COMPARISON OF POLES’ AND GERMANS’ COMPETENCIES

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POLISH AND GERMAN SCORES IN PROGRAMME FOR THE INTERNATIONAL ASSESSMENT OF ADULT COMPETENCIES (PIAAC)

Key words: competence, the Programme for the International Assessment of Adult Competencies

Abstract: The article analyzes the results obtained by Poles and Germans in the Programme for the International Assessment of Adult Competencies (PIAAC). The article offers two different approaches and perspectives. PIAAC is an international survey. The benchmark approach in comparing countries is prominent. The most popular reaction to such surveys is to look at the national position. Countries in the “leading position” become the objective of “educational tourism” in order to learn from the “good ones”. In conclusion we read that real and valuable comparative research should go beyond this rather narrow benchmark approach and involve in-depth comparative research beyond only comparing national averages. PIAAC can be welcomed in relation to adult education, because it sheds light on the learning in the life course.

Introduction

First results of OECD’s “Programme for the International Assessment of Adult Competencies (PIAAC)” were published in October 2013. This survey firstly gives information to an interested about development or how to improve international comparison of statistical information on adult’s learning like it is done by established European surveys “Adult Education Survey” (AES) or the “Continuing Vocational Training Survey” (CVTS) (Markowitsch et al 2013,
Secondly, it corresponds with competencies’ development testing in general education and intends to stimulate similar discussions like the PISA survey did it earlier. Information about the survey can be found on OECD’s website (http://www.oecd.org/site/piaac/surveyofadultskills.htm). More sophisticated analysis of the survey beyond mainly tables following a benchmark approach can be expected in the next months and years. We want to introduce in the article mainly some descriptive results available so far. Even more important, we want to reflect on this survey approach and the results from a perspective of educational sciences and especially adult education. This is very important from our point of view since PIAAC follows like OECD in general mainly a rather instrumental, human capital approach, which is even within the social sciences challenged by for example neo-institutional approaches (c. Rubenson 2013).

It is a fact that employment is a factor strongly correlated with the economic development of countries and the qualification structure of its inhabitants. Nonetheless, the causality of the influences are far less clear. For example, countries with high gross domestic products per head (GDP) train in general more than countries with lower GDPs, but we do not know exactly, which factor leads to the other. This is even more valid for the question which investments for which kind of training (general education, specific education, adult education, higher education, etc.) lead to which effects in the short or the long run. There exist of course many studies and even some evidence (see overview in FIBS/DIE 2013), but many authors have pointed out to limitations of data, especially if it is not longitudinal data.

In developed countries, an increasing proportion of people working in the service sector and more and more occupations require higher levels of qualifications. More and more often prerequisites for the development of the countries are seen in knowledge, modern information technologies and the high level of qualifications of employees. The concept of “knowledge societies” (Böhme, Stehr 1986; Dinkelaker 2010; Gilbert 2005) is an expression of this perspective.

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Methodology of PIAAC and a brief overview of PIAAC results

Methodology of PIAAC

The Survey of Adult Skills, a part of the Programme for the International Assessment of Adult Competencies (PIAAC), is a venture run by the Organisation for Economic Co-operation and Development (OECD). It constitutes a follow-up of the studies started in mid-1990s. So far, the survey has been organized three times in twenty-two countries within the framework of the International Adult Literacy Survey (IALS). In 2002 and 2006 it was a part of the Adult Literacy and Life Skills (ALL) Survey carried out in eleven countries and one state in the USA. The survey commenced in 2011 to be finished in 2012 and covered twenty-four countries. All in all, there were 166 thousand respondents, including 9,366 Poles. It measured adult (16-65 years old) skills in reading, mathematics and ITC. The survey conducted in Poland involved additional issues: applicability of young people’s educational activity in the light of the skills useful in the labour market; relation between formally documented educational activities (in particular university studies) and vocational activities of the young; relation between the level of their skills and the situation in the labour market; and economic accessibility to these educational activities which provide the best opportunities in the labour market for the young. The skills which were the subject of the PIAAC are considered essential for one’s existence in today’s world, because they enable the acquisition, comprehension, processing and application of information in the conditions set by free economy and, thus, they make it possible to become a full participant in the labour market, education as well as in the social and civic lives. Moreover, the skills under consideration are defined as the key skills, i.e. the skills which determine the acquisition of new information, skills and qualifications. Therefore, the level of these skills in society demonstrates the quality of human resources, economic potential and social cohesion. The PIAAC envisages the assessment of the following skills:
1. literacy skills: engagement in reading; comprehension and evaluation of written texts; use of the information gained from written texts to participate in social life, achieve one’s goals and to extend one’s knowledge and develop one’s potential;
2. numeracy skills: use, interpretation and analysis of mathematical concepts and information expressed in mathematical terms in order to undertake and to deal with those mathematical challenges which appear in the everyday life of adults;
3. problem solving in technology-rich environment: utilization of digital technologies, digital communication tools and networks for the acquisition and analysis of information, interpersonal communication and the performance of practical tasks; at the moment, the first phase of the survey is focused on these problem-solving skills useful in private, work and civic
environments which are gained through setting up proper goals, accessing and applying the information acquired by means of the computer and the Internet.

The Survey of Adult Skills is an international survey conducted in 33 countries as part of the Programme for the International Assessment of Adult Competencies (PIAAC). It measures the key cognitive and workplace skills needed for individuals to participate in society and for economies to prosper. The first results from the Survey were released on 8th October 2013. The evidence from this Survey will help countries better understand how education and training systems can nurture these skills. Educators, policy makers and labour economists will use this information to develop economic, education and social policies that will continue to enhance the skills of adults.

The survey is implemented by:

- interviewing adults aged 16 to 65 in their homes – 5 000 individuals in each participating country
- answering questions via computer, although the survey can also be implemented via pencil-and-paper
- assessing literacy and numeracy skills and the ability to solve problems in technology-rich environments
- collecting a broad range of information, including how skills are used at work and in other contexts, such as the home and the community.

The survey is designed:

- to be valid cross-culturally and cross-nationally
- for countries to be able to administer the survey in their national languages and still obtain comparable results
- to provide comparative analysis of skill-formation systems and their outcomes, and international benchmarking regarding adult skills
- as a survey that will be repeated over time to allow policy makers to monitor the development of key aspects of human capital in their countries.

The OECD provides capacity building by:

- offering continuous training and high-level technical support throughout the survey process
- providing participating countries with access to high-quality expertise in the measurement of adult skills.

Beneficiaries from the Survey of Adult Skills:

- educators, policy makers, labour economists and experts will use survey information to develop economic, education and social policies that will continue to enhance the skills of adults.
- development agencies, international organisations, and other development partners will use the evidence from the data analysis to provide advisory services and support to countries.
- the ultimate beneficiaries are citizens across participating countries who will benefit from more effective policy development and implementation.
Participants in Round 1 (2008-2013):
Australia, Austria, Belgium (Flanders), Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, Norway, Poland, Russian Federation*, Slovak Republic, Spain, Sweden, United Kingdom (England and Northern Ireland), United States.
Participants in Round 2 (2012-2016):
Chile, Greece, Indonesia*, Israel, Lithuania*, New Zealand, Singapore*, Slovenia, Turkey.
* OECD Partners

**Brief overview of core PIAAC results**

In all countries participating in PIAAC is a positive relationship between proficiency and labour force participation and employment. Individuals with higher levels of proficiency in literacy, numeracy and problem solving in technology-rich environments have greater chances of participating in the labour market and of being employed and less chances of being unemployed than individuals with lower levels of proficiency, on average. Although this relationship is valid on a macro-economic level and in relation to aggregates, it does not mean that this is valid uniquely for each country, for each individual in each point of time. Especially during times of crises overqualification can be a serious problem as can be observed in Southern Europe in recent years, but critical scholars question fundamentally core assumptions of OECD skills strategies. (c. OECD 2012, Livingstone 1998) Concerns about the adequacy of the supply of the skills are needed to meet changing labour market requirements. They are now balanced by views that there are many highly educated and skilled adults who do not necessarily supply their skills to the workforce, or fully use their skills in their jobs. Based on the belief that skills requirements are rapidly evolving, OECD’s “Programme for the International Assessment of Adult Competencies, (PIAAC) collected considerably more information on the use of skills in the workplace than did previous surveys. Furthermore, it is not only a opinion survey, but contains an assessment and testing of competencies. It builds on previous methodological experience with similar surveys like the Adult Literacy and Lifeskills Survey, (ALL) or the International Adult Literacy Survey (IALS).

Proficiency in literacy, numeracy and problem solving in technology-rich environments is positively and associated with the probability of participating in the labour market and of being employed and earning higher wages.

- The strength of the relationship between proficiency and labour market participation, employment and wages varies considerably among countries.

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This is likely to reflect differences in institutional arrangements (such as wage setting) and an indication that neo-institutional theories (Hall/Taylor 1996)⁶ are very important complementary approaches in contrast to OECD’s dominating human capital approach (Becker 1964). It stresses the essential need for an integrated model beyond narrow economic approaches (Boeren et al 2010)⁷ The relative weight given to educational qualifications and other factors in employers’ hiring, promotion and wage-setting decisions.

- Educational qualifications and proficiency in literacy, numeracy and problem solving in technology-rich environments reflect different aspects of individuals’ human capital that are separately identified and valued in the labour market. The segmentation of the labour market in different subareas are essential factors (c. Behringer/Kampmann/Käpplinger 2009)⁸ in understanding how competencies are valued in the labour market. The seemingly rising feature of precarious work in some sectors even for high-qualified academics shed light on complex relationships between skills and their labour market value.

- Proficiency in literacy, numeracy and problem solving in technology-rich environments is positively associated with other aspects of well-being. The debate on the so-called “wider benefits” is the basis for this interest and the scientific foundation (c. CEDEFOP 2011, Schuller 2004)⁹. In all countries, individuals who score at lower levels of proficiency on the literacy scale are more likely than those with higher levels of proficiency to report poor health, believe that they have little impact on the political process, and not to participate in associative or volunteer activities. In most countries, individuals with lower proficiency are also more likely than those with higher proficiency to have low levels of trust in others.

- The results suggest that, independent of policies designed to increase participation in education and training, improvements in the teaching of literacy and numeracy in schools and programmes for adults with poor literacy and numeracy skills and limited familiarity with ICTs may provide considerable economic and social returns for individuals and society a whole.

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Diversification of competencies among working adults

The type and number of competencies exhibited by working adults are affected by their work description. However, what the PIAAC assesses is not vocational skills related to specialist knowledge. Still, as has been highlighted, comprehension of written texts and mathematical thinking are essential elements of everyday existence in its different domains, including the work context, and considerably condition the processes of gaining new skills and qualifications, as well as the development of knowledge. A substantial diversification of skills was found among these working adults studied in the PIAAC who held positions requiring high-level skills and larger knowledge. It was also shown that representatives of modern business sectors scored higher in the PIAAC.

The structure of the Polish economy differs from that of developed countries, including Germany, by having larger shares of agriculture and industry (8% and 32%, respectively, against the average of 3% and 27% in the OECD countries) as well as a higher ratio of physical workers with intermediate skills to all the employed (32% against 22%).

Graph 1. Intermediate skills of the employed (aged 26 – 65 years) according to work groups in selected countries (the dotted line marks the OECD mean average for particular work groups)

[Left: Literacy; countries: the Czech Republic, the Netherlands, Ireland, Germany, Poland, Sweden, Italy; Right: Numeracy; countries: as above; Legend: / diamond/ high-skilled office workers; / triangle/ physical workers with intermediate skills; / square/ office workers with intermediate skills; / circle/ workers in unskilled occupations]

Noteworthy are the results in the work groups of physical workers with intermediate skills and workers in unskilled occupations: they are at the level of the economically inactive in Poland. Moreover, the relation between the average scores in these groups may raise some questions; while the former attain far better results in reading comprehension and mathematical thinking tasks in the OECD countries than the latter, in Poland the differences in the results are negligible. To a large extent, it results from the educational structure among the employed: those with primary school or junior high school education occupy positions for physical workers with intermediate skills three times more often than the positions of workers in unskilled occupations. In Poland the positions requiring high-level skills are taken up by university graduates (73%); office jobs involving intermediate skills are dominated by high school graduates (40%); while physical work positions are predominantly occupied by people with vocational training (51%). The differences in the educational structure of women and men directly affect dissimilar work structure among women and men. Almost half of all workplaces held by men between 25 and 65 years of age classifies as positions for physical workers with intermediate skills (as many as 48%); a third falls into the category of high-skilled office workers. Whereas over a half of all women found employment in high-skilled occupations (51%); 13% of women work physically.

Graph 2. Percentiles of skill distribution among the employed (aged 25 – 65 years) in Poland according to economic sec

[Left: Literacy; Poland against OECD 22 in terms of Agriculture, Industry, Services; Right: Numeracy; Poland against OECD 22 in terms of Agriculture, Industry, Services]


By far the highest results, both in Poland and in many other OECD countries, were achieved in Services. The share of Poles working in this sector
scoring 4 or 5 in the reading and mathematical components was 15% and 13%, respectively, which is a good score. It evinces that the sector of services is characterized by diverse competencies of the employed. The top-scorers, according to the PIAAC, are those whose work is related to services in IT, finance, insurance, communication, advertisement, marketing, real estate, tax counselling and accountancy, for example. These services comprise a group referred to as the Modern Services. Its representatives had the average result of 299 points in reading comprehension and 295 points in mathematical tasks. Another group of services – the Traditional Services – involves, for instance: trade, transport, hotel industry, catering industry, security and maintenance. Here the results are similar to the mean average of all the employed in Poland and, at the same time, approximate to the mean average of the representatives of a respective group in the OECD countries.

Graph 3. Percentage of the employed (aged 25 – 65) in Poland and in OECD countries according to skill levels and type of workplace

[Left: Literacy; Poland against OECD 22 in the categories of /top to bottom/ Healthcare, Education, Public Administration, Modern Services, Traditional Services, Industry, Agriculture; Right: Numeracy; Poland against OECD 22 in the categories of /top to bottom/ as above;]

Legend: Below 1, Level 1, Level 2, Level 3, Level 4 or 5]

The results of the Polish farmers are disturbingly low. They comprise a group endangered by a low level of competencies and, as such, by social exclusion. The estimates suggest that more than one in three people working in agriculture have poor reading comprehension skills and mathematical thinking, e.g. Level 1 or Below 1. The mean average of the scores achieved by the employed in Agriculture is lower than that of the economically inactive. Those working in the Modern Services and in Education are more probable to reach Level 4 or 5. The fact that the overall Polish score is below that of the OECD countries, to a large extent, stems from the structure of the Polish economy: inasmuch as high-skilled office workers and those occupied in the service sector perform comparatively well against the international results, the representatives of the Traditional Services (Agriculture and Industry) and physical workers, who are relatively more numerous in Poland, underperform when compared with the OECD scores.

**Unused competencies**

The PIAAC results indicate that competencies held by a large group of people are unused; a third of those in the age group between 25 and 65 years is unemployed in Poland. The economically inactive or the unemployed are quite often relatively high skilled. The latter, especially those without employment for no more than two years, have competences at a high level. The longer they remain out of work, the bigger deterioration in their competencies will be noted. Having analysed Graph 8, it becomes evident that the distribution of skill levels of the respondents who stopped working within the last year does not differ much from the skill levels showcased by those whose period of unemployment extends from one year to two years. Lower skill levels of people out of work for a longer period of time should be subject of future projections aiming at a change for the better. At that point the promotion of lifelong learning is of paramount importance. In Poland people who have finished the formal education are not willing to undertake further education. It is a result of a still unpopular learning culture in the Polish society. These people do not have any motivation for educational activities, which are essential for the development and maintenance of competencies and qualifications. By increasing their motivation, there may appear more proactive development trainings.

The issue of unused work force may be discussed not only with reference to the unemployed but also to the employed whose skills and qualifications are underused. For the purposes of the PIAAC, the respondents who had the status of hired worker (wage worker) were asked to determine the level of education necessary to perform their work, which, after the juxtaposition of their answers with their current education, enables the researchers to assess if acquired qualifications match occupation requirements in the studied society. Graph 8 presents that almost one in three people working in Poland (31%) judges their
qualifications as too high for the work performed by them; 16% of the questioned point out that their work requires high qualifications. After the analysis of Graph 8, it is possible to formulate the first conclusion, namely: the qualifications vary across the age limits of and education gained by the employed. It is worth to mention that the largest number of people considering subjectively their qualifications too high were those holding BA degree or graduates from technical high schools or colleges (after high school). It can be assumed that they occupy positions which necessitate only comprehensive high school or vocational school education.

Graph 4. Percentage of the unemployed (aged 25 – 65 years) in Poland according to skill levels and unemployment period length.

[Left: Literacy; /top to bottom/ Up to a year, 1-2 years, Over 2 years; Right: Numeracy; /top to bottom/ as above; Legend: Below 1, Level 1, Level 2, Level 3, Level 4 or 5]


The share of respondents admitting that they would manage to handle more challenging tasks at work is larger in groups of older people (about 60% of employees between 55 – 65 years of age against approx. 45% of employees between 25 – 35 years of age). Bearing that result in mind, it is worthwhile to delve into the issue and verify if it is really true that the potential of older workers is underused in the Polish market. A good starting point for these analyses could be The Study of Human Capital (Bilans Kapitału Ludzkiego (BKL, 2011)) and its results. It is now known that the already-recognized work deactivation happening to employees of over fifty years of age is preceded by educational deactivation occurring to them even ten years earlier. In order to counteract the premature work deactivation, the public interventions aiming at the postponing of that negative phenomenon through investment into human capital should be concentrated on the age group 40+ rather than 50+. The BKL study suggests that the over fifties tend to implement decisions taken earlier in
life. The clearly longer work activity of these people and their statements to the effect that they would successfully deal with more demanding responsibilities should be reflected in the adjustment of the policy supporting older workers in the labour market; by an in-depth analysis of solutions to this matter; by application of knowledge management methods and motivational theories; and by following the examples of European good practices.

Graph 5. Percentage of hired workers (wage workers) aged between 25 and 65 years in Poland considering their qualifications too high, insufficient or adequate for work performed according to their age and education

[Right: Junior High School or Primary School, Vocational School, Vocational High School, Comprehensive High School, College, BA Studies, MA studies; Legend: Insufficient qualifications, Adequate qualifications, Too high qualifications]


Summary of the case of Poland

The competencies assessed in the PIAAC are useful for the existence in today’s world, development of knowledge and acquisition of new skills. The PIAAC provides information on the relation between competencies, education and the situation in the labour market. The data collated in the survey enable the evaluation of the quality of human resources and, in consequence, the appraisal of the economic potential, social cohesion, as well as the identification of groups threatened by social exclusion on account of their poor skills. Moreover, the analysis of the results allows for better understanding of such issues as, for example:
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– results achieved in particular educational systems;
– adjustment of the educational offer and trainings to the needs of the labour market;
– provision of conditions for equal access to education and mobility across generations;
– migration of the young from the system of education to the labour market;
– relation between the skills studied and socio-demographic characteristics.

Poland has a good standing in the sector of Services (including the Modern Services), Healthcare and Public Administration; the sector of Education leaves, however, some room for improvement. Yet, indisputably, over the past fifteen years the Poles have been performing better and better in international surveys, regarding both social capital and functional literacy and numeracy. On the one hand, it is a result of rising schooling rates at each and every level of education, including higher education, where – in view of tightening competition and premises of the National Qualifications Framework – more and more attention is being devoted to the development of skills and attitudes rather than sole acquisition of knowledge. Another reason for higher scores is not any effect of undertaken activities but rather a result of the oldest workers becoming retired, as it is they who are characterized by the poorest education and lowest scores in literacy, numeracy and competency tests.

Economic and social transformations lead to changes in the demand for skills. Apart from the acquisition of work-related skills, the 21st century demands from employees also the skills to process information and a variety of ‘general’ skills. What is emerging as the key issue is the skill of learning, which is useful at work and in periods of insecurity due to the dynamics in the labour market.

The case of Germany – A spotlight on the interpretation of results

The publishing of the results of PIAAC resulted in a quick response by a diversity of actors in Germany. Employer’s associations focused on the position of Germany in the middle of all benchmarks of PIAAC and asked for better educational policies. The trade unions focused on the issue of social selectivity and asked for measures in the field of second chance education. The German folkhighschools as biggest provider of adult education asked also for measures in the field of basic education. More responses could be recalled, but overall the result of the social selectivity (“Matthew principle”) received very much attention, although this result is already well known in Germany since research literature on this issue is existing for years.

Another result which received very much attention was pointing out to the PIAAC result that the younger cohorts showed better results than the older cohorts.
This diagram shows that the younger cohorts (the columns to the left) explicate much better results in literacy than the older cohorts (the columns to the right). For example, 14.0 per cent of the people aged 16 to 24 years show skills on the literacy level IV/V, while this is only valid for 3.4 per cent of the people aged 55 to 65 years. The federal ministry of education interpreted this result as an indication that educational reforms after PISA 2000 have been successful and showing impacts (BMBF 2000\textsuperscript{10}). Members of the German PIAAC consortium have been supporting this view in conference in relation to PIAAC and its seemingly connection with reforms after PISA.

I would like to question this interpretation. Firstly, I think it cannot be confirmed as evidence by the data, when considering causality seriously, but can only have the status of an hypothesis to be proven by further multivariate analysis if possible. Secondly, I think this special case demonstrates as an example that we have to be very cautious when using PIAAC data in an explanatory fashion. It is far too early for this and we need extended and theory-based analysis in coming to valid explanations. I will justify my perspective in relation to this case example. I see at least xy reasons to challenge the interpretation that young adults perform better because of PISA reforms:

a) **Data quality: Do the literacy testing items function comprehensively for all age groups?**

It remains to be checked if the decreasing literacy skills of older adults might be an artifact caused or overstretched by the test design. It is well known from competency testing that the choice and construction of test item can advantage or

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\textsuperscript{10} Press release from the 8\textsuperscript{th} of October 2013. http://www.bmbf.de/press/3517.php
disadvantage social groups. For example, it has become standard to test PISA
tests in relation to gender-related strength and weaknesses. These so-called
differential-item functioning tests (DIF) help to prevent unfair test designs. These
DIF have become standard in PISA and other tests, which are solely focused on
one age group. PIAAC is much more complex since it compares different age
groups. Despite extended research I could not found any information if the test
design was tested in relation to its intergenerational test design. For example,
which test effects and results are becoming visible when observing the test
responses over time? The average duration of filling-in the whole PIAAC
questionnaire was almost two hours. Did older adults demonstrate a greater test
fatigue than younger adults during this extended test period, which efforts also
a good physical health? Is it intergenerationally fair to ask in one literacy test
question for finding information in a product insert if the drug can be given to the
own children? Such a situation is of course many younger adults (with young
children) much more familiar than older adults. Such and other methodological
questions are important when comparing different age groups. Overall, the
publically available quality reports of PIAAC are rather brief and follow the
strategy to stress the high data quality without giving deeper insides. Readers and
experts are moved to be believer in the data quality, which is not enough from my
point of view. In a knowledge society, knowledge producers should be very
transparent with their knowledge production.

b) Data quality: What is really measured by the PIAAC tests?
PIAAC seems to measure the crucial basic skills for our contemporary societies.
But is this really true? Firstly, the whole complex of social-emotionally
competencies is missing in PIAAC. There are many scholars like the Nobel prize
laureate James Heckman who stress that social-emotional skills at least as
important for the economical success in life than cognitive skills, which are
solely measured by PIAAC or PISA. The missing complex of social-emotional
skills might disadvantage older adults who might here have their strength,
because of a higher experience. PIAAC does not measure all relevant basic skills
of adults, but a certainly important but not comprehensive part of it. PIAAC gives
predominantly information about some cognitive skills of adults. Social and
emotional skills are almost not at all measured.

c) Results: Can PIAAC results be linked to PISA results and reforms after
PISA?
The above cited diagram does not support equally the view that the young
people have profited from the reforms after PISA and perform because of this
reason better. Firstly, the youngest age group (and thus the likely biggest
profiteers from reforms) perform worse than the second youngest age group of

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11 For example, in mathematics women tend to have strengths in relation to test questions which
make use of graphical/visual knowledge. In contrast, men tend to have advantages in relation to
test questions which require to find the solution by calculating intermediate results. Even the
seemingly so objective mathematics are gendered.
the people aged 25 to 34. This becomes visible when comparing the two columns to the left of the diagram above, where 16.5 per cent of the group has very high skills, while this is “only” valid for 14.0 per cent of the youngest. The age group of the people aged 35 to 44 performs almost identically than the youngest age group. The main gap between cohorts and their results exists for the people of 45 years and above. Overall, only a superficial glance at the results of the age groups supports the view that cohorts after the reforms perform better. A closer glance tends rather to raise doubts or indicate the opposite. But even more important it has to be stressed that without multivariate analysis it cannot be seriously estimated what are the effects of the reforms after PISA. The age cohorts and their skills are also affected by a high number of other context influences during the life course. For example, which influence has the system of initial vocational training? Which influence has the working place on skills? Which influence has the tendency to “learn for the testing” after the PISA reforms? Which influence has unemployment or the general economic situation on the skills of different cohorts? Which influences have policies in relation to retirement? There is a magnitude of factors and variables which have to be checked in multivariate analysis before arriving to any serious estimation which effects reforms after PISA have. Advocates of the hypothesis of a positive effect of reforms after PISA argue with this diagram:

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<tr>
<th>Countries</th>
<th>CH 88-97 Age 16-24</th>
<th>CH 78-77 Age 25-34</th>
<th>CH 66-77 Age 35-44</th>
<th>CH 58-67 Age 45-54</th>
<th>CH 47-57 Age 55-65</th>
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Countries are ranked according to the size of the difference between the youngest and oldest age cohort. OECD average for all countries participating in the study PIAAC outside Cyprus. Those without measuring competence are not included.

a Country with a very large share of people not to be measured competence; These results can be interpreted in a limited way. CH = cohort

Graph 7. Reading competencies in different age groups in international context

Source: Rammstedt at al 2013, p. 98.
The selective and rudimental comparative argument is that Germany compares better than England, where less reforms have been implemented after PISA. The overall relatively bad English or US American results explicate a very little span between the skills of younger and older adults (see spans to the right of the diagram), while the span is much bigger in Germany, which might demonstrate big improvements of the educational system over time in Germany. This is a bold interpretation and a typical example for a selective usage of comparative data. Without knowing more about national contexts and connections between education, training and working, it is ridiculous to try to explain cross-national differences solely by one institutional reason. The political, social and economical frameworks of central European countries and the Anglo-Saxon countries differ fundamentally in almost every aspect. The same holds true for the comparison of European countries with Eastern Asian countries like South Korea or Japan, which have also fundamentally different frameworks. Why should only educational reforms in the schooling sector lead to differences in results over the life course? We need here substantial and well-informed comparative research before we can really compare countries and explain cross-national differences. Almost everything else is before on the level of hypotheses or educated guessing.

d) Results: The yet unsolved challenge of causality

Overall, this brief exercise based only on one PIAAC results demonstrates the paramount challenges in dealing making use of the data beyond descriptions. PIAAC data gives us some more insights in the distribution of some certain skills around the life course. PIAAC does not cover all essential life skills. We do not know what leads to the different distribution of PIAAC skills around the life course. Which relative importance has the educational system? Which relative importance has the employment system? Which relative importance has the welfare system? We cannot seriously estimate the exact values since these systems are nationally intertwined and even on national level exist often big difference between different regions. For example, instead of the explanation of the better results of the younger German cohorts by reforms after PISA, another explanation could be also reasonable. The other explanation would stress on the positive effects of the dual system for younger cohorts, because it leads to a relatively low youth employment and thus frameworks which lead to inclusion and learning friendly environments in the early phase of a vocational biography. This advantage is obvious when comparing it with countries like England which traditionally struggle with a high degree of youth employment. Paradoxically, the advantages of the dual system can become a disadvantage in the latter life course since transitions to better and enriched employment in older age are for many people educated in the dual system are less good than in societies and labor market where transitions are easier. This is also only an informed assumption and hypothesis, but it seems to be at least as reasonable as the prominent and politically forced explanation of a positive effect of the
reforms after PISA. We need a set of different and competing hypothesis in order to explain the PIAAC results. These different and competing hypothesis have then to be tested in theoretical informed, context sensible and multivariate analysis with the PIAAC data. Only in this way we can arrive to a better understanding of PIAAC results. In addition, these PIAAC results are presently “only” a snapshot of the present situation. We need the longitudinal data of next PIAAC waves in order to assess the real effects of changes in the educational, economical or political frameworks.

**Conclusion: A step forward by PIAAC in unknown and known fields of knowledge**

PIAAC delivers a lot of new and interesting information of adult’s skills during the life course. This is explicitly valid on national level and implicitly valid on cross-national level. The data is of great and especially of great prospective value. Therefore, we need extended and in-depth research on the data, we should be very cautious in interpreting the data too rapidly and especially interpreting it in casual ways. Especially, it is difficult to come yet to policy- or practice-relevant conclusions, which go beyond the existing body of knowledge. It is overall a core requirement to relate PIAAC results to the existing body of knowledge. This means relating the results to theories and the results of other surveys and studies. Many results of PIAAC do not surprise (e.g. a skill gap between urban and rural areas) and there are many other studies which direct in similar directions. It could be an advantage when analysing and interpreting PIAAC results to make use of analytical approaches and results of other studies. It is not necessary to start totally anew when looking at PIAAC results. This should also mean to combine qualitative and quantitative approaches as complementary features and not as competing forces like it is often unfortunately done.

In addition or as example, adult learning cannot be solely explained and framed by human capital theories and approaches. This is one important feature, but we should never forget that education and learning is wider and a narrowing it done to economical interpretations would in the long run even undermine the economic value of education and learning since creativity, democratic engagement or social cohesion cannot solely achieved by a functional economic education of the homo oeconomicus.

We have also bear in mind that not all things and everything can be measured. For example, PIAAC measures a selected crucial set of skills, but it is nonetheless only a selection. Important skills in a global world like transcultural skills (e.g. skills in a foreign language) or social-emotional skills are not covered by PIAAC. It would be very dangerous to promote politically only skills in mathematics, basic literacy and IT skills in reaction to PIAAC. These skills are of course important, but there are other cultural, social and democratic competencies, which are also very important and even more important if we want to secure or democratic achievements.
PIAAC is an international survey. The benchmark approach in comparing countries is prominent. The most popular reaction to such surveys is to look at the national position. Is the country at the bottom placed of the league table placed, action is often seen as being needed. Countries in the “leading position” become the objective of “educational tourism” in order to learn from the “good ones”. Real and valuable comparative research should go beyond this rather narrow benchmark approach and involve in-depth comparative research beyond only comparing national averages. Firstly, we have to check the methodologies if the country difference are really caused by differences in realities or if the difference caused by differences in the implementation of the surveys in different countries and contexts. The OECD policy to mainly stress high data quality without being very transparent on the data quality is not enough for a critical-constructive discussion in a knowledge society. Secondly, education cannot be done without referring to different values and there are certain tensions between values. We cannot focus solely on performance results, but we have also to think about the ways education is being done and what we want to achieve on societal and individual level. Thirdly, the usage of league tables tends to promote a development, where education becomes only a media issue if the results are bad. This contributes to a certain scandalizing when talking intensively about education. It remains questionable if such an atmosphere leads to a positive learning climate.

PIAAC can be welcomed in relation to adult education, because it sheds light on the learning in the life course. This is continuously important since PISA contributed to the traditional narrowing down of education to the early life course. Thus, PIAAC acknowledges that adult education is also very important and if we want to achieve really knowledge societies for which we cannot prepare people only in the first 15 to 20 years of their life. Lifelong learning needs continuous efforts and especially public (co-)investment over the whole life course.

Translation: CONVERSA Translation Office (s. 261–273)
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Netography

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Słowa kluczowe: kompetencje, Międzynarodowe Badanie Kompetencji Osób Dorosłych (PIAAC)

Streszczenie: Artykuł analizuje wyniki uzyskane przez Polaków i Niemców w Międzynarodowym Badaniu Kompetencji Osób Dorosłych (PIAAC). Artykuł prezentuje dwa różne podejścia i perspektywy. PIAAC jest badaniem międzynarodowym. Punkt odniesienia w porównywanych krajach jest widoczny. Kraje na „pozycji lidera” stają się celem „turystyki edukacyjnej” w celu uczenia się od tych „dobrych”. Badania porównawcze powinny wykrać poza to raczej wąskie podejście porównawcze. PIAAC jest istotne w odniesieniu do kształcenia dorosłych, gdyż rzuca światło na uczenie się w trakcie całego życia.

Kompetenzen von Polen und Deutschen in (PIAAC)


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