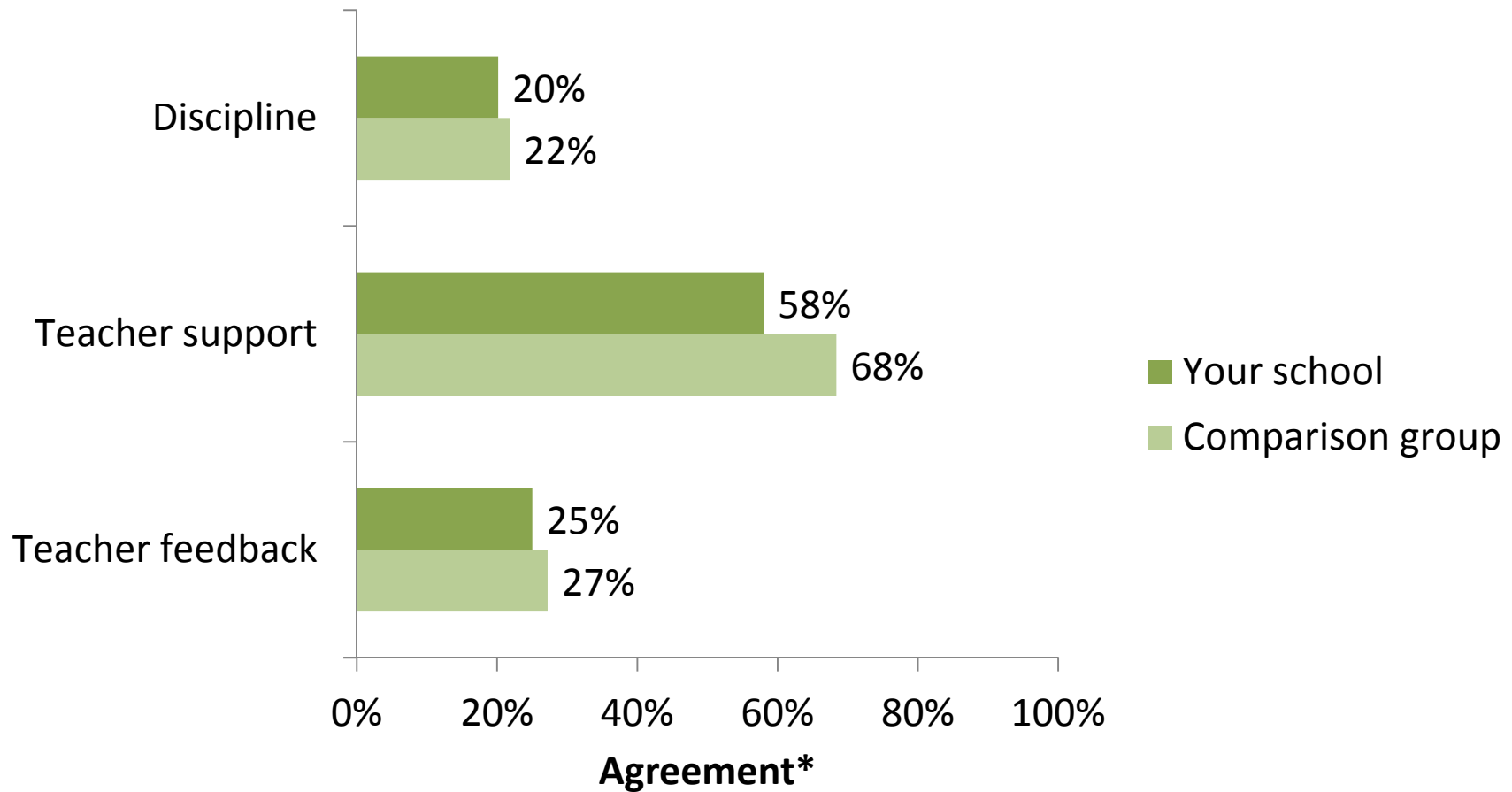
- E.g. *"The teacher continues teaching until the students understand."*

## Teacher feedback

- E.g. *"The teacher tells me in which areas I can still improve."*

- Answer categories: *"Never or almost never/ hardly ever", "Some lessons", "Many/Most lessons", "Every lesson or almost every lesson"*
- Agreement comprises *"Many/Most lessons" + "Every lesson or almost every lesson"*

# Students' perception of science instruction

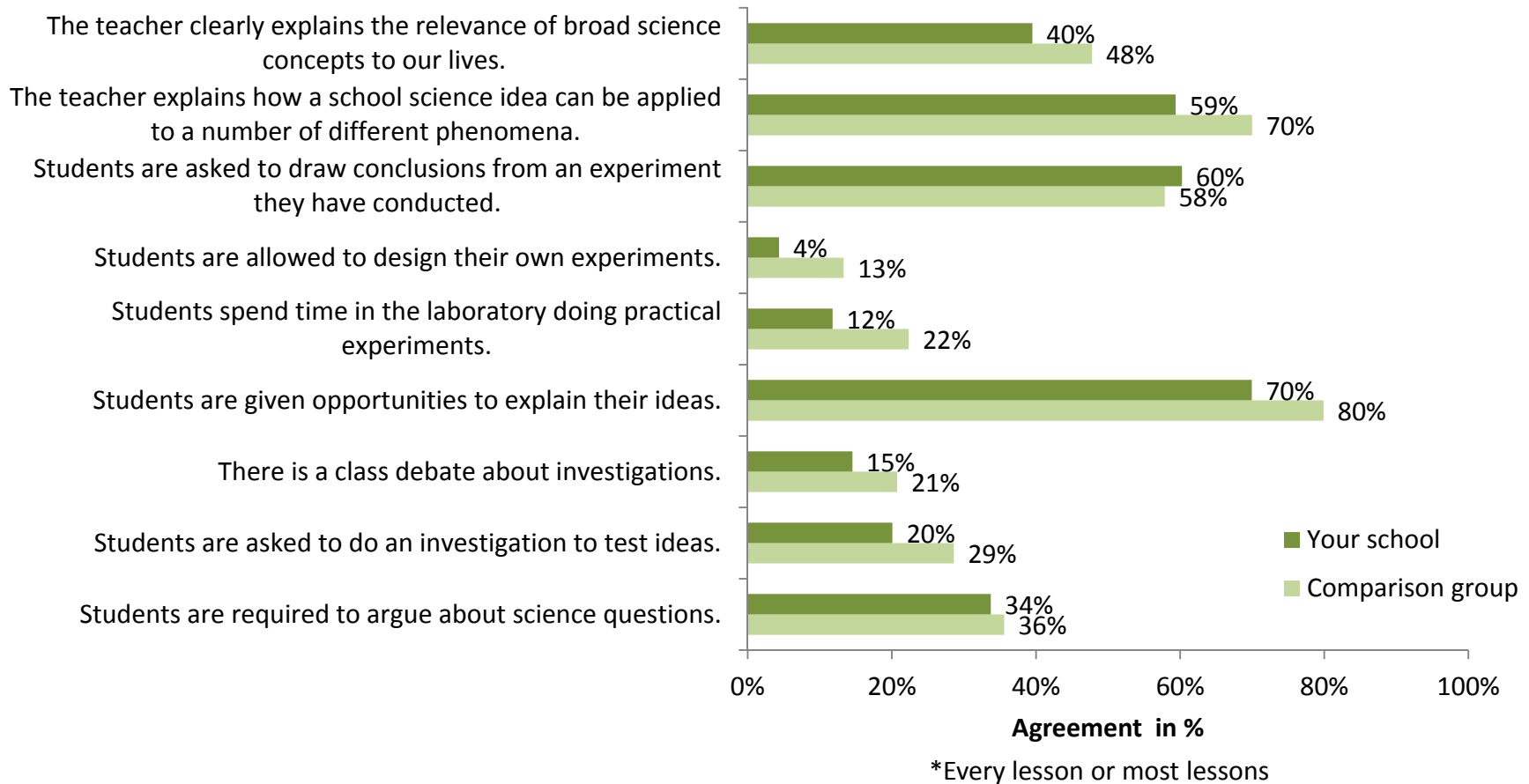


\*Every lesson or most lessons

Your school: L1-students

Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS

# Enquiry-based science teaching and learning



Your school: L1-students

Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS

## Students' perceptions and attitudes towards school

### Test anxiety

- *E.g. "Even if I am well-prepared for a test I feel very anxious."*

### Achievement motivation

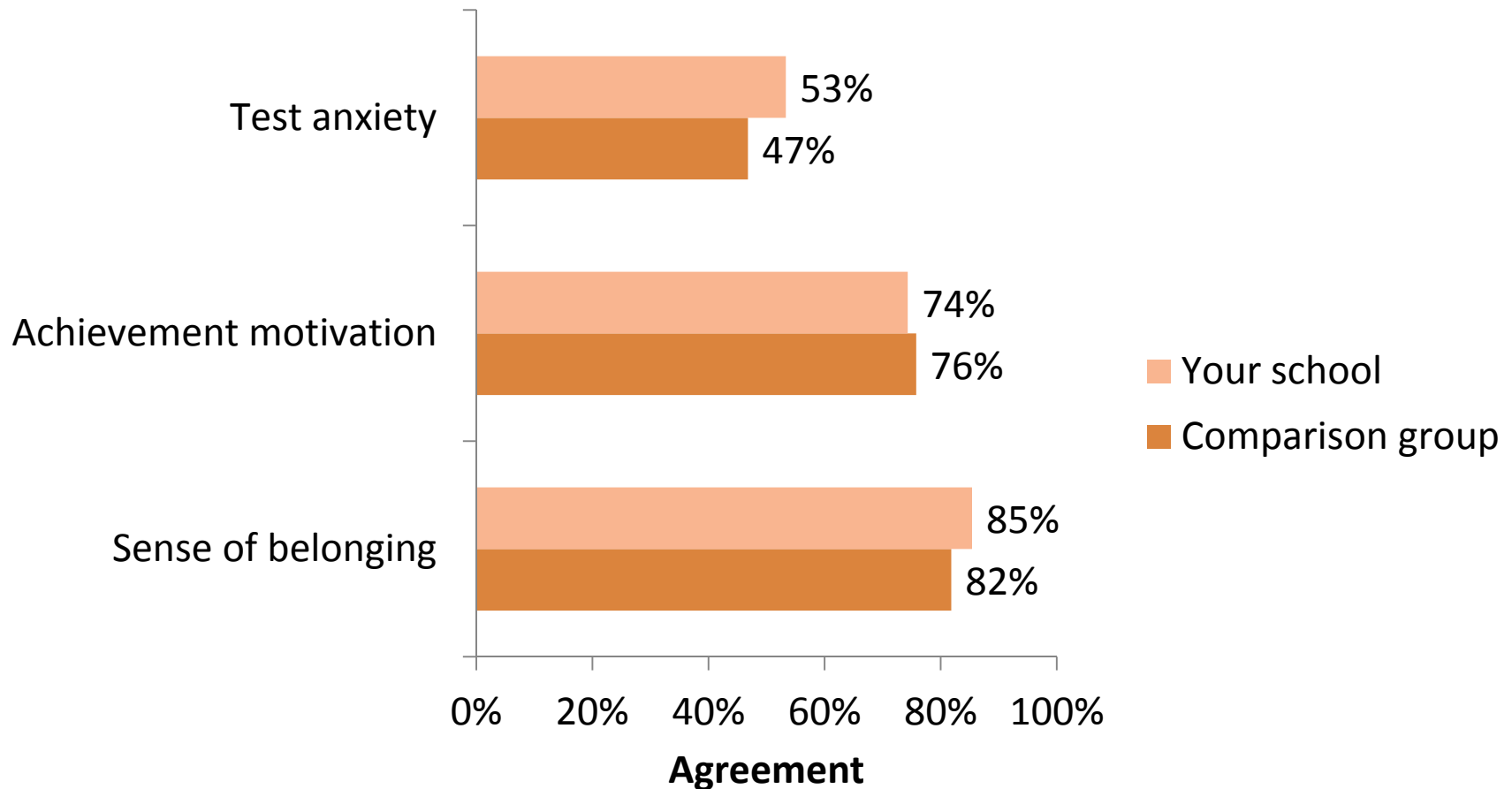
- *E.g. "I want to be the best, whatever I do."*

### Sense of belonging to school

- *E.g. "Other students seem to like me."*

- Answer categories: *"Strongly disagree", "Disagree", "Agree", "Strongly agree"*
- Agreement comprises *"Strongly agree" + "Agree"*

## Students' perceptions and attitudes towards school



Your school: L1-students

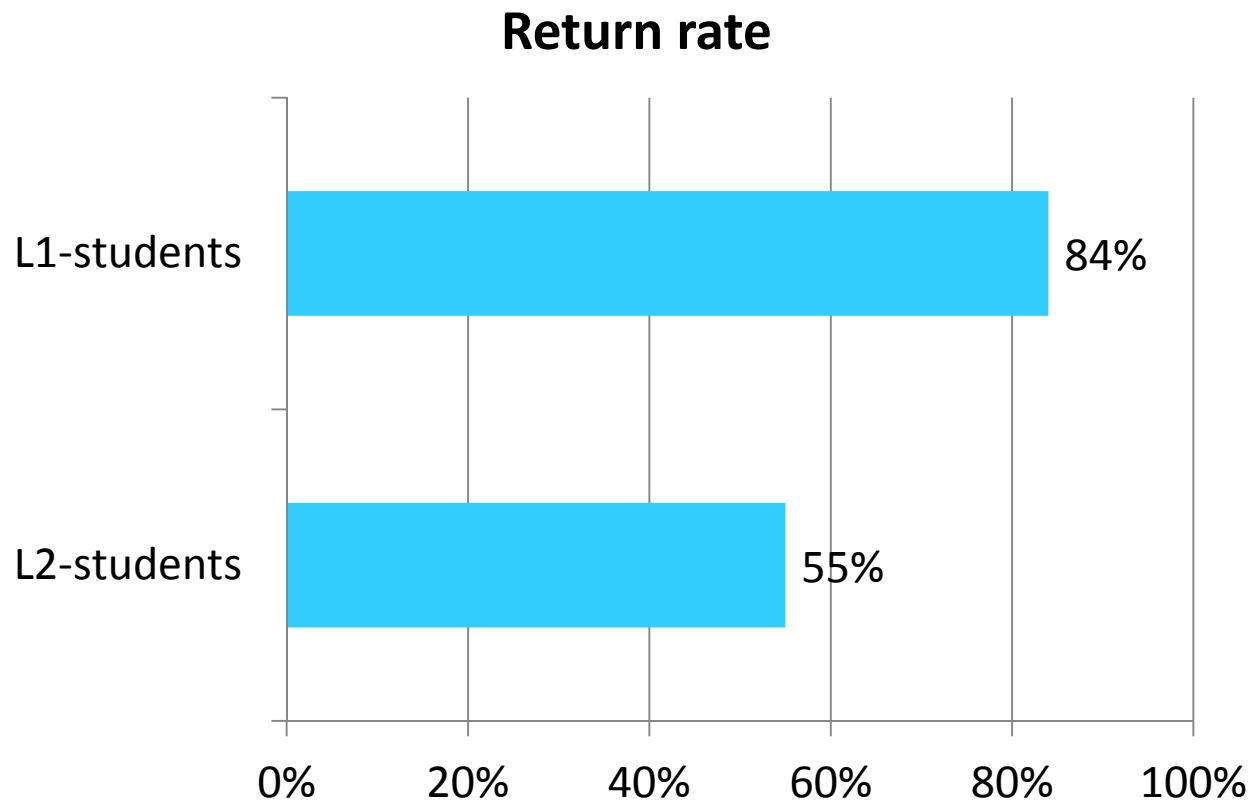
Comparison group: arithmetic mean of schools in Luxembourg with a similar ESCS



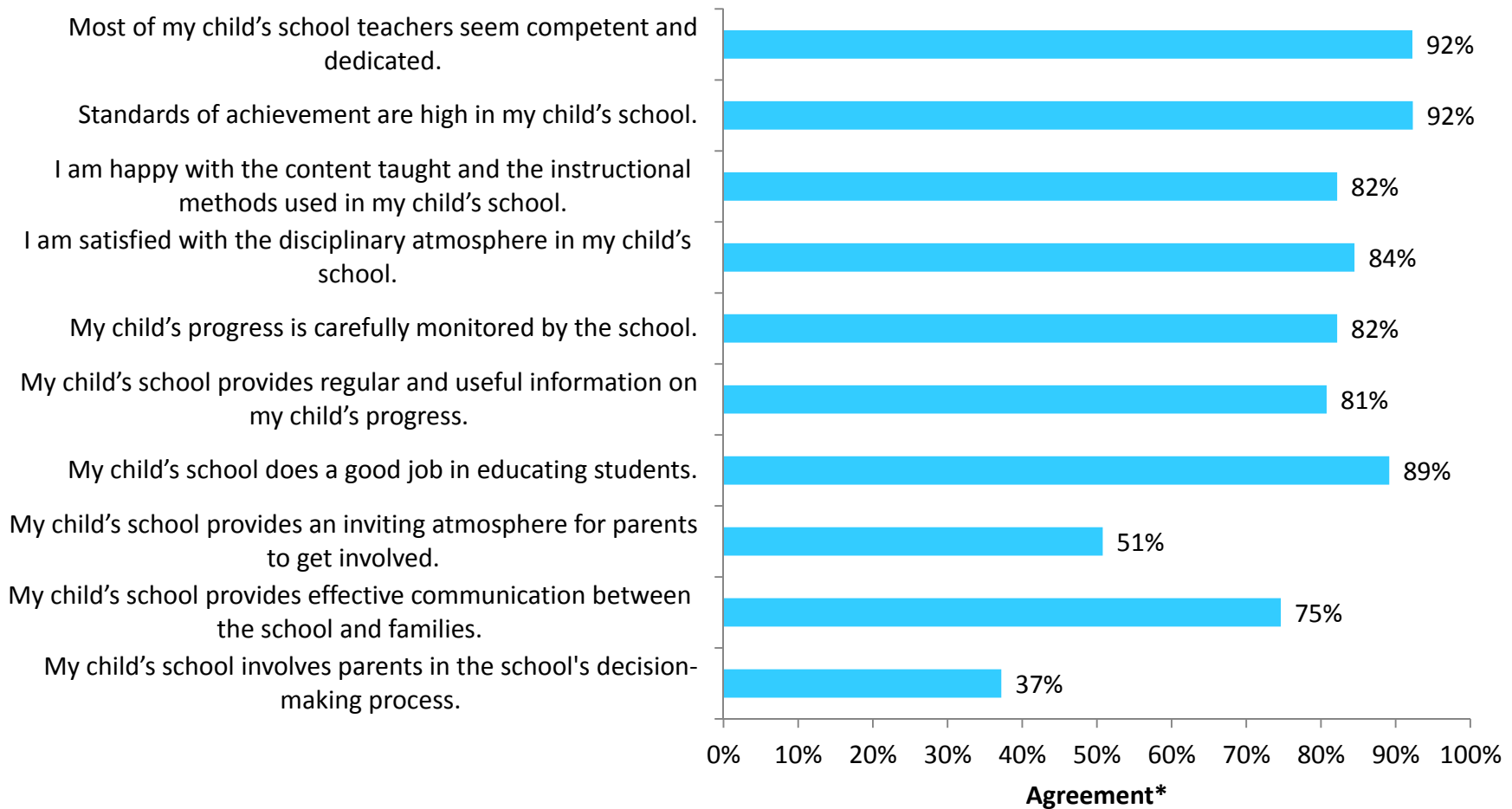
# **PARENTS' PERCEPTION OF THE SCHOOL**

# Parents' perception of the school

- Parent questionnaire return rate



# Parents' perception of the school



\*Parents of L1- and L2- students combined



# Further reading

- Frameworks for assessing mathematics, reading and science:
  - PISA 2015 Assessment and Analytical Framework (OECD, 2016)
    - <http://www.oecd.org/edu/pisa-2015-assessment-and-analytical-framework-9789264255425-en.htm>
- Published sample items from PISA 2015
  - <http://www.oecd.org/pisa/test/>
- PISA 2015 Results
  - International OECD Report, Volumes I to III (OECD, 2016)
    - <http://www.oecd.org/pisa/>
  - National Report Luxembourg (SCRIPT & LUCET, 2016)
    - <http://www.pisaluxembourg.lu/>



Thank you  
for your  
**attention!**

