Some snapshots - international insights and perspectives

Maja Rynko
Michał Sitek

Educational Research Institute
Warsaw, Poland
Some snapshots from Poland
Some snapshots from Poland
Why Poland?
Polish transitions

- Political (from communist one-party state to democracy)
- Economic (from central planning to market economy)
- International relations (from behind the Iron Curtain to the membership of the EU)
The outline of the presentation

- PISA (the Programme of International Student Assessment)
- PIAAC (The Programme for the International Assessment of Adult Competencies)
- Polish Educational System and recent changes
PISA in Poland

- Poland has participated in PISA since its first round
- The PISA 2000 results in Poland were below the OECD average; 2003, 2006 and 2009 were around the OECD average, while 2012 moved beyond it
- The results improved in the main three domains assessed (reading, mathematics, science)
- The percentage of low-performing students has been reduced and the percentage of high performers has increased
Top and low performers in Poland (PISA, reading)
Top and low performers in Poland (PISA, reading)
PISA 2000 and 2012 results in reading

PISA 2012 results in mathematics

Source: OECD (2014), PISA 2012 results (…), Vol. 1, p.72
PIAAC in Poland

- Poland participated in the first round of PIAAC (2011-2012)
- The average results in literacy and numeracy for the adults in Poland (aged 16-65) are below the OECD average
- However, the young generation scored at the OECD average in literacy and slightly below in numeracy
- The results were linked to the results of the IALS (1994), which showed a big improvement in literacy in Poland
- The performance of adults in Poland in the domain of problem solving in technology rich environment was low
PIAAC results in numeracy and literacy

[Bar chart showing literacy and numeracy scores for various countries, with Japan, Finland, and Australia leading in literacy, and Japan, Finland, and Belgium leading in numeracy. A red line indicates the OECD average.]
PIAAC results in literacy and numeracy: young vs old
Average numeracy results across different groups

<table>
<thead>
<tr>
<th>Sector</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
<th>Modern Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Elementary</th>
<th>Semi-skilled blue-collar</th>
<th>Semi-skilled white collar</th>
<th>Skilled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labour market status</th>
<th>inactive</th>
<th>unemployed</th>
<th>employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of residence</th>
<th>rural area</th>
<th>town &lt; 500K</th>
<th>town &gt; 500K</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>primary, lower secondary</th>
<th>basic vocational, secondary, post-secondary</th>
<th>tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>55-65</th>
<th>45-54</th>
<th>35-44</th>
<th>25-34</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>175</td>
<td>225</td>
<td>275</td>
<td>325</td>
</tr>
</tbody>
</table>
PIAAC and IALS
(comparison of age groups)
PIAAC and IALS (cohort analysis)
ICT challenges

- Only half of the PIAAC respondents in Poland took the computer based assessment (24% refused despite the declared computer skills, 20% declared no computer skills)

- The share of households having access to the computer / the Internet is still lower in Poland than in West European countries

- The Poles use the ICT at home and at work less frequent than in West European countries

- 16-24 years old Poles also rank near the bottom in the PIAAC domain of PSTRE (80% took the CBA, nearly 40% were assessed at level 2 or 3)

- This in line with the PISA results on digital reading, computer-based assessment in mathematics and problem solving
Educational reforms in Poland

Educational reforms in Poland

- Political transformation
- Free elections
- Establishment of lower secondary schools
- Matura exam in maths
- New lower secondary school (gymnasium) exam

1989 - 1991
- The School Education Act

1999 - 2004
- Structural reform
- Education Information System (SIO)
- First PISA test
- Establishment of the examination system

2009
- General education curriculum reform

2012 - 2015
- New SIO Education Information System
- Vocational education reform
- New pedagogical supervision system
- Lowering of school age
New lower secondary school (gymnasium) exam

Education reforms in Poland


political transformation
free elections

The School Education Act

structural reform
establishment of
lower secondary
schools

Matura
exam in
maths

New lower secondary school (gymnasium) exam

general education reform

vocational education reform

new SIO Education Information System

education system

Education Information System (SIO)

first PISA test

new SIO Education Information System

vocational education reform

new SIO Education Information System

Education Information System (SIO)

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform

new SIO Education Information System

vocational education reform
The structural reform of 1999

- Raise the level of education in society by increasing the number of people with secondary and higher education qualifications
- Ensure equal opportunities of education
- Support improvements in the quality of education
- The reform was envisaged to cover:
  - The structure of the education system
  - The curriculum
  - An independent assessment and examination system
  - School finance
  - Teacher qualifications (promotion paths and the renumeration system)
  - Administration and supervision methods
1999 reforms

Previous structure of school system (PISA 2000)

New structure of school system (since PISA 2003)
1999 reforms

Previous structure of school system (PISA 2000)

New structure of school system (since PISA 2003)

1999 reforms
1999 reforms

Previous structure of school system (PISA 2000)

New structure of school system (since PISA 2003)
Before and after the reform

- Exams (example of Matura in Polish)

Matura 2001: „There is always hope” (G. Herling-Grudziński).
Present selected literary works where you have found the motives of hope and faith in the sense of overcoming the difficulties.
Before and after the reform

- Exams (example of Matura in Polish)

Matura 2001: "There is always hope" (G. Herling-Grudziński).

*Present selected literary works where you have found the motives of hope and faith in the sense of overcoming the difficulties.*

Matura 2011:

*Instructions and exam questions with text removed.*
Educational choices over last 40 years

- Decreasing number of students in vocational education
- Increasing number of students in general education

First grade students at the ISCED 3 level

<table>
<thead>
<tr>
<th>Year</th>
<th>General (ISCED 3A)</th>
<th>Vocational (ISCED 3A)</th>
<th>Basic Vocational (ISCED 3C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970/71</td>
<td>26</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>1975/76</td>
<td>19</td>
<td>25</td>
<td>56</td>
</tr>
<tr>
<td>1981/82</td>
<td>18</td>
<td>27</td>
<td>55</td>
</tr>
<tr>
<td>1984/85</td>
<td>18</td>
<td>24</td>
<td>57</td>
</tr>
<tr>
<td>1990/91</td>
<td>21</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>1995/96</td>
<td>29</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>2000/01</td>
<td>39</td>
<td>36</td>
<td>26</td>
</tr>
<tr>
<td>2005/06</td>
<td>44</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>2010/11</td>
<td>46</td>
<td>35</td>
<td>20</td>
</tr>
</tbody>
</table>

Legend:
- general (ISCED 3A)
- vocational (ISCED 3A)
- basic vocational (ISCED 3C)
Educational choices and the key competencies

- The results of PISA 2000 (reading) show huge differences in the level of key competencies across different types of schools.
Educational choices and the key competencies

- PISA 2009 (including Polish sample of first grade ISCED 3 schools) confirms the PISA 2000 findings about the differences between different types of schools.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower secondary</td>
<td>3,8</td>
<td>11,3</td>
<td>24,5</td>
<td>31,0</td>
<td>22,0</td>
</tr>
<tr>
<td>Lyceum</td>
<td>9,6</td>
<td>29,7</td>
<td>40,7</td>
<td>18,6</td>
<td></td>
</tr>
<tr>
<td>Technical secondary</td>
<td>11,2</td>
<td>31,8</td>
<td>37,9</td>
<td>15,0</td>
<td></td>
</tr>
<tr>
<td>Basic vocational</td>
<td>22,1</td>
<td>36,0</td>
<td>31,4</td>
<td>9,8</td>
<td></td>
</tr>
</tbody>
</table>

Legend: below 1, level 1, level 2, level 3, level 4, level 5.
Better and better educated

- The share of Poles with tertiary education has increased significantly
Perspectives

- Continuous work on the educational policy (positive effects)
- Not much of the country-level LLL policy (many local initiatives, not always suited to the needs, often not coordinated)
- PIAAC results gave an incentive to strengthen the LLL policy, but…
- postPIAAC is just starting in Poland (PIAAC panel study)
- Other PIAAC panel initiatives:
  - Germany (PIAAC-L = PIAAC + GSOEP + NEPS)
  - Canada (PIAAC sample combined with LISA - The Longitudinal and International Study of Adults)
  - Italy


Thank you for your attention!

m.rynko@ibe.edu.pl

www.ibe.edu.pl
www.piaac.pl

"Quality and effectiveness of education - strengthening of institutional research capabilities”

Project co-financed by the European Union under the European Social Fund

Educational Research Institute
ul. Górczewska 8, 01-180 Warsaw
tel.: +48 22 241 71 00 e-mail: ibe@ibe.edu.pl