OECD Test for Schools:
How Three School Systems Are Improving Student Achievement

CASE STUDY

Alliance for Excellent Education
Johns Hopkins School of Education
Institute for Education Policy
Specialty: How do democracies organize public education?
What is the PISA?

Assessment established by the Organisation for Economic Co-operation and Development (OECD)

Every three years since 2000, more than 500,000 15-year-old students around the world

Test in ELA, math, and science

Thirty-minute student survey
Why is the PISA important?

National standing in a global economy
U.S.: mediocre results, historically
Predictive of adult skills and wellbeing

AND YET
Only provides country-level, not state- or school-level information
OECD Test for Schools

See how well your school is preparing students for the global economy

Get unique insight into how your students perform in math, reading, and science compared to other schools throughout the nation—and the world—with the OECD Test for Schools.

Based on the renowned Programme for International Student Assessment (PISA), the OECD Test for Schools provides you with actionable school-level information and rare insight into student perceptions of learning to help inform program- and system-level improvements. Learn more about key findings from PISA 2015 for the United States.
OECD Test for Schools

- Every year
- All three subjects
- Student survey
Running in Hot Weather

Introduction

Read the Introduction. Then click on the NEXT arrow.

RUNNING IN HOT WEATHER

During long-distance running, body temperature rises and sweating occurs.

If runners do not drink enough to replace the water they lose through sweating, they can experience dehydration. Water loss of 2% of body mass and above is considered to be a state of dehydration. This percentage is labelled on the water loss meter shown below.

If the body temperature rises to 40°C and above, runners can experience a life-threatening condition called heat stroke. This temperature is labelled on the body temperature thermometer shown below.
Running in Hot Weather

Introduction

This simulation is based on a model that calculates the volume of sweat, water loss, and body temperature of a runner after a one-hour run.

To see how all the controls in this simulation work, follow these steps:

1. Move the slider for Air Temperature.
2. Move the slider for Air Humidity.
3. Click on either “Yes” or “No” for Drinking Water.
4. Click on the “Run” button to see the results. Notice that a water loss of 2% and above causes dehydration, and that a body temperature of 40°C and above causes heat stroke. The results will also display in the table.

Note: The results shown in the simulation are based on a simplified mathematical model of how the body functions for a particular individual after running for one hour in different conditions.
How Your School Compares Internationally
OECD TEST FOR SCHOOLS (BASED ON PISA)
### Academic Standing

#### Figure 5.7: How your school compares with schools in other countries and economies in mathematics in PISA 2012

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Schools in the United States</th>
<th>Schools in Shanghai-China</th>
<th>Schools in Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>750</td>
<td>10% of schools perform above this point</td>
<td>25% of schools perform above this point</td>
<td>50% of schools perform above and also below this point</td>
</tr>
<tr>
<td>700</td>
<td>10% of schools perform above this point</td>
<td>25% of schools perform above this point</td>
<td>50% of schools perform above and also below this point</td>
</tr>
<tr>
<td>650</td>
<td>10% of schools perform above this point</td>
<td>25% of schools perform above this point</td>
<td>25% of schools perform below this point</td>
</tr>
<tr>
<td>600</td>
<td>10% of schools perform above this point</td>
<td>25% of schools perform above this point</td>
<td>10% of schools perform below this point</td>
</tr>
<tr>
<td>550</td>
<td>10% of schools perform above this point</td>
<td>25% of schools perform above this point</td>
<td>10% of schools perform below this point</td>
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<tr>
<td>500</td>
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<tr>
<td>450</td>
<td>50% of schools perform above and also below this point</td>
<td>25% of schools perform below this point</td>
<td>10% of schools perform below this point</td>
</tr>
<tr>
<td>400</td>
<td>25% of schools perform below this point</td>
<td>10% of schools perform below this point</td>
<td>10% of schools perform below this point</td>
</tr>
<tr>
<td>350</td>
<td>10% of schools perform below this point</td>
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<td>10% of schools perform below this point</td>
</tr>
<tr>
<td>300</td>
<td>10% of schools perform below this point</td>
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</tbody>
</table>

Notes: Shaded bars above and below the mean scores represent the 95% confidence interval. In other words, in the case of the results for your school, we are 95% confident that if your school were to administer the test several times, your mean performance score would fall within this confidence interval. Schools are weighted by the number of students enrolled. For example, the legend “10% of schools perform above this point” refers to the highest-performing schools that account for 10% of the total number of students in the country.

Source: OECD

This figure allows you to compare your school’s results in mathematics with those of groups of schools in your country and with those of different groups of schools in the highest and lowest performers in PISA 2012. Given the large differences in student performance between Shanghai-China and Mexico, your school’s mean performance estimates will correspond to very different percentiles within these economies.

Continuing with the same idea of comparing your school’s performance with that of schools in other countries and economies, Figures 5.8 and 5.9 show your school’s performance results in mathematics in the context of the highest-performing economy – Shanghai-China – and of the lowest-performing OECD country – Mexico – in PISA 2012.
## Type of Reader

<table>
<thead>
<tr>
<th>Surface and wide readers</th>
<th>Deep and wide readers</th>
</tr>
</thead>
<tbody>
<tr>
<td>These students have low levels of awareness about effective strategies to understand, summarize and remember information, but they read a wide variety of materials regularly, including fiction and non-fiction books. In the United States, 7% of 15-year-old students are surface and wide readers.</td>
<td>These students are those who have high levels of awareness about effective learning strategies and who also read all sorts of materials, including fiction and non-fiction books for enjoyment. In the United States, 19% of students are deep and wide readers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface and narrow readers</th>
<th>Deep and narrow readers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students with this reader profile have low levels of awareness about effective learning strategies and their reading habits are narrow in the sense that they do not read a wide variety of materials, but they do read some materials regularly for enjoyment. This profile accounts for 6% of students in the United States.</td>
<td>Students in this group also have high levels of awareness about effective learning strategies, but their reading habits are more narrow than those of deep and wide readers. This reader profile accounts for 11% of students.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface and highly restricted readers</th>
<th>Deep and highly restricted readers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in this group have low levels of awareness about effective learning strategies and they spend little time reading any type of printed material for enjoyment. In the United States, 20% of students are surface and highly restricted readers.</td>
<td>These students are aware of effective learning strategies, but they do not regularly read any printed material for enjoyment. With 37% of students being deep and highly restricted readers, this profile accounts for the largest number of students in the United States.</td>
</tr>
</tbody>
</table>
What does it look like on the ground?
Gwinnett County Public Schools

Largest district in Georgia

21 high schools, 55,000 students

69% students of color

48% qualify for free or reduced-price lunch
Granger Independent School District

One of the smallest districts in Texas

421 students; 144 in high school

4% African American, 41% Latino, 54% White

57% qualify for free or reduced-price lunch
University Academy

K-12 college preparatory charter school

232 students in the high school

99% students of color

67% qualify for free or reduced-price lunch
HOW DO SCHOOLS USE THE INFORMATION?
Adjust instructional practices

Colin Martin, Gwinnett County: “The OECD Test for Schools encourages the habit of not only understanding, but also applying, academic concepts to real-world scenarios.”

Deeper questions; more application in the classroom
Influence the choice of curriculum

Randy Willis, Granger Independent: “The OECD school reports have given our teachers a vision that deep learning should be relevant, and hands-on, and fun.”

District invested in a slightly more expensive science curriculum that included ready-made laboratory experiments.
Focus on student engagement

University Academy: Created resources for teachers that build up student motivation in different subjects.

October 16: Ukaoma spoke at the Global Learning Network on students’ instrumental motivation
Long-term impact:

Changing the DNA of the schools

Influencing middle-school practices

Preparing students for the future
“Unless you have a world-class measure, you don’t know if you have a world-class school.”
– Randy Willis, Superintendent, Granger Independent School District