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Some Challenges for the Teaching Profession

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Abstract

Purpose and problems: The purpose of this article is to investigate some challenges for working teachers and to present selected issues that are not always known and understood, but which concern one of the key problems of education: the profession of teaching.

Research methods: In this article, the “teacher” aspect is examined in a comparative context: from the perspective of social, economic and political conditions. For this purpose, methods of comparative analysis relating to a number of indicators and information from an international perspective are used (based on a critical choice of data from different studies). This helps clarify some relationships that can be found.

Structure of the article: The article consists of three parts. The first part focuses on inclusive education (here limited mainly to the inclusion of culturally and linguistically diverse students). The second addresses the financing of education and the work of the teacher (with a focus on student performance against this background), whilst the third part covers issues such as digital transformation and scientific capital.

Research findings and their impact on the development of educational sciences: The information and theses presented herein allow one to look at the teaching profession in a way that is less pedagogical and more political or social.

Results/recommendations: Firstly, the paper shows that many teachers are not well-prepared to teach students from different ethnic backgrounds, speaking foreign languages etc. A second, somewhat more widely discussed point is that teachers generally earn less than workers with similar education. Furthermore, in some cases, it is not always more funding for education or higher salaries for teachers that result in better student performance. Thirdly, teachers should keep up with the digital transformation and teaching needs connected with science capital.

Keywords: teaching profession, inclusive education, expenditure on education, teachers' salaries, student performance, scientific capital

Introduction

In this article the “teacher” aspect is examined in a comparative context – not from the perspective of didactics or upbringing, but primarily from the perspective of social and political conditions. This approach does not exclude consequences for teaching work. This is the reason why teachers, candidates for the profession and education policymakers should know not only about pedagogical ideas and new trends emerging in the educational sciences, but also about certain facts, processes and comparative research that concern the teaching profession. The article only discusses and analyses, which is due not only to the limited length of the article, but also to the fact that the author’s point of view is not always widely known. This analysis is based primarily on large international reports, each of which takes into account data from dozens of countries and concerns students, teachers, employees and expenditures on education. Reports and studies supervised by the OECD, such as PISA, TALIS and Education at a Glance, were helpful here. UNESCO’s studies devoted to inclusive education were also used. These data are worth analysing because they are comparable, based on the same methodology, and – above all – they allow current and not always visible trends to be “read”. They also constitute a starting point for predicting the development of these processes in the future.

Inclusive education

Two main trends can be distinguished in research on inclusive education. The predominant one refers to the inclusion of students with various disabilities in the public school system. The assumption is that the degree of disability does not qualify these students for special schools; this strand of inclusive education complements or replaces special education. In addition to the benefits that accrue to all students in this system, financial aspects are sometimes decisive (teaching in special schools is significantly more expensive than including several students with disabilities in a public school classroom). Parental pressure for their children to develop in an environment of non-disabled students sometimes occurs, as do financial issues, resulting in valid opinions that there are too many disabled students in the inclusive education system.

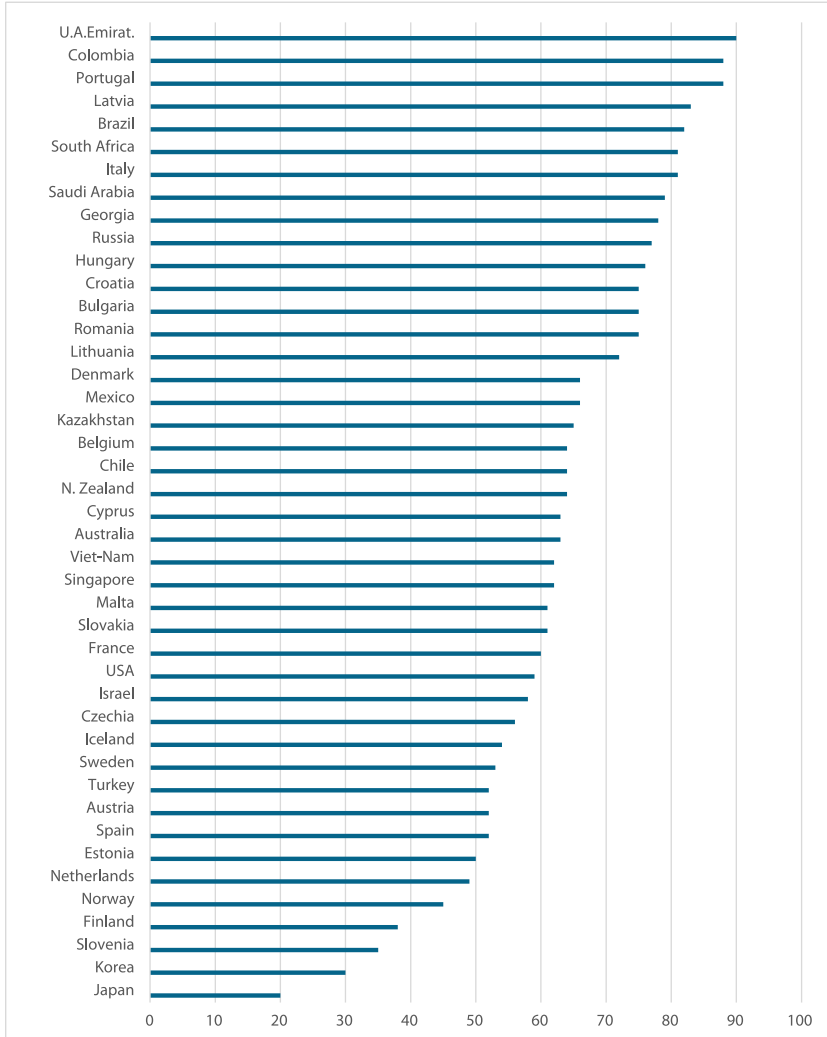
Therefore, inclusive education concerns students with certain developmental deficits as well as those who are diverse culturally, linguistically, religiously, etc. It is the second strand of inclusive education, which – due to the large number of such students – predominates in many countries. In both cases (strands), we can define inclusive education as “such a way of organizing the educational environment, the educational materials, and the way the classes are conducted that enables the participation of a diverse group without special adjustments” (Olechowska, 2022).

In recent years, a second strand of inclusive education has become increasingly important in pedagogical theory and practice, as shown in publications/reports and webinars (e.g. UNESCO, 2020, 2022). The foundation of inclusive education is to ensure that all teachers are prepared to teach all students (UNESCO, 2020, p. 137). This simple but not always easy principle is implemented differently mainly because teachers are unevenly prepared for such teaching. Standards and qualifications vary depending on the country, and a gap in school systems’ identification of difficulties faced by students remains a common problem in many countries. In particular, this concerns access to learning, participation in education and finding solutions to overcome these difficulties (UNESCO, 2020).

Inclusive teaching requires teachers to recognise each student's life experiences and abilities to be open to diversity. In 2012, the European Agency for Special Needs and Inclusive Education identified four key teacher values and competence areas within inclusive education:

- to support all learners (promote academic, practical and social learning)
- to cooperate with others (parents, professionals and other teachers)
- to value and respect student diversity
- to engage in professional development (starting from infant teaching) (European Agency for Special Needs and Inclusive Education, 2012, as cited in UNESCO, 2020).

Figure 1. Percentage of teachers who adapt their teaching to the cultural diversity of students (UNESCO, 2020)



Source: UNESCO (2020). *Global Education Monitoring Report 2020: Inclusion and education: All means all*. Retrieved from: <https://gem-report-2020.unesco.org/figure 6.1>, p. 140

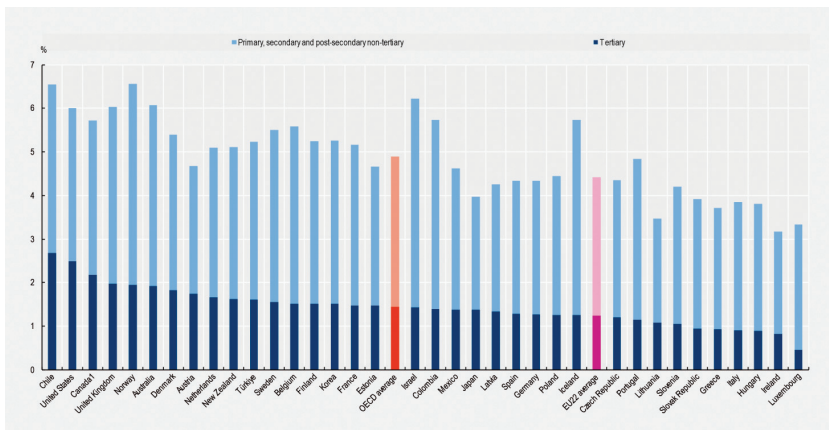
According to these reports, teaching practice often deviates from the declared demands and principles. This is indicated by the data provided in UNESCO reports (2020, 2022; referring to 2019 OECD sources): among the 43 average and “very rich” countries surveyed, many teachers failed to meet the diversity challenge. In Norway, Finland, Slovenia, South Korea and Japan, less than 50% of teachers indicated that they had adjusted their teaching to the cultural diversity of their students (in Japan it was only 20% – there may be no need there), whilst in Portugal, Colombia and the United Arab Emirates, the rate was around 90% of teachers (see Figure 1; UNESCO, 2020, p. 140). In another survey, only 35% of teachers from 48 countries stated that teaching in a multicultural or multilingual environment was included in their formal education and professional preparation, whilst only 25% felt that they were well or very well-prepared for such a task (TALIS, 2018, Table 1.4.20). More than 50% of teachers stated that they were not well-prepared to teach in a multicultural/multilingual environment (TALIS, 2018, p. 99). It is also important to mention that few countries provide initial courses for teachers (before they join the workforce) on inclusive education. Thus, teachers feel a great demand for professional development regarding the teaching of students with special educational needs, which corresponds to inclusive education.

In Poland, inclusive education, understood in the second sense, encounters much fewer difficulties than in racially, religiously and culturally diverse countries. However, many educational institutions have faced this problem along with the arrival of children from Ukraine – generally addressing them in a positive manner. In April 2023, according to the Polish Ministry of Education and Science, the number of Ukrainian children in Polish kindergartens and schools was 187,900 (of which, 43,800 where in kindergartens). Outside the Polish education system, there are also Ukrainian students studying online within the Ukrainian education system.

Education and teachers funding and student performance

Expenditure on education (primary, secondary, and post-secondary education) is not only the result of individual countries prioritising education, but also of their capabilities (due to their economic development or wealth). Total spending on education and tertiary education – as a percentage of gross domestic product (GDP) estimated by the OECD (Figure 2) – ranged from just over 3% (Ireland, Luxembourg and Lithuania) to around 6.5% (Norway and Chile). In Poland, this indicator has remained at 4%–4.5% for many years. Poland had a similar level of educational expenditure “effort” as, for instance, Estonia, Spain, Latvia, Germany and Czechia, for which total expenditure on education ranged from just over 4% to 4.4% (OECD, 2022, p. 254).

Figure 2. Total expenditure on educational institutions as a share of GDP (2019)



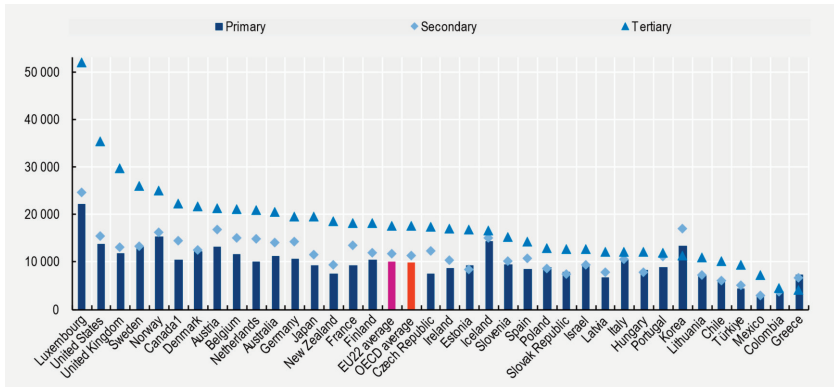
Source: OECD (2022). *Education at a Glance: OECD Indicators*.

Retrieved from: [https://www.oecd.org/education/education-at-a-glance/figure C2.1, table C2.1](https://www.oecd.org/education/education-at-a-glance/figure-C2.1,table-C2.1)

Issues related to – and just as important as – education and funding post-secondary and tertiary education are expenditures **per** primary and secondary school **student**, expressed in USD. They are correlated

positively with per capita income, as indicated by a comprehensive OECD report, among others (*Education at a Glance*, 2022, p. 259). However, these relationships are not always clear in their interpretation. Spending per student is generally much higher than per school attendee (Figure 3). In the richest countries, the former is generally well over USD 20,000 (in Luxembourg over USD 52,000 and in the USA USD 35,000). The highest spending per student, on the other hand, is only several thousand USD (except for Luxembourg: USD 22,000–25,000). Polish expenditure per school attendee and per student places it among countries with much lower unit expenditure (among the dozens of OECD countries compared, not among the poorest countries – quite the opposite). The estimates for Poland were over USD 8,000 per school attendee and approximately USD 13,000 per student (OECD, 2022, p. 238).

Figure 3. Total expenditure per full-time equivalent student by level of education



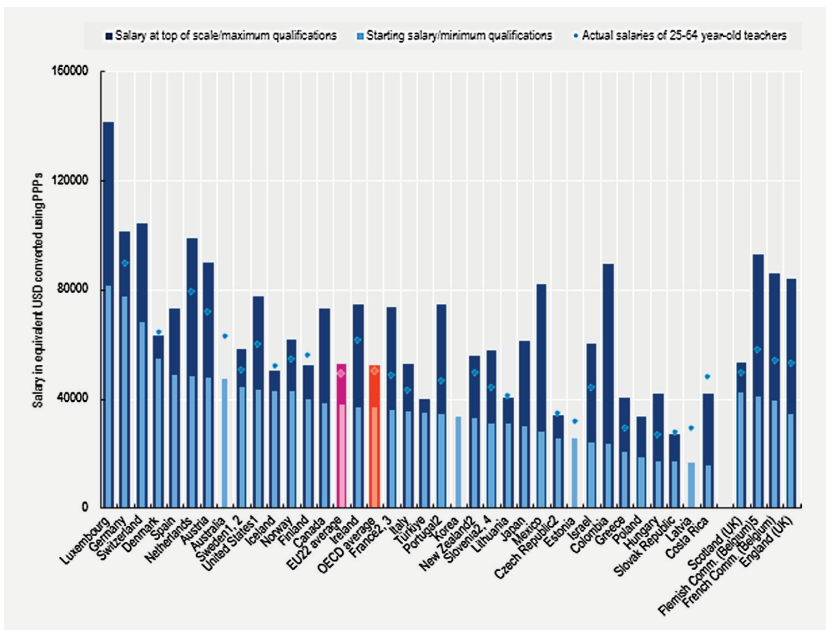
Source: OECD (2022). *Education at a Glance: OECD Indicators*.

Retrieved from: <https://www.oecd.org/education/education-at-a-glance/> Figure C1.1, Table C1.1

An analysis of the average **annual earnings** of lower secondary public school **teachers** (years 7–9), assuming that these are average earnings for all teachers, shows that they vary greatly, as does the level of material affluence in these countries. The annual average for OECD countries is

USD 50,000 in terms of the purchasing power of that currency in that country (Figure 4); moreover, the average annual salary in the 22 countries of the European Union is similar: USD 49,000.

Figure 4. Lower secondary teachers' average actual salaries compared to the statutory minimum and maximum salaries (2021)
Annual salaries of teachers in public institutions, in equivalent USD converted using PPPs



Source: OECD (2022). *Education at a Glance: OECD Indicators*.
Retrieved from: <https://www.oecd.org/education/education-at-a-glance/> Figure D3.2

By far the highest paid teachers were found in Luxembourg, Switzerland, Germany and the Netherlands, where the average annual earnings of teachers in lower secondary schools in 2021 were USD 99,000–104,000 and even exceeded USD 141,000 (Luxembourg). Significant variations in teachers' salaries are mainly due to a country's economic development, often expressed in terms of per capita income. As such, they are a reflection

of a country's capabilities, but also of its policies towards teachers' salaries. There are countries where teacher salaries are lower than the per capita national product, for example, Sweden, Norway, Latvia, Czechia, the USA and Ireland, where per capita income in 2021 was almost double the average annual salary of a teacher in a lower secondary school (tradingeconomics.com, n.d.). Perhaps the affluence and labour market do not force the governments of these countries to overcompensate teachers. There are also countries where teachers' salaries far exceed the per capita income – e.g. Germany, the Netherlands, many other European countries, Australia and some South American countries (e.g. in Costa Rica, teachers' salaries are more than double the material well-being index as measured by per capita income). This may be evidence of the importance that the governments of these countries attach to the remuneration of teachers for their work; it may also be presumed that there is a high prestige of the teaching profession there.

Comparing teachers' salaries in schools equivalent to lower secondary schools (years 7–9) **with the earnings of employees with an education level similar to that of a teacher or above secondary** (tertiary education) is a very meaningful indicator of the teachers' earnings. A few countries have developed indicators that provide at least some insight into the positioning of teachers' salaries in relation to professions that require a similar level of education as teachers. A comparison of the average annual salaries of teachers to those of workers with a similar level of education shows that among the countries analysed, there were none in which teachers' salaries exceeded the earnings of similarly educated workers. Only in Germany, New Zealand and Flanders (Belgium) was the ratio 0.92–0.95; in the USA it was only 0.54 (OECD, 2022, p. 346).

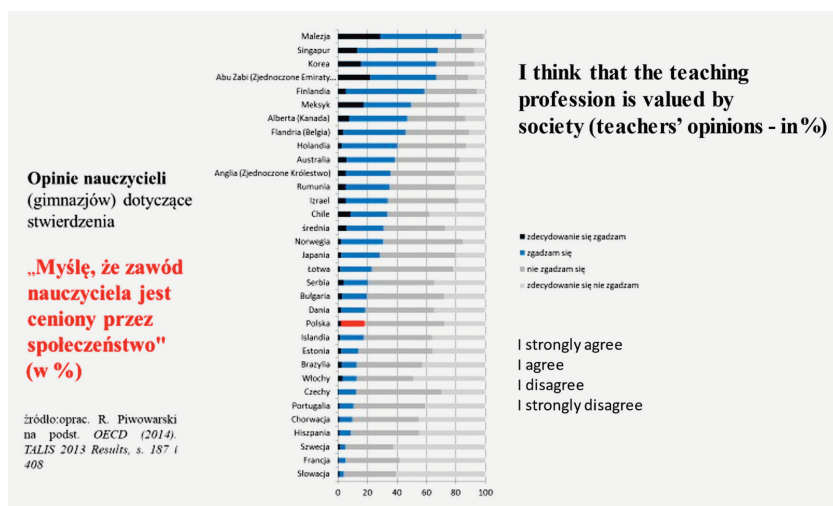
Considering a similar indicator, where the benchmark is the earnings of workers with tertiary education, the position of teachers is slightly better. However, in only four countries (of the 20+ analysed) were teachers' salaries higher (in Costa Rica it was 1.47, in Portugal 1.33, in Lithuania 1.31 and in Ireland almost equal: 1.03; OECD, 2022, pp. 328, 346). The pay gap between teachers entering the profession and teachers with the highest qualifications is generally no longer determined by the economic situation

or “wealth” of individual countries. For example, salaries of beginning teachers in Turkey, Denmark or Iceland are only slightly lower than those of the teachers with the highest qualifications and the longest seniority in the profession. In Colombia, Costa Rica and Israel salaries of beginning teachers are less than half of those of the best paid (Figure 4).

It is worth mentioning that, despite the considerable variation in teachers’ salaries in most of the countries analysed in this article, the pay of teachers (in this case, lower secondary school teachers) is worse than that of all workers with education above secondary level; remuneration policies for teachers’ work – which are the result of multiple determinants – are similar.

Is the inferior pay of teachers in relation to other professions a factor making the teachers themselves feel undervalued? It seems that an excerpt from the 2013 TALIS survey may shed some light on this issue. It is interesting to compare the opinions of 105,500 surveyed teachers from lower secondary schools in 34 countries and regions regarding the statement, “I think the teaching profession is valued by society.”

Figure 5. Teachers’ view of the way society values the teaching profession



It is worth pointing out that teachers from South-east Asian countries were the most convinced that they are valued by society. Out of the European countries, Finland ranked the highest; nearly 60% of the teachers surveyed there believed that the teaching profession is valued by society. Perhaps it is no coincidence that students from these countries also ranked in the highest positions in school achievement surveys. Furthermore, in most of the surveyed countries, the percentage of teachers who felt that society values them was less than 40% – and in a few even less than 10%.

As such, teachers feel frustrated, probably because they are underpaid and undervalued, among other things. These feelings are not always consistent with the evaluation of the prestige the teaching profession has compared to other professions. For instance, in Poland, there is an emphasis on the quite high rank of the teaching profession in society (7th–8th place among dozens of professions), though the feelings of teachers themselves differ. This process seems to be influenced by a number of factors, one of which is the rapidly growing number of people with a higher education, which once automatically gave access to a narrow circle of elites, the intelligentsia. Today, university degrees have become devalued and outdated, and their quality is often called into question. New, faster, but also superficial sources of knowledge are appearing all the time, competing with the knowledge provided by teachers. In certain circles, homeschooling is becoming more and more popular and parents use it to express a lack of confidence in school teaching, and thus to some extent in teachers.

Are teachers too poorly prepared and motivated for their professional work? Do they feel too little responsibility? To what extent is their frustration a result of a lack of relevant knowledge and skills, and to what extent is it a result of relatively low salaries? These are difficult and debatable questions to which there are no clear answers. Some opportunities for relevant changes may be created by the current and future unfavourable demographic situation in many countries, especially in Europe (declining number of children). Fewer students and less demand for teachers should force tougher selection mechanisms for candidates

to the teaching profession (and university) than now, but at the same time it should raise teachers' salaries at least to the average earnings of professionals with similar education.

Some of the characteristics presented above regarding teachers' salaries and the funding of education at all levels are worth addressing in relation to **student performance**. Does higher investment in education, including higher teacher salaries, result in better student performance? Based on the performance of 15-year-olds in the PISA programme, the answer is unclear. Assuming that there are no better comparative measures than the position of individual countries in terms of the performance of their students, criticism of similar programmes comes down to the idea that teachers are mainly teaching how to pass the tests which these major international programmes examining student achievement are based on. Among OECD countries, the ranking of their students in terms of their performance within the three segments that make up the PISA survey (reading, mathematics and science) compared to education inputs was as follows: Ireland's students ranked fourth in 2018¹ and 3.2% was spent on all education in 2019 (OECD 2022); Estonia's students ranked first and the expenditure was 4.7%; and Poland's ranked sixth with education and higher education inputs of 4.5% (OECD, 2022). In Chile and Israel these inputs were 6.5% and 6.2%, and students in these countries ranked further down; their scores in each of the three parts were well below 500 (the best results were above this level). In Luxembourg, where teachers earned the most and the expenditure per student and per school attendee was also the highest (see Figures 3 and 4), 15-year-olds in PISA 2018 were in 30th place (scores ranging from 470–483 points). It is also worth mentioning here that the best results in PISA tests were achieved by the students from provinces (mainly China) and South-east Asian countries (Taiwan and Singapore) which are not affiliated with the OECD. Similarly, students and future mathematics teachers from this region dominated the TEDS-M programme. It appears that these examples are an important

¹ The study scheduled to take place in 2021 was postponed due to the COVID-19 pandemic until 2022 (results were published in December 2023).

contribution to the debate, particularly on teachers' salaries in relation to student performance, as a debatable thesis is put forward by some teachers that "they will teach better if they earn better" (such opinions occasionally appear in Poland). Examples from South-east Asia indicate that other factors, such as a different social discipline, attitude to work and learning than European culture may determine student performance.

At this point, it should also be added that in many countries (including European countries) students achieved just over 400 in the PISA tests, or even below. In these cases, student performance is generally correlated with the economic position of the countries the students come from.

Other Challenges

Teachers should also be aware of other phenomena and processes that may be more or less challenging for some practitioners of the teaching profession. These certainly include **digital transformation** and more and more information on artificial intelligence (AI), which are creating the need for teachers to continuously develop their digital skills. Perhaps it is a trivial statement, but it is worth remembering. Teachers should be aware that not only are their students often more familiar with these new technologies, but there are some impacts of students' use of AI. It is known that students in dozens of OECD countries spend an average of 26 hours per week using the internet outside of school (i.e. an average of 3 hours and 42 minutes per day) and an additional average of 8 hours at school (OECD, 2019a). All in all, it seems incredible that students collectively spend almost 7 hours a day surfing the internet. These are average rates, meaning that some students spend even more time on the internet. Of this surfing, only 20% is somehow targeted, and only 12% is active exploration (OECD, 2019a).

Even more important and worrying is the analysis of students' use of computers. The 15-year-olds who use the computer most frequently at school scored the lowest in reading (both print and digital text). Analysis of the PISA 2018 results also indicates that students who use a computer at school very often tend to achieve the worst results in the other

PISA test tasks. The moderate use of new technologies – in the light of the PISA data (and common sense) - has a positive impact on learning outcomes, though, it should be stressed again, they do not always (or at all) measure qualities such as creativity or individualism. It may also be added that the educational authorities of some countries and school headmasters are beginning to introduce restrictive policies towards students using electronic devices at school.²

Also, the educational policies of many countries during the COVID-19 pandemic, aimed largely at online learning, resulted in the need to improve teaching competencies. The pandemic paradoxically contributed to greater knowledge of commonly used communication technologies/platforms, as well as the capabilities of the devices themselves (computers, laptops, smartphones, etc.). This applies to students, teachers, lecturers and parents (the latter often having to be involved in the education of younger children).

The issue of **scientific capital** has been discussed in research and publications for a relatively short period of time, but it is becoming increasingly interesting and, despite its “newness”, also subject to polemics (some treat this concept as a component of cultural capital). The scientific capital of young people largely determines their entry into professions, which are the “driving wheel” of the civilisational, economic and innovative development of the state or region. At the basis of the considerations and introduction of the term “science capital” and its subsequent elaboration, not only through theoretical analysis but also as a result of the research undertaken by Louise Archer, was a belief or conviction of many governments, important organisations and economic associations (often international) that too few young people (over 16 years of age) choose university programmes and professions in the fields of science, technology, engineering and mathematics (STEM; Archer 2015). Recruitment in certain fields of study in recent years and expert opinions

² In Japan, for example, such decisions were discussed on 8 May 2023 by Professor Hirofumi Hamada of the University of Tsukuba, Japan at a conference organised in Krakow by the University of Pedagogy.

show that this problem also affects Poland. Apart from the fact that the criterion of some future students for choosing their studies is the “ease/difficulty” of studying, a certain factor in this situation may be the secondary education policy. So far, the relatively short exploration of the issue of scientific capital, which began in 2010, allows us to define academic (student) capital with the following elements (Archer et al., 2014, 2015):

- Personal dispositions of the individual, such as interests, beliefs about one’s competences (e.g. “I can/would like to become a scientist in the future”) and ability to use one’s abilities to make discoveries
- Students’ knowledge (and preferences) about science-related professions and understanding of science and its functioning, which together can be described as scientific literacy
- Social contact with the scientific community (e.g. having someone in the family who is involved in science or knowing someone who works in a profession related to science or scientific research)
- Extracurricular science-related behaviour (e.g. familiarity with science journals, watching science TV programmes or going to museums and science centres)

It is important to promote and build science capital among students (and families) through the family, the school, the teachers and the curricula, and it is important to start doing so as soon as possible. Louise Archer’s research (Archer et al., 2014, 2015) has also shown that there is little chance that those who had low scientific capital at the age of 10 have “increased” it by the age of 14–16; it is relatively permanent and not very susceptible to change. This was pointed out by English teachers, who felt that the impact on the student at 14 was overdue, whilst after the age of 16 the only and major role can only be played by the teacher or school.

Perhaps the thesis below concerning the **professional development** of teachers, in the form of declared strategies regarding **teachers with high/low professional competence**, seems debatable. It comes down to the question of “Which is better more effective: putting more energy into recruiting, preparing and supporting quality teachers or finding ways

to improve working with, or simply dismissing, low-performing teachers (which for various reasons is not easy)?” This question is likely to elicit both acceptance and opposition from the reader; it is also possible to have the opinion that both strategies should be pursued in parallel.

The text addresses only a few issues (which is due to the interests and knowledge of the author, among other things) and focusses primarily on issues concerning inclusive education in relation to culturally diverse students and education funding/teacher salaries. The data cited herein shows that many teachers are not well-prepared to teach students from different ethnic backgrounds, speaking foreign languages etc. The second, somewhat more widely discussed point is that teachers generally earn less than workers with a similar education (who should earn at least the same, in the author’s opinion). Furthermore, more education funding or higher teacher salaries do not always result in better student performance, which is likely to be influenced by other factors. Teachers should be sensitive to the processes that have been occurring and changing for many years, including digital transformation, and newer ones such as the role of scientific capital.

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