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Encouraging Lifelong Learning for an Inclusive & Vibrant Europe

ENLIVEN- Encouraging Lifelong Learning for an Inclusive and Vibrant Europe

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Foreword

Encouraging Lifelong Learning for an Inclusive & Vibrant Europe

What's gone awry in Europe's lifelong learning markets? Although it has been a central EU policy priority since 1993, and the European Union's mechanisms for multinational policy co-ordination and measurement in lifelong learning are world-leading, one in every five Europeans under 25 is now unemployed. Many are not in employment, education or training. According to the High Level Group on Literacy, one in five 15-year olds lack the literacy skills required to function successfully in a modern society; 73 million EU adults have low levels of education and literacy; while achieving the current EU benchmark of functional literacy for 85% of 15-year-olds would increase lifetime GDP – lifetime earnings – by €21 *trillion*.

Clearly Europe's educational markets are failing to ensure that our citizens – particularly our younger citizens – have the education and training they need for their own economic prosperity and social welfare. They are also failing European society as a whole. Social exclusion, disaffection and the long-term “scarring” effects of unemployment are clear dangers to economic competitiveness, to social cohesion, and to the European project as a whole.

This is the starting point for ENLIVEN – Encouraging Lifelong Learning for an Inclusive & Vibrant Europe – a three-year research project (2016-2019) funded by the European Union's Horizon 2020 programme. The ENLIVEN research explores these challenges in several ways.

First, we are exploring and modelling how policy interventions in adult education markets can become more effective. We bring together state-of-the-art methodologies and theorisations (e.g. Case-Based Reasoning methodology in artificial intelligence, bounded agency in adult learning) to develop and evaluate an innovative Intelligent Decision Support System (IDSS) to provide a new and more scientific underpinning for policy debate and decision-making about adult learning, especially for young adults. For this, we are drawing on findings from research conducted by European and international agencies and research projects, as well as findings from ENLIVEN research itself. The IDSS is intended to enable policy-makers at EU, national and organizational levels to enhance the provision and take-up of learning opportunities for adults, leading to a more productive and innovative workforce, and reduced social exclusion. The IDSS work organised in two workpackages (WPs 8-9).

Second, we are investigating programmes, governance and policies in EU adult learning. By looking at the multi-dimensional nature of social exclusion and disadvantage, and the role of public and private markets in reversing – or reproducing – inequalities across Europe, we aim to provide a more holistic understanding of policies, their rationales, operationalization, and role in enhancing growth and inclusion. Beginning with the main European policies and funding schemes for adult learning aimed at tackling disadvantage, inequality and social

exclusion, we are identifying the different ways in which social inequality is expressed, constructed as a policy goal, and legitimized by discourses at the European level, and nationally. Combining policy diffusion studies with studies of multilevel governance that map the relations between various adult learning stakeholders and decision makers, their conceptualizations of the purpose of adult learning and their priorities, we are identifying the main barriers and enablers for access and participation in adult learning in Europe at the programme and subnational levels. This work is organised in three work packages (WPs1-3).

Third, we are examining “system characteristics” to explain country/region-level variation in lifelong learning participation rates – particularly among disadvantaged and at-risk groups, and young people. The “markets” for adult education are complex, with fuzzy boundaries, and the reasons why adults learn vary. Drawing on Labour Force Survey, Adult Education Survey, EU-SILC, and European Social Survey datasets, we use multilevel regression analysis and construct a pseudo-panel to address questions such as which system characteristics explain country and region-level variations in participation rates (overall, and among disadvantaged groups and youth at risk of exclusion), and how government policy can be most effective in promoting participation. This research is organised in Work Package 4.

Underlying the ENLIVEN research is the need for a reconstruction of adult educational policy-formation in Europe. Currently there are two particular problems. One the one hand, the principal beneficiaries of adult education (across Europe as elsewhere) are the relatively more privileged: those who have received better initial education, those in employment, and (among the employed) those in better-paid, more secure and more highly skilled jobs. The adults who are (arguably) most in need of education and training, such as young, unemployed, low skilled, disabled and disadvantaged workers, receive less of it. One the other hand, in contrast to the education of children, adult education is by and large financed by individual students (‘learners’), their families, and/or their employers. Though this is partly the outcome of public policy – in particular the desire to reduce public spending (or restrict its growth), and to utilise the efficiencies inherent in market-based allocation systems – it limits the policy tools available to governments and state agencies. A central feature of public policy is therefore to influence the behaviour of citizens and enterprises, encouraging them to invest in lifelong learning for themselves and their workers.

Finally, we are examining the operation and effectiveness of young adults’ learning at and for work. The availability and quality of work for young adults differs by institutional setting across EU member states. We are undertaking institutional-level case studies on attempts to craft or to change the institutions, which govern young adults’ early careers, workplace learning and participation in innovation activities, comparing countries with similar or diverging institutional frameworks. This is the focus of three work packages (WPs 5-7).

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Executive summary

This report deals with the role standard setting plays as a governance mechanism in adult learning, building on previous work on European governance carried out under the ENLIVEN project. But it does so from a specific angle. It focuses on the Programme for the International Assessment of Adult Competencies (PIAAC) to exemplify how standard setting in adult learning influences the public debate (through national newspapers), which informs policy in selected European countries (Estonia, Denmark, Italy, Slovakia, and the United Kingdom).

Standard setting, particularly in European adult learning, is framed in this report as the process involved in the establishment of common rules for states, which implies two concurring phenomena: *normative action* (or the entitling of some actions as good, desirable, or permissible versus those that are bad, undesirable or impermissible), that is never *value-free*; and the agreement on *common goals* to be pursued through normative action. Moreover this reports acknowledges the growing use of social indicators and benchmarks for monitoring progress in EU adult learning.

On this ground, this report claims that both the data generated through PIAAC and the ‘implicit’ benchmarking of Level 3 in adults’ literacy, numeracy and problem-solving skills that come with it, contribute to standard setting in adult learning within the EU. But too little is known on how PIAAC’s contribution to standard setting in adult learning influences the public debate through national media, and particularly the highest circulating newspapers, which contribute to knowledge production around the events on which they report, yet from ideological stances.

Hence this report presents the methodology applied to, and the results of, a coverage and content media analysis that was performed on a total of 116 news articles. These were published between 2012 and 2019 (July) in the highest circulating newspapers of Estonia, Denmark, Italy, Slovakia, and the United Kingdom. Among all countries involved in the ENLIVEN project, these were selected as each represents a typology of Welfare State Regimes (WSRs), as developed by Roosmaa and Saar (2017). Albeit Bulgaria (also an ENLIVEN country) would have represented one more WSR (Post-socialist, Balkan), it was not considered, as it did not partake in the PIAAC Survey.

The results highlight that the national press differently presents and represents the PIAAC Survey, and connects PIAAC data to other subject matters across as much as within countries. Such differences connect to the wider context of reference at the time of publication (i.e., the government on power, the socio-economic situation, and on-going or foreseen education and labour markets reforms) but also to the WSR to which each country belongs. Regardless of such differences, however, some trends and common topics are found in that since 2014 the weight of PIAAC as a subject matter as gradually decreased, while reference to PIAAC data by the press persisted and acquired political, ideological, and ontological functions.

Therefrom two policy recommendations can be drawn:

1. Make benchmarking in EU adult learning an explicit process, under the solely responsibility of the Union and its member states;
2. Do not take results from international assessment surveys (like PIAAC) at face value.

Abbreviations and acronyms

ADS - Italian Agency for Press Spread Verification

BCC - British Chambers of Commerce

EC - European Commission

FVU - Preparatory Adult Education in Denmark GCSE - English General Certificate of Secondary Education

HIVA - Flemish Research Institute for Work and Society

IALS - International Adult Literacy Survey

INESS - Slovak Institute of Economic and Social Studies

NEET - Not in employment, education or training

NÚCEM - Slovak National Institute for Certified Measurements

NÚCŽV - Slovak National Lifelong Learning Institute

OECD - The Organisation for Economic Co-operation and Development

PIAAC - Programme for the International Assessment of Adult Competencies

PIRLS - Progress in International Reading Literacy Study

PISA - Programme for International Students Assessment

SEB - Skandinaviska Enskilda Banken

SITA - Slovak News Agency

TALIS - Teaching and Learning International Survey

TASR - Press Agency of the Slovak Republic

VRT - Flemish Radio and Television

VUC - Danish Adult Education Centres

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Preface

Marcella Milana (University of Verona) and Gosia Klatt (The University of Melbourne)

This report deals with the role standard setting plays as a governance mechanism in adult learning, building on previous work on European governance carried out under the ENLIVEN project (Milana, Klatt, 2019a, 2019b). But it does so from a specific angle. It focuses on the Programme for the International Assessment of Adult Competencies (PIACC) to exemplify how standard setting in adult learning influences the public debate (through national newspapers), which informs policy in selected European countries (Estonia, Denmark, Italy, Slovakia, and the United Kingdom).

The report consists of 9 chapters:

Chapter 1 provides the backdrop for this report. It explains our approach to standard setting as well as our understanding of standard setting in European adult learning. Further, it brings attention on the use of social indicators and benchmarks for monitoring progress within the European Union (EU) also in the field of adult learning, and clarifies why we focus attention on the Programme for the International Assessment of Adult Competencies (PIAAC). In short, we claim that both the data generated through PIAAC, and the ‘implicit’ benchmarking of Level 3 in adults’ literacy, numeracy and problem-solving skills that come with it, contribute to standard setting in adult learning within the EU. However, little is known on how PIAAC’s contribution to standard setting in adult learning influences the public debate through national media, and particularly the highest circulating newspapers. It is our stand that the press significantly influence the public debate that informs adult learning policy at national level, as it contributes, from ideological stances, to knowledge production around the events on which it reports.

Accordingly, **Chapter 2** illustrates the methodological strategy applied for data collection and content analysis that we performed on a total of 116 news articles, which appeared, over the period 2012-2019 (July), in the highest circulating newspapers in six EU member states: Belgium/Flanders, Denmark, Estonia, Italy, Slovakia, and the United Kingdom. The analysis aimed at examining how PIAAC entered the news coverage and influenced the public debate that informs national policy-making in these countries.

On this ground, **Chapters 3 to 8** report the results of the media analysis we performed in each country. These chapters follow a similar structure. First, they describe the selection criteria used to identify relevant newspapers at country level. Then, they provide an overview of the dataset on which the content analysis was performed, before presenting the results, which are also summarised in a concluding section.

Eventually, **Chapter 9** recalls the main results of the media analysis by looking at standard setting through the lens of the typology of Welfare State Regimes (WSRs) (Roosmaa and Saar, 2017), which takes into the account “structural and public policy frameworks that underlie different adult learning systems, which are both a product of and influence the interaction between institutions and organisations” (Saar et al, 2013, p. 213). This typology proved already useful in the ENLIVEN project (Boeren, Whittaker and Riddell, 2017; Milana and Klatt, 2019b, forthcoming) helped here too as it keeps adult education together with labour market policies, which are in turn one of the most widespread concern of the media dealing with PIAAC results from across Europe and beyond (cf. Cort and Larson, 2015; Hamilton, 2017, 2018; Yasukawa, Hamilton and Evans, 2017). This cross-country reading of the study results brings to light how the press differently presents and represents the PIAAC Survey, and connects PIAAC data to other subject matters across as much as within countries. Such differences connect to the wider context of reference at the time of publication (i.e., the government on power, the socio-economic situation, and on-going or foreseen education and labour markets reforms) but also to the WSR to which each country belongs. Regardless of such differences, however, some trends and common topics are found in that since 2014 the weight of PIAAC as a subject matter as gradually decreased, while reference to PIAAC data by the press persisted and acquired political, ideological, and cultural functions.

Finally, a concluding section, teases out how the study herein presented allowed a better understanding of the way quantifiable data, such as that on adults’ literacy, numeracy and problem-solving skills produced by PIAAC, can be instrumentally used by journalists, but also governmental agencies, researchers from within and outside the academia, and other adult education experts (e.g. people representing adult education providers), to bring to the public attention issues of concern that are either high or low on national political agendas. At the same time, the study also showed the roles (political, ideological, and ontological) the press exerts in the production of knowledge about adult learning, and its links to the education system and the labour market. Therefrom two policy recommendations are drawn.

Chapter 1 - Introduction

Marcella Milana (University of Verona) and Gosia Klatt (The University of Melbourne)

This introductory chapter provides the backdrop for this report by explaining our approach to standard setting and our understanding of standard setting in European adult learning as the process of establishing common rules for member states, which is never value-free. The chapter also focuses on the use of social indicators and benchmarks for monitoring EU progress also in the field of adult learning, as these have been utilised by the EU institutions as policy instruments which operationalise the standard setting mechanism. Further, the chapter clarifies why we focus attention on the Programme for the International Assessment of Adult Competences (PIAAC) in this report. We claim that both the data generated through PIAAC, and the ‘implicit’ benchmarking of Level 3 in adults’ performances, contribute to standard setting in adult learning within the EU. Finally, the chapter considers how little is known on how PIAAC contribution to standard setting in adult learning influence the public debate in EU member states through the media, and particularly the highest circulating newspapers. In fact, newspapers are not only the recipients of information at national level. They contribute, from ideological stances, to knowledge production around the events on which they report. Thus, it is our stand that they significantly influence the public debate that informs adult learning policy at national level.

1.1 Governance, the European Union and standard setting in adult learning

Historically, ideas and concrete policy solutions about education and learning by local and national governments have been much affected by local necessities, intellectual capacities and politics alone, notwithstanding knowledge exchange between countries. Nonetheless, in post-world-war-II the literature concurs that the role, meanings and place of education and learning worldwide, and in Europe, have been intrinsically connected to a number of global trends. These include, though are not limited to: 1) the evolution of global political agendas and governance mechanisms that outspread or operate across national boundaries (cf. Sabel and Zeitlin, 2010, Milana, 2017) (e.g., the United Nations’ Recommendations on Adult Learning and Education of 2015, the Sustainable Development Goals); 2) the development of European political agendas (e.g. Europe 2020), and governance architectures (e.g. the European Semester) that have an influence or power that at times may outdo national boundaries or governments (cf. Verdun and Zeitlin, 2018; Costamagna, 2013); and 3) the globalisation of education policies and discourses (cf. Bennet 1997; Mundy, Green, Lingard and Verger 2016; Martens and Jakobi 2010; Verger, Novelli and Altinyelken 2012).

Hence, it is unquestionable to date that also the national governance of adult learning depends more and more on plural and networked forms of governance (Pierre, 2000; Pierre and Peters, 2000; Kohler-Koch and Rittberger, 2006).

Within the EU, plural and networked forms of governance are key, especially in education, where the subsidiarity principle formally applies by Treaty, yet it has been partially circumvented over the last two decades, and even more so under the European Semester (Jordan and Schout, 2006; Löfgren, 2015; Stevenson, Milner, Winchip and Hagger-Vaughan, 2019).

But researching European governance is a complex matter, not least due to the EU's specific 'actorness'. Such a characterization recognizes that EU governance is multi-level by its very nature, as it builds by Treaty on the interdependence of governments representing different territorial levels, but also on an increased interdependence between governments, non-governmental actors and other international organizations (Hooghe and Marks, 2001; Bache and Flinders, 2004; Kohler-Koch and Rittberger, 2006; Zito, 2015).

Accordingly, a plethora of studies exist on European governance that have put under close scrutiny specific mechanisms or instruments (the Open Method of Coordination *in primis*) to comprehend the changing nature of EU governance and its effects on, for instance, national Higher Education systems across Europe (cf. Tholoniati, 2010; Walters and Haahr, 2005; Chatzopoulou, 2015; Ravinet, 2008).

On this ground, previous work carried out under the ENLIVEN's Work Package 3 (The role of European governance in adult education and learning policy) concerned the way governance mechanisms employed by the institutions of the EU influence policies to regulate lifelong learning, as well as approaches to intervene in lifelong learning markets, at both European and national levels (Milana and Klatt, 2019a).

First, we reviewed different research strains in the specialised literature that adopt an instruments approach to: 1) evaluate the effects of policy instruments; 2) appreciate the choice of policy instruments; and 3) unpack the process through which policy instrumentation occurs (for short synthesis of each strand reviewed see boxes 1.1-1.3). Although not comprehensive or causal, our review considered each of the strains with the objective to determine the main definitions, standpoints, benefits and uses of the instruments approach as an analytical device across disciplines.

Overall, our review highlighted that 'instrument' and 'tool' are normally tantamount concepts that in public administration research addresses the means through which policy intentions are translated into actions; whereas for political scientists and public policy researchers they point at tangible forms that operationalize a governance 'mechanism', at formulation and/or implementation stage. However, it is mainly political sociologists, for the most inspired by Foucault, that conceptually distinguish between 'instruments', 'techniques' and 'tools', as different constitutive aspects of a

governance ‘mechanism’. For instance, for Lascoumes and Le Galès (2007, p. 4), an *instrument* is a type of social institution – or the institutionalization of a social practice (e.g. census taking, map making, statutory regulation, taxation); a *technique* is a concrete expedient that operationalises such an instrument (e.g. statistical nomenclature, a type of graphic representation, a type of law or decree); whereas a *tool* represents a micro device within a technique (e.g. statistical category, the scale of definition of a map, the type of obligation provided for by a legal text, presence/absence of sanction).

Box 1.1 - Evaluating the effects of policy instruments

Research interest in evaluating the effects of policy instruments comes mainly from public administration researchers (Salamon and Elliott, 2002; Peters and Van Nispen, 1998; Salamon, 2000). Within this tradition policy instruments have been conceptualised as the ‘objects’ that link activities and actions (de Bruijn and Hufen, 1998), from which it derives a classification of policy instruments in regulatory, financial, or communicative tools (Elmore, 1987; Van Nispen and Ringeling 1998). Ontologically, this perspective combines the positivist standpoint that facts speak for themselves, with an empiricist epistemology building on a neutral language for observing objects and generalising from these observations (Whetsell and Shields, 2013). More recently, however, Hellström and Jacob (2017) revisited such conception conceptualising a policy instrument as an ‘interface’ instead, hence distinguishing between “technical and social, government–citizen interfaces which organize social relations and create structures of opportunity for action” (Hellström and Jacob, 2017, p. 609). Despite ontological differences, the main interest of public administration researchers remains on evaluating the effects of policy instruments. Traditionally, this has been done by looking at the characteristics an instrument possesses (de Bruijn and Hufen, 1998), but it has been criticised as deterministic, because it assumes that it is possible to identify a set of characteristics and factors, and predict their effects. By contrast, a contextual approach (Bressers and Klok, 1987; de Bruijn and Heuvelhof, 1998; Hellström and Jacob, 2017) emphasises the importance of bringing together instruments, contexts and actor(s) to keep the “causal/analytical integrity of an instrument vis-à-vis its effects” (Hellström and Jacob, 2017, p. 608). This is done through the concept of policy instrument’s ‘affordance’, namely “an objective property of that instrument’ that is ‘potential, dispositional, relational, depend on context” (Ibid., p. 609). Such approach illuminates specific aspects of the policy instruments, how they structure ‘action’, and with what effects, and is reflective of an institutional perspective that focuses on the structures for collective action. In short, both instrumental and public administration research use ‘instruments’ and ‘tools’ synonymously to address the means that help translating policy intentions into action. But a policy intention can be pursued through different instruments or tools. More deterministic views assume that a best-fit between a policy intention and an instrument or tool depends on its objective characteristics, whereas contextual views also consider the environment and the actors that may support or hamper action. In either view, the selection of an instrument or tool at policy formulation and implementation stages can influence the outcomes of a policy process.

Source: Milana and Klatt, 2019b; Milana, Klatt and Vatrella, forthcoming.

Box 1.2 - Appreciating the choice of policy instruments

Political scientists, particularly public policy researchers, have an interest in what government does (Hood, 1993; Hood and Margetts, 2007), and “how, why and to what effect different governments pursue particular courses of action?” (Bemelmans-Videc, 2007, p. 2). Hence, the focus on the ‘mechanics’ of government’s action, and see policy instruments as “concrete, specified operational forms of intervention” (Bemelmans-Videc, 2007, p. 4). Accordingly, policy instruments have been conceptualised as “the set of techniques by which governmental authorities wield their power” (Bemelmans-Videc, 2007, p. 3), rather than the simple means of transposing policy intentions into action, like in the majority of public management literature. Accordingly, much attention has been paid on the selection of effective policy means available to governments (Linder and Peters, 1989; Howlett, 1991; Howlett, Mukherjee and Jun Jie, 2015). More than two decades ago, Linder and Peters (1998) identified four schools of thought at play at that time: 1) The instrumentalist approach that sees a policy instrument as a tool with ‘objective’ characteristics; thus, the choice of instruments is a technical matter, and no politics is involved (i.e. Hood, 1986; Hood and Margetts, 2007); 2) The proceduralist approach, which claims that tools selection depends on the context, and distinguishes between market-based tools and tools related to governments’ influence or financial resources; 3) The contingentist approach that equals tools to tasks, thus distinguishes between instruments with economic, social or political effects (i.e., Bemelmans-Videc, Rist and Vedung, 2007); and 4) The constitutivist approach, which considers the instruments choice and politics as mutually constitutive, hence the ground on which a specific instrument or form of action is selected. In other words, under this approach, tools have subjective meanings (symbolic, ethical, and so on), which are interpreted, and mediated by values and perceptions. But the growth in complexity of policy-making has led to significant changes in the study of instrument choice, and a shift from positivist to constructivist standpoints has led, for instance, researchers to scrutinise the role and interests of experts and advisors involved in policy design (Craft and Howlett, 2012), and how the ‘tool mixes’ transform and contradict the policy goals over time (Hacker, 2005). In short, also public policy researchers and political scientists tend to use ‘instruments’ and ‘tools’ as synonymous terms but both conceptions point here at different concrete forms that operationalize the ‘mechanisms’ of government’s action, particularly at formulation and/or implementation stages.

Source: Milana and Klatt, 2019b; Milana, Klatt and Vatrella, forthcoming.

Box 1.3 - Unpacking the process through which policy instrumentation occurs

Moving attention from the “governing state” to “the enabling state” (Pierre and Peters, 2000, p. 12), researchers have increasingly paid attention on the process through which policy instrumentation occurs. Political scientists have developed different categories that are intended to explain governance and the possibilities, logics and instruments associated with it (Lowi, 1972; Howlett and Ramesh, 1993; Bohlinger, 2015; Jones, 2013; among others). Some argue that unlike ‘command-and-control’ regulatory instruments by governments, ‘new’ ‘governance’ instruments allow more flexibility, freedom and less central governments control (Jordan et al., 2005, p. 494). Thus researching governance (not governments) and instrumentation (not instrument choice) often concentrates attention on policy networks, institutions or the development and execution of public policy, where outcomes and actual policies can be assessed (Pierre and Peters, 2000). A popular approach that goes beyond a functionalist view draws on Foucault’s concepts of ‘governmentality’ and the ‘technologies of government’ (Dean, 1996). Inspired by Foucault, political sociologists Lascoumes and Le Galès (2007) linked the tradition in public policy studies with “sociological analysis of forms of rationalization of power” (Le Galès, 2011, p. 7). Like in the *constitutivist* approach in instrument choice studies (cf. Linder and Peters, 1998) here instruments and politics are also mutually constitutive, but attention to ‘policy instrumentation’ is seen as crucial for comprehending the dynamics of governance in contemporary societies. This is because policy instruments are considered as “not neutral devices: they produce specific effects, independently of the objective pursued (the aims ascribed to them), which structure public policy according to their own logic” (Lascoumes and Le Galès, 2007, p. 3). In short, this approach retains the traditional interest of political scientists and public policy researchers in the power dimension while concerns about policy instruments go well beyond their choice (cf. Bemelmans-Videc, Rist

and Vedung 2007) to grasp how they are used, and to effects on public policy (Le Galès, 2011). Hence some speaks of ‘policy technologies’ (Ball, 2003; Lascoumes and Le Galès, 2007).

Source: Milana and Klatt, 2019b; Milana, Klatt and Vatrella, forthcoming.

On this ground, in previous work on European governance undertaken by the ENLIVEN team (Milana and Klatt, 2019a, 2019b; Milana, Klatt and Vatrella, forthcoming) we employed an instruments approach that distinguishes between a governance mechanism and a policy instrument. A governance mechanism represents a policy process aimed at reaching specific policy objective(s), and which naturalizes these objectives, but also the effects the process produces. A policy instrument represents the means that are used to reach policy outcome(s) that constitute more or less stable frameworks, which structure collective action. Employing this approach, we analysed the working of three complex intergovernmental, multi-sectoral policies established at European level: the Renewed European Agenda on Adult Learning, the Education and Training 2020 working programme, and the European Youth Strategy.

Our analysis brought to the fore five governance mechanisms that are employed by EU institutions (and the EC particularly) to govern these policies (see box 1.4), which characterizations draw from Ozga, Dahler-Larsen, Segerholm and Simola (2011), Lawn (2011), Martens and Jakobi (2010), Dale (1999), Woodward (2009), but were refined in the course of analysis. Through our analysis six policy instruments (see box 1.5) surfaced as concurring to the working of these mechanisms.

Box 1.4 - Government mechanisms employed by EU institutions

Standard and target setting, which involves normative actions and setting common goals that concur towards the establishment of a single, European model in a policy area (e.g. adult learning).

Capacity-building that helps orienting the implementation of policy solution to common European problems (e.g. the high rates of adults with low levels of education and literacy).

Installing interdependence, which involves setting common goals (e.g., increasing the number of adults that participate in lifelong learning).

Elite learning that instigates changes in the value system of national actors through peer learning, peer counselling etc.

Financial redistribution, which implies that EU financial resources are re-distributed to member states, as a deliberate effect of joint decisions that include conditionality, and are used in support of reforms and activities within a certain area (e.g. adult learning).

Source: Milana and Klatt, 2019a, 2019b

Table 1.1 - Policy instruments employed by EU institutions*

Definition	Benchmarks		Example in the field of adult learning
	Accepted standards at European level, at times negotiated and agreed among Heads of states and governments, by which member states' performances can be measured, compared, and thus their level of quality judged.	<p>Among the benchmarks agreed under Education and Training 2020 a few related to the adult population:</p> <ul style="list-style-type: none"> • At least 15% of adults should participate in lifelong learning. • At least 20% of higher education graduates and 6% of 18-34 year-olds with an initial vocational qualification should have spent some time studying or training abroad • The share of employed graduates (aged 20-34 with at least upper secondary education attainment and having left education 1-3 years ago) should be at least 82%. <p>To support convergence in reaching better socio-economic outcomes under the European Semester the following 'policy levers' indicators were introduced:</p> <ul style="list-style-type: none"> • The share of adults who have received free-of-charge information or advice/help on learning opportunities from institutions/organisations during the last 12 months (age group 25-64). • The share of unemployed adults who participated in any training activity during the last four weeks before the survey as part of all unemployed adult (age group 25-64). • The share of low qualified adults who participated in any training activity during the last four weeks before the survey as part of all low-qualified adults (age group 25-64). • The share of companies that report to have received any type of public co-financing for training activities in a reference year. 	
	Data generation		
	The gathering of quantitative and/or qualitative data, the method used to generate data from different sources, and the procedure through which data reaches a database or otherwise organized collection of data.	<p><u>Literature reviews</u> (e.g. <i>Improving basic skills in adulthood: Participation and Motivation</i> – see: Carpentieri, 2014).</p> <p><u>Studies and reports</u> (e.g. <i>An in-depth analysis of adult learning policies and their effectiveness in Europe</i> – see: European Commission and ICF Consulting Services Limited, 2015).</p> <p><u>'Best' or 'good practices' compendia</u> (e.g. <i>ERASMUS+: Good practices in the implementation of the European Agenda for Adult Learning 2012- 2016</i> – see: European Commission, n.d.)</p> <p><u>State of the art reports</u> (e.g. <i>State of the Art Report on the Implementation of the European Agenda for Adult Learning</i>, by the European Association for the Education of Adults).</p> <p><u>Design and management of multi-country surveys</u> (e.g., the Labour Force Survey and the European Adult Education Survey managed by EUROSTAT, or the Education and Training Monitor)</p> <p><u>Final support to multi-country household surveys</u> (e.g. the Programme for International Assessment of Adult Competences managed by the OECD).</p>	

Table 1.1 - Policy instruments employed by EU institutions* (cont.)

Definition	Data generation		Example in the field of adult learning
	Working groups		
	Groups established, coordinated and tasked by the European Commission, whose members, appointed by member states governments or the European Commission, represents different elite positions (i.e., governmental agencies, other stakeholders, experts), and are assembled, over a period of time, to work on important issues in a policy area (i.e., adult learning)	<p>Four working groups and one network have been established, coordinated and tasked by the European Commission:</p> <ul style="list-style-type: none"> • Working Group on the implementation of the Action Plan on Adult Learning (2008-2010) • Thematic Working Group on Quality Assurance in Adult Learning (2011-2013) • Thematic Working Group on Financing Adult Learning (2011-2013) • ET 2020 Working Group on Adult Learning (since 2014) • National coordinators for the implementation of the European Agenda on Adult Learning (since 2012) 	
	Mutual- and peer-learning arrangements		
Occasions for representatives of member states and European Commission's staff that support this activity, to identify and learn about initiatives and practices in place in different member states (and beyond) in a policy area (i.e., adult learning)	<p><u>Regional meetings</u> organized by the Working Group on the implementation of the Action Plan on Adult Learning (2008-2010).</p> <p><u>Workshops</u> with country experts to discuss in-depth topics (e.g. improving quality in adult learning, effective policies for increasing the participation of adults in basic skills provision).</p> <p><u>Conferences</u> sponsored by the European Commission (e.g. Adult Skills Conference: Empowering people, 6-7 December 2016) or in collaboration with other international organizations (e.g. Equipping adults for the 21st Century: Joining Forces for Action on Skills and Competences, 9-10 December 2013, with the UNESCO Institute for Lifelong Learning).</p>		
Funding schemes			
Plans or arrangements designed by EU institutions to encourage governments, organizations or people to attain a particular objective or to put an idea into effect by providing money to finance an activity, a program, or a project entirely or in part.	<p><u>European Structural Funds (ESF)</u> (e.g., member states' participation to the Programme for International Assessment of Adult Competencies was supported through these funds).</p> <p><u>Europe Programme for Employment and Social Innovation (EaSI)</u> (e.g. 2017 Call for proposals dedicated to <i>Awareness-raising activities on "Upskilling Pathways: New Opportunities for Adults."</i>)</p> <p><u>Erasmus+</u> (e.g. Activities of the National coordinators for the implementation of the European Agenda on Adult Learning in their countries have been partially financed through the Erasmus+, under the Key 3 Action: Support for policy reforms.)</p>		

Source: Milana and Klatt, 2019a, 2019b; Milana, Klatt and Vatrella, forthcoming.

* One more instrument In the youth policy field is the Structured Dialogue, a means of mutual communication between youth and decision-makers on a theme set by the Council of Ministers

In short, previous analysis point at **standard setting** as a core governance mechanism in adult learning, which requires counterpart mechanisms (i.e., capacity-building, installing interdependence, and elite learning) to engage the EU institutions together with member states to agree on common policy goals and targets. European benchmarks are then needed to monitor progress towards such goals, but these results from complex negotiations and consensus building among Heads of states and governments. Both negotiations and consensus building are enabled by data generation activities and mutual and peer-learning arrangements, also thanks to working groups established, coordinated and tasked by the EC, while shares of the EU budget supports such activities (Milana and Klatt, 2019a, 2019b, forthcoming).

It shall be noted that in international relations standard setting is what sets common rules for states, notwithstanding cultural differences and traditions. Accordingly, international organizations, like the UNESCO for instance, speak of 'standard setting instruments' to refer to those texts that reflects common rules like conventions (and other agreements) that are legally binding, or recommendations and declarations that are non-legally binding texts (UNESCO, n.d., General introduction...). By contrast, in the ENLIVEN project we understand standard setting as the process involved in the establishment of such common rules for states, but which implies two concurring phenomena. On the one hand is *normative action*, or the entitling of some actions as good, desirable, or permissible versus those that are bad, undesirable or impermissible, which are then codified in texts of the kind above-mentioned. But such codification is never *value-free*. On the other hand, standard setting within the EU implies that member states (via their Heads of governments or states, their ministries, their commissioners or their members of the European Parliament) reach an agreement on the *common goals* to be pursued through normative action. Benchmarks, and the process of benchmarking, are instrumental to the process of standard setting, as they translate policy goals into accepted standards for evaluating the approximation of member states' performances towards those goals. But data generation, and especially quantifiable data, is equally instrumental, as it helps designing indicators and linking them to policy and related benchmarks.

Against this backdrop, in this report we advance our understanding of standard setting in adult learning, and on benchmarks and data generation as two of the instruments that contribute to this mechanism. Specifically, we do so by concentrating attention on the 'implicit' benchmarking of Level 3 in adults' literacy, numeracy and problem-solving skills, which is endorsed through the PIAAC Survey on Adult Skills, and the data it produces, at both country and international levels.

For these reasons, the next section is devoted to the use of social indicators and benchmarks for monitoring EU progress also in the field of adult learning, whereas we return to the issue of data generation, and especially quantifiable data, in the section on PIAAC that follows.

1.2 Indicators, benchmarks, and the EU monitoring of adult learning

In the wake of the Great Recession of 2008-2009, former progress in the European Union (EU) was swept away, as proved by the worst growth in the Gross Domestic Product in decades, a drawback in industrial production and unemployment levels, and an unprecedented increase in youth unemployment levels and the percentage of 15-34 years olds Not in Education, Employment or Training (NEETs). To tackle this situation the latest EU's agenda for growth and jobs, the *Europe 2020* strategy aimed at boosting a smart, sustainable and inclusive growth.

In the meantime the use of the Open Method of Coordination (OMC), the growth of evidence-based policy, and the launch of the European Semester, have all given a stronger impetus to the use of indicators as “one of the main components of European cooperation” (Gornitzka, 2006, p.1), and of benchmarks to monitoring national progress towards common policy goals agreed within the Union.

Next, we discuss what indicators are, why are they used in social policy, and current limitations in terms of the design, reliability, impact, and use of indicators for evidence-based policy.

1.2.1 Indicators

Indicators are devices presenting how a situation is like by means of values or signals of change. For some, they are “qualitative or quantitative data that describe features of a certain phenomenon and communicate an assessment of the phenomenon involved” (Martínez and Dopheide, 2014, p. 2). But from a glance at the literature (Land, 1983; Shavelson, McDonnell and Oakes, 1991; Martínez and Dopheide, 2014; Dao, Plagnat Cantoreggi and Rousseaux, 2017) over time social indicators have been for the most referred to as ‘data’, ‘statistics’, ‘measures’ or ‘variables’. In this line of thinking Cobb and Rixford (1998, p. 1) propose that “an indicator refers to a set of statistics that can serve as a proxy or metaphor for phenomena that are not directly measurable”, hence suggesting that indicators represent a complex social phenomenon in a statistical form. For example, social indicators can represent a ‘subjective reality’ where people’s experiences and feelings (i.e., measures of happiness or satisfaction) are used for measuring social change (Land, 1983). In other words, indicators have the “capacity to convert complicated contextually variable phenomena into unambiguous, clear, and impersonal measures” (Merry, 2011, p. 84). Accordingly, social indicators are usually numerical measures that depict various aspects of life on which ground one can estimate the wellbeing of individuals or communities.

Among social indicators, education indicators provide information to portray the performance of national education systems, inform policy-makers about the state or behaviour of such systems, and can act as the triggers for new visions about education, new goals for education systems and new education policies. Further, education indicators can be used to monitor progress toward specific social goals. But this may be problematic. Notwithstanding indicators do not accurately reflect the diversity of people's experiences and contexts within societies, are usually perceived as 'objective truth' (Merry, 2011).

As a matter of fact, both the nature (i.e. the means to develop indicators, the process of data collection) and function (i.e., the use and applicability of indicators) of indicators for policy development and social reforms have been subject to debate for several decades in Europe and the United States of America (USA) (Cobb and Rixford, 1998). In the 1960s, the economic indicators in use showed their limits, for instance, as measures of the social aspects of life linked to equity issues or people's happiness (Land, 1983), hence the use of a system of social indicators to better support public policy decisions in the USA was popularising instead (Bauer, 1966). In 1970s and 1980s social indicators, including education indicators, have been developed and agreed internationally to produce annual reports on living conditions and development worldwide, also thanks to the growing influence of international organizations like the Organization for Economic Cooperation and Development (OECD) and the United Nations (UN) in shaping social trends. Under these conditions, as Ferriss (1974) notes, in the 1970s education systems had the second largest wealth of indicators. Yet, despite the development of comprehensive sets of indicators that supported analyses of educational data (Lippman, 2007), there were weaknesses too, including a lack of adequate measures to assess education quality, equity or learning progression (Ferriss, 1974) and the fact that the very definitions of education indicators were still 'eclectic' when not 'contradictory' (Jaeger, 1978). Nonetheless, the growth of market economies, and the use of social indicators to complement economic data in policy analysis, saw a parallel growing interest in education indicators as a 'rational techniques' in support of economic stringency and demand for affordability in policy making (Carley, 1980; Fasano, 1994). At the same time, the political interest on the quality of education systems brought about an increased attention to measuring such quality through student achievement outcomes, with a consequent shift from measuring inputs and processes (e.g. resources or curriculum) to measuring outputs (e.g. improving student outcomes) (Rowe and Lievesley, 2002).

To date, both the OECD and the United Nations Educational, Scientific and Cultural Organization (UNESCO), among other organizations, have designed own key education indicators on which ground they gather educational statistics worldwide (see boxes 1.5 e 1.6).

Box 1.5– Key education indicators by the OECD, *Education at a glance* (annual report)

“The indicators provide information on the human and financial resources invested in education, how education and learning systems operate and evolve, and the returns to investments in education.” (OECD, 2018, p. 13)

Financial and Human Resources Invested in Education

- How much is spent per student? - Indicator B1
- What proportion of national wealth is spent on education? - Indicator B2
- How much public and private investment is there in education? - Indicator B3
- What is the total public spending on education? - Indicator B4
- How much do tertiary students pay and what public subsidies do they receive? - Indicator B5
- On what services and resources is education funding spent? - Indicator B6
- Which factors influence the level of expenditure? - Indicator B7

Access to Education, Participation and Progression

- Who participates in education? - Indicator C1
- Who studies abroad and where? - Indicator C2
- How successful are students in moving from education to work? - Indicator C3

The Learning Environment and Organisation of Schools

- How much time do students spend in the classroom? - Indicator D1
- What is the student-teacher ratio and how big are classes? - Indicator D2
- How much are teachers paid? - Indicator D3
- How much time do teachers spend teaching? - Indicator D4
- What school choices are available and what measures do countries use to promote or restrict school choice? - Indicator D5
- How can parents influence the education of their children? - Indicator D6
- Who are the teachers? - Indicator D7

Source: OECD, 2019

Box 1.6 - Key education global indicators by the UNESCO, *Sustainable Development Goal 4*^{*,}**

“Indicators are markers of change or continuity which enable us to measure the path of development, for example. Within the SDGs, they describe the way in which a given unit (pupil, school, country or region) is progressing in relation to a specific target.” (UNESCO-UIS, 2018a, p. 8)

“A target is a specific, measurable objective which will contribute to achieving one or more of the goals. SDG 4 has ten targets encompassing many different aspects of education. Among them, there are seven targets which are expected outcomes and three targets which are means of achieving these outcomes” (Ibid, p. 7)

SDG 4.1 - Free, equitable and quality primary and secondary education

- Proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex – Global Indicator 4.1.1

SDG 4.2 - Quality early childhood development, care and pre-primary education^{[1][2][SEP]}

- Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex – Global Indicator 4.2.1
- Participation rate in organized learning (one year before the official primary entry age), by sex – Global Indicator 4.2.2

SDG 4.3: Quality TVET and tertiary education^{[1][2][SEP]}

- Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex – Global Indicator 4.3.1

SDG 4.4 - Technical and vocational skills

- Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill – Global Indicator 4.4.1

SDG 4.5 - Equal access to all levels of education and training for the vulnerable

- Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated - Global Indicator 4.5.1^[SEP]

SDG 4.6 - Youth and adult literacy and numeracy^[SEP]

- Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex - Global Indicator 4.6.1^[SEP]

SDG 4.7 - Knowledge and skills needed to promote sustainable development^[SEP]

- Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment - Global Indicator 4.7.1^{***}

SDG 4.a - School environment^[SEP]

- Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic hand washing facilities (as per the WASH indicator definitions) - Global Indicator 4.a.1

SDG 4.b - Scholarships^[SEP]

- Volume of official development assistance flows for scholarships by sector and type of study - Global Indicator 4.b.1

SDG 4.c - Qualified teachers

- Proportion of teachers in: (a) pre-primary education; (b) primary education; (c) lower secondary education; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g., pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country, by sex - Global Indicator 4.c.1

* “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United nations, 2019, 4 Quality Education, heading)

** A set of 11 global and 32 thematic indicators have been agreed for the follow-up and review of the SDG 4 - Education 2030 Agenda. This box reports only the global indicators

*** This is the only indicator based on qualitative information. But a number of quantifiable thematic indicators complement this global indicator.

Source: Technical Cooperation Group on the Indicators for SDG 4 – Education 2030 (TCG)

In short, the use of social indicators for policy-making has several benefits, as they have the potential to communicate complex issues in a simple and understandable manner, can help in the formulation of explicit goals and in monitoring and assessing progress. However, social indicators also present some limitations in terms of their design, reliability, impact, and use for evidence-based policy.

The design of indicators - Martínez and Dopheide (2014) argue that two opposing views exist on indicators, and on the practice of designing them. On the one hand, is what they call a ‘mechanistic’ view that perceives indicators as value-free, technocratic, exclusive, remote, rational and distant, hence constructing an indicator is simply a matter of primarily ‘data, counting and number crunching’ (Ibid., p. 4). On the other hand, is what they call a ‘critical inclusive view’ that perceives indicators as

‘knowledge, understanding, and communication’ (Ibid, p.4), which sees indicators as value-charged data. In the former case (i.e., a mechanistic view) the ‘objectivity’ of indicators excludes both local voices and differences as it prioritises the needs and interests of the higher administrative levels, measurement becomes more important than the social problem itself, and, most importantly, indicators are often created on the basis of data availability rather than validity. In the latter case (i.e., a critical inclusive view) the complexity of the social problem indicators should capture is believed not to be measurable in its entirety by a set of indicators, so only quantifiable areas of reality should *de facto* be measured.

The reliability and impact of indicators - In line with a critical inclusive view, Merry (2011) argues that indicators are a form of knowledge production that re-shapes power relations (between nations, governments and society) and has important societal effects. First, indicators produce a kind of knowledge of the world, which does not explain either the context, or history of a particular issue. Second, governance overwhelmingly relies on experts and technology rather than on value judgements, political ideas or local needs. Rametsteiner Pulzl, Alkan-Olsson and Frederiksen (2011) specify that the construction of indicators is not only a form of ‘knowledge production’ but also a (new) form of political ‘norm creation’. In fact, when experts engage with the operationalization of concept such as quality, effectiveness, well being into measurable indicators, they take ‘normative’ decisions based on (at times implicit) philosophical and political perceptions and intentions (i.e., value judgements). Nonetheless, from a ‘mechanistic’ view, the normative side of indicator-creation is not adequately acknowledged.

The links between indicators and evidence-based policy goals - It comes as a consequence that, from an ‘instrumental view’, the relationship between evidence and policy is assumed as ‘unproblematic, linear and direct’, and hence it is a matter of simply selecting those indicators (for which data is available) that best suit specific policy goals (Martínez and Dopheide, 2014). Accordingly, ‘evidence-based’ policy assumes that research is driven by the idea of finding evidence for policy solutions. By contrast, from an ‘enlightenment view’, the relationship between evidence and policy is assumed as problematic, and hence the emphasis should be placed on ‘evidence-informed’ policy, where research would be “less one of problem solving than of clarifying the context and informing the wider public debate” (Davoudi cited in: Martínez and Dopheide, 2014, p. 4).

All of the above brings attention to the complex relation policy-making holds with social indicators, which starts as early as the policy formulation stage, and the way policy goals are defined, but also to the way indicators connects to benchmarks, and their use in European policy, on which we now turn attention.

1.2.2 Benchmarks

Benchmarks are accepted standards to evaluate performances and (by comparison) “what, where and how improvement can occur” (Garlick and Pryor, 2004, cited in: UNESCO, 2005, p. 3). A standard is the required or agreed level of attainment that is thought to be acceptable in a certain area, and it is thus used to judge the quality of something else. Thus, benchmarks are the result of self-evaluations or the selection of ‘good practices’ through comparisons that, based on both quantitative and qualitative data, lead to the identification of, and agreement on, acceptable standard performances.

However, benchmarks can focus on inputs (e.g. resources), processes (e.g. curriculum) or outcomes (e.g. student’s achievements), as well as on any combination of these. Moreover, as Jackson (2001) notes, benchmarks can be set with the scope of improving either the performance of an organization (e.g. an educational institution) at all levels, or different expressions of the same inputs, processes or outcomes (or any of their combinations), across organizations (e.g. all educational institutions within a country); hence it is possible to distinguish between so-called *vertical* versus *horizontal* benchmarking (Jackson, 2001). Moreover, benchmarking can be *explicit*, when deliberate or systematic or *implicit*, when a by-product of data generation (Jackson, 2001).

Since the Lisbon Council in 2000, indicators and benchmarks have been a cornerstone of European education and training policy, and are considered essential for its implementation (European Commission, 2004).

In fact, in 2001 the Education Ministers agreed on shared objectives for national education and training systems within the Union to increase their quality and effectiveness, facilitate the access of all, and open up to the wider world. Such shared objectives called for specific benchmarks against which to assess progress made over time by the EU and its member states. Accordingly, the Standing Group on Indicators and Benchmarks was set up with the aim to provide recommendations on how to measure the achievement of the shared objectives agreed by the Education Ministers. Assisted by international organizations like the OECD, and EU specialised agencies like Eurostat, Eurydice, CEDEFOP, and the European Training Foundation, the Standing Group on Indicators and Benchmarks identified twenty-nine indicators in conjunction with the thirteen objectives of the Education and Training 2010 (ET 2010) work programme. On this ground, the Education Council adopted five benchmarks, which the European Commission recommended for comparisons at national, regional and school level as an effective practice (European Commission, 2003) (see table 1). In 2004, the Commission’s report on indicators (European Commission, 2004) underlined an urgent need for collecting new data, and developing new indicators to further develop the benchmarks in education and training with the double scope of

measuring progress and performance at the same time as stimulating the exchange of good experience and new ways of thinking about policy approaches in these areas. Following policy consolidation, and the new objectives set within the Education and Training 2020 work programme (ET 2020), the Council adopted a renewed set of seven benchmarks to be achieved by 2020 (see table 1.2).

Comparing the benchmarks to monitoring progress in Education and Training by 2010 and 2020, two observations are here worth attention.

First, several areas in which progress is monitored through dedicated benchmarks have changed over time. *Early childhood education*, not on focus in the monitoring of ET 2010, has received more attention over time, with a dedicated benchmark in the monitoring of ET 2020. In the field of Higher Education, concerns have changed over time from the number of *Graduates (in mathematics, science and technology)*, under ET 2010 to *Completion (of higher education) rates among people in their early 30s*, under ET 2020. Moreover, concerns with *Completion (of upper secondary education) rates among younger adults (22 year-old)* in the monitoring of ET 2010, have been somewhat abandoned in the monitoring of ET 2020, in favour of a new attention to young adults (18-34 year-olds) that have been *Studying or training abroad* as part of their higher education or initial vocational education and training. In addition, in the latest monitoring period (ET 2020), a new concern has emerged in relation to the number of *Employed graduates*.

Second, the skills of *15 year olds*, the rate of *early leavers* from education and training, and adult participation in *Lifelong learning* are three areas in which monitoring concerns have remained substantially unchanged from 2010 to 2020. Yet the accepted standards to evaluate countries performances in each of these areas have been adjusted over time.

When we centre attention on adult learning, as it is in the scope of this report, the only explicit benchmark monitored under the Education and Training work programme pertains to the percentage of adults engaged in some forms of lifelong learning, which has been raised from 12.5% (ET 2010) to 15% (ET 2020).

Nonetheless, a consolidation of benchmarks to monitoring adult skills and learning policies across the EU within the European Semester has been proposed in 2018 by the EC (European Commission, 2018) through a new framework for benchmarking.

Table 1.2 - Benchmarks under the Education and Training programme, 2010, 2020

Areas

Education and Training 2010

Education and Training 2020

Early childhood education		At least 95% of children (from 4 to compulsory school age) should participate in early childhood education
15 year olds	By 2010, the percentage of low-achieving 15 year olds in reading literacy in the European Union should have decreased by at least 20% compared to the year 2000	Fewer than 15% of 15-year-olds should be under-skilled in reading, mathematics and science
Early leavers	By 2010, a EU average rate of no more than 10% early school leavers should be achieved	The rate of early leavers from education and training aged 18-24 should be below 10%
Graduates in mathematics, science and technology	The total number of graduates in mathematics, science and technology in the European Union should increase by at least 15% by 2010 while at the same time the level of gender imbalance should decrease	
Studying or training abroad		At least 20% of higher education graduates and 6% of 18-34 year-olds with an initial vocational qualification should have spent some time studying or training abroad
Completion (of upper secondary education)	By 2010, at least 85% of 22 year olds in the European Union should have completed upper secondary education	
Completion (of higher education)		At least 40% of people aged 30-34 should have completed some form of higher education
Lifelong learning	By 2010, the European Union average level of participation in Lifelong Learning should be at least 12.5% of the adult working age population (25-64 age group)	At least 15% of adults should participate in lifelong learning
Employed graduates		The share of employed graduates (aged 20-34 with at least upper secondary education attainment and having left education 1-3 years ago) should be at least 82%

Source: Council of the European Union, 2003; 2009

The European Semester is “a cycle of economic and fiscal policy coordination” (European Council and Council of the European Union, 2018), proposed by the European Commission in May 2010, approved by the Economic and Financial Affairs Council (ECOFIN) and finally launched in January 2011. Although it is at times addressed as a ‘new coordination mechanism’ (Costamagna, 2013), the European Semester represents *de facto* ‘a new framework for policy-coordination’ (Verdun and Zeitlin, 2018, p. 137) at both horizontal and vertical level, as it “provide[s] a new socioeconomic governance architecture to co-ordinate national policies without transferring full sovereignty to the EU level” (Verdun and Zeitlin, 2018, p. 137). As

Costamagna (2013, p. 12) notes: “This enables EU institutions to exercise policy formulation, supervision and guidance on issues [...] that fall within Member States’ competency”, including education, lifelong learning and people skills (Stevenson et al., 2019).

The new framework for benchmarking adult skills and learning policies under the European Semester centres attention on the labour market domain rather than education, and consists of three types of indicators: outcome indicators, policy performance indicators, and policy lever indicators.

Outcomes indicators, which should measure the level of performance or achievement that occurred because of an activity or service has been provided, cover: employment rate, skills mismatch and labour productivity.

Policy performance indicators that should assess the implementation of policy measures consist, among others, of: education attainment levels, adult participation rates in education, share of population with certain digital skills.

Finally, levers are what put pressure on someone to do something. By extension, a policy is seen as a lever because it pushes individual or groups to change their behaviour. *Policy lever indicators* are a new element in comparison with other benchmarking frameworks (see box 1.7) and cover: information or advice on learning opportunities, participation in training activity by the unemployed and by qualified adults, and publically co-financed training activities by companies.

Box 1.7 – Policy lever indicators, framework for benchmarking adult skills and learning policies by the European Commission

Policy levers are “specific policy parameters that have been identified as relevant for policy convergence with a view to better socio-economic outcomes” (EC, 2018, p. 1)

- The share of adults who have received free-of-charge information or advice/help on learning opportunities from institutions/organisations during the last 12 months (age group 25-64)
- The share of unemployed adults who participated in any training activity during the last four weeks before the survey as part of all unemployed adult (age group 25-64)
- The share of low qualified adults who participated in any training activity during the last four weeks before the survey as part of all low-qualified adults (age group 25-64)
- The share of companies that report to have received any type of public co-financing for training activities in a reference year

Source: [European Commission \(2018\)](#)

The EC (2018) stresses that the proposed benchmarking framework differs from the benchmarking framework implemented to monitoring progress under ET 2020, because the latter is based on numerical indicators only, whereas the former follows a more qualitative approach based on policy levers. But policy lever indicators are

equally quantifiable measures, and the main idea behind the approach of the EC for benchmarking adult skills and learning policies across the EU, under the European Semester, is to identify the key levers for a positive impact of adult skills and learning on labour market outcomes.

In extreme synthesis, the EU agreed on a new growth strategy, *Europe 2020*, to tackle the socio-economic repercussion of the Great Recession of 2008-2009 felt throughout Europe. Accompanying the implementation of Europe 2020, the use of the OMC, and evolution in evidence-based policy have given impulse to designing and using EU indicators and benchmarks to monitoring member states progress towards common goals agreed in a number of policy areas. In the meantime, the introduction of the European Semester has further blurred the boundaries between education and economic and fiscal policy. Under these circumstances, an explicit benchmark (i.e., at least 15% of adults should participate in lifelong learning by 2020) has codified the agreed level of acceptable attainment in the area of adult learning. However, in recent years adult skills and learning policies have also been made the object of systematic benchmarking, in an attempt to put pressure on member states to change their behaviour in ways that are believed to have a positive effect on labour market outcomes.

But along this process, an implicit benchmarking on adult skills has also occurred, through the development of PIAAC, with the active participation of the OECD in data generation pertaining to the field of adult learning, as we shall see next.

1.3 The Programme for the International Assessment of Adult Competencies (PIAAC)

The *Programme for the International Assessment of Adult Competencies* (PIAAC)

is a programme of assessment and analysis of adult skills. The major survey conducted as part of PIAAC is the Survey of Adult Skills. The Survey measures adults' proficiency in key information-processing skills - literacy, numeracy and problem solving - and gathers information and data on how adults use their skills at home, at work and in the wider community. (OECD, n.d, About PIAAC)

Run under the auspices of the OECD, upon agreements with national governments, it is emblematic that PIAAC is often used as a synonymous for the Survey of Adult Skills, even on the OECD's webpage.

Thus far the Survey has been carried out in three rounds:

- **Round 1** (with data collection in most countries taking place in 2011-2012) involved twenty-four countries, including most EU member states (Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Slovak Republic, Spain, Sweden,

United Kingdom), Australia, Canada, Japan, Korea, the United States of America (USA), and the Russian Federation (an OECD partner).

- **Round 2** (with data collection taking place in 2014- 2015) involved nine additional countries from within the EU (Greece, Lithuania - an OECD partner - and Slovenia) and Europe more widely, Asia and the Middle East (Indonesia, Israel, Singapore, Turkey), Oceania (New Zealand), and South America (Chile).
- **Round 3** (with data collection taking place in 2017-2018) saw additional five countries to join the survey from the EU (Hungary), Latin America (Ecuador, Mexico, Peru) and Central Asia (Kazakhstan), whereas the USA will run it for a second time to start producing longitudinal data on their own country.

It comes with no surprise that a similar enterprise of data generation on adults' proficiency in literacy, numeracy and problem solving skills is led by the OECD, in the light of the experience gained in the late 1990s and early 2000s, thanks to its cooperation with Statistics Canada, in the realization of two previous comparative surveys on adult literacy and life skills:

- The *International Adult Literacy Survey* (IALS), with the participation of approximately twenty countries over three rounds (1994, 1996, 1998), covering most of Europe, North America (Canada, USA), Latin America (Chile) and Oceania (Australia, New Zealand).
- The *Adult Literacy and Life Skills Survey* (ALL) with the participation of ten countries from Europe, North America and Oceania over three rounds (2003, 2006, 2008), a first ever attempt to move towards longitudinal studies of adult skills by expanding its coverage beyond literacy.

Adding to this is the expertise gained by the OECD in the running of the *Programme for the International Assessment of Students* to test the performances of 15-year-old students in reading, mathematics and science every three years from 2000 onwards.

Nonetheless, it is worth recalling that it is through IALS that a first international taxonomy of literacy proficiency occurred.

A taxonomy (or classification or taxonomic system) is a system of two or more descriptive concepts. They may describe, from any span of time and space, some aspect of the experienced world, such as actual learning events, or some conceptualized ideal, such as educational goals. (Bagnall, 1990, p. 229)

As such, a taxonomic system relies on qualitative descriptors to organize information in a standardized format like, for instance, the International Standard Classification of Education (ISCED), which classifies education programmes and qualification according to a set of descriptors to order and facilitate comparisons of educational systems within and between countries. Often, taxonomies in education are used to identify different stages of learning for educational planning and learning assessment (O'Neill and Murphy, 2010) like, for instance, the Common European Framework of Reference

for Languages (CEFR) (Council of Europe, n.d.). Independently from their scope, taxonomies are highly normative in nature, as they embody “the beliefs and values of their creators, and the socio-historical contexts in which they are working” (Bagnall, 1990, p. 231).

IALS’ taxonomy of adult literacy identified five levels of literacy proficiency of which its middle one (Level 3) has ever since been considered the minimum international desirable standard in Europe and beyond. Such a level was originally constructed as

the level considered by experts as a suitable minimum level for coping with the increasing demands of the emerging knowledge society and information economy (Statistics Canada and OECD, 2005, p.31)

Level 3 as the minimum international desirable standard has endured in the Survey of Adult Skills with reference to literacy, numeracy and problem solving in technology-rich environments (see table 1.3). As such level 3 in literacy, numeracy and problem solving in technology-rich environments has become an *implicit* and *horizontal* benchmark (see section 1.2) for assessing not only OECD’s member and non-member states’ performances (Hamilton, Maddox, and Addey, 2015), but also the performance of EU member states, in terms of their policy outputs.

These implicit benchmarks that focus on outcomes (i.e., adults’ proficiency) to evaluate by comparison EU policy, and member states’ performances, are the results of deliberate forms of collaborations among the EU institutions, its member states, and the OECD to generate data in the field of adult learning.

Table 1.3 – The Survey of Adult Skills: Level 3 of proficiency		
Literacy	Numeracy	Problem solving in technology-rich environments
“Texts at this level are often dense or lengthy. Understanding text and rhetorical structures is often required, as is navigating complex digital texts.”	“Tasks at this level require the application of number sense and spatial sense; recognising and working with mathematical relationships, patterns, and proportions expressed in verbal or numerical form; and interpreting data and statistics in texts, tables and graphs.”	“At this level, tasks typically require the use of both generic and more specific technology applications. Some navigation across pages and applications is required to solve the problem. The task may involve multiple steps and operators. The goal of the problem may have to be defined by the respondent, and the criteria to be met may or may not be explicit. Integration and inferential reasoning may be needed to a large extent.”

Source: OECD (n.d.), *Key facts about the Survey of Adult Skills (PIAAC)*, pp. 3-4.

In fact, at the time an explicit benchmark on adult learning under ET 2010 was recommended for EU comparisons (European Commission, 2003), a number of

European statistical sources existed, which could help monitoring participation, like the Labour Force Survey, or the Continuous Vocational Training Survey, which had been complemented by the Adult Education Survey since 2005, producing data on adults participation in formal, non-formal and informal education. Yet the EU had not specialised expertise for monitoring the outcomes of adult learning. So in 2007, the EC considered whether data to monitoring such outcomes “could be covered by a survey focused on adults’ skills measurement which is under preparation by the OECD, or whether a new EU survey should be developed” (European Commission, 2007, p.11) (Milana, 2017). This doubt was finally resolved and led to a cooperation framework agreed in 2013 between the EU and the OECD to “join forces in three important aspects of education and skills development: Skills Strategies, Country Analyses and International Surveys” (European Commission, 2013).

Accordingly, the EU institutions gave finally away the idea of developing own means for data generation on the outcomes of adult learning. Thus, EUROSTAT entered cooperation with the OECD, and national statistics agencies, instead, whereas member states were allowed to use EU resources (redistributed through the Structural Funds) to support the generation of data on adults’ proficiency in literacy, numeracy and problem solving in technology-rich environments at national level.

Concomitantly with the development of the Survey of Adult Skills, the OECD developed its own Skills Strategy advancing “a systematic and comprehensive approach to skills policies” (OECD, 2012, p. 13). As part of the Skills Strategy, individual countries, including several EU member states, have been and are being diagnosed by the OECD with the economic support of the EC, to identify the set of skills requiring intervention at national level, on which ground individual countries have at times developed concrete plans for action, in dialogue with the OECD. Moreover, an online self-assessment version of the Survey of Adult Skills has been produced, as a joint initiative of the OECD and the EU, with the scope of assessing youth and adults’ skills by government organizations, educational institutions and public and private companies, among others. For this reason the tool is already available in multiple languages (i.e., Czech, English, Estonian, French, Japanese, Italian, Russian, Slovak, Slovenian, Spanish), but the number of languages is expected to increase in the years to come.

Back to the Survey of Adult Skills, the first comparative results were released on October 2013 (OECD 2013a), and the EU and the OECD organized a joint event in Brussels. For the occasion the EC published a short document on the key Survey’s results for Europe, which considers the implications for education and training policies (EC 2013), and reaffirms that “For future rounds of the Survey, the EU Member States’ participation cost can be financed by the Structural Funds.” (EC 2013, p. 26).

Moreover, the then Commissioner for Education, Culture, Multilingualism and Youth, Ms. Androulla Vassiliou, in a public speech, declared:

I am sure that the Survey findings will also be reflected in the Commission's Annual Growth Survey and in next year's Country Specific Recommendations. Together with the OECD, we will carry out further analysis of the data in the Survey in order to help Member States better understand how to develop the skills of their citizens. We need to ensure that future editions of the Survey provide us with an opportunity to monitor progress. In a similar vein, the Commission and OECD will jointly launch a new Education and Skills Online Assessment tool later this autumn. This will allow people to test their skills and benchmark their own abilities in an international context. (Vassiliou, 2013, par. 21-23)

Ever since, reference is made to the Survey's results to backup the political declaration that "Action is also needed to improve education and skills performance" (European Commission, 2013, p. 12) within the Union, as well as in Country Specific Recommendations that, under the European Semester, are agreed, endorsed and adopted by the EU institutions, and which member states are expected to acknowledge and take into account in national decision-making processes on own national budgets for the year to follow (Milana and Klatt 2019a).

In short, in the wake of the Great Recession of 2008-2009, and the subsequent *Europe 2020* strategy, policy directives and recommendations by the EU and the OECD invited national governments to 'rethinking education' (European Commission 2012) so to better promote investments in skills development, and for adults' skills-upgrading or 'reskilling' (OECD 2013a). To do so, however, there was a need to generate data on the outcomes of adult learning, and as the OECD had already engaged with measuring adult skills, the first Survey's results have put adults' performances back on the European agenda. This way both the data generated through the Survey and PIAAC 'implicit' benchmarking of Level 3 in adults' performances backed EU standard setting in adult learning. But when national governments hand over the task of undertaking 'objective' evaluations, as with the Survey, to international organizations, these increase their power position (Grek, 2009; Martens and Niemann, 2010). Such calculative practice, as Miller (2001, p. 379) argues, "alter the capacities of agents, organizations and connections among them", hence "enable new ways of acting upon and influencing the action" of national governments.

One of the ways such influence occurs is by EU standard setting in adult learning, and PIAAC, somehow entering national public debates via the media.

1.4 PIAAC and the media

The media are not only the recipients of information. As already noted, they contribute to knowledge production from ideological stances. Hence, we take a stand in this report that the media, and particularly highly circulating newspapers, influence in significant ways the public debate that informs national policy.

The first investigations of the way the media popularize discourses that reinforce the connections between adult skills measurements and progresses in government

policies covered Canada, and were based on the IALS's results (Walker and Rubenson, 2013).

In recent years, however, there has been small-scale but promising strand of research undertaken that focuses on PIAAC, the Survey of Adult Skills, and the media.

For instance, Cort and Larson (2015) examined how the media in Denmark covered the release of the first Survey results. They analyzed around thirty articles from print media, broadcast media and online media related to PIAAC, to question whether the public debate about such results had been “a window of opportunity” (Zahariadis, 2003) that could have potentially opened up for new policy solutions at country level.

Still focusing on the first Survey results, Yasukawa, Hamilton and Evans (2017) examined and compared the ways national media (newspapers) covered such results in Japan, England and France, and to what extent new information mirrored what had been identified as the key messages in the Country Notes produced for those countries by the OECD. This work considers news coverage of the Survey results in the period immediately after the OECD release (8 October 2013) up to December 2013 “in a selection of key national daily newspapers in each country” (Ibid, p. 273).

Building on this study, Hamilton (2018) further explored how the media in Greece, New Zealand, Singapore, and Slovenia reported on the findings from the second round of the Survey in the week following their release by the OECD (28 June 2016). As the author claims, the data set “come[s] from primary research on internet documents and media reports” (Ibid, p. 171), and comprised between eight and sixteen articles per country.

Furthermore, Hamilton (2017) has also looked at the way public awareness and opinion is influenced through the OECD release to the media of the findings from the second round of the Survey. This work paid attention to the way the OECD presented and explained the Survey results in press releases and planned media events, and further shared this information through a webinar, which recording is also available on Youtube, and the slides on Slideshare.

In short, while the scope varies across studies, the method presents some limitations, and coverage of EU member states is extremely limited, available research points at media coverage and content analysis as a promising way forward to examine the influence of the OECD, PIAAC, and the Survey of Adult Skills on public awareness, opinions and debates at national level.

Hence, our study, while restricting attention to newspapers, significantly contributes to this emerging strand of research in at least two ways. First, it considers a longer time-span that covers the release of the findings from the first and second round of the Survey. Second, it covers new EU member states, and member states only, hence it allows for an intra-European comparison.

The next chapter provides full information on the methodology applied, including further details on the selection of countries and newspapers coverage.

Chapter 2 - Methodology

Marcella Milana and Sandra Vatrella (University of Verona)

We conducted a content analysis of news articles (N=116) in six EU member states to examine how PIAAC entered the news coverage and influenced public debate that inform national policy-making. This chapter illustrates the methodological strategy applied for data collection and analysis. Such strategy draws on the literature on qualitative approaches (Altheide and Schneider 2013; Mayring, 2004) to media content analysis (among others: Macnamara 2005; Martins et al. 2013; Matthes and Kohring, 2008; Krippendorff, 2018), and particularly those employed to analyse newspapers content in multi-year studies (Lacy et al, 2001). In so doing, it also acknowledges what done in existing analyses of national media responses to the PIAAC survey data (Yasukawa et al, 2016; Hamilton, 2017).

2.1 Country coverage

The study covers six of the countries involved in the ENLIVEN project: Belgium/Flanders, Denmark, Estonia, Italy, Slovakia, and the United Kingdom. These were selected following the typology of Welfare State Regimes connected to education and labour market policies that, building on earlier work (Green, 2006; Helemäe and Saar, 2011; among others), was developed by Roosmaa and Saar (2017) (see table 2.1). Albeit the typology includes one additional welfare state regime (Post-socialist, Balkan) represented by Bulgaria within the ENLIVEN project, we excluded this country from our study, as it did not partake in the Survey of Adult Skills.

Country included in this study	Type of Welfare State Regime (Education and labour market policies)
Belgium/ Flanders	Conservative, continental
Denmark	Nordic, social democratic
Estonia	Post-socialist, neoliberal
Italy	Southern European
Slovakia	Post-socialist, embedded neoliberal
United Kingdom	Liberal

Source: Roosmaa and Saar (2017)

This selection enables to directly connect the concerns underlying PIAAC (i.e., the assessment and analysis of adult skills) with contextual factors. In fact, the above typology of WSR is closely connected, on the one hand, to the relationship between educational attainment and employment; and on the other hand to the related

concerns about adult competencies and employability and the connected policies. Moreover, the country covered by this study position differently in international comparison of adults' proficiency in literacy, numeracy and problem solving in technology-rich environments that result from the Survey of Adult Skills.

To understand such differences it is useful to consider the data published by OECD in 2016. As table 2.2 below shows Denmark and Flanders are significantly above the OECD average. These countries are not so different from England; despite England's numeracy mean score is similar to the OECD average. Both Estonia and Slovakia are above the OECD mean score in literacy and numeracy skills, but below the average percentage recorded in problem solving. Italy is significantly below the OECD mean scores in both literacy and numeracy, but also in the percentage of people scoring at level 2 or 3 in problem solving in technology-rich environments.

Table 2.2 - Mean proficiency scores of 16-65 year-olds in literacy and numeracy, and the percentage of 16-65 year-olds scoring at Level 2 or 3 in problem solving in technology-rich environments, by country.

Country	Literacy (mean score)	Numeracy (mean score)	Problem solving (% at level 2 or 3)
Denmark	271	278	39
England (UK)	273	262	35
Estonia	276	273	28
Flanders (Belgium)	275	280	35
Italy	250	247	m
Slovak Republic	274	276	26
OECD average	268	263	31

Source: Partially adapted from OECD skills studies (2016).

Similar to OECD average	Above OECD average	Below OECD average
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In short, our selection of countries guarantees different combinations of the above listed factors (i.e., relationship between educational attainment and employment, concerns about adult competencies and employability, positioning in international comparisons of adults skills) and can serve as a good basis to consider how these factors combine and affect knowledge production about adult learning, via data generation, through PIAAC coverage in nationally-relevant newspapers.

2.3 Newspapers selection and data collection

A team of 9¹ researchers across the ENLIVEN consortium and beyond were involved in the identification and selection of the articles (i.e., news articles, editorials and

¹ The team of researchers involved in this study includes (ordered by country): Gosia Klatt (Melbourne University), Australia; Heidi Knipprath (Catholic University of Leuven), Belgium; Anne Larson (Aarhus

opinion pieces) that compose our data set, following a share protocol. In each country covered by this study, the researchers identified between 3 to 5 highest circulating newspapers that at national level represent different political, ideological, cultural orientations (i.e., left-wing, right-wing, centre-wing and economic-newspapers). Then, online archives, including those owned by the selected newspapers, were searched from 2012 (a year ahead of the first release of the PIAAC Survey’s results) and 2019 (July). Acknowledging linguistic differences, search terms that were entered into the database included a pool of common terms (Programme for the International Assessment of Adult Competencies; PIAAC; Survey of Adult Skills) searched in English and in local languages. This pool of common search terms was integrated, as needed, with additional terms in local languages that were deemed relevant at country level. Overall the search yielded a total of 116 articles, which were judged relevant for this study (see table 2.3, next page).

Table 2.3 – Items that compose the data set by country, newspaper, and political orientation

Country	Newspaper	Acronym	Political orientation	No. of articles
<i>Belgium</i>	<i>Het Laatste Nieuws</i>	HLN	Right-wing	2
	<i>De Standaard</i>	DS	Liberal-conservative	4
	<i>De Morgen</i>	DM	Left-wing	1
	<i>De Tijd</i>	DT	Liberal	1

University) and Palle Rasmussen (Aalborg University), Denmark; Marti Taru (Tallinn University), Estonia; Marcella Milana and Sandra Vatrella (University of Verona), Italy; Miroslava Klempova and Ivana Studena (Centre of Social and Psychological Sciences), Slovakia.

		<i>Total</i>		8
	<i>Berlingske</i>	BL	Liberal-conservative	5
	<i>Børsen</i>	BO	Liberal	1
	<i>Information</i>	IN	Left-wing	2
<i>Denmark</i>	<i>Jyllands-Posten</i>	JP	Liberal-conservative	10
	<i>Kristeligt Dagblad</i>	KD	Christian	2
	<i>Politiken</i>	POL	Centre-left	7
		<i>Total</i>		27
	<i>Eesti Päevaleht</i>	EPL	Centre-left	7
<i>Estonia</i>	<i>Äripäev</i>	AP	Liberal	5
		<i>Total</i>		12
	<i>La Repubblica</i>	R	Centre-left	9
<i>Italy</i>	<i>Il Sole 24 Ore</i>	S	Liberal	8
	<i>Il Giornale</i>	G	Right-wing	6
		<i>Total</i>		33
	<i>Denník N</i>	DN	Liberal	1
	<i>Dobré noviny</i>	DO	n.d.	1
<i>Slovakia</i>	<i>Hospodárske noviny</i>	HN	Liberal	1
	<i>SME</i>	SM	Liberal	2
	<i>Teraz</i>	TE	n.d.	1
	<i>Trend</i>	TR	Economic	2
		<i>Total</i>		8
	<i>Daily Mail</i>	DM	Conservative	9
	<i>Financial Times</i>	FT	Liberal	6
<i>United Kingdom</i>	<i>The Daily Telegraph</i>	DT	Conservative	6
	<i>The Guardian</i>	G	Centre-left	7
		<i>Total</i>		28
			<i>Total number of articles</i>	116

Source: Our adaptation from ADS; Federal Agency for Civic Education (www.eurotopics.net); Financial Times (2018); Smith, M. (2019); and Statista (2019).

2.4 Items' systematization and data synthesis

The items that compose our data set were first ordered by newspaper and chronologically (from the oldest to the most recent one), then, for each item, local researchers produced a data synthesis, including also analytical observations, following a grid that was purposefully developed to this scope (see annex 1).

The grid was conceived as a research tool articulated in two sections.

The first section gathers descriptive information and “a host of variables known to influence readers’ perceptions of credibility and persuasiveness” (Martins, Weaver, Yeshua-Katz, Lewis, Tyree and Jensen, 2013, p. 1075). These included:

- Contextual features (newspaper’s title and orientation, type of article, date of publication, articles’ title, author’s name and role);
- PIAAC position and whether it was the main topic/scope of the article, situated in between other issues, or mentioned but not discussed).

The second section offers analytical information, around the following dimensions:

- a) Data and information (to understand what is the topic and how it is presented);

- b) Graphical displays and images (to study how data and information is organised and shown, but also which kind of inner statement/meaning they carry on);
- c) Credibility and reliability (to understand if, how and why (i.e. to what end), there is any reference to the reliability and credibility of the data/information presented in the article);
- d) Policy (to study if there is any reference to politicians, political priorities/agendas, educational reform etcetera);
- e) Language, style and meaning (to better understand how the article contributes to knowledge production about PIAAC in a given country).

2.4 Analytical strategy

By making reference to the methodological literature on the analysis of empirical material (Cardano, 2011), and paying due attention to those techniques that are consistent with the aim of studying how texts contribute to knowledge production (Kauffman, 2011; Søndergaard, 2002), we developed a consistent analytical strategy.

Briefly, our analytical strategy employed the same dimensional basis used to gather data. Therefore, after an intensive reading of the empirical material we had collected, we constructed a matrix for analytical purpose. This was conceived so as to render the empirical basis subject to analysis in a way capable of combining accuracy, parsimony and flexibility (Miles and Huberman, 1985). Hence, the matrix mirrors the structure of the above-mentioned grid for data collection, and for each article collected, it contains and synthesises both descriptive and analytical information.

In order to make information both compact and comparable, the matrix was conceived as a sort of “cases for variables” matrix, where the cases (i.e., the articles) are stored in the row vectors, and the variables (i.e., information about the article) are placed in the column vectors. These vectors make immediately clear: the role each article assigns to PIAAC, the topic on which it focuses, the possible presence of hinted information and of implied casual relationships, the way in which each article makes statements, and presents data, as reliable and credible, the emerging policy agenda, the way in which the problem with adult learning is represented, and through which kind of rhetorical figures and/or line of argument this is done.

So, on the one hand, the matrix allowed us to miniaturise the information we gathered not only in terms of topics and aims emerging from each article, but also regarding the discursive dimensions in which we were interested (e.g. credibility, reliability, policy agenda); on the other hand, the matrix also made possible a double comparative effort that allowed us to:

1. Compare information at national level, by analysing how information is presented, represented, and varies between the newspapers, and over the years under consideration;

2. Analyse how information changed across countries, and over the years, since 2012 to 2019 (July).

The results of our analysis are presented in Chapters 3-9. Due to time and space constraints, however, not all the information collected is presented in this report. In fact, although of interest, some information has been omitted to make the narrative consistent and congruent with the analytical objectives of this report.

Chapter 3 – PIAAC and the Belgian press

Marcella Milana (University of Verona) and Heidi Knipprath (Catholic University of Leuven)

This chapter reports on the media analysis performed on 8 Belgian articles to examine how PIAAC influences the public debate that informs policy in Belgium. The chapter is organized in four sections. Section one describes the selection criteria used to identify relevant newspapers for the scope of this study. Section two provides an overview of our dataset. Section three presents the results of the content analysis. The chapter concludes with a short summary of the main findings.

3.1 Newspapers selection and data set

In order to identify the highest circulating newspapers for inclusion in this study (see table 3.1), we looked at the share or popularity of all Belgian newspapers. On this ground, we then considered the political orientation of each of the newspapers with the scope of selecting those with the highest share, while guaranteeing also a balance across different political orientations and publics (cf. chapter 2). So, for instance, two of the highest circulating newspapers, *Gazet van Antwerpen* and *Belang van Limburg*, despite a share of 9% each, were finally excluded from our selection as they are both local and centre-wing newspapers, just like many other newspapers in the Flanders. Two more newspapers were originally selected, but finally excluded as no articles of relevance for this study was found in these newspapers over the time span under consideration (2012-2019, July). These are: *Nieuwsblad*, a Flemish daily positioned to the centre of the political spectrum, and second most popular newspaper (24% share), and *Metro*, a free Belgian daily distributed in both Dutch and French versions (11% share). The search across the four remaining newspapers (*Het Laatste Nieuws*, *De Standaard*, *De Morgen*, *De Tijd*) yielded 8 articles in total.

Table 3.1 – Belgium. Newspapers, by political orientation and selected characteristics, and number of articles included in the dataset

Newspaper	Acronym	Political orientation	Year first published	Share (2017)	Circulation (2017)	No. of articles
<i>Het Laatste Nieuws</i>	HLN	Right-wing	1888	30%	n.d.	2
<i>De Standaard</i>	DS	Liberal-conservative	1918	9%	100,000	4
<i>De Morgen</i>	DM	Left-wing	1978	5%	55,000	1
<i>De Tijd</i>	DT	Liberal	1968	3%	41,000	1
Total of articles						8

Source: [Federal Agency for Civic Education \(www.eurotopics.net\)](http://www.eurotopics.net).

Het Laatste Nieuws is a Dutch language newspaper founded in 1888. Based in Brussels, it is right wing oriented, and the most popular newspaper (30% share) in both Flanders and Belgium.

De Standaard is a Flemish newspaper published in Belgium (9% share). A liberal-conservative daily by tradition (in opposition to the left-wing oriented Flemish newspaper, *De Morgen*), it was first published in 1918.

De Morgen is a Flemish newspaper published in Brussels (5% share), and the only left-wing oriented daily at national level.

De Tijd is a liberal Belgian newspaper in circulation since 1968 (3% share) mainly covering business and economics.

It is worth noting that *De Morgen*, *De Standaard* and *De Tijd* are considered as the Belgian newspapers with high quality standards.

3.2 Media coverage overview

Coverage of PIAAC by Belgian newspapers is sparse and evenly distributed across the years under consideration, with two exceptions (see table 3.2). First, in 2018, two newspapers from the right wing (*Het Laatste Nieuws*) and left wing (*De Morgen*) political spectrum coincided in making reference to PIAAC on August 16 and 17 (see next section). Second, in 2019, we found no article of relevance published until July.

Table 3.2 – Belgium. Number of articles by newspaper, year, and month of publication

Newspapers	2013	2014	2015	2017		2018	Total
	Oct	Mar	Sep	Feb	Dec	Aug	
<i>Het Laatste Nieuws</i>			1			1	2
<i>De Standaard</i>	1	1		1	1		4
<i>De Morgen</i>						1	1
<i>De Tijd</i>	1						1
Total	2	1	1	1	1	2	8

Source: Own elaboration

Outstandingly, PIAAC's Survey of Adult Skills was the main subject matter of just one article, which appeared on *De Tijd*, an economic daily, soon after the release of the first Survey results (OECD, 2013a). Albeit the Survey covered Flanders (cf. Cincinnato and De Meyer, n.d.), noticeably none of the Flemish newspapers (i.e., *De Standaard*, *De Morgen*), nor the most popular daily in both Flanders and Belgium (i.e., *Het Laatste Nieuws*), paid much attention to the Survey at that time, with a minor exception. In fact, on October 16, 2013 *De Standaard* makes a quick reference to PIAAC data, under

the heading '*België staart zich te veel blind op loonkosten*' [Belgium is too blind about wage costs]. As the news reports:

This warning comes from Yves Leterme, former Belgian Prime Minister and currently the number two of the Organization Economic Cooperation and Development (OECD). Leterme spoke yesterday during the start event of the Social Academy of the employer organization VBO [Federation of Belgian Enterprises] [...] During his presentation Leterme drew attention to an orange flashing light. (G1_DS, own translation)

Such an “orange flagship light” is that, according to PIAAC data, “it appears that in Flanders 14 % of the population fails the basic computer skills test” (G1_DS, own translation).

Remarkably, including the above news, half (4) of the articles considered in this study appeared in *De Standaard* (liberal-conservative), of which 2 in 2017.

Finally, it is worth noting that while most of the articles (6) were written by journalists, in two cases they carry the signature of acknowledged researchers like Kris Van den Branden, Professor at the Catholic University of Leuven and teacher trainer (*De Standaard*, December 11, 2017) and Martin Valcke, Professor of Educational Studies at the University of Ghent (*Het Laatste Nieuws*, 17 August 17, 2018).

3.3 Media content analysis

'Oeso: "Vaardigheden en kennis bepalen succes levensloop"' [OECD: “Skills and knowledge determine success of one’s life course”]. This is the key message that *De Tijd* launches to catch its readership attention. Published on October 9, 2013, the day after the *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills* (OECD, 2013a) had been made available to the wide public, and a press release by the European Commission (EC) had commented on the Survey’s implications for Europe.

Such a heading epitomises the core message put forward in the article: people’s skills have an impact on people’s life course and opportunities, especially when it comes to finding a job.

The OECD study clearly demonstrates that the low skilled have a higher risk of unemployment, health problems and low wages. But education is not the determining factor. Social background, age and educational level of the parents also play a role. (G1_DT, own translation)

Despite recognition that education is not the only explanatory factor, a causal relationship is put forward between people’s skills and knowledge, and the health of a country’s economy. Hence, the article stresses that the level of skills among adults appears to be worse in Europe than in other countries (e.g. Japan), and quotes Angel Gurría, Secretary-General of the OECD, to highlight that:

According to the OECD, better “matching” of knowledge and skills should become a “global priority” [...] The European Commissioner for Education, Androulla Vassiliou, already took the

OECD advice to heart yesterday. “We need a better mix of skills in Europe quickly. Those skills are the backbone of our economy.” (G1_DT, own translation)

Interestingly, the article contains several incorrect and/or misleading pieces of information. For instance, the article states:

[...] only one in twenty Japanese has difficulty reading and understanding texts. In Europe the figures are much more disastrous. Here, one in five 15 to 64 year olds lacks sufficient reading skills. One in four Europeans has problems with simple math exercises. Countries such as Italy and Spain score particularly poorly in language proficiency and arithmetic. In Italy, almost a quarter of adults have problems with basic computer skills. Only 55 % of the group of illiterate people works there. (G1_DT, own translation)

With the above quote the author gives the impression that it is really bad in Europe, compared to Japan. But among the top performing countries, according to PIAAC data, is not only Japan, but also the Scandinavian countries and the Netherlands. Thus, the above quote misleads the reader by focusing only on the performance of the low-achieving EU countries, like Italy and Spain, to claim that Europe is performing badly as a whole. Reinforcing this view is the incorrect quote that: “The study covers 83 % of the European population. It compares the situation in 23 EU Member States” (G1_DT, own translation). Truthfully, 23 OECD (not EU) countries participated in first round of PIAAC, of which only 18 are also EU member states (i.e., Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Slovak Republic, Spain, Sweden, United Kingdom).

But it is also through such pieces of information that *Tijd's* article frames the core “global” problem needing political attention, namely the mismatch between the skills of the active population and the skills needed by the labour market, with the paradox that a number of job vacancies simply cannot be filled, despite so many unemployed people.

Interestingly, two metaphors used by Androulla Vassiliou (EU) and Angel Gurría (OECD) point at possible solutions. The former refers to the skills measured by PIAAC as “the backbone of our economy”; therefrom the solution of better matching people’s skills with the requirements of the labour market in order to improve the economy. Meanwhile, the latter suggests that the *OECD Skills Outlook 2013* is “a gold mine for policy makers”, from which they can extract information and advice that can increase their country’s wealth.

In short, in 2013 there is timid reaction to PIAAC Survey data by the Belgian press as only one article brought it fully to the attention of the wider public. It is *De Tijd*, a liberal Belgian mainly covering business and economics, to illustrate and debate the country’s results and, by mimicking the opinions of international organizations like the OECD or the EC, to claim that the health of a country’s economy depends on its people’s skills, but also that international cross-countries assessments, like the PIAAC Survey, can support evidence-informed policy making. Interestingly, many incorrect and/or misleading information back up such claims.

3.3.1 From adults' "training handicap" to kids' "who like to read"

At a few months distance, on March 17, 2014 *De Standaard* published 'Na loon- nu ook opleidingshandicap' [After wage cost now also a training handicap]. As synthesized in the heading, the core message of this article is that "in addition to the wage cost handicap, we [Flanders] now also have a growing training handicap" (G2_DS, own translation). This emerges from a report edited by Herman Baert (2014) for the Flemish Education Council.

The recommendations of the report are also addressed to the next Flemish government. Thanks to the state reform it will get a hold of a lot of federal powers. For example, the disputed paid educational leave. A new policy is therefore possible. (G2_DS, own translation)

In the article different data sources are quoted to back up the argument that adult participation in training in Flanders is low, thus a new policy is needed to fix the problem. The main statements to build such an argument include that: 1) only 6,8% of the working population followed a training course recently; 2) 1,9% of wage costs should be spend on training according to the collective labour agreements, but that does not happen; 3) the PIAAC study calculated that only 48 % of the Flemish population followed a training course in the year prior to the study; 4) no country in the world has as many incentive measures for lifelong learning as Flanders does, yet many people can find their way in; and 5) attempts of the (then) Flemish government to develop new coherent policies for lifelong learning have clearly failed. This is backed by reference to the *Flanders Pact 2020*, a kind of "tripartite mission statement" signed on 19 January 2009 by the Flemish social partners (Van Gyes, 2009). According to the Pact, by 2020 Flemish workers participation in training courses should have been raised by 15 % but, as Professor Herman Baert notes in the report, such a target seemed far from been achieved in 2014, as "The proportion of Flemish workers who recently followed a training course was 6,8 % in 2012 and only 6,4 % in 2013" (G2_DS, own translation).

Further building the article's credibility are quotes from well-known researchers from the Catholic University of Leuven, who contributed chapters to the report, like Ides Nicaise, Professor at the Research Institute for Work and Society (HIVA) and Luc Sels, (then) Professor from the Faculty of Economics.

In 2015 the Flemish government supported different organisations to run the Literacy Week, a campaign drawing attention on young people and young adults in Flanders (<http://www.weekvandegeletterdheid.be/>). On September 9, during the 5th edition of the Literacy Week (7-13 September 2015), *Het Laatste Nieuws* published "'Mijn familie noemde me dom en debiel. Járen heb ik me geschaamd" '["My family called me stupid and rude. I was ashamed for years"]. The article tells the story of Jan Vanderhaeghen, an illiterate adult, who wrote an autobiographical book, and acted as

ambassador during the Literacy Week. Drawing on an interview with Jan Vanderhaeghen, and by narrating how he conquered his illiteracy, and received help from the Basic Education Centre, the article's main purpose is to draw people's attention to illiteracy as a still a problem experienced by the Flemish society. But also that despite people try to hide their illiteracy and are ashamed of it, they attempt to nonetheless function as full members of the society.

Although no explicit relationships are found about adult learning, implicit relationships hide in between the lines.

"Being low-literate means that you cannot read and write enough to be able to attend school, work or simple administrative matters. Young people are not doing so badly. We are in the 8th place in 23 countries. Japan scores best, Italy the worst. This is apparent from the PIAAC survey in 2013. Yet 1 in 10 Flemish young people are insufficiently literate. And the number of low-literate people in the 16 to 24 year group is increasing. Of the students in the third stage of BSO [vocational secondary education], only 39% pass the final attainment levels of literacy, numeracy, and acquiring and processing information. Of the young people who leave school without a diploma, 1 in 3 has one no work for years. That is why the Literacy Week is aimed at young people this year. In Flanders, 14% of adults have low literacy skills (OECD average 9%)."

In short, no one to one relationship is claimed between low-literacy and not being able to attend school, work or doing administrative task. At the same time, the article suggests a relationship between the type of educational track (vocational versus, for example, general education leading to higher education) and literacy, as well as between school dropout and unemployment.

It is only in 2017, at 3-year distance, that new mentioning to PIAAC data makes a come back in *De Standaard* in two articles that, differently from 2014, now focus on people's reading and writing skills:

- '*Kunnen meisjes toch niet beter lezen dan jongens?* [Can't girls read better than boys after all?] (*De Standaard*, February 1, 2017)
- '*Wie graag leest, leest meer*' [Those who like to read, read more]' (*De Standaard*, December 11, 2017)

The article dated February 1, 2017 dedicates attention to the relationship between the format for testing people's reading skills, and gender differences in peoples' performances that result from these tests.

Although the article does not report any actual figures, except for two percentages, but rather use words like 'more/better' or 'less/worse', it draws on various international assessment studies, including the PIAAC Survey, to critique the common assumption, reinforced by such studies, that girls/women do better than boys/men, when it comes to reading skills. What emerges from the Survey on Adult Skills, among others, the author claims, seem to point there is no longer a gender gap with regard to reading when the respondents grows older. In short, the article provides a well argued response to the question appearing as its sub-headline: "School-age girls get

better from reading tests all over the world than boys. But with young adults the difference disappears. How is that possible?” (G3_DS, own translation)

To this scope, information from different international assessment studies is used to build the argument that it is in fact not easy to claim that girls perform better than boys. What really makes a difference is not gender per se, but rather the format of the test used in assessment studies. Some formats (e.g. based on factual or shorter texts, and multiple choice answers) tend to favour boys or men, while others (e.g., based on fiction or longer texts, and open questions) tend to favour girls or women. In other words, the article deconstructs the common narrative of a gender gap in reading skills

All in all, it is very doubtful whether the current reading tests treat boys and girls equally. You better pull none conclusions about the differences between the sexes. (G3_DS, own translation)

Also the article that appeared in *De Standaard* on December 11, 2017 focuses on people’s reading skills. This time, however, Kris Van den Branden, Professor at the Catholic University of Leuven, who signed this article, responds to a previous opinion article by another well-known Flemish professor, Wouter Duyck. Kris Van den Branden agrees with Wouter Duyck that the Flemish education system must be ambitious when it comes to reading comprehension. But, while Wouter Ducyk claims that a decline of reading comprehension is not a result of a lack of love for reading, Kris Van den Branden claims that reading pleasure and reading performance reinforce each other, thus should be equally fostered. Like the article dated February 1, 2017, information from various international assessment studies serves Kris Van den Branden to build his core argument, and again words like ‘more/better’ or ‘less/worse’ are used instead of actual figures. Here, the only mentioning of PIAAC is made to reinforce the critique of the Flemish education system that Kris Van den Branden shares with Wouter Duyck

Successive international surveys (PIAAC, PISA and PIRLS) indicate that in Flanders more and more pupils are leaving our education as functionally illiterate (G3_DS, own translation).

Interestingly, PIAAC functions just as a name-dropping to create a sense of worsening in terms of pupils’ functional literacy. Beside the fact that the PIAAC Survey covered a population of 16-65 years of age, which excludes pupils in school age, there is no actual difference in the literacy of the adult population recorded via the International Adult Literacy Survey (IALS) and PIAAC, according to the Flemish PIAAC report (Cincinnati and De Meyer, n.d.). After adjusting the IALS scale to be comparable with the PIAAC scale, the report notes that both in 1996 and in 2012 the Flemish people appeared to be functionally illiterate is 15%.

In short, over the years, a few articles draw on PIAAC data among other sources, chiefly in *De Standaard*, the liberal conservative national daily, and to a limited extend in *Het Laatste Nieuws*, the right-wing oriented daily, to debate quite different subject matters. These are still centred on adults and their training needs in 2014, or on illiteracy among the Flemish population in 2015. By 2017, however, the attention of

the press had restricted attention on the solely reading skills, chiefly of age-school students, how these are been tested, and what the Flemish education system should do to increase reading comprehension among the youngest generations. Albeit the views diverge, for example, on whether love for reading, and reading pleasure, should/should not be fostered in schools, what matters is that adult learning has *de facto* disappeared from the press as a matter of concern, though reference to PIAAC data has not.

3.3.2 *The literacy skills of the higher educated into the limelight*

In 2018, people's literacy skills are into the limelight of the Belgian press making reference to PIAAC data. On August 17, 2018 two printed articles engaged in such a debate, yet focusing on higher education students:

- '*Waarom een zin kunnen schrijven nog steeds zin heeft*' [Why being able to write a sentence still makes sense]' (*De Morgen*, August 17, 2018 – online version: August 16)
- '*Studenten kunnen niet meer schrijven*' [Students can no longer write]' (*Het Laatste Nieuws*, August 17, 2018)

The *De Morgen's* (left-wing) article is a reaction to an article that appeared the day before, in which academics were worried about the deterioration in the writing skills of their students. In this response, despite recognition that language is alive and spelling rules and grammar evolve, the author raises the rhetorical question: "why would it then be a problem that also the way we build texts changes?". The answer is that writing skills are very important, indeed. A claim backed by quotes from authoritative language experts like Ruud Hendrickx, an advisor at the Flemish Radio and Television (VRT) and chief editor of the *Grote Van Dale*, the well-known dictionary for the Dutch language; Lieve De Wachter, Professor of Dutch language proficiency at the Catholic University of Leuven; but also Dirk Van Damme, Chief of the Centre for Educational Research and Innovation of the OECD.

Good writing competencies will also remain essential in the future, says education director at the OECD Dirk Van Damme. "You can but come to a higher level of abstract thinking, when you also master the structure of a language", he says. It is beyond dispute that writing clear texts must remain a basic requirement. "Because if you cannot write clearly, you will not be able to express an idea clearly," says Van Damme. "Academic writing and analytical thinking go hand in hand and these are competencies that we will need even in times of artificial intelligence. Computers will soon be able to do tasks and jobs in the middle levels, but the higher cognitive functions, we will continue to exercise ourselves." (G1_DM, own translation)

Within such debate, PIAAC data is being cited to indicate that at least reading comprehension for higher educated people has declined, as no empirical evidence exists for their writing skills.

The study Program for the International Assessment of Adult Competencies (PIAAC) of the OECD, which assesses the competences of highly educated adults, provides an indication: about 10 % of highly educated 25 to 35 year olds in Flanders do not succeed in getting information from written texts. (G1_DM, own translation)

Surprisingly, the *Het Laatste Nieuw's* article that appeared the same day is a synthesis of two different articles from *De Morgen* (left-wing), one of which is the one referred above). Despite the different political orientation of these newspapers, such overlapping can perhaps be explained by the fact that the one publishing company (i.e., DPG Media) prints them both. So, despite a slightly different heading, also the *Het Laatste Nieuw's* article brings attention to academics' worries about the writing skills of their students, and the decline in the reading comprehension of high-educated adults, to re-state why it is so important to have good writing skills. But this version of the article strengthens this claims through quotes by reliable experts, like Martin Valcke, Professor of Educational Sciences at the University of Ghent, and Head of the research group that manages the PIAAC Survey in Flanders:

"I often return papers with the message that I could not read them because the spelling is so miserable," says professor of Educational Science Martin Valcke (UGent). "I sometimes notice during exams that students know the answer, but that they just do not know how to articulate it. That is enormously problematic: language is the carrier of our science, it is the carrier of our knowledge." Valcke sometimes talks about 'special university education' as a boutade. "Because we have too much trouble to invest in updating the knowledge that students should already have acquired. That is not only true for language education, that applies to all subjects." (G2_HLN, own translation)

Also Hilde Crevits, a member of the Christian Democratic Party, and Flemish Minister of Education, is cited as sharing similar concerns, thus affirming that:

In that sense, it is pointless to look at only one level of education. It is a common task from pre-school to higher education and the home environment to make young people good in language. (G2_HLN, own translation)

In sum, the press debate on the literacy skills of the Flemish population continues in 2018. Yet, the previously observed closing of the debate on the reading comprehension capacities of school pupils seems to have shaded away. In fact, a re-focusing of the debate on the literacy skills of the highly educated Flemish, by questioning the writing skills also of higher education students, seem to revitalise consideration for the whole of the education system (from pre-school to higher education) in a lifelong learning perspective.

3.4 Concluding remarks

In this chapter we reported our analysis of 8 articles that appeared in Belgian newspapers between October 9, 2013 and August 17, 2018, which cite, when not present and debate, the results of the Survey of Adult Skills (PIAAC).

Outstandingly, in 2013 there has been a timid reaction by the Belgian press to the release of PIAAC Survey data, as these were given full attention only by a liberal Belgian daily, covering business and economics (*De Tijd*).

Over the years, however, PIAAC data was cited, among other sources, chiefly by the liberal-conservative press (*De Standaard*) and to a limited extent by the right-wing oriented press (*Het Laatste Nieuws*) to debate different subject matters. These span from the training needs of adults (in 2014) to the illiteracy problems still experienced by much of the Flemish population (in 2015) to the reading skills, primarily of age-school students (in 2017). This has brought about debates that covers, on the one hand, the way reading skills are been tested in international assessments and, on the other hand, the way the Flemish education system could intervene to improve the reading comprehension skills of school-age students. Interestingly, along these debates, although PIAAC results still popup as either well-known facts or available evidences, adult learning as such has disappeared as a matter of concern for the Belgian press.

Still in 2018 the literacy skills of the Flemish population continues to be a matter of concern for the Belgian press, despite its political orientation. But the discourse has moved attention from school-age kids to higher education students, and the highly educated Flemish people. This re-opens consideration for the entire education system, and possibly in a lifelong learning perspective.

Chapter 4 – PIAAC and the Danish press

Marcella Milana (University of Verona), Anne Larson (Aarhus University) and Palle Rasmussen (Aalborg University)

This chapter reports on the media analysis performed on 27 Danish news articles to examine how PIAAC influences the public debate that informs policy in Denmark. Preceding our presentation of the results, the chapter clarifies the criteria used for the selection of national newspapers covered by this study, and the composition of the dataset on which we performed the content analysis. A short summary of the main findings concludes this chapter.

4.1 Newspapers selection and data set

Danish newspapers that are published daily are usually centre-right or centre-left in political orientation, with a prevalence of centre-right oriented newspapers. A part from *Arbejderen* [The Worker], a communist newspaper with a limited circulation, there are no clear-cut right-wing politically oriented newspapers in Denmark.

Overall, we selected six national newspapers for inclusion in this study, as illustrated in Table 4.1.

Table 4.1 – Denmark. Newspapers, by political orientation and other characteristics, and number of articles included in the dataset

Newspaper	Acronym	Political orientation	Year first published	Circulation (2017)	No. of articles
<i>Berlingske</i>	BL	Liberal-conservative	1841	76.000	5
<i>Børsen</i>	BO	Liberal	1896	57.000	1
<i>Information</i>	IN	Left-wing	1945	19.000	2
<i>Jyllands-Posten</i>	JP	Liberal-conservative	1871	83.000	10
<i>Kristeligt Dagblad</i>	KD	Christian	1896	24.000	2
<i>Politiken</i>	POL	Centre-left	1884	88.000	7
Total of articles					27

Source: [Federal Agency for Civic Education \(www.eurotopics.net\)](http://www.eurotopics.net).

Berlingske, *Politiken* and *Jyllands-Posten* are the three highest circulating newspapers in Denmark; hence these were included in the current study. Further, we included *Information* and *Kristeligt Dagblad* because both newspapers have a tradition for publishing news and debate on issues in education. Additionally, we included *Børsen*, as it is strongly linked to the business community, hence it was considered of potential relevance for this study.

All newspapers considered have a printed edition as their main product, but also a website version. Albeit the content relation between a website and a printed version, and the policy for readers to access content of the website version of a newspaper, change over time, none of the newspapers we included in this study have converted to being mainly web-based thus far.

For the selection of articles we used the database *Infomedia*, which contains articles from all Danish national newspapers in the period of reference for this study (2012-2019, July). We searched for articles in the selected newspapers, by means of the following search terms:

- PIAAC (17 articles found);
- *voksnes kompetencer OECD* [adult competencies OECD] (64 articles found – these were scanned and most of them were rejected as not relevant);
- *voksne færdigheder international undersøgelse* [adult skills international survey] (2 additional articles found);
- *voksne læsefærdigheder* [adult reading skills] (4 additional articles found).

Supplementary searches found no further articles.

In total 27 articles related to the Programme for International Assessment of Adults Competences (PIAAC) were found and considered for the analysis.

The database consists of articles, and often also links to the original newspaper page, which includes illustrations. However, for older articles the links are often no longer active. Furthermore, the original newspaper pages are subject to copyright, and users are not allowed to copy them. For the articles that have picture graphs, we tried to locate these through the Internet and found many of the picture graphs. But some of the newspapers restrict access to articles over the Internet, especially *Jyllands-Posten* and *Politiken*, so we were unable to find and include all illustrations.

4.2 Media coverage overview

In Denmark, newspaper coverage of PIAAC occurred most prominently in 2013 (October-December), following the release of the results from the first round of the Survey of Adult Skills by the OECD and the European Commission (EC) (8 October 2013), and again in 2017 (April-September), in the wake of the OECD release of the results from the Survey's second round (28 June 2016) (OECD, 2016) (see table 4.2).

Table 4.2 – Denmark. Number of articles by newspaper, year, and month of publication

Newspapers	2013				2014				2015		2016	2017					2018			2019	Tot.
	Aug	Oct	Nov	Dec	Mar	Jun	Oct	Dec	Feb	Jun	Sep	Apr	May	Jun	Aug	Sep	May	July	Oct	Mar	
<i>Berlingske</i>		1		2		1		1													5
<i>Børsen</i>		1																			1
<i>Information</i>			1													1					2
<i>Jyllands-Posten</i>	1	1							1			1	1	1	2		1			1	10
<i>Kristeligt Dagblad</i>										1	1										2
<i>Politiken</i>			1	1	1		1						1				1		1		7
Total	1	3	2	3	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	27

Source: Own elaboration

Unsurprisingly, coverage in 2013, when the data for Denmark was made available, spans across all newspapers under consideration, as it is when the data for Denmark were made available. These pointed at the mean proficiency score of 16-65 year-olds Danes in literacy and numeracy being significantly above the cross-country average, and to half a million adults Danes, 1 in 6, having insufficient reading skills, among other results. The following year (2014) only *Berlingske* (liberal-conservative) and *Politiken* (centre-left) covered topics that still made reference to the Survey data and information included in *Education at Glance 2014* (published on 9 September 2014) by the OECD, which were since abandoned by *Berlingske*, whereas *Politiken* returned to cover topics referencing the data, although sporadically, in 2017 and 2018. Interestingly, however, the Survey data kept being referred to in several articles by *Jyllands-Posten* (liberal-conservative) in 2015, again due to their inclusion in *Education at Glance 2014*, and in the following years, most prominently in 2017. *Børsen* (liberal), the only newspaper in our study that is sturdily linked to the business community, covered the Survey only soon after the release of its first round results, whereas both *Information* (centre-left) and *Kristeligt Dagblad* (Christian) have hardly covered topics making reference to the Survey data over the period under consideration.

Captivatingly, almost half of the articles under consideration (13) were not signed by journalists but by representatives of adult education centres (1 article in 2013 and 1 article in 2019), educational researchers (1 article in 2013, 2 articles in 2014), and especially from the Danish Evaluation Institute (2 articles in 2014, 1 article in 2016, in article in 2017, 1 article in 2018), a public semi-autonomous agency doing evaluation studies in all sectors of the Danish education system, and to a limited extent by other education experts (1 article in 2013), and *3F*, a labour union for unskilled workers (1 article in 2013).

All in all, only 6 out of 27 articles under consideration covered PIAAC and the results from the Survey of Adult Skills as their main subject matter, all the others made only a brief reference to the Survey's results or discussed such results among other issues. Almost the totality of the articles (26 out of 27) took and referred to the Survey results as unquestionable facts to either attempt possible explanations or bring attention to the severity of the problems these raise, and in so doing to either praise or critique national policy agendas and initiatives, and to propose possible future solutions (as we shall see in the next sections).

In one case, however, the article raised a concern about the validity of PIAAC data to measure social mobility. Published in *Berlingske* on December 3, 2014, under the title '*Danmark er bedre til social mobilitet end vi tror*' [Denmark is better at social mobility than we think], this article brings the signature of Tue Vinther-Jørgensen, an expert and special education consultant for the Danish Evaluation Institute, and Jens Peter Thomsen, an assistant professor at Copenhagen University, and presents and discusses data on social mobility from *Education at Glance 2014*. Here the authors

note and argue that the OECD relies too much on self-reported information from the PIAAC questionnaires, when it comes to people's parents level of education, instead of using more reliable data that can be found in national public registers.

[...] there is a high degree of uncertainty in the numbers behind international comparisons. The numbers in OECD's comparisons are, for instance, based on questionnaire data from the PIAAC-study, and not on the far more reliable data in public registers. That means, among other things, that there can be large changes from year to year. For example, the upward mobility for the 25-34 year olds in Finland was measured at 27 % in the 2012-edition of "Education at a Glance", but this number was raised to 39% in the 2014-edition. At the same time, it seems surprising that Finland should have such a distinctive higher social mobility than Denmark. Maybe the OECDs results are related to the fact that young people is simply too bad at remembering their parents' level of educational. For instance, 47% of the Danish youngsters between 20 and 34 years of age indicate that at least one of their parents has a higher education. The same was the case for only 36% of the Finish youngsters. [But] If one takes a point of departure in the parents' own statements, there are not more parents with a higher education in Denmark than in Finland (G5_BL, own translation)

Along this line of reasoning the authors' main argument is that social background is in fact important and that governmental attention to 'pattern breakers' (strong at the time) and to the increasing number of students getting a higher education degree are welcomed. Nonetheless, the way social heritage is measured in Education at Glance 2014 does not adequately accounts for social mobility patterns in Denmark, the authors argue.

4.3 Media content analysis

Prior to the joint release by OECD and the EU of the first comparative results from the first round of the Survey on Adult Skills, *Jyllands-Posten* (August 17, 2013), in a brief celebratory note of a researcher's (Lene Østergaard Johansen) 50th birthday, brought to its readers' attention that she had been "chosen by the OECD to be part of an international panel of experts where her, and seven other international researchers, will assess the mathematics competencies of adults in 22 countries" (G1_JP, own translation). But following the release, the PIAAC Survey has been made the explicit object of a number of headlines across newspapers, stressing how the Danish population, either in its entirety, or in its younger or older composition, is 'bad', or has become 'too bad' or 'worse' at reading:

- *'Danske voksne er for dårlige til at læse'* [Danish adults are too bad at reading] (*Børsen*, October 9, 2013)
- *'Hver sjette dansker læser dårligt'* [Every sixth Dane is a bad reader] (*Berlingske*, October 9, 2013)
- *'Danske unge er blevet dårligere til at læse'* [Danish youngsters have become worse at reading] (*Jyllands-Posten*, October 10, 2013)

- *'Tirsdaysanalyse: Voknes læsning bliver ringere'* [Tuesday Analysis: Adults' reading skills gets worse] (*Politiken*, November 5, 2013)

As Cort and Larson (2015) notes, all these headings mimic the title of the Press release published on October 9, 2013 by the Danish National Centre for Social Research, the agency in charge of the Survey in Denmark: *'Hver sjette voksne dansker læser dårligt'* [One in six Danes reads poorly]. However, at this point in time, different newspapers frame the problem differently.

Børsen simply records the news from *Fagbladet 3F*, a labour union journal, reporting on the Survey's results, which concludes that Danish adults are not good enough at either reading, doing mathematics and using ICT. Hence, both the Survey data and the information from *Fagbladet 3F* are simply taken at face value, with no attempt to either explain, critique or propose possible future solutions.

Berlingske (liberal-conservative) stresses the difficulties in reading by Danes, and especially those with a low level of education, older adults, unemployed and immigrants, and refers to the Director of the Danish Association of Employment for blaming (past) education and policy initiatives for this.

The director of the Danish association of employers, Henrik Bach Mortensen, is of the opinion that the bad reading skills are the result of lacking political responsibility, the failure to secure an education system at international top level. (G1_BL, own translation)

Credibility for the statements made is built upon critical remarks by the Director of the Danish Association of Employers (Henrik Bach Mortensen), who accuses the government for having neglected to establish an education system at top international level. On the other hand, the article quotes the (then) Minister of Education, Christine Antorini, who says that the (then) recent reform of the *'folkeskole'* (primary and lower secondary school), and a major extra grant by the government for boosting activities in adult education, will improve the situation. Accordingly, the member of the Parliament and education spokesman for the Social Democratic Party, Troels Ravn, does not blame or praise the previous (liberal-conservative) government, but rather invites to consider the current prospects, especially the changes that recent governmental initiatives, like the extra grant for adult education and training, should bring about.

Jyllands-Posten (liberal-conservative) restricts attention to the literacy competences among young Danes (16-24), and compares them to former studies to discuss whether it is possible to conclude that young Danes have become less proficient in reading (as declared in the title). Like *Berlingske* (liberal-conservative), *Jyllands-Posten* also gives emphasis to the (then) on-going reform of primary and lower secondary schooling, which among other aspects increased the number of teaching hours in Danish and maths, as a means to increase these competences among the Danish population. Besides a comment by the Minister of Education (Christine Antorini), other

authoritative voices are brought into the debate to reinforce the message of a worrying decline of adults' competences over time. One is the main person responsible for the Survey of Adult Skills in Denmark, Anders Rosdahl, who defends the comparability between the 1998 results from the *International Assessment of Literacy Skills* (IALS) and the 2013 Survey of Adult Competences, despite methodological differences; another is Niels Egelund, Professor in educational psychology at Aarhus University, involved in the Programme for the International Student Assessment (PISA), also under the OECD aegis, who shares the worries over the decline in adult competences. At the same time the head of the National Centre for Reading, Klara Korsgard, explains that

It was much easier to be a good reader 15 years ago. Today you need not only to read a newspaper, but also keeping update in other kinds of texts, as for instance the electronic, and that means a much higher degree of complexity (G2_JP, own translation)

All in all, this article supports the idea that 'Danish youngsters have become worse at reading', which makes the Danish "alarm bells ring", hence justifies the on-going school reform as the right way forward, yet neglecting attention to those who are out of school, not least among the 16-24 age range.

Finally, albeit the title of *Politiken's* (centre-left) article resembles those of the other newspapers, the journal takes a quite different position. First, it is a signature article by an expert in education, Michael Andersen, and then it does focus on the adult population, not the Danish youth. Moreover, it brings also additional national data, from a 2012 evaluation study of Preparatory Adult Education by the Danish Evaluation Institute, an authoritative public research and consultancy institute in Denmark. But it does so to conclude that even if more adults now take part in adult education (when compared, for instance, to 1998, when IALS was carried out), the political goals of increasing participation in adult education, to increase basic competences among Danish adults, have not been met. In other words, the article is critical towards the many reforms that along the 2000s have established the Preparatory Adult Education (FVU) (2001) with an initial target set at 28.000 Danes participating in this educational offer every year, which had then been increased to 40.000 (2006). But also the 2005-2009 pilot by the Danish Ministry of Education of so-called 'word- and calculation workshops at vocational schools', meant to offer adults a more flexible way of getting support in relation to the reading- and numeracy problems. Hence, the article urges the government to reconsider the overall effort concerning participation in adult education.

In short, reacting to the release of the first results of the Survey on Adult Skills, all articles took such results at fact value with one exception (see section 4.2), but liberal-conservative and centre-left newspapers framed possible consequences in different ways. On the one hand, liberal-conservative newspapers (*Berlingske, Jyllands-Posten*) focused on the younger generations, and praised the (then) recent reform of primary

and secondary school, seen as the solution, and what could raise the future competences of the Danish population. On the other hand, the centre-left newspaper (*Politiken*) centred attention on the adult population to point at a failure in past national reforms in the adult education sector, and specifically of Preparatory Adult Education, yet in the believe that it shall be the adult education sector, not primarily and lower secondary school, in need of future governmental intervention, though following a different approach than the one used over the past two decades.

4.3.1 Youth vs. adult education: PIAAC data in dialogue with PISA data

The Survey results made it for a couple of new headings in 2014, and again in 2016:

- *'KNÆK: Læsekurven afgør succes'* [BREAK: The reading curve determines success] (*Berlingske*, June 20, 2014)
- *'Debat: Demokratisk ulighed. 600.000 voksne danskere har svært ved at læse, regne og begå sig digitalt'* [Debate: Democratic inequality. 600,000 adult Danes find it difficult to read, calculate and get on in the digital world] (*Kristeligt Dagblad*, September 26, 2016)

Both articles connect the Survey results with those of PISA, yet differently focusing attention on the Danish youth vs. adult population.

Berlingske's (liberal-conservative) article comments the results of a Danish adaptation of PIAAC Survey of Adult Skills, where 1,800 participants from the first round of PISA was also interviewed for PIAAC, thus making it possible to compare the skills as measured in PISA with those measured in PIAAC. By restricting attention to reading skills, a causal relationship is identified in the article between the competences a Dane has when 15-16 year-old and the probability to gain a higher education degree or be active in the labour market later in life:

The conclusion from PIAAC is that if one did well in the first test [PISA] in relation to reading skills, s/he has more often chosen a higher education – especially an academic higher education. There is also a lower likelihood to abandon an education that one has started, and to receive social benefit (G4_BL, own translation)

Consequently the social problem that policy shall address is that insufficient reading skills among the younger population risks causing long term need for social benefit when the population grows old.

By contrast, the article published at two-years distance by *Kristeligt Dagblad* (Christian), under the signature of Jakob Ratlev, Head of section of the Danish Evaluation Institute, claims that constant attention (as that brought forward by *Berlingske* over the years, as we shall see) to the competence of the youngest, and how to improve their mediocre results in PISA tests, has made the limited skills of many adult Danes pass under the radar. Whereas, Jakob Ratlev argues, the social

problem to be faced by public policy is that low adult skills are a threat to the welfare society, and Danish competitiveness. Thus, these problems should be taken seriously, as it is higher literacy skills among adults that lead to a healthier workforce; a healthier workforce, in return, reduces welfare costs (e.g. health costs).

This is fairly in line with the attention by *Kristeligt Dagblad* to the issue of social inequality in the Danish society. In fact, the only other article by this newspaper that made indirect reference to the Survey data, over the period under consideration, was published a year ahead (June 25, 2015). Under the heading '*OECD erkender årtiers fejlurdering: Ulighed skader væksten*' [OECD recognizes decades of miscalculation: Inequality hampers growth], the article draws on an interview with Mark Pearson, Vice director in the OECD section on social policy, to present and discuss an OECD report on inequality (OECD, 2015). The article stresses the wrong assumption that some degree of social inequality is beneficial for economic growth and welfare, to substantially claim that social inequality creates polarisation in jobs and living conditions, and hampers economic growth.

We were blind. We were blinded by the idea that if only we had efficient and well working markets anyone could make use of the chances offered by the market economy (G1_KD, own translation)

A core political problem raised by the article is that “six extra Gini points lead to six % points worse results for children in adverse conditions” (G1_KD, own translation), hence pointing at better education for all as one of the instruments that can reduce social inequality.

In short, both centre-right newspapers, *Berlingske* (liberal-conservative) and *Kristeligt Dagblad* (Christian) kept referring to PIAAC data and connecting this with results on 15-olds from PISA in 2014-2016 to debate the implications of low reading skills among Danes. However, they did so from different positions. On the one hand, *Berlingske* is concerned with the younger generation hence worries for their insufficient reading skills causing long term need for social benefit when they grow older. On the other hand, *Kristeligt Dagblad* (also via the Head of section of the Danish Evaluation Institute, who signs one of the articles considered) is mostly concerned with securing better education opportunities to all to reduce social inequality, hence recognising that also adult education matters to this scope.

4.3.2 Critiquing or praising government's agendas and initiatives

As already mentioned, only 6 out of 27 articles under consideration covered the PIAAC Survey's results as their main subject matter. All of them were considered thus far. But, the majority of articles discussed such results among other issues, or made only a brief reference to the Survey's results to bring attention to what differently conceived the essential problems public policy should tackle. In so doing, PIAAC data

was used to back up either critiques or appreciation of Danish political agendas and initiatives in diverse areas of public interest.

On November 25, 2013 *Information* (centre-left) published an article by Hanne Smidt, Senior advisor in the European University Association and project manager at Lund University (Sweden), which metaphorically accuses the Danish government to “making education a race with winners and losers - without much chance for the losers to re-enter the field” to raise a rhetorical question: “But do we not forget that in order to have a top you need a wide base?” (G1_IN, own translation). Published under the title ‘*Kompetencerne er skævt fordelt*’ [Competencies are unevenly distributed], the article compares both levels of education and competences of the Danish population to that of other countries, with the primary scope of critiquing the political attention given by national governments to promoting and recruiting for excellence and innovation in education, especially in higher education, for instance through the introduction of a system of enrolment in Danish higher education based on exam grades. Accordingly the article assumes a causal relation between the high policy attention to top/elite education and enrolment in higher education, and the corresponding lack of attention to educational opportunities of the wider population, which is brought forward as the real problem.

In December 2013, two debate articles appeared in *Berlingske* (liberal-conservative) on the 18th and the 22nd under the heading, respectively: ‘*Man kan da læse I Danmark?*’ [One is surely able to read in Denmark?], and ‘*Fagligt dygtige lærere = bedre elever*’ [Proficient teachers = better students].

The first article (Is one surely able to read in Denmark?), signed by Hans Jørgen Hansen, President of the organisation for headmaster at Adult Education Centres (VUC), Per Skovgaard Andersen, President for the boards of Adult Education Centres, and Pia Sletbjerg Skov, a consultant and expert on Adult Education Centres, stresses the overall number and % of adult Danes, who are not able to read a simple text, accordingly to the Survey results. Complementing this information is reference to a 2013 study by Adult Education Centres on their challenges.

We see from the numbers that there are social imbalances. The lowest educated - those with the lowest income and lowest employment rates – also have more difficulties in reading. And, the social inheritance is heavy in the education world. We see that at the adult education centres where many of our adult students comes from homes with no tradition for education, and after numerous maybe unsuccessful attempts in the educational system, apply for the adult education centres (G2_BL, own translation)

In short, the article postulates a relationship between taking part in basic adult education and becoming better at work, and increased self-confidence and ability to help own children with homework. Here, the Survey results are used as a smoking gun in relation to participation in adult education. Thus, the authors argue for the need to increase political attention on adult education, and makes concrete suggestions for

how to increase adults' participation in existing educational provision, like that by Adult Education Centres.

By contrast the second article (Proficient teachers = better students) by Niels Egelund and Frans Ørsted Andersen, researchers and experts in education studies focuses attention on teachers, rather than either young or adult learners. The window of opportunity is the 'Productivity-commission', an expert group of nine members with a background in economy or political science established by the Danish government in 2012, and which last report was published in 2014. Niels Egelund and Frans Ørsted Andersen refer to a number of national and international studies, including PISA and the PIAAC Survey of Adult Skills, as well as to a report by 'Productivity-commission' on teachers own scores from upper secondary school and the scores of their pupils, to strongly claim that the academic competences of teachers are key for explaining how well their students do, yet with a focus on primary and lower secondary school.

On December 13, 2013 *Politiken* (centre-left) gives attention to the analyses carried out by the Danish Metalworkers Union of social inequality, as measured by the Gini-coefficient (based on data from the OECD), which brings to light how a low Gini-coefficient tends to correlate with a high employment rate. The article quotes several authoritative voices to noticeably claim that it is the competence level of the employees, rather than the height of the salary, that matters when it comes to explain employment rate. Such a claim is made through quotes to authoritative voices like that of Allan Lyngsø Madsen, a senior economist of the Danish Metalworkers Union, and of Flemming Ibsen, professor at Aalborg University and former adviser for the Social Democratic government back in the 1990s. Thus the 'problem' of adults' competences is raised to political attention by pointing at a (widespread) misunderstanding that wage level is the main causal factor when it comes to employment rates, whereas the influence of up-to-date competences among the workforce is underestimated. A misunderstanding that is reiterated also in this article by Ole Birk Olesen, a member of Danish Parliament for the neo-liberal party (Liberal Alliance), who argues, by contrast, that it is the wage level and the generosity of the social security schemes that have a causal effect on the unemployment rate. In other words, with this article *Politiken* takes a stand against a political claim by the neo-liberal party that public benefit for the unemployed should be significantly lower to what Danes could get in salary so to make getting a job economically attractive for them.

In 2014, two articles appeared in *Politiken* (centre-left) in response to the Danish government's plan to invest one billion DKK in improving adult education and training, as well as the decision to reform secondary vocational education:

- '*Tirsdagsanalyse. Sådan investerer man en milliard*' [*Tuesday Analysis: How to invest a billion*] (*Politiken*, March 3, 2014)

- ‘Er du klog nok til efteruddannelse?’ [Are you smart enough for adult education] (*Politiken*, October 2, 2014)

The first article (*How to invest a billion*) appeared under the signature of Ida Marie Behr Bendiksen and Michael Andersen, Consultants at the Danish Evaluation Institute.

Over several years the Danish Evaluation Institute has studied [education] challenges and offers, and this indicates a number of areas where there is a special need for raising the competence level in the population. (G3_POL, own translation)

Consequently, the article welcomes the government’s agenda and initiative and indicates three areas that would be important to prioritise: literacy teaching for adults, special literacy teaching for adult immigrants, and education and career guidance for adults.

The second article (*Are you smart enough for adult education*) carries only the signature of by Michael Andersen. He presents new information from OECD’s *Education at a glance 2014* to re-state the importance to increase adults participation in literacy education, albeit important on-going political initiatives in the field of adult education and training, for employees to be able to live up to rapid technological development and to avoid unemployment.

Also in reaction to the publication of OECD’s *Education at a glance 2014*, *Jyllands-Posten* (liberal-conservative) publishes an article on February 13, 2015 that, under the heading ‘Kompetenceløft af kortuddannede halter stadig’ [Improving the competencies of people with little education is still lagging] is of a slightly different tone, when compared to the article in *Politiken* by Michael Andersen, who is quoted in this article together with Henning Jørgensen, a labour market researcher at Aalborg University, and Bent Fløyel, a senior consultant in the Competence Secretariat (a state agency). While sharing the general concern for increasing adults’ competences, the article by *Jyllands-Posten* points at the increased competition following the global financial crisis, where companies have given priority to well-educated employees. This has undermined the policy of improving competences for low skilled. Thus are the companies to be blamed for paying too little attention to the education needs of low-skilled employees, who then risk social exclusion.

The difference between employees with low level education and their better educated colleagues is explained by the fact that the group of low educated is often forgotten when budgets for in-service education and training are fixed. This is the opinion of Bent Fløyel, senior consultant in the Competence Secretariat, where he advises state workplaces on issues of competence development [...] He further tells that in contrast to the group of employees with higher education, the low educated often lack knowledge about the possibilities of education in the public system, and about their collective agreements [...] If this development is not turned around, the group of low educated risks becoming excluded from the labour market in the future, says Bent Fløyel. (G3_JP, own translation)

To recap, in 2013 PIAAC data was used by the press to back up the critique of elite education policy in higher education (*Information*), lobby in favour of Adult Education

Centres (*Berlingske*), praise reforms of primary and lower secondary school, and support further teacher education reforms (*Berlingske*), but also to stand against governments' cuts to social benefits for the unemployed (*Politiken*).

In 2014 and 2015 the focus in the press, across the political spectrum, centred on the government's decision to invest one billion DKK in improving adult education and training. Yet, drawing on previous studies from the Danish Evaluation Institute as well as the OECD's *Education at a glance 2014*, *Politiken* (centre-left) suggests prioritising literacy teaching for adults, special literacy teaching for adult immigrants, and education and career guidance for adults. Instead, for *Jyllands-Posten* (liberal-conservative), and drawing only on *Education at a glance 2014*, priority should be given to the low-skilled employees.

4.3.3 Employees' lack of basic skills, mainly in information technology

The majority of the articles still citing the Survey data in 2017 (5 out of 7) appeared in *Jyllands-Posten* (liberal-conservative). Three such articles continue to bring attention to the lack of basic skills, especially in information technology, among the employed Danes.

On April 22, 2017, the article: '*Ruster medarbejderne til fremtiden*' [Equips employees for the future] recalls that one million Danes between 16 and 65 have weak IT skills, finding it hard, for instance, to write emails, according to the Survey data. In so doing, the article assumes a causal relation between comprehensive changes in business and work and an increased demand for better basic skills.

Often companies have to reshape all their production because of changes in products or services demanded by customers. Things like the use of tablets in almost all trades poses demands that you are able to navigate the technological equipment. (G4_JP, own translation)

Combined with the results of a Danish study showing that companies with human resource units are much better at providing these skills, this raises attention to adult education in basic skills as a necessary remedy for companies to implement. The journalist calls into the debate experts from the world of work like Sidse Frich Thygesen, senior consultant for the DEA think tank, which released the above mentioned Danish study, Marie Overskov Dam, project manager of a company engaged in improving employees' basic skills to meet changing work demands, and Anetha Chia Klausen and Lise Steffensen, production worker at the same company. This to support the metaphor of IT skills as the "low hanging fruits of the digital revolution", which small and medium enterprises could easily grab by increasing the basic skills of their employees.

On May 27, 2017 the new heading '*Vi har brug for en fælles alliance for bedre it-, regne- og læsefærdigheder*' [We need an alliance for better it, numeracy and literacy skills] makes reference to the 'Disruption committee' set up by the Danish

government to satisfy its ambition to be “among the best countries to take advantage of the potential in new technologies and increased globalisation” (G5_JP, own translation).

Referring to a (then) recent study by the Danish Evaluation Institute showing poor reading skills among unskilled workers, and a lack of understanding among employers for the need to development the competence of unskilled workers, the article makes a concrete proposal for a way forward:

We could start by discovering the problems and join our forces to create an alliance with a common cause – politicians, educational institutions, employers’ and employees’ organizations and knowledge institutions – for a competitive Denmark ready for the disruption in the future. (G5_JP, own translation)

One more article on June 20, 2017 makes a heading out of the above-mentioned study by the Danish Evaluation Institute, and supporting data from the PIAAC survey: ‘*Danskernes basale it-evner overvurderes*’ [The basic IT-skills of the Danes are overrated]. While stressing that, among Danish companies, 43% experience skilled workers lacking IT-skills, and 48% experience unskilled workers lacking such skills, the article praises the ‘Digital growth panel’, a committee sat up to provide the Danish government with recommendation on policy strategies in information and technology (IT).

The Digital Growth Panel recently published 33 recommendations to the government. A central point is that focus has to be put on digital and technologic competences in primary and lower secondary school, higher education and the labour market. The government will in the autumn present a plan for how that will be done. (G6_JP, own translation)

Among the Panel’s recommendations one is brought to the readers’ attention, which “might be reality”, namely a new mandatory subject in primary and lower secondary school called ‘computational thinking’, aimed at providing the students with, for instance, basic understanding of technology as well as digital literacy.

Like *Jyllands-Posten*, also *Information* (centre-left) quotes again the Survey results on September 4, 2017, when reporting on the results from a Danish survey about the role of reading problems in the workplace, carried out by a Danish consultancy firm for the unskilled worker’s trade union. In this case, however, emphasis is posed on basic reading skills, rather than IT-skills. According to the survey, 9 out of 10 managers think that there is a problem in Danish companies: reading difficulties have an impact on the work of employees, but such problem is difficult to talk about in the workplace. Thus, under the title ‘*Dårlige læsere er et voksende problem*’ [People with reading problems is a growing problem], the article raises attention on literacy, and reading difficulties particularly, as a cause of both lower efficiency in the workplace and lower quality of life for employees.

Two more articles appeared on *Jyllands-Posten* in August 2017, making reference to the Survey results, yet shifting attention away from the employees’ IT or literacy skills.

By contrast, these articles argue, on the one hand, that adults' literacy and numeracy skills have a strong impact also on the learning of children and on their schooling trajectory and, on the other hand, that good literacy and numeracy skills are important resources for adults to have a good life, which means having a job but also to fully participate in democratic societies.

The first article by Mikkel Haarder, Director of the Danish Evaluation Institute and Claus Hjortdal, Chairman of the association of school leaders appeared on August 22, 2017. The title, '*600.000 læsesvage voksne er et brændende spørgsmål [600.000 adult with weak reading skills is a burning issue]*', is a clear reference to the results from the PIAAC Survey. The authors makes reference to the work of the (then) tripartite task force on improving adult education and training (involving employer association, trade unions and the government) to demonstrate that the problem of adults with weak reading and numeracy skills is given serious political attention. Yet the article also connects to the political agenda of improving the teaching of literacy and numeracy skills also in school by stressing the contribution that support from skilled adults can give to their children's success.

In response to that, the second article, by Tine Jørgensen, Chairman of the Association of Librarians, appeared on August 25, 2017. Under the heading '*Støt de læsesvage*' [Support the weak readers] Tine Jørgensen argues that libraries may have an important role in supporting the political agenda to help weak adult readers to improve their reading skills, as they did during the 2013-2015 campaign 'Denmark reads', organised by the Ministry of Culture.

Adult education and training can help more people with basic literacy skills, and I suggest that formal education and training is combined with free reading, for instance through coordinating initiatives in education policy and cultural policy. (G8_JP, own translation)

In short, in 2017 the publication of a Danish survey on the role of reading problems in the workplace, for the unskilled worker's trade union, provide a further stimulus to debates on adult skills. Yet, it is primarily *Jyllands-Posten* (liberal-conservative) that still cites the Survey data, while expressing its enduring concern for the lack of basic skills among Danish employees, chiefly in information technology. But also to weight the impact adults' literacy and numeracy skills have, for instance, on the learning of children and their schooling trajectory.

4.3.4 Intergenerational learning, the role of books, and the impact of budget cut on education

Although to a lower extent, when compared to previous years, in 2018 the Survey's results were still entering the public discourse on adult learning through the Danish newspapers.

On July 13, 2018 *Jyllands-Posten* (liberal-conservative) titled '*To fluer med et smæk: Lad unge lære ensomme ældre at bruge IT*' [Two birds with one stone: Let young

people teach lonely aged people how to use IT] an article by Soulayma Gourani, an opinion former, takes a different stand on how to possibly support the governmental agenda of increasing the IT-skills among the older adults, whose lack of IT-skills adds to their loneliness, taking inspiration from a US project (Tech Allies for seniors).

IT-skills were also the focus of an article by Mikkel Haarder, Director of the Danish Evaluation Institute, which appeared in *Politiken* (centre-right) under the heading 'Sæt digitale læringsmål' [Set digital learning goals] on May 11, 2018. Mikkel Haarder cites PIAAC Survey results as well as studies by the Danish Evaluation Institute to argue that all levels of the education system have to focus more on providing digital competencies as an "access ticket" to society

Students have to ready for a society, where digital competencies are the access ticket: Major parts of the democratic conversation takes place on-line, critical sense and good tools for finding information are a must for navigating in a world of fake news and plenty of opinions. (G6_POL, own translation)

Politiken (centre-left) also published an article October 15, 2018 that superficially recalled the Survey data, but to bring attention to a quick different subject matter, namely that 'Børn fra hjem med bøger bliver klogest' [Children from homes with books gets wiser]. By reference to comparative studies conducted on data from PIAAC by researchers from Australia and the US the article assumes a causal relation between having 80+ books at home while a child, and how knowledgeable one becomes as an adult, independently from gender and social conditions.

Interestingly, the latest article under consideration in this study appeared in *Jyllands-Posten* on March 17, 2019, in the midst of election campaign of the new Danish government. It raised the question: 'Hvorfor diskuterer vi ikke længere uddannelsespolitik?' [Why are we no longer discussing education policy?] as a heading to an article by Erik Ernø-Kjølhede, the Principal of Aarhus Adult Education Centre. Erik Ernø-Kjølhede claims that, despite a general agreement about the importance of education to tackle the challenge of a large number of adults that in Denmark have reading difficulties, the whole of the Danish education system has been is subject to continuous budget cuts, which in turn have had negative consequences for the quality of the education on offered. The article takes up the outgoing government's political decision to save each year since 2015 2% of the budget in education, among other areas - which combined with other cuts in the budgets (according to the author) has led to economic problems in educational institutions. Hence warn the incoming government against the risk of future failure.

[...] education is a long term investment where the huge damaging effects of budget cuts can not be seen in the short run – should we say an election period of four years. One didn't realize that either before it was too late, when in its time, the Danish Tax Agency was exposed to great savings. (G10_JP, own translation)

Summing up, in more recent time, both *Jyllands-Posten* (liberal-conservative) and *Politiken* (centre-left) still cite PIAAC data as established facts, chiefly to focus on the IT-skills of adult Danes, while in 2019, during the election campaign of the Danish government, brings attention to the risk of saving public money in the field of education, and adult education particularly.

4.5 Concluding remarks

In this study we scrutinized 27 articles, which were published in Danish newspapers between August 17, 2013 and March 17, 2019, dedicated attention to, or cited PIAAC data.

Interestingly, in 2013 all newspapers under consideration, and independently from their political orientation, gave some attention to the Survey of Adult Skills, as soon as the data for Denmark was published. Interestingly, almost half of the articles under consideration were written by experts representing adult education centres or by educational researchers, among others, but mainly by representatives of the Danish Evaluation Institute, a public semi-autonomous agency doing evaluation studies in all sectors of the Danish education system. Remarkably, the same signature from the Danish Evaluation Institute appears across newspapers, independently from their political orientation.

When we analyse the content, we note that in 2013 all newspapers took the Survey results at fact value, with the exception of one article (see section 4.2), but framed possible consequences in different ways. Liberal-conservative newspapers (*Berlingske*, *Jyllands-Posten*) focused on youth and praised the (then) recent school reform, whereas the centre-left newspaper (*Politiken*) focused on the adult population to critique past national reforms in adult education, and chiefly the Preparatory Adult Education supply.

Over the period 2014-2016, both centre-right newspapers (*Berlingske*, *Kristeligt Dagblad*) connected PIAAC data to PISA results, though with different aims. *Berlingske* was worried about youth's insufficient reading skills, which would cause long term need for social benefit. *Kristeligt Dagblad* was mostly concerned with reducing social inequality, and the role adult education could have.

Along side such a major attention to the Survey data and their implications for the Danish society, in 2014 and 2015 the national press, across the political spectrum, paid attention to the government's decision to invest one billion DKK in improving adult education and training. Yet, while *Politiken* (centre-left) proposed literacy teaching for adults, special literacy teaching for adult immigrants, and education and career guidance for adults as future priorities, *Jyllands-Posten* (liberal-conservative) recommended giving priority to the low-skilled employees.

In 2017 a Danish survey brought attention to reading problems in the workplace. This proves as an additional input, chiefly for *Jyllands-Posten* (liberal-conservative), to emphasize Danish employees, and their lack of basic skills, particularly digital skills, as core political problem.

Most recently, PIAAC data is still cited by *Jyllands-Posten* (liberal-conservative) and *Politiken* (centre-left) to keep raising concerns about the IT-skills of adult Danes, and during the 2019 election government campaign also to convey the effect that constant public savings in education (since 2015) have had, and may have for its future quality.

Chapter 5 – PIAAC and the Estonian press

Marcella Milana (University of Verona) and Marti Taru (Tallinn University)

This chapter reports on the media analysis performed on 12 Estonian articles to examine how PIAAC influences the public debate that informs policy in Estonia. Preceding the presentation of the content analysis, the chapter illustrates the selection criteria and the dataset used. It concludes with a summary of the main results.

5.1 Newspapers selection and data set

For the purpose of this study, two national newspapers, holding different political orientation, were found of relevance, and a total of 12 articles were generated from our search, as illustrated in Table 5.1.

Table 5.1 – Estonia. Newspapers, by political orientation and selected characteristics, and number of articles included in the dataset

Newspaper	Acronym	Political orientation	Year first published	Circulation (2019, June)	No. of articles
<i>Eesti Päevaleht</i>	EPL	Centre-left	1995	15,100	7
<i>Äripäev</i>	AP	Liberal	1989	6,800	5
Total of articles					12

Source: [Federal Agency for Civic Education \(www.eurotopics.net\)](http://www.eurotopics.net) and Estonian Newspaper Association (www.eall.ee/tiraazhid/).

Eesti Päevaleht (Estonian Daily) was founded on 5 June 1995 from the merging of three pre-existing newspapers (*Hommikuleht*, *Päevaleht*, and *Rahva Hääl*) into a single daily, which on 29 September 1995 absorbed also *Eesti Sõnumid*. *Eesti Päevaleht* tends to make use of societal frameworks and thinking when picking and addressing issues and developments in Estonia.

Äripäev (Business Day) is a financial newspaper founded in 1989 by a leading Swedish financial newspaper (*Dagens Industri*). Published weekly until May 1992, then three times a week, it turned into a daily newspaper in 1996. *Äripäev* addresses societal and political situations, circumstances, developments, and challenges chiefly from the point of view of entrepreneurs and industry.

Over the period under consideration for this study (2012-2019, July) both newspapers have been issuing both printed and online versions. However, access to online content has changed, as publishing companies have moved more and more newspaper and

online portal content behind the pay wall. Also the structure of, and options for, providing content has changed; both newspapers have moved from being a print media to online news and opinion portals with different sections, including selling books and trainings, which have different options for access.

Subscription alternatives have changed too. Now one can subscribe only a part of a newspaper or subscribe a newspaper as a part of a larger package of several newspapers and magazines, while there were fewer options of the kind available in 2012.

To locate articles for further analysis, online archives of the newspapers were used. During the piloting phase, different search strings (in Estonian) suggested in the guidance note, were tested. These included translations of “programme for the international assessment of adult competencies”, “survey of adult skills” and related keywords in Estonian. Since other strings did not surface additional articles compared to using the string “PIAAC”, only this string was kept. The 12 articles that were analysed, were located using this string.

5.2 Media coverage overview

Noticeably, in Estonia only two of the articles we found had PIAAC as their main subject matter. Perhaps unsurprisingly, both were published in October 2013, at a few days distance from the official release of the first Survey results (OECD, 2013a), and one carries the signature of Aune Valk, a psychologist employed by the national Ministry of Education and Research, and PIAAC programme coordinator in Estonia. Thus the majority of the articles (10) only make reference to PIAAC or the Survey data while debating different matters of concern, as we shall see in the next sections, but no longer discuss PIAAC or the Survey results as their chief subject matter.

Table 5.2 – Estonia. Number of articles by newspaper, year, and month of publication

Newspapers	2013		2014		2015	2016	2017		2018	2019	Total
	Oct	Mar	Jun	Sep	Jun	Oct	Mar	Sep	Oct	Mar	
<i>Eesti Päevaleht</i>	2	1	1	1	1			1			7
<i>Äripäev</i>		1				1	1		1	1	5
Total	2	2	1	1	1	1	1	1	1	1	12

Source: Own elaboration

Over the years, beside the above-mentioned and one more article by Aune Valk (in 2014), *Eesti Päevaleht* (centre-left) has published two additional opinion pieces by academics from Tallinn University, like Mart Laanpere, Senior Research Fellow in Educational Technology, and Marge Unt, Professor of Sociology (1 in 2014, 1 in 2017). So more than half (4) of the articles that appeared in this daily, carry the signature of experts who either coordinate or do educational research.

Likewise, also the majority of articles (3) that appeared in *Äripäev* (liberal) over the time-span considered were opinion pieces by experts (1 in 2016, 1 in 2017, 1 in 2018). In this case, however, in line with this daily's vocation, they all carry the signature of people from the industry, like Kärt Liivamägi, a Risk management specialist for a bank, Terje Tammekivi, a businessmen at the time, and Mihkel Nestor, an analyst employed at Skandinaviska Enskilda Banken (SEB), a Swedish financial group.

5.3 Media content analysis

Estonia, likewise all other Nordic countries, joined the first round of the PIAAC Survey on Adult Skills (2011-2012), and in 2015 the Nordic PIAAC Network released a joint report for this group of countries (Denmark, Estonia, Finland, Norway and Sweden) (Norden, 2015). Despite this, in 2013 PIAAC results attracted little attention from the press, with only two articles in a centre-left oriented daily, *Eesti Päevaleht*:

- *'Uuringu tõesed ja eelarvamused'* [Prejudices and research based truths] (*Eesti Päevaleht*, October 9, 2013)
- *'Kes on kõige targem, peeglike?'* [Please tell who is the smartest, my dear mirror?] (*Eesti Päevaleht*, October 16, 2013)

The former (Prejudices and research based truths) is an editorial that debates the key findings results of the Survey on Adult Skills for Estonia, and across countries, to ultimately argue that Estonian economy is characterised by too low a proportion of complex jobs that require skilled labour, and this is the reason why the level of problem solving skills in technology rich environment is low.

The survey explicitly shows that wages of people of different skill levels do not differ as much in Estonia as in many other countries. Therefore, skills are probably not well paid in the labour market. The implication is that we do not have enough institutions and companies to offer more complex jobs. So it is left to create them first and foremost. (G1_EPL, own translation)

Such an argument builds on the 'fact' that young people's level of functional reading and mathematical skills in Estonia is above average, when compared to other OECD countries, but that middle aged and older people's skills in Estonia is below that of young people. On this ground, the editorial criticizes recent national education innovation in Estonian schools (e.g. replacing literature by partial proficiency tests, and making maths exam mandatory), for being "based on prejudice rather than research" (G1_EPL, own translation). It is argued, that these innovations assumed that functional reading skill among pupils was low but, as PIAAC shows, it was not low, neither in comparison to peers in other OECD countries or to the older Estonian generation. At the same time, the editorial claims that PIAAC results have surprisingly broken the myth of 'Estonia as an IT country', as the level of problem solving skills in technology rich environment measured by PIAAC is surprisingly low. Along this line of reasoning, the editorial claims also that the Estonian economy is too simple, namely

that the share of low technology jobs is too high. Accordingly, the problem public policy shall address is construed as a the low share of jobs requiring skilled labour that leads to low levels of problem solving skills among the Estonian population. In so doing, the editorial also deconstructs the wide spread idea (among liberals) that the national education system is not performing well, hence needs reforming.

The article that appeared in the same daily (*Eesti Päevaleht*) a few days later (October 16, 2013), under a catchy heading (Please tell who is the smartest, my dear mirror?), carries the signature of the PIAAC programme coordinator in Estonia, Aune Valk. It reports on the main PIAAC results for Estonia, in a comparative perspective, also to stress (like the above-mentioned editorial by October 9, 2013) that the country has less jobs where computers are used, when compared to its OECD counterparts, and that Estonians use information processing skills comparatively less. Such results, however, are turned upside down by Aune Valk, who considers not their problematic but rather their potential, drawing inspiration also from other OECD countries (e.g. Hong Kong, Finland).

These messages, which at first glance seem critical, are actually about potential [...] Have we exhausted the potential for retraining? What jobs do we have with the function of the so-called travel attendant, perhaps designed to survive a difficult time, but which jobs should be released as quickly as possible in order to make room for work that fully exploits our people's potential? Should all 3,000 missing IT sector employees be young graduates, or is there potential for retraining in the low value added sector? [...] Perhaps, has a religious scholar driving a bus not hopelessly lost his mathematical literacy to learn IT skills and do a different job? (G1_EPL, own translation)

Interestingly, after a few months, on June 19, 2014, again in *Eesti Päevaleht*, Aune Valk makes a quick recall to the PIAAC data but this time only to corroborate her argument about a type of learner (pre-school children) that is in truth outside the scope of the Survey on Adult Skills.

The younger sister of the PISA study, PIAAC (International Adult Skills Survey), shows that the skills of adults in Estonia are clearly positively correlated to mother's education, even when comparing people with the same education. (G4_EPL, own translation)

Under the catchy title '*Anna emale kala, et laps võiks saada õnge*' [Give Mom a fish so that the child can get a fishing rod], here in reality, Aune Valk, a psychologist by education, debates about the positive impact of kindergarten on child development and critique that access to kindergarten is non affordable for low income people as the monthly cost is too high. Summing, in 2013, upon release, PIAAC results were given attention by the centre-left oriented daily, *Eesti Päevaleht*, to point at the surprising news that Estonia is not an IT country, as the myth goes. In so doing, however, it also points not at education reforms, but at reforms of the labour market as what really needed, for Estonian to keep using problem-solving skills at work. At the same time, the PIAAC coordinator for Estonia considers the possibility of

“releasing new jobs” that require problem solving in technologically rich environments as a country potential to be unleashed.

5.3.1 *Blaming the education system and claiming a ‘digital turn’*

ICT and the ability of Estonians to cope with them, continue to be in the limelight of *Eesti Päevaleht* but also of *Äripäev*, in the years following the release of the Survey’s results.

In spring 2014 three more articles by experts address the topic, yet to blame the education system and/or schoolteachers:

- *‘Tiigrihüpe on iganenud ja vajab uut hingamist’* [Tiger’s Leap is outdated and needs new breathing] (*Eesti Päevaleht*, March 11, 2014)
- *‘Õpetaja võib uut tehnoloogiat kasutades osa võimu õpilastele loovutada’* [The teacher may divest some of his/her power to pupils when using new technologies] (*Eesti Päevaleht*, September 17, 2014)
- *‘Partsi retsept tootlikkuse suurendamiseks’* [Parts’ recipe for increasing productivity]. (*Äripäev*, March 13, 2014)

On March 11, 2014, Mart Laanpere, Senior Research Fellow in Educational Technology at the School of Digital Technologies, Tallinn University describes the need and argues for a “digital turn” in Estonian schools.

For many years, the Tiger Leap brought Estonian schools around the world and home reputation points. Our teacher-students stood out for their active use of computers and for the rational development of ICT infrastructure in schools. But as early as four or five years ago, there was a noise that the Tiger was tired. Currently, the ICT infrastructure of schools is in a worse state than five years ago. There is no longer this momentum and development in digital technology teaching - aside from a few nascent schools that are eager to experiment with new ways of learning with tablets and smartphones. (G3_EPL, own translation)

While the article focuses on schools, hence draws for the most on data from assessments of school’s teachers and students (such as the Programme for the International Assessment of Students, PISA), PIAAC data is also used, improperly, to further back up the author’s argument.

The results of both PISA, which studied primary school students, and PIAAC, which focus on adults, show that the Estonian education system provides a fairly high level of subject knowledge. However, our school's ability to apply this knowledge in a live context, generic competencies and problem-solving skills in a technology-rich environment (increasingly demanded by employers) is currently not developing in our school. (G3_EPL, own translation)

Thus, to remedy this problem, schools should make more use of educational technologies. A digital turn, Mart Laanpere argues, would mean for schools to transition to an entirely new system of ICT and related soft- and hardware. This, however, would bring along the need for information technology specialists to assure

that all aspects of the new system (i.e., physical infrastructure, software, hardware, training) are installed and kept running.

On September 17, 2014, a new article brings attention to the use of ICT in schools under the title '*Õpetaja võib uut tehnoloogiat kasutades osa võimu õpilastele loovutada*' [The teacher may divest some of his/her power to pupils when using new technologies]. Based on an interview with a former Director of a primary school, who is about to start his job as a Headmaster of a state gymnasium, the article discusses the use of new ITC for teaching in schools. Here PIAAC data is mentioned to support the claim that Estonian teachers are not very comfortable themselves in the use of ICT:

Indeed, Estonian teachers may not feel most comfortable with digital devices. The PIAAC Adult Skills Survey, published at the end of 2013, reveals that a quarter of teachers are good at solving computer-based tasks - the term used in this study is called "problem-solving skills in a technology-rich environment." In other OECD countries, however, is 46%. (G5_EPL, own translation)

Interestingly, knowledge gained from the release of PIAAC Survey results is taken up also by Juhan Parts, the Estonian Prime Minister at that time. On March 13, 2014 Juhan Parts' speech at a conference is brought to the attention of *Äripäev's* (liberal) readership under the heading '*Partsi retsept tootlikkuse suurendamiseks*' [Parts' recipe for increase productivity]. Centred on the productivity of the Estonian labour market, the speech by the Prime Minister concludes that increasing the productivity of employees and workers is the main challenge nowadays. Hence, the Prime Minister makes 10 proposals that he thinks could contribute to increasing productivity. Taken together, these proposals indirectly assume productivity as the dependent variable of a number of independent variables that could be manipulated through policy interventions, like: the use of EU funds; increased productivity in the public sector; better, more intensive and extensive use of IT resources; easier access to foreign labour force; more attention to super-productive individuals; exporting work (instead of importing labour); better use of returning temporary emigrants; better legal framework for regulating temporary work; and improved vocational education and practical skill education. Accordingly, the last of Juhan Parts' proposals, no. 10, frames the lack of practical and problem-solving skills among the active population as one of the problems public policy shall address. PIAAC data is cited to back up such claim.

10. What should people learn and learn more about? The importance of IT is widely recognized and taken into account in our learning system, but not across disciplines - it still tends to be treated as separate. It is part of a broader theme - if we have the facts and domain knowledge from different tests, solving practical problems or using what we have learned to solve different tasks is rather weak (OECD Adult Knowledge Survey PIAAC). Education should be made as practical as possible, especially in the more practical part of it, in vocational education, to be practiced at an early stage and to work alternately with learning. (G1_AP)

Debates on and proposals for creating Estonian IT skills are taken up again by *Äripäev* (liberal) in the years to come.

On October 14, 2016 under the heading *'Tasuta IT-abi kõigile'* [IT-support service for free to everyone] *Äripäev* (liberal) made available an article by Kärt Liivamägi, Risk management specialist in a bank, written in response to an opinion competition "Successful Estonia". The competition had been launched by *Äripäev*, together with *Tallinna Kaubamaja* (e Department store), *Danske Bank* (a Danish bank), ACE Logistics (a multiservice provider), *Eesti Gaas* (an energy company), *Silberauto* (an automotive enterprise) and Mainor Business School. In this opinion piece, Kärt Liivamägi discusses the unequal distribution of digital skills in Estonia. Reference to PIAAC data is used to frame the problem from the outset of this opinion piece:

Young people in Estonia are at the top of computer skills' rankings, but are already 35 years and older at the end of the ranking. Only one in four Estonian adults have good or very good problem-solving skills in a technology-rich environment. Elderly, non-native speakers, less educated, and in lower-level jobs will benefit less from the opportunities offered by using a computer. These inequalities are spreading to other areas and cause social problems [...]
(G2_AP, own translation)

Once framed the problem that shall be addressed by public policy, in the believe that "The state could provide assistance to computer users in solving everyday issues and encourage the development of IT competence" (G2_AP), Kärt Liivamägi advances the proposal for a national policy program to be put into action with the scope of reducing existing skills gaps through the provision of regular training courses as a support measure for ITC skills acquisition among different age groups.

In short, in 2014 and again 2016 ICT and the ability of Estonians to cope with them continue to be in the limelight of both the centre-left and liberal Estonian press. Here experts with different backgrounds (from educational research to business) makes reference to PIAAC data to substantially blame the education system and teachers and argue for a digital turn in schools, which should transit to a new system of ICT and related soft- and hardware if both teachers and students are to improve their IT skills. At the same time, the (then) Prime Minister also makes a case for practical and problem-solving skills among the active population as a political issue, if productivity of employees and workers were to increase in Estonia. Both positions justify a proposal by a bank employee (at the time) for a national policy program in order to reduce existing skills gaps via the provision of regular training courses, and other kinds of support for ITC skill acquisition among different age groups.

5.3.2 Gender wage gap and youth unemployment in the Estonian labour market

Alongside the above debate about the ITC skills of the Estonia population, three more matters of concern entered the press debate in 2015 and 2017, also due to the activity of the Estonian Ministry of Education and Research, the campaign by the business

world, “Successful Estonia” (see section 5.3.1), and the 2017 election campaign. These span from the gender wage gap to youth and long-term unemployment, via language courses for entrepreneurs. All such debates refer to PIAAC data, which act as a rather superficial input to the topic under debate.

In 2015, the Estonian Ministry of Education and Research carried out a study to further exploit the PIAAC data for Estonia in an attempt to explain gender wage gap. On June 11, 2015 *Eesti Päevaleht* dedicated an article to this study, under the title: *‘Miks saavad Eesti naised meestest kolmandiku võrra vähem palka? 70% ulatuses ikka veel müstika’* [Why is the mean salary of Estonian women one third lower than that of men? It is a mystery, as 70% of the difference is still not explained]. The heading makes reference to the data from PIAAC that “at the end of 2011 and early 2012, women [in Estonia] earned on average 25-30% less than men” (G6_EPL, own translation). Against this backdrop, as the article reports, the (then) recent study by the Ministry of Education and Research “looked at the wage gap in the context of PIAAC data” (G6_EPL, own translation). But the results from such study is that skills differences by gender in literacy, numeracy and problem-solving skills in a technology-rich environment can explain only up to 27% of the existing wage gap among sexes. So, as the heading cries out why the gender wage gap is so high is “a mystery”, and “[a] suspicion remains that, at least in part, the cause is discrimination” (G6_EPL, own translation).

Written again in response to the opinion competition “Successful Estonia” launched by the world of business and the press itself (see section 5.3.1), on March 1, 2017 an article by Terje Tammekivi, owner of a limited liability company (Ice Design OÜ) appeared in *Äripäev* (liberal). In *‘Keeleoskus avab ukсед’* [Language skills open doors], Terje Tammekivi makes a quick reference to PIAAC data to argue in favour of state subsidy for language courses targeting entrepreneurs, as this will help them to be more successful abroad. This in turn, as the author argues, would increase tax returns for the state. In this context, PIAAC is referred to as a source of information telling that in Estonia the number of people with command of German and French is low.

Finally, on September 30, 2017 an article by Marge Unt, Professor of sociology at Tallinn University centres attention on the problem of long-term unemployed among Estonian young people: *‘Eestis on Kärđla linna täis pikaajaliselt töötuid noori, kuidas päästa neid mustast august?’* [In Estonia, the amount of long-term unemployed young people equals to the population of Kärđla, how to save them from the black hole?]. The article draw on research carried out by the author, as part of a EU-research project, to frame youth unemployment, and especially long-term unemployment, as a complex problem. PIAAC data is integrated with qualitative data to better illustrate such complexity, which cannot be reduced to the supply side skills, and skills development.

In Estonia, there is a major contradiction between IT skills and their use in the workplace, especially among young people under 24, according to a PIAAC study. Many young people, for example, are in catering and hospitality where the employer does not expect them to use IT skills. (G7_EPL, own translation)

Written during the 2017 election campaign, scope of this article is not only to bring attention to the complexity of the problem of young unemployment, but also to debate its links with public services as a potential remedy, especially of long-term unemployment. So the author claims that both municipalities and the state have a potential to offering services to young, so that they would find a job, and this should be done. But, also, the author claims, public policies should take into account the polarisation of jobs. In Europe, the number of middle jobs has been decreasing and the number of top and bottom jobs increasing. Although not so fast, this is happening in Estonia too, the author claims.

In extreme synthesis, alongside concerns about the use of ICT skills among the population, the Estonian press has given space, until the 2017 election campaign, to the government, the business and the academia, who exploits PIAAC data in an attempt to explain the existing gender wage gap in the labour market, or to propose how public policies and state intervention could support entrepreneurs, on the one hand, and unemployed youth, on the other.

5.3.3 What is still wrong with Estonia and its population?

In more recent times, results from the PIAAC Survey were taken as well known facts by the business world or the Estonian Ministry of Social Affairs, and briefly mentioned in a couple of short commentaries, in an attempt to explain what's still wrong with Estonia and its population:

- *'Eesti mahajäämust põhjustab kehv tervis'* [Estonia is held back by poor health] (*Äripäev*, October 19, 2018)
- *'Eestlased – haritud rahvas, kes teeb liiga lihtsat tööd'* [Estonians – educated people, who do too easy a job] (*Äripäev*, March 19, 2019)

The article dated October 19, 2018 is a summary of a weekly commentary by Mihkel Nestor, an analyst employed by the Estonian branch of *Skandinaviska Enskilda Banken* (SEB), a Swedish bank. It takes a point of departure in that in the Competitiveness Report by the World Economic Forum Estonia is placed 32nd, which is not that bad, though down of 2 positions, when compared to the previous report. Hence, this article reports Mihkel Nestor's hypothetical explanations of why Estonia ranks so high, and what needs to be done to maintain such position and/or improve it.

The high number of years spent in school and the strong digital skills of the adult population give Estonia a good position in the ranking. "Of course, one can argue about whether education is measured by quality or quantity, but research tends to confirm a strong correlation between

time spent in education and other measures of personal success, including wages," Nestor said. As for digital skills, the analyst said, the Competitiveness Report uses the results of a survey to assess this. "However, good problem-solving skills among the adult population have also been confirmed by more objective studies, most notably the OECD's PIAAC Adult Skills Survey," he explained. (G4_AP)

Yet what it is still seen as problematic by Mihkel Nestor's is that at the moment of birth, the expectancy to live a healthy life for the average Estonian is too low, compared to many other countries, as well as the consequences that bad health has, like the inability to work that forces people into poverty.

Finally, the article published on March 19, 2019 by *Äripäev* summarizes a blog of the Estonian Ministry of Social Affairs stating that:

"... according to PIAAC, in 2011-2013 36,9% of Estonian employees worked in a position which had educational requirements below their actual level of education. In OECD countries, the mean is 24%. Why?"

Answering this question, the article points at the fact that that education level in Estonia is not lower than in OECD countries on the average, but that the percentage of employees having a job that does not require their level of education is higher than in OECD on the average. This might be educational surplus - but it is not that Estonian labor force has lower education level, compared to OECD on the average, as the report says. In other words the article highlights the presence of a large portion of people with tertiary education who earns too low wages in Estonia. This includes: public sector employees, mainly in education and health; people living in areas with low wages or low-skilled jobs, poor Estonian language skills, poor health, as well as gender and age barriers; and people with out-dated education and skills. Therefrom the main claim and conclusion captured in the heading, Estonians – educated people, who do too easy a job.

Summing up, economic development and productivity remain topics of concern for *Äripäev* in recent years. However, attention is paid to PIAAC data to explain to the wider public both what works well (e.g. good command of problem-solving skills), and what does not (e.g. shortage of qualified or well-educated labour), before indicating what are the directions for improving the Estonian society, and its global competitive standing.

5.4 Concluding remarks

We analysed 12 articles in this study, which were published in two Estonian newspapers (*Eesti Päevaleht*, *Äripäev*) between October 9, 2013 and March 19, 2019.

Estonia joined the first round of the PIAAC Survey (2011-2012) together with Denmark, Finland, Norway and Sweden. So, in 2015 the Nordic Council of Ministers released a joint report for this group of countries (Norden, 2015).

Yet, in 2013 only two articles in a centre-left oriented daily (*Eesti Päevaleht*) paid attention to the data results for Estonia, as soon as they had been released, to bring attention to the ICT and the limited ability of Estonians to cope with them.

Such a topic of concern has continued in the limelight of the Estonian press over the years to come, also thanks to the expertise from the academia and the world of business.

Positions, however, differs on how the problem for public policy is framed. Some blame the education system and teachers to argue for a digital turn in schools. Others point at the need to increase the productivity of employees and workers to claim that practical and problem-solving skills of the active population are a political issue. Complementing these views are also those that concern the gender wage gap, entrepreneurship abroad, and youth unemployed back home.

In most recent years, economic development and productivity remains a topic of concern for the press (*Äripäev*), hence PIAAC data is used to explain both the strengths and problems Estonia still faces, and then suggest possible directions for the country's future development.

Chapter 6 – PIAAC and the Italian press

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This chapter summarises the main findings of research undertaken on 33 Italian articles from three different newspapers to examine how PIAAC influences the public debate that informs policy in Italy. The outcomes will be introduced by an overview of both the criteria used for the selection of national newspapers, and the composition of the dataset on which the outcomes are based.

6.1 Newspapers selection and data set

Consistently with the shared methodological criteria (see chapter 1), in order to identify relevant newspapers, we made reference to data published by the Italian Agency for Press Spread Verification (ADS). It is a company based in Milan, responsible for certifying the circulation and distribution data provided by the Italian publishers of newspapers and periodicals. Moreover, from 2013 ADS also certifies the sale of the digitized editions of Italian newspapers.²

Such a reference allowed us to identify 3 of the highest circulating newspapers in Italy and the most suitable to the scope of our study. In fact, they not only meet the selection criteria in terms of political orientation (see tables 6.1) and number of readers (see tables 6.1; 6.2; 6.3), but, as we shall see, they also have a relevant historical background, and a commonly known reputational authoritativeness.

Table 6.1 - Italy. Newspapers by political orientation and number of article collected

Newspaper	Acronym	Political orientation	N. of articles
<i>La Repubblica</i>	R	Centre-left	9
<i>Il Sole 24 ore</i>	S	Liberal	18
<i>Il Giornale</i>	G	Right-wing	6

Source: Own adaptation from ADS. Certified data, 10 August 2019, and Federal Agency for Civic Education (www.eurotopics.net)

La Repubblica was launched in 1976 as a press organ of the secular and reformist left. It is a centre-left Italian daily newspaper, based in Rome, belonging to GEDI Editorial Group. Although the figures are decreasing since 2013 (see table 6.2), it is the second largest daily newspaper in Italy in terms of total circulation (print + digital) and number of readers after *Il Corriere della Sera*.

² According to the criteria of the ADS, data about the circulation of a newspaper is obtained from the sum of: Total Paid+ Total Free + Foreign Circulation + Block sales.

Table 6.2 - La Repubblica. Spread figures by year and medium**(digital and print version)**

Year	Digital version	Print version	Total
2013	50 165	352 152	402 317
2014	62 715	306 158	368 873
2015	56 986	274 460	331 446
2016	40 273	231 137	271 410
2017	30 159	190 261	220 420

Source: Own adaptation from ADS. Certified data, 10 August 2019.

Il Sole 24 ore was founded in 1865 as a mercurial of the business community based in Milan, then merged with its competitor 24 Ore, nowadays it represents the most widespread economic-financial daily newspaper in Italy, the most known in its sector and the fifth in the country (see also data and spread, table 6.3). The newspaper is published by the 24 ORE Group owned by Confindustria, the Federation of Italian Employers, Italian Industrial Federation. It deals with economy, politics, news in the regulatory and tax fields, especially in the economic field, the development of financial market and the columns of experts. However, well known also by the working-class, *Il Sole 24 ore* is considered a reliable updating tool for professionals, entrepreneurs, public administration managers and financial investors.

Table 6.3 - Il Sole 24 ore. Spread figures by year and medium (digital and print version)

Year	Digital version	Print version	Total
2013	86 528	213 130	299 658
2014	181 036	182 701	363 737
2015	76 228	137 676	213 904
2016	85 817	119 047	204 864
2017	85 606	90 619	176 225

Source: Own adaptation from ADS. Certified data, 10 August 2019.

Il Giornale is an Italian national daily newspaper founded in Milan in 1974, with a liberal and conservative orientation. Since 1979, *Il Giornale* has been owned by the Berlusconi family (lead by Silvio Berlusconi, Italian entrepreneur and politician), to stand on the positions of Forza Italia (i.e., the party founded by Silvio Berlusconi) and in general of the centre-right area.

Table 6.4 - *Il Giornale*. Spread figures by year and medium (digital and print version)

Year	Digital version	Print version	Total
2013	2102	116.283	118.385
2014	2189	97.795	99.984
2015	1911	82.411	84.322
2016	1714	71.446	73.160
2017	1412	59.698	61.110

Source: Own adaptation from ADS. Certified data, 10 August 2019.

The historical background and degree of popularity that the selected newspapers have in the Italian journalistic scene make the 33 articles we collected (see table 6.1) of great interest in terms of research aims and questions.

We resorted to the following search terms to gather our data: PIAAC; Programme for the International Assessment of Adult Competencies; Survey of adult skills. Our search yielded a total of 33 articles (9 from *La Repubblica*, 18 from *Il Sole 24 ore* and 6 from *Il Giornale*) (see table 6.1)

Such a data set allowed us to study the role of PIAAC in newspaper contents and to understand how it changed over years, since 2012 to 2019 (July). In particular, we analysed the subjects on which the items focus on, and the casual relationships here involved, so to understand how these factors combine with the policy agenda they sustain and how they do so (i.e., through which kind of rhetoric strategies and argumentative strategies).

To this aim, however, we made some analytical and narrative choices that distinguish the Italian case from the other national cases included in this report. With 33 articles, Italy presents the largest national empirical basis. Considering this we opted for not discussing each article separately, since this would not have helped in analytical terms, while it would have made the reading more difficult. Therefore, we chose to underline key information by quoting only the articles that better evoke the main findings we will present in the next sections.

Table 6.5 – Articles by newspaper, year, and month of publication

Newspapers	2013		2014			2015		2016				2017		2018				2019	Tot
	Mar	Oct	Mar	Sept	Oct	Feb	Aug	Apr	Oct	Nov	Dec	Mar	May	Feb	Mar	Aug	Oct	Mar	
<i>La Repubblica</i>	1	4						1		1	1	1					1		10
<i>Il Giornale</i>		1				1	1					1	1	1					6
<i>Il Sole 24 ore</i>		2	1	2	2			2	1			1	1		2	1		3	18
Tot	1	7	1	2	2	1	1	3	1	1	1	3	2	1	2	1	1	3	34

Source: Own elaboration

6.2 Media coverage overview

Although PIAAC was launched in 2011, Italian newspapers started to deal with it after two years, when the results were published. Therefore, the Survey of Adult Skills acquires relevance in the Italian press only in 2013, when it becomes a national matter to which all the newspapers we analysed paid some attention. However, as we will better show in the next sections, the newspapers in focus show great differences in terms of times and methods according to the different communicative requirements they had to satisfy. All in all, *Il Giornale* seems barely interested in the topic; not by chance out of 6 articles only 1 deals with PIAAC as its main topic. About *La Repubblica*, half of the 10 articles we collected was published in 2013, the only year when in which all the articles have PIAAC as their mainly focus. In 2014, *La Repubblica* gives the floor to *Il Sole 24 ore*. About this, it should be noted how PIAAC results become a constant reference in the articles published by this newspaper, but they rarely are the specific objects of attention. In fact, *Il Sole 24 ore* makes mostly reference to PIAAC in-between other issues or only by mentioning: out of 18 articles dealing with PIAAC data only 4 are explicitly dedicated to the Survey results. Briefly, taken together, *Il Sole 24 ore* and *Il Giornale* paid full attention to the publication of the first round of PIAAC results in 2013. We record also a sort of handover takes place between *La Repubblica* and *Il Sole 24* in 2014 (see table 6.5). In other words, *La Repubblica* that in 2013 published 5 articles dealing with PIAAC results, in 2014 gives the floor to *Il Sole 24 ore* that has just never stopped dealing with them.

6.3.1 First reactions to PIAAC first round results on adult competences

PIAAC' Survey on Adult Skills acquires relevance in the Italian scenario press in 2013, when it becomes a national matter, above all since it can threaten the national ability to compete at both European and OECD level. It is what emerges from '*Ocse, italiani "analfabeti" del millennio. Carrozza: serve una inversione di marcia*' [Italians "illiterates" of millenium. Carrozza: we need a change of direction]. Published by *La Repubblica* on October 8, 2013, this article points at the concerns and regrets that emerges from PIAAC data for Italy:

More than a quarter of Italians, 28%, are at the lowest level, or even below that level, for reading skills. This percentage drops to 15% in OECD countries and 12% in Norway. Almost a third of the population that, by reading a book or any other written text, can only interpret simple information. The same goes for data, tables and graphs. The Italians who are placed at the lowest levels - at the first level or below the lowest level - are even 32%. In Spain, which contends for the lowest level, there are 31 % of Italians who are in abundance. Finland ranks second with 13 % and Japan leads with just 8 % of adults with poor mathematical skills. (G3_R, own translation)

Such a way to present data recognises to the PIAAC Survey the status of unquestionable data source where the emerging facts have to be understood as

emergency issues. So, when the PIAAC data were released, they were addressed as the main topic of each article published.

This emerges clearly from *La Repubblica*. In fact, 5 out of the 8 articles published about PIAAC by *La Repubblica* in the period of reference for this study, were published in 2013. Significantly enough is the way in which the central position of PIAAC results is proposed as a concern strictly linked to economic and market labour crisis. Not by chance, the key words here identified (i.e. illiteracy, returning illiteracy, functional illiteracy) are connected with some of the main economic features and delays of the countries from the Mediterranean welfare state regime (Esping-Andersen, 1990). In particular, we refer to profound territorial differences between North and South Italy, as a recurring theme mentioned in many of the collected articles. But, we also refer to the problem of returning illiteracy as a generalised phenomenon that affects all Italians, who in turn are identified and distinguished through the economic position they hold more than the geographical divide.

It is what clearly emerge from *I nuovi analfabeti* [New illiterates], the article published on March 29, where Simonetta Fiori, a journalist covering cultural matters, explains:

Returning illiterates are found also among the small entrepreneurs of northern Italy, in Lombardia more than in Piemonte. Albeit Campania is ranked lower than the national average, the industrious Padania does not rise much from the shameful literacy figures for Italy, here illiteracy concentrates in industrial areas among the unemployed and workers with the lower tasks, yet I would not exclude also the owners of companies with only a few employees (G1_R, own translation).

This phenomenon seems somehow connected with high unemployment rates of young people and especially of those not in employment, education or training (NEET):

Of particular concern is the condition of the so-called NEET, young people who neither study nor work: the early abandonment of training courses risks jeopardising their future, the OECD data clearly state this. (G3_R, own translation)

It is a phenomenon that of NEET, strictly linked to generation and gender gaps as affecting backwards of economic development:

It is clear that in Italy there is a female capital that is underused on a professional level, a waste of resources and talents that our country can no longer afford. (G3_R, own translation)

As the extracts show, Italians are mainly understood through the key terms of human capital and resources. Such a way of knowing the dimensions related to individuals show some taken for granted assumptions that link educational attainments/results and economic/market labour crisis to give them the shape of a linear causal coupling relationship. However, we should not think that this relationship is fixed. On the contrary, it widely changes from an article to the other to serve different purposes. In other words, to both intercept and overlap political concerns and the related (supposed consistent) solutions that the articles we collected propose more or less implicitly:

- Financial cuts as increasing the investment in human capital;
- Numeracy and literacy as something that would produce social inclusion through economic participation;
- Education quality offer as something affecting PIAAC results;
- Low levels of numeracy proficiency and knowledge gap as fighting against the backdrop of the market labour crisis;
- Low quality of educational offer as affecting market labour crisis.

Regardless of both the issues that the articles underlay, meet and/or intertwine, and the way in which the causal education-economy coupling takes shape, this relationship seems to be consistent with the policy agenda the articles sustain: the need to change the labour market system and its entry-rules in turn are identified as the best way to make the human capital productive. Such kind of policy agenda clearly emerges from *Italiani, un popolo di nuovi analfabeti. 'Ultimi in classifica tra i paesi sviluppati'* [Italians, a people of new illiterates. 'Latest in the ranking of developed countries'], an article published by *La Repubblica* on October 9, 2013 where Simonetta Fiori states:

Changing the entry-rules into the labour market, giving young people's contracts prospects of duration rather than an almost unavoidable deadline, could improve the incentives for employers to offer training and those of employees to invest in human capital. [By] reducing the tax burden on producers, we can make this human capital productive. (G5_R, own translation)

The extract quoted above shows how the same policy agenda is then re-produced by switching the direction of the relationship education-employment (i.e., also when employment is identified as an independent variable that can maintain or improve literacy and numeracy competences previously achieved). That being said, it is relevant to underline how irrespective of the shape that it acquires and its direction, the relationship between education and economic factors is identified with the same rhetorical strategies, through metaphorical expressions that stress the Italian worst record in literacy and numeracy. In other words, defining Italy as a *black shirt* means that Italians are *the worst performers*, this implies the connected risk of an *irretrievable lost of human capital resources*. Such line of argument is a way to underline the severity of Italian conditions and the related need to intervene with specific policy reform processes.

Summing up, the first reactions to PIAAC first round results on adult competences show how, among the Italian newspapers we analysed, *La Repubblica* (centre-left) was the one that more than others acquired the most relevant role in terms of knowledge and understanding of PIAAC data. This newspaper not only dominated the communicative scene, but it recognised to the *facts* that emerged from the PIAAC survey the *status* of a national matter. All in all, it carried on some taken for granted assumptions that strictly link educational attainments and PIAAC results to

economic/market labour crisis. Moreover, *La Repubblica* based these assumptions on some ontological presuppositions (i.e., that of individuals to be understood as human capital and resources) to serve different purposes to highlight political concerns and steer the related (supposed consistent) solutions.

This is what happened in 2013, after that two years of silence will follow, together with a sort of handover from *La Repubblica* to *Il Sole 24*.

6.3.2 *The handover from La Repubblica to Il Sole 24 ore*

In 2014, the only newspaper that, among those selected, deals with PIAAC is *Il Sole 24 ore*. Therefore, just a year after the publication of PIAAC results, on the one hand *La Repubblica* no longer takes care of it, meanwhile *Il Sole 24 ore* (the main Italian economic newspaper) starts to write about it, but only in an instrumental way, by making reference to PIAAC results in-between other issues or only by mentioning it.

The articles we refer to are the following:

- ‘*L’Ue ci mette in guardia: pochi laureati e alternanza scuola-lavoro inesistente*’ [The EU warns us: few graduates and no school-work alternation] by Eugenio Bruno (*Il Sole 24 ore*, March 6, 2014)
- ‘*In Italia meno iscritti alle superiori. Ma migliorano i risultati in matematica*’ [Ocse: Less enrolled in high school in Italy. But the results in numeracy improve] N/A, (*Il Sole 24 ore*, September 9, 2014)
- ‘*Prospettive professionali*’ [Professional perspectives], by Flavia Foradini, (*Il Sole 24 ore*, September 14, 2014)
- ‘*Insegnante virtuale per tutti*’ [Virtual teacher for all], by Flavia Foradini, (*Il Sole 24 ore*, October 5, 2014)
- ‘*Lincei in campo per la formazione: coinvolti 9mila insegnanti e 300mila alunni*’ [Lincei in the field for training: involved 9,000 teachers and 300,000 pupils], by Eugenio Bruno (*Il Sole 24 ore*, October 8, 2014).

The instrumental position that PIAAC occupies within the above listed articles is attested, among other things, by the fact that the 5 articles in focus here make reference to PIAAC results by linking them to other documents, mainly research programmes and initiatives. Among others: *the EU report about the Italian macroeconomic imbalance* (EU, 2014); *Education at a glance 2014: OECD Indicators* (OECD, 2014); *The education for All. Global Monitoring Report 2013/14* (UNESCO, 2014); and an initiative promoted by the Italian Academy of Lincei and the Ministry of Education, University and Research, aiming to organise training activities for teachers.

Here the key words of *early school leaving* and *poor basic skills* are used to underline the Italian delays in education and training that, in turn, affect productivity also by increasing the Italian mismatch between skills/education and jobs. In fact, the two

topics, often represented as closely linked are an alarming concern. It is what clearly emerges from *'Prospettive professionali'* [Professional perspectives] published on September 14, 2014. In this article the journalist and teacher Flavia Foradini states:

The "mismatch", the fusion of skills, is 70%, either for qualifications exceeding or different from their work, or for diplomas and degrees that do not keep the promises of skills that would be his own. (G5_S, own translation)

What emerges is a subtle argumentative strategy, where the key words above mentioned appear as strictly linked to the systemic deficiencies of the Italian educational system. In particular, we refer to: the lack of school-to-work alternation; the low levels of investment in education; and the low levels of teacher competences and skills (above all digital competences). Such a way to define reality (Berger and Luckmann, 1966), equally identifies the cause of the problem and its solution. This clearly emerges by comparing two articles:

- ✓ *'L'Ue ci mette in guardia: pochi laureati e alternanza scuola-lavoro inesistente'* [The EU warns us: few graduates and no school-work alternation], by Eugenio Bruno (*Il Sole 24*, March 6, 2014)
- ✓ *Prospettive professionali* [Professional perspectives], Flavia Foradini, (*Il Sole 24 ore*, September 14, 2014)

This first article states that the lack of school-to-work alternation is closely linked to university drop-outs:

That Italian graduates are still too few. What we do not know is perhaps that our low levels of tertiary education are due to a rate of university drop-outs that is unparalleled in the entire OECD area: 55%. (G3_S own translation)

The second article implicitly identifies the failure to implement school-to-work alternation as independent variable from which unemployment rates depend. To this aim, the newspaper resorts to a rhetorical strategy where Italy is compared with the Swiss winning-model:

In Swiss secondary school 60% of the students are involved in school-to-work alternation programmes. Result: 89% of young people between 25 and 34 years old have degree (OECD average 82%, Italy 72%) (G5_S own translation).

Briefly, *Il Sole 24 ore* strongly promotes the enactment of school-to-work alternation as a policy concern that the Italian establishment needs to reflect about and work for.

Similarly, following a linear narrative logic, *Il Sole 24 ore* identifies and presents the other two political priorities we mentioned above: increasing private spending in education and enacting training programme for teachers.

The need to increase spending on education through private funding (on which, it is stated, would depend the improvement of education and school attainment) is based on the assumption according to which literacy and numeracy levels of Italians would improve (or worsen) together with the increasing (or decreasing) in private spending

in education. It is what emerges from *'In Italia meno iscritti alle superiori. Ma migliorano i risultati in matematica'* [Ocse: Less enrolled in high school in Italy. But the results in numeracy improve], N/A, published on September 9, 2014:

Literacy and numeracy levels in Italy improve (data from both PISA and PIAAC results). However, Italy remains the back marker about high school diploma and degrees [...] According to the OECD report, both public and private expenditure on education increased by 8% between 1995 and 2008 and then decreased by 12% between 2008 and 2011 (G4_S own translation).

Moreover, following a line of argument that develops by resorting to a winning model, *Il Sole 24 ore* makes also possible to sustain *taken for granted* causal assumptions; mainly that of spending in education as independent variable of employment rates without any reference to the role other variables play (e.g. contextual, economic). Such line clearly emerges from *'Prospettive professionali'* [Professional perspectives]:

The OECD unemployment average is of 15% the Swiss youth unemployment rate is 10%. Not by chance, the Swiss Confederation invests heavily in education (16,000 dollars per student, against the OECD average of 9,500) and pays teachers twice as much as the OECD average. (G5_S own translation)

The political concern of spending in education well introduces the other political priority on which *Il Sole 24 ore* focuses attention: the need to invest in training for teachers as a way to introduce new pedagogical visions and technologies, since they would recover the Italian delays in education.

[We need to pursue the aim] of making up for the country's backwardness in the education field, as documented by international surveys, such as the PIAAC and OECD tests, which see Italy lowest in the ranking on the basis of some key concepts on which the educational and pedagogical vision underlying the programme focuses: interdisciplinarity, centrality of experimentation in the laboratory, cultural contextualization between science and society, new technologies for teaching. (G5_S own translation)

Briefly, *Il Sole 24 ore*, that is the only newspaper that deals with the PIAAC data in 2014, resorts to them in an instrumental way to underline:

- The Italian delays in education and training in turn affecting productivity also by increasing the Italian mismatch between skills/education and Job.
- The systemic deficiencies of the Italian educational system (the lack of school-work alternation; the low levels of investment in education; the low levels of teachers competences and skills).

In so doing, this newspaper not only identifies the main cause of the problems, but it puts them in relationship with some political choice and solutions, the same that would then mark the national policy agenda in education field.

As said, 2015 could rightly be called the *year of the silence*. In fact, in that year only one article mentioning PIAAC had been published. It is *'Usiamo i termini inglesi perchè non amiamo nè sappiamo l'italiano'* [We use English words since we do not love nor do we know Italian] published by *Il Giornale* (author unknown) on February 2, 2015.

Here *Il Giornale* starts to use PIAAC in the same ideological way that will feature this newspaper also in subsequent years. That is to sustain political positions inspired by patriotic nationalism principles and values. Just to take an example, let us consider that the mentioned article deals with PIAAC data to show the syllogism according to which *The most you are Illiterate the most increase the use of English, the lowest is your sense of national identity*. In other words, *Il Giornale* seems mainly interested to demonstrate the thesis according to which resorting to Anglicism (even when it is not strictly necessary) would be a clear indicator of the low sense of national identity of Italians, rather than to PIAAC results themselves. In general, this newspaper tends to resort to PIAAC data since they allow it to scientifically justify values-based assumptions. So far, what happened in 2015.

6.3.3 PIAAC data between political and heuristic functions

A returning of the attention paid to PIAAC, although in a secondary position, features the years comprised between 2016 and to 2019. In fact, only 3 out of 21 articles collected for this period deal with PIAAC as their main topic, 9 treat it in between other issues, and 9 only mentioned it.

Moreover, we notice how the articles tend to diversify the issues that they address and those underlying them, the political priorities they pursue, and the rhetorical strategies they resort to. About this, after three years of silence *La Repubblica* took an interest in PIAAC again. However, it seems to refer to PIAAC results mainly as a discursive device (Grimaldi and Serpieri, 2013), or as a means to sustain Law no. 107/2015 “Reform of the national education and training system and delegation for the reorganization of the existing legislative provisions”, which notably re-shapes the relations between the educational system and the market labour. Although they do not mention it explicitly, the articles we refer to are implicitly linked to this educational reform’s the main pillars:

1. School-to-work alternation as a way to improve the transition school-to-life, since the education offer would affect employment demand;
2. The role that the Italian education system plays in providing young of all competences that the market labour requires;
3. The fight against illiteracy since it represents an *intrumentum regni* to face with also through LLL.

The first pillar emerges from ‘*L’alternanza studio-lavoro. Opportunità, non vincolo*’ [Study-work alternation. Opportunity, not constraint], published on March 15, 2016. Here, Alessandro Rosina, scholar of demographic changes, social changes, and spread of innovative behaviours, criticizes the way in which school-to-work alternation is implemented.

For express admission by those who made it, the spirit was to throw school leaders,

teachers and students into the water and force them to learn to swim on their own, even before providing tools and appropriate preparation [...] Rather than making a virtue out of necessity, the risk here is to make a virtue out of necessity. The alternation arises from a real need: that of helping the new generations to present themselves to the labour market more prepared, not only in terms of theoretical knowledge but also of technical and social skills (G6_R, own translation).

The second pillar is reflected in '*La Classe dirigente degli anziani*' [Elders' ruling class] by Franco Buccino from AUSER (a voluntary association committed to promoting the active aging of the elderly and enhance their role in society). Published on November 2, 2016, this article underlines the role of competencies for an active citizenship. In particular, the article deals with the role of older people in society and their competencies in literacy and numeracy, which are not so different from the Italian average, to sustain the need for lifelong learning as a tool of active citizenship.

PIAAC data shows how 70% of Italians (16-65 years) is in the last two levels of the five in which literacy is articulated. Only 30% of the population has those levels of understanding, writing and numeracy, considered as the suitable minimum level for coping with the increasing demands of the emerging knowledge society. Moreover, are less than 30% the Italians, who have an understanding of political discourse and policy. The elderly will certainly have even more difficulties compared to the average, but, as you can see, they are in good company! [...] Tullio De Mauro, the most authoritative Italian linguist, in a noteworthy interview took stock of instrumental and functional illiteracy in Italy, taking up the data of the third international comparative survey, managed by the OECD and called PIAAC (Programme for international assessment of adult competencies). De Mauro recalls that "illiteracy is an *instrumentum regni*, an excellent means of attracting and seducing many people with rubbishes and mystifications". (G7_R own translation)

The last pillar is evident in '*Creativi, intraprendenti e cooperativi: così i giovani si guadagnano lavoro*' [Creative, enterprising and cooperative: this is how young people earn living], published on December 3, 2016. Here Rosina focuses mainly on the role that the Italian education system plays in providing the youth of all competences that the market labour requires (i.e. those competences that are needed to obtain freedom from adults and within labour market).

Enhancement of human capital produces the ability to better seize the opportunities that the market offers and, even more, to be ready for the qualitative changes in the production system in the coming decades [...] One of the main keys is to shift upwards the relationship between the enhancement of human capital and the competitiveness of companies, at the heart of which is the increase in the quality of supply and demand for skills. Young Italians are quite clear about the inefficiencies of the world of work, but they are also increasingly aware of some of their own weaknesses that hinder the ability to better seize the opportunities that the market offers and, even more, to be ready for the qualitative changes in the production system in the coming decades. (G8_R own translation)

The extract above quoted, on the one hand well represents the political function that *La Repubblica* plays since 2013, by showing how such function strengthen over the years at least until 2017, the year in which the last article in which this journal deals with PIAAC appears. On the other hand, it well introduces the different use that *Il Sole*

24 makes of the same subject in the same years. In fact, similarly to *La Repubblica* (centre-left), *Il Sole 24* (liberal) resorts to PIAAC data to underline the link between educational attainments and market labour demand. However, *Il Sole 24 ore* plays a different function. This newspaper does not limit itself to performing a political function through the instrumental use of PIAAC survey (as is the case of *La Repubblica*). Instead, it performs an epistemic function based on ontological assumptions and conceptual shifts. To understand such a statement is enough to take a look at two articles published respectively in 2016 and 2019.

The first article is '*Perchè I laureati scientifici fanno fatica a trovare lavori adatti (e sono pagati poco)*', [Why graduates in science have difficulty to find suitable jobs (and are poorly paid)]. Written by Alberto Magnani, a journalist, on October 31, 2016, it presents the *Skill mismatch and labour shortages in the Italian labour market* (Monti and Pellizzari, 2016), one of the reports presented as part of the New Skills at work, a collaboration project launched by the Bocconi University and Morgan Chase signed by Paola Monti (Rodolfo Debenedetti Foundation) and Michele Pellizzari (University of Geneva). The report resorted to PIAAC data to measure the correspondence between formal qualifications and marketable skills. Italy is known for low numeracy levels and the lack of practical training. What stands out, however, is the inability of the economic system to fully exploit the most precious resources "thanks" to the concentration in traditional sectors or the low degree of openness to innovation of its companies. This crisis mostly concerns the sectors that, as it is stated, are the more desirable: those covering stems' competencies.

Briefly, here PIAAC data is presented as a means to measure the marketability of skills. This changes both what education itself is (i.e. as something that produces marketable skills), and the way in which educational aims have to be understood (i.e. through the commodification of competences).

The article that over all shows such kind of conceptual shift is: '*Tre tipi di prova e sette tracce uguali per tutti*' [Three types of test and seven identical examination tracks for all], written by Carmela Palumbo, Head of the Ministerial Department for Education and Training System, on March 27, 2019. This article deals with the revision of the first test of the State examination (Article 17, paragraph 3, of Legislative Decree no. 62/2017) aiming at making the connection and consistency of the examination test with the learning objectives of the study paths more stringent. A reference framework has been prepared that defines the nature and structure of the individual types proposed. The reference framework is, therefore, the set of indications that are inspiring the work of the experts who prepare the test tracks and simulations, but at the same time represents the document that teachers and schools will have to take into account for the preparation of students for the exam. In this way, the reference framework plays a dual role, guiding the work of the experts and ensuring transparency for schools and candidates.

In this context PIAAC results with the phenomenon they underline of functional illiteracy represent the evidence that the introduction of new tests is needed, above all that of the so-called 'authentic proof'.

This article, first sustains the validity of 'authentic proof'. It is a pleonasm in turn based on the ontological foundation of the authenticity of a proof, indeed simply unthinkable. In fact, such assumption starts from the prejudicial presumption following which authenticity is somehow that could be supposed as practice and true at the same time. On the contrary, the tests are actually texts (i.e., human elaboration coming from the re-elaboration of empirical reality we experienced based on the establishment of logical links: temporal, causal and finalistic). Moreover, the ontological assumption on which this article is based serves to sustain not only a new way of thinking education and teaching methods, but also to push them towards a more practical dimension. The consistency between skills and the practical experience of students, and the learning objectives of all the study paths of the second cycle are here proposed as the best way of teaching and learning. This means the replacement of abstract thinking, with a "pedagogy of practice" as a "good thing" in terms of necessary and effective learning capacity:

[...] With these new types of tests, which replace those of the newspaper article and the short essay, certainly far from the real skills and field of experience of our students, we want to make the first written test more consistent with the learning objectives of all the study paths of the second cycle that, as far as Italian is concerned, are aimed at strengthening linguistic competence, as provided for in the guidelines (for technical and professional institutes) and national guidelines (for high schools), since 2010. (G18_S, own translation).

To recap, between 2016 and 2019 PIAAC data returned to the forefront of *La Repubblica* and *Il Sole 24 ore*.

La Repubblica (centre-left) took an interest in PIAAC results as a discursive strategy (Grimaldi and Serpieri, 2013; Ball et al. 2012), implicitly sustaining Law no. 107/2015 "Reform of the national education and training system" that in turn carries on the link between educational attainments and market labour demand. Such link is similarly sustained by *Il Sole 24* (liberal). However, this newspaper plays a different role, since it performs an epistemic function based on ontological assumptions and conceptual shifts. In other words, it steers the way in which educational aims have to be understood by changing the meaning of education itself.

6.4 Concluding remarks

This chapter reports the analysis of 34 articles dealing with PIAAC survey and results, published in 3 Italian newspapers between 2013 and 2019.

All in all, the way in which the newspapers under scrutiny addressed the theme recognises to OECD data the status of unquestionable facts unveiling how Italians

seriously lack the literacy, numeracy, and digital skills required to function successfully in a modern society.

About this, we found that such a way to represent PIAAC data is consistent with a widespread instrumental use of it. Although shared by the newspapers we analysed, this use changes depending on the newspaper under consideration, as each newspaper play a different role in terms of the knowledge that both carries on and produce about PIAAC, by means of the different rhetorical mode it enacts over years (see table 6.6).

Table 6.6 - The instrumental use of PIAAC data by newspaper, role it plays and year of reference

Newspaper	Role	Pivotal Year
<i>La Repubblica</i>	Political	2013
<i>Il sole 24 ore</i>	Heuristic	2014
<i>Il Giornale</i>	Ideological	2015

Source: our elaboration

In particular, *La Repubblica* (centre-left) plays a political role by means of taken for granted assumptions. This rhetorical mode is the same that *Il Sole 24 Ore* (liberal) develops together with the heuristic function, which mainly consists of the changes it promotes regarding the way in which the problem is known and addressed. Differently, *Il Giornale* (right-wing) performs an ideological function by resorting to value based assertions.

Moreover, for each newspaper, we could identify also the pivotal year (turning point in terms of knowledge production) in which such roles emerged and took shape.

In particular, in 2013 the communicative scene was dominated by *La Repubblica* (centre-left), which deals with PIAAC results on the basis of some taken for granted assumptions. Those of individuals as human capital and resources through which educational attainments are linked to the market labour crisis. Such a line of argument allowed this newspaper to sustain a policy agenda steered by the need to change the labour market system and its entry-rules. Moreover, these last ones are identified as the best way to make the human capital productive avoiding the risk of an irretrievable wasting of human resources.

The second pivotal year is 2014, when *Il Sole 24 Ore* (liberal) inherits the PIAAC subject, with the connected link between educational attainments and market labour demand, but pushes them both towards a neo-managerialist understanding. In fact, this newspaper underlines the Italian delays in education and training as something that negatively affects productivity also by increasing the Italian mismatch between skills/education and jobs.

In 2015, *Il Giornale* (right-wing) starts using PIAAC data. All in all, this newspaper seems mainly interested in the topic to give a scientific basis to ideological assumptions of conservative type like patriotism, nationalism, and patriotic nationalism.

Between 2016 and 2019 PIAAC data returned to the forefront of *La Repubblica* and *Il Sole 24 ore*. In this period both newspapers tend to diversify the issues that they address, and those underlying them, the political priorities they pursue, and the rhetorical strategies they resort to.

La Repubblica, since 2016, deals with PIAAC results not longer as a central issue, but as an element of a discursive strategy (Ball et al. 2012), implicitly sustaining Law no. 107/2015 “Reform of the national education and training system”, which in turn carries on again the link between educational attainments and market labour demand.

In sum, *La Repubblica* played a political role where PIAAC data appears as an instrument useful to sustain the processes of reform that, at the time, featured the Italian policy agenda regarding education and labour market fields. *Il Sole 24 Ore* recalls PIAAC data to embed the reform of the Italian education system (Law no. 107/2015) into the neo-liberal reshaping of the education field, sustaining the need to enact school-to-work alternation and increase private investment in education. In doing so, it performs an epistemic function based on the ontological reshaping of the education field. In other words, it steers the way in which educational aims have to be understood by changing the meaning of education itself, as it sustains the (endogenous and exogenous) privatisation of education, and carries on a neo-managerialist way to understand such field.

Finally, regardless of the differences, these newspapers strengthen the roles that respectively play since 2013, and in doing so they reinforce the link that connects educational with economic issues.

Chapter 7 – PIAAC and the Slovakian press

Marcella Milana (University of Verona), Miroslava Klempova and Ivana Studena (Centre of Social and Psychological Sciences)

This chapter reports on the media analysis performed on 8 Slovak articles to examine how PIAAC influences the public debate that informs policy in Slovakia. First, we illustrate the criteria for the selection of national newspapers and magazines considered for this study, and then we describe our dataset. Finally, we present the results of our analysis.

7.1 Newspapers selection and data set

We searched for articles by means of the following search terms:

- PIAAC;
- *prieskum kompetencií* (survey of competencies);
- *zručnosti dospelých* (adult skills);
- *celoživotné vzdelávanie* (lifelong learning);
- *vzdelávanie dospelých* (adult learning);
- NÚCŽV and NÚCEM, which are the government agencies in charge of PIAAC.

Starting our search with PIAAC and *prieskum kompetencií* (survey of competencies), we realised that the number of articles was quite scarce. Therefore, we searched for articles using also: *celoživotné vzdelávanie* (lifelong learning), *vzdelávanie dospelých* (adult learning), a more frequent theme, and *zručnosti dospelých* (adult skills), but articles using the term ‘adult skills’ were scarce as well.

Additional search terms were the government agencies in charge of PIAAC in Slovakia: NÚCŽV (National Lifelong Learning Institute) and NÚCEM (National Institute for Certified Measurements). We conducted the searches for both their acronyms and full names.

Since there were very few articles that made reference to the PIAAC Survey of Adult Skills in Slovakia, for the scope of this study we considered all newspapers and weekly magazines that covered the topic.

Overall, we included five national newspapers and one weekly magazine, as illustrated in Table 7.1.

Table 7.1 – Slovakia. Newspapers/magazine, by political orientation and other characteristics, and number of articles included in the dataset

Newspaper/Magazine	Acronym	Political orientation	Year first published	Circulation (2017)	No. of articles
<i>Denník N</i>	DN	Liberal	2014	n.d.	1
<i>Dobré noviny</i>	DO	n.d.	2012	n.d.	1
<i>Hospodárske noviny</i>	HN	Liberal	1993	10,650	1
<i>SME</i>	SM	Liberal	1993	35,100	2
<i>Teraz</i>	TE	n.d.	2012	n.d.	1
<i>Trend*</i>	TR	Economic	1991	10,334	2
<i>Total of articles</i>					8

Source: Federal Agency for Civic Education (www.eurotopics.net) and Audit Bureau of Circulation (www.abcsr.sk)

* This is a weekly magazine

Denník N is a Slovak daily and Internet newspaper created in 2014. Since January 2015 *Denník N* has also been in print form and, in addition, since 2017 it publishes the N magazine on a monthly basis. The editorial office is devoted to investigative, analytical and extensive texts and also produces brief and quick news. *Denník N* is known for catering mostly to the online subscribers and some of the published articles online do not make it into the printed version.

Dobré noviny is a news portal publishing mostly positive information. It publishes up-to-date information from Slovakia, abroad, economics, sport, culture, as well as opinions and comments on current events. The portal was established in May 2012 and is considered to be one of the fastest growing Slovak news portals. The Ethics Committee of IAB Slovakia, the biggest association for online advertising in Slovakia, included *Dobré noviny* on the list of the most ethical Slovak websites along with the portals of *SME*, *Denník N* and *Pravda*.

Hospodárske noviny is a nationwide opinion-forming daily newspaper with an emphasis on the economy, published in Slovakia since January 1993, and a member of the European Business Press Federation. Out of all Slovak daily newspapers, *Hospodárske noviny* devotes most of its attention to the Slovak and foreign economies.

SME is a newspaper established in 1993, following a protest against the government by a section of the daily newspaper *Smena* for interference in its activities. It is currently one of the best selling (3rd place) in Slovakia. *SME* has an online platform with some of the content accessible only upon payment.

Teraz is operated by the Press Agency of the Slovak Republic (TASR, established in February 1993) through the portal www.teraz.sk, which has been available to the public since March 7, 2012.

Trend is an opinion-forming news magazine, published weekly on economics and business. It has been published since November 1991. Its online version (www.etrend.sk) informs about economic policy in Slovakia, finance, activities of business entities, and analyses and comments on international events affecting business.

Over the period under consideration in this study (2012-2019, July) *Hospodárske noviny*, *SME* and *Trend* have experienced a most significant shift in building their online presence.

7.2 Media coverage overview

In the period under consideration, coverage of PIAAC by newspapers and magazines in Slovakia is sparse, and most obvious since 2017 (see table 7.2). PIAAC and the Survey results have been cited most prominently in commentaries made in the form of blogs' entries, or personal opinions, which fell outside the focus of this study.

Our expectation that the publication of the national results of the Survey in 2013 would attract newspapers' attention was not met. The only article covering the Survey results at that time appeared on a weekly magazine (*Trend*). However, in 2017 the national Ministry of Education moved responsibility for PIAAC to NÚCEM, which is in charge of other OECD's large-scale surveys like the Programme for International Student Assessment (PISA) and the Teaching and Learning International Survey (TALIS), in addition to national measurements programs. Ever since, NÚCEM has pushed the publicity of PIAAC, through regular press releases, to build public awareness about the Survey of Adult Skills.

Table 7.2 – Slovakia. Number of articles by newspaper, year, and month of publication

Newspapers	2013		2017			2018			2019		Total
	Nov		Feb	May	Aug	Sep	Nov	Jan	Mar		
<i>Denník N</i>			1								1
<i>Dobré noviny</i>								1			1
<i>Hospodárske noviny</i>						1					1
<i>SME</i>					1				1		2
<i>Teraz</i>							1				1
<i>Trend*</i>	1			1							2
Total	1		1	1	1	1	1	1	1	1	8

Source: Own elaboration

Several articles were published after a press release from either the Ministry of Education or the agencies implementing PIAAC (i.e. NÚCŽV, NÚCEM). Such press releases were taken up by mainstream media and published on their websites, with no analytical follow up, or even a journalistic commentary.

Remarkably, half of the articles under consideration (4) were reproducing the news as published by either the Slovak News Agency (SITA) or the News Agency of the Slovak Republic (TASR) (2 articles in 2018 and 2 articles in 2019). In 1 case, the article carries the signature of an expert in economics and forecasting from the Slovak Academy of Sciences.

Overall, only 4 out of the 8 articles refer to PIAAC or the Survey as their main subject matter, and PIAAC is most often cited to debate about teachers' competences, a topic that is high on the national political agenda of the Slovak Republic. All the articles took the Survey results as unquestionable facts, in many cases, however, reference to PIAAC results was made to make a claim, but no PIAAC data supporting those claims was presented (as we shall see in the next sections).

Finally, albeit the government published a consolidated study on the results of the Survey of Adult Skills for Slovakia (Bunčák et al, 2013), none of the articles we found used it as a source.

7.3 Media content analysis

On October 8, 2013 the *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills* (OECD, 2013a) was published.

As Slovakia partook in the first round of the Survey (2011-2012), the *OECD Skills Outlook 2013* was made the object of a dedicated article by the weekly magazine, *Trend*, on November 27, 2013. The article summarizes the key results for Slovakia of PIAAC to debate its implications for the national education system by taking in the voices of a few relevant stakeholders. According to PIAAC data, 16- to 65-year-old Slovaks ended up above average. Both in literacy and numeracy they ended up in the top half of the chart. However, in IT skills the Slovaks placed at the bottom of the countries covered by the Survey. Given the numerous government purchases of IT equipment for schools, it is surprising, the article notes, that only four % of 16- to 36-year-old in Slovakia had the highest level of IT skills, which is the lowest share among all countries covered by PIAAC. Moreover, when considering the results by age group, the scores in literacy show that the younger generation lags behind the older generation, and that the younger adults of Slovakia are lagging behind their peers from other countries. Hence the article states that: "The Association of Adult Education Institutions in the Slovak Republic described PIAAC results as a wake-up call for Slovakia" (G1_TR, own translation); a catchy phrase that is reproduced in the heading for this article, '*Budíček menom PIAAC*' [A wake-up call by PIAAC].

Accordingly, Klaudius Šilhár, President of the Association of Institutions of Adult Education, comments that the Survey's results "should lead to a national debate on adult skills and competencies" but should also "raise awareness about adult education" (G1_TR, own translation). Such a position is reinforced by reference to Štefan Rosina, Director of Matador, a major Slovak company, who comments on his new employees presenting gaps not only in the use of IT, but also in their language skills. This turns into an opportunity to stress that, although the company invests in the education of its employees' education, workers' education should not be the solely responsibility of the state nor the employer.

Corroborating this view, Ľubomír Lopatka, Director of a major chain of private hospitals, comments on the importance of lifelong learning as, she claims: “Who wants to be successful must study and draw new knowledge throughout his/her life. Age is just a number, not a state of mind” (G1_TR, own translation).

Politically, the article praises the (then) leadership of the Ministry of Education for improvements pushed in primary and secondary schools, as well as for a project funded by the European Structural Funds at the time there was a national plan to educate almost seven thousand adults in forty different qualifications, mainly through secondary vocational schools. At the same time, the article’s main claim is that PIAAC results suggest that schools have to change something in the way they provide education, if young Slovaks are nonetheless lagging behind in terms of their competences.

Besides this article, PIAAC results seem not to have been of any appeal for Slovak newspapers to contribute to the national debate on adult learning for some time.

7.3.1 The timid coming back of PIAAC data

Reference to the PIAAC Survey made a timid return to the attention of newspapers and magazines in 2017, with two articles on *Denník N* (February 28, 2017) and *Trend* (May 10, 2017), though on quite different subject matters.

Carrying the signature of Vladimír Baláž, expert in economics and forecasting at the Slovak Academy of Sciences, *Denník N*’s article ‘*Roboty a softvéry nastupujú. Zničia pracovné miesta?*’ [Robots and software are coming in. Will they destroy jobs?] debates the automation of industrial and business processes using robots, and the threat this poses to job transformation. Inspired by a US study in which Carl Frey and Michael Osborne analysed 702 key occupations in terms of them being threatened by new technologies, Vladimír Baláž extends the debate to the Slovak context. Here the percentage of key occupations that in Slovakia are endangered by robotization, and job loss potential, comes from PIAAC data, as analysed by an OECD Expert Team. The OECD study shows that the share of jobs threatened by robots and software in Slovakia is the fourth highest within the OECD and reaches 11 %. Moreover, Slovakia is one of the countries with the most aging population within the OECD. Prominently, the article debates the main factor of loss and job creation as neither the fault of robots or artificial intelligence, but people. Interestingly, none of these claims are *de facto* related to the scope or direct measurements of PIAAC Survey of Adult Skills.

By contrast, the article on *Trend* appeared under the heading ‘*Hodnota za peniaze: Učiteľov slabo platíme, stredoškolákov je priveľa a kvalita vedy nízka*’ [Value for money: Teachers are poorly paid, high school students are too high and science quality low]. It presents the main findings of the analysis of the Slovak education system, conducted by the Value for money, a unit of the Slovak Ministry of Finance, and the

Education Policy Institute, a unit of national Ministry of Education. PIAAC data, together with statistical data on salaries in the education sector, and on students leaving for universities abroad, are used as supporting evidence to argue for what synthesized in the heading as the main analytical conclusions of these ministerial units.

Summing up, after a few years of silence since the first release of PIAAC data on Slovakia (2013), PIAAC data makes a timing coming back in 2017, when it is cited by *Denník N*, a liberal newspaper, to point at people's capability to adapt to the changes in industrial and business process to remain active in the labour market in the years to come. At the same time, *Trend*, a magazine mostly covering economics and business, makes reference to PIAAC data, among other sources, to point at the national education system as not well functioning or, one could say, as far from value for money as Slovak can get.

7.3.2 Increasing public awareness about PIAAC

By the end of 2017, however, a couple of events are worth mentioning, as levers for newspapers to start paying better attention to PIAAC. On the one hand, is the appointment of a new Minister of Education, Martina Lubyova, a researcher, and back then Director of the Slovak Academy of Sciences' Prognostics Institute. On the other hand, as already mentioned, is that responsibility for PIAAC moved from to NÚCEM, which has ever since made an effort to increase public awareness around the Survey of Adult Skills and its results, alongside the new Minister of Education.

Following such events, in 2018 PIAAC captured again the attention of liberal and economically oriented Slovak newspapers, as evidenced in the following headings:

- *'Slovensko má v testovaní PIAAC dobré výsledky, tvrdí Lubyová'* [Slovakia has good results in PIAAC, claims Lubyová] (*SME*, August 7, 2018)
- *'Vedomosti našich učiteľov: Slovensko v Európe pohorelo'* [The knowledge of our teachers: Slovakia lost to Europe] (*Hospodárske noviny*, September 6, 2018)
- *'Medzinárodná konferencia programu PIAAC potrvá do štvrtka'* [The International PIAAC Conference will be ending on Thursday] (*Teraz*, November 28, 2018)

The article by *SME* (August 7, 2018) is based on a press release by the Minister of Education, Martina Lubyova. The article introduces PIAAC to the wider public by informing about the first cycle of the Survey, the possibility to connect its results to those of the 2016 Adult Education Survey by EUROSTAT, and the preparation of a second national cycle of PIAAC. Interestingly this article only mentions that Slovakia has "good results" in PIAAC, but does not offer any data supporting such a claim.

Hospodárske noviny's article (September 6, 2018) discusses a study conducted by the Czech institute for Democracy and Economic Analysis, in which the results of the PIAAC Survey and of the Adult Literacy and Life skills Survey (ALL, 2003-2008), run by Statistics Canada in cooperation with the OECD, were compared. Yet, in doing so, the article centres attention on the target group of teachers. In other words, it presents data about the levels of literacy, numeracy and IT skills of Slovak teachers. It reports that teachers have average or slightly above average intellectual skills, when compared with the general population. In literacy, teachers aged between 25 and 60 achieved an average of 270 to 310 points out of a total of 370. This is not significantly different from Slovaks from the general population, who on average gained 250 to 300 points. In the case of IT skills, teachers' competency is roughly the same as the average for the Slovak population. In numeracy, Slovak teachers aged 45 to 60 earned an average of 300 points, their younger colleagues only three points less. Although this is significantly better than the average of the Slovak population, which on reached 270 points, the article ends up blaming the opportunities for further education available for teaches in Slovakia as the cause for unsatisfactory teachers' competencies. To increase the article's credibility, Robert Chovanculiak, an analysist of the Institute of Economic and Social Studies (INESS) is asked to comment on the study results. He stresses that

If we compare ourselves [Slovakia] to the Czech Republic, our younger teachers have slightly deteriorated in mathematical literacy and only slightly improved in reading and IT compared to their older colleagues. (G1_HN, own translation)

But Robert Chovanculiak also recalls that: "We have 14 pedagogical faculties that produce thousands of potential educators every year" (G1_HN, own translation). Thus the article frames the problem meriting political attention the fact that either inadequate applicants get access to pedagogical faculties or the system of further education for teachers is not an adequate one.

Finally, the article by *Teraz* (November 28, 2018) simply reproduces an article from the main national press agency (TASR) notifying on the 5th International PIAAC Conference, organized in collaboration between the OECD and the Ministry of Education of the Slovak Republic, and held in Bratislava on November 25-27, 2018. The scope of the conference was "to promote the use of PIAAC data to help address relevant policy issues" (<https://piaac.minedu.sk>). The article presents statements from the opening speeches by Andreas Schleicher, Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General (OECD), and Martina Lubyová, the Slovak Minister of Education, and concludes by providing general information about PIAAC.

In short, new attention paid to PIAAC since 2018 by the Slovak press has been boosted by press releases from governmental branches and/or agencies to inform the wider public about on-going collaboration with the OECD to measure adult skills and learn

how to use such data to inform future national policy. However, in line with the political agenda of improving the national education system, teachers and their competency levels are made the target of both political and media attention.

7.3.3 PIAAC Online into the limelight

The efforts of raising public awareness about PIAAC by the Slovak Ministry of Education and NÚCEM, the government agency in charge of PIAAC, has led to a growing attention by the national newspapers on this subject matter.

Accordingly, on January 9, 2019 one of the liberal newspapers, *Dobré noviny*, reproduced a press release reporting on the acceptance by the Slovak government of the Report on the Implementation Status of Education and Skills Online (the so-called PIAAC Online). Under the heading '*Pre rezort školstva je problematika celoživotného vzdelávania kľúčová*' [Lifelong learning is a key issue for the education sector], the article comments on the importance of lifelong learning, in light of the PIAAC results for Slovakia. Further, it mentions that lifelong learning in Slovakia can explain, among other factors, the highest rate of highly qualified workers compared to the low skilled, and this difference is the largest among OECD countries. Interestingly, the article does not present any data to support the above claims.

Basically, this article reports on the policy agenda of the Slovak Republic, and the national Ministry of Education to run a second cycle of PIAAC in the form of a national project. This decision is justified as a way to compensate for the lack at national level of relevant data on lifelong learning, and primarily on the effect of the education for adults. Accordingly the problem of adult learning is framed as a need for data on the shortcomings of the formal education system, in terms of equipping the Slovak population with key competences; data that could be used to inform curriculum policy, especially in the area of adult learning, if available.

Still in 2019, on March 5, *SME*, the other liberal newspaper, also dedicated attention to PIAAC data in an article that on the competences of teachers, along the lines of previous articles that appeared on *Trend* (May 10, 2017) and *Hospodárske noviny* (September 6, 2018) (see sections 7.3.1 and 7.3.2). Under the heading: '*Učítelia si budú môcť svoje kompetencie otestovať na webe*' [Teachers are going to be able to test their competencies online] the article simply reproduces a press release informing about Slovak teachers being tested in April 2019 by NÚCEM "to enable participants to identify the level of their general abilities in reading, understanding, math and solving technical problems using ICT" and that "they will also be able to compare their results with the results of the general Slovak and international population (OECD average)" (G2_SM, own translation). Yet the article reinsures teachers undertaking the tests as well as the general public that

“All the answers provided are anonymous and the data will be used solely for research purposes,” Galeé [Filip Galeé, who works at NÚCEM] pointed out that they would not be used, for example, to control the teaching staff involved (G2_SM, own translation).

In short, in continuation with the preceding year, in 2019 we observe the press functioning as the sounding board for the Slovak Republic and its administrative branches to raise awareness on the potentials of using PIAAC Online for testing the competency levels of the Slovak population, and particularly the Slovak teachers. But also for reinsuring that such testing will be done for research purpose only, so as to produce knowledge that could feed into curriculum policy and reforms of the national education system.

7.4 Concluding remarks

In this study we analysed 8 articles published in Slovak newspapers and weekly magazines between November 27, 2013 and March 5, 2019, which made reference to PIAAC or the Survey of Adult Skills.

We were expecting that such references would be high in 2013, when the Slovak results of the Survey were first released, instead only one article reported and commented on the Survey results.

Since then, PIAAC results seem to have left the radar of the national press for a few years, until PIAAC data made a timing coming back in 2017 in debates about the Slovaks' capability to adapt to the transformation of jobs, and the Slovak education system being far from value for money as the country can get.

However, accompanying the appointment of a new Minister of Education, as well as a shift of responsibility in the national management of PIAAC, there has been an effort by governmental branches and/or agencies to build public awareness about PIAAC and the Survey results.

Since 2018, in fact, governmental branches and/or agencies' press releases have boosted the press' attention to on-going collaboration between the Slovak Republic and the OECD on two fronts. On the one front, it is the measurement of adult skills through testing; on the other front, it is learning how available data on people's competency in literacy, numeracy and the use of IT could inform national education policy. Both align with the political agenda of ameliorating the national education system of Slovakia, which identifies the Slovak teachers, and their competency levels, as the weak link in the chain.

Most recently, the national press has been a sort of sounding board for the Slovak Republic and its administrative branches, as it helps raising awareness on PIAAC Online, and its potentials for testing the competency levels of the Slovak population, or relevant subpopulations, like teachers, who have been in the spotlight of both

political and media attention for some years. This, however, comes along with the public reinsurance by governmental agencies like NÚCEM that the testing of teachers' skills is not meant for professional control, but for the production of knowledge that shall feed into future reforms of the Slovak education system, and particularly curriculum policy in the area of adult learning.

Chapter 8 – PIAAC and the British press

Sandra Vatrella (University of Verona) and Gosia Klatt (The University of Melbourne)

This chapter aims to understand how PIAAC influences the public debate and thus it informs adult education policy in the United Kingdom (UK). To this scope, we analysed 28 newspaper articles published between 2013 and 2019 (July). Before presenting the results, this chapter provides the criteria used to select the national newspapers covered by this study, and the composition of our dataset.

8.1 Newspapers selection and *the data set*

The media market in the UK has been dominated by a small group of media tycoons with centre-right political orientation. The quality newspapers that represent the largest market shares and have been included in our study are presented below (see table 8.1). In addition to these, *The Independent* should also be mentioned, which has not been included in our study for methodological reasons. This is due to the fact that *The Independent* has been published on-line only since 2016, which prevents its direct comparison with the other newspapers, which have been available both online and in print throughout the period under consideration in this study.

Table 8.1 – Newspapers, by political orientation, monthly reach and number of articles included in the dataset

Newspaper	Acronym	Political orientation	Av. monthly reach*	No. of articles
<i>The Daily Mail</i>	DM	Conservative	31, 115	9
<i>The Financial Times</i>	FT	Liberal	13, 000	6
<i>The Daily Telegraph</i>	DT	Conservative	22, 669	6
<i>The Guardian</i>	G	Centre-left	24, 939	7
Total of articles				28

Source: Our adaptation from The Financial Times (2018); Smith, M. (2019); Statista (2019) and [Federal Agency for Civic Education \(www.eurotopics.net\)](http://www.eurotopics.net).

* Paper and online form, in million of copies

Having identified the national newspapers we ran our search through the following databases: Infotrac newsstand, Gale group, ProQuest, Pressreader. We finally gathered 28 articles for inclusion in this study by use of the following search terms: PIAAC, Programme for the International Assessment of Adult Competencies, Survey of adult skills, adult skills, skilled adults, highly skilled, OECD, literacy proficiency, numeracy skills, low literacy, low numeracy, adult competencies. All newspapers were accessed through the University of Melbourne digital library or the State Library of

Victoria on-line newspaper repositories. Additional searches to check for other versions of the identified articles, as well as for images accompanying the print articles, were also undertaken through Google search.

8.2 Media coverage overview

In the UK, the newspaper coverage of PIAAC reached its peak in 2013 (June-December), when the OECD released the results from the first round of the Survey of Adult Skills (see table 8.2). In fact, out of the 28 articles considered, 15 date back to 2013, and mostly concentrate in October, when 9 articles on this subject matter appeared. Although all the newspapers we selected deal with PIAAC, not all paid equal attention to it at that time. In general, between June and December 2013, *The Daily Mail*, *The Financial Times* and *The Daily Telegraph* published between 2 and 3 articles each about PIAAC (i.e., less than half of those that *The Guardian* dedicated to PIAAC in the same period). Regarding this, after a first stage of effervescence, *The Guardian* started to ignore PIAAC. In fact, it has not ever returned to debate PIAAC, except in one case, and not to address its results, but only to mention them. In particular, we refer to 'Quarter of England and N Ireland graduates in school-leaver job's, an article published on 1 September, 2018, under the signature of the educational correspondent Sally Weale. Here, by discussing England's performance on indicators reported in the *Education at Glance 2018* (OECD, 2018), the journalist focuses on the quality of university degrees and how the graduates are prepared for the jobs.

We observed this shift of attention from PIAAC (from a central to a peripheral/instrumental subject matter) after 2013 in all selected newspapers. Therefore, it seems consistent with the widespread decline in the attention paid to PIAAC occurring from 2014 onwards. In particular, *The Daily Mail* shows a wave-like attitude towards PIAAC: it abandoned the theme in 2014, to return to cover topics related to it between 2015 and 2016. It moved its attention away from PIAAC again in 2017, to finally engage with it again in 2018. By contrast, *The Daily Telegraph* deals with PIAAC only between 2013 and 2015; *The Financial times* concentrates attention on it between 2013 and 2014, to subsequently publish only one article, which discusses OECD data on how human skills used in workforce match those of machines. Published on November 1, 2017, under the title 'Machines do not have to be the enemy', this article, carrying the signature of Sarah O'Connor, is not focused on PIAAC results but aims to point out that, whilst machines are already outperforming humans in literacy, numeracy and problem solving, there are some 'human skills' that are still important, like craftsmanship and compassion, which the author suggests need to be maximised in the contemporary context.

Table 8.2 – United Kingdom. Number of articles by newspaper, year, and month of publication

Newspapers	2013				2014			2015			2016		2017	2018	Tot
	June	Oct	Nov	Dec	Jan	Sept	Dec	Feb	May	Dec	Jan	Sept	Nov	Sept	
<i>The Daily Mail</i>		2							1	2	1	1		2	9
<i>The Financial Times</i>	1	1	1		1		1						1		6
<i>The Daily Telegraph</i>		2		2		1		1							6
<i>The Guardian</i>		4	2											1	7
Total	1	4	2	2	1	1	1	1	1	2	1	1	1	3	28

Source: Own elaboration.

Briefly, on the one hand, the newspapers we selected illustrate the relevance of the role that PIAAC played in the UK's public debate following the release of the results from the first round of the Survey on Adult Skills, in particular. In general, almost half of the articles (13 out of 28) under consideration covered PIAAC as their main subject matter. Among them, 7 come from *The Daily Mail*, 2 from *The Financial Times*, 1 from *The Daily Telegraph* and 3 from *The Guardian*. However the attention to PIAAC in the public debate is mostly related to the first stage of the OECD press release. In fact, out of the 13 articles above mentioned, 7 were published in 2013. Moreover, they referred to data published by OECD as unquestionable facts to which it is "needed" to recognise the indisputable statute of truth.

On the other hand, the media coverage about PIAAC in the UK shows how the attention paid to the theme has decreased over time, shifting towards a rhetorical trick aimed at supporting positions that, as we shall see in what follows, change depending on the newspaper's identity.

8.3 Media content analysis

8.3.1 First reactions to PIAAC results for the United Kingdom

As briefly noted above, more than half of the articles we collected (15 out of 28) were written in 2013. Moreover, out of 15 articles published in 2013, 7 treated PIAAC as their main subject matter. Among them, 2 come from *The Daily Mail*, 1 from *The Financial Times*, 1 from *The Daily Telegraph*, and 3 from *The Guardian*.

In other words, a few days after the release, PIAAC results become an object worthy of attention that recurs in many headlines stressing the worsened trends in literacy and numeracy competences of the British people, but also the related political faults and blame.

- *'Main Schools go backwards: Pupils are worse at maths and literacy than their grandparents'* (*The Daily Mail*, October 9, 2013)
- *'Social mobility is among the worst in the developed world'* (*The Daily Mail*, October 9, 2013)
- *'Bottom of the class; Illiteracy and innumeracy risk blighting Britain's future'* (*The Financial Times*, October 11, 2013)
- *'English school leavers lagging behind entire developed world'*, (*The Daily Telegraph*, October 9, 2013)
- *'English literacy and numeracy - nothing short of a national disgrace'* (*The Guardian*, October 8, 2013)
- *'Young adults falling behind rest of the world on the 3Rs'* (*The Guardian*, October 8, 2013)

To these, we should add 1 article published both in online and print version under two different titles:

- *'OECD literacy leagues: poverty and inequality blamed for England's results'* (Online version); *'Poverty and inequality blamed as UK sinks in adult literacy league: OECD survey flags up big problems for England: Post-16 education blamed for failure to address issue'* (Print version) (*The Guardian*, October 9, 2013).

These 7 articles present the main results of the release of the PIAAC Survey data for the UK, but as we will show, each of them deals differently with such data, depending on both the constitutive differences between newspapers, and the aim each article pursues.

The PIAAC data, are exhaustively reported by *The Daily Telegraph* (among others). In *'English school leavers lagging behind entire developed world'*, published on October 9, 2013, the newspaper deals with the results for England and Northern Ireland. Here, Graeme Paton, the education editor who signed the article, underlines how:

England's young people ranked 22nd out of 24 developed nations for literacy and 21st for numeracy. A quarter of adults in England and Northern Ireland — 8.5 million — now have the literacy skills expected of a 10-year-old, or worse [...] About 24 per cent of participants from England and Northern Ireland — the equivalent of 8.5 million people — scored at or below Level 1 in numeracy, compared with an OECD average of 19 per cent [...] In the literacy test, 16.4 per cent scored the lowest level, compared with an OECD average of 15.5 per cent (G1_DT).

Interestingly, these data are commented through directly quoting Matthew Hancock, the Skills and Enterprise Minister, who made tough criticisms of the past Labour education policies:

This shocking report — state Hancock — shows England has some of the least literate and numerate young adults in the developed world. These are Labour's children, educated under a Labour government and force-fed a diet of dumbing down and low expectations (G1_DT).

In doing so, the author makes a point how the current governing party reacted to the OECD report by criticizing the past Labour education policies to actually contrast this political attack by saying:

The conclusions were made despite a sharp rise in GCSE and A-level grades since the mid-Nineties combined with an increase in the number of young people going on to university (G1_DT).

Apart from this feeble attempt to moderate the political attacks, PIAAC results become a sort of rhetorical strategy. In other words, they are used as a means to emphasize the falling standards of English youth by positioning these results in a political light that mostly makes the previous Labour government responsible. This is something to which *The Daily Telegraph* recurs not only when PIAAC data is the main subject matter of the article, but also when such results are only briefly mentioned (G2_DT; G3_DT; G4_DT). It is what occurs in:

- *Dumbed-down exams are to blame for low literacy and numeracy levels. Letters to editor* (*The Daily Telegraph*, October 10, 2013)
- *Labour let down lost generation of children, says Gove* (*The Daily Telegraph*, December 2, 2013)

- *No dole if maths and English not up to standard (The Daily Telegraph, December 6, 2013).*

The first publication which presents a set of letters to editor (*Dumbed-down exams are to blame for low literacy and numeracy levels*) provided a platform for the public to vent on political parties for bad decisions in education. It followed from the publication of the article reporting on the OECD results on October 9, 2013, five opinions from letters to editor have been published to criticise:

- ✓ Labour administration for lowering the standards and praises the current Education Secretary Michael Gove for his efforts to reform the system;
- ✓ The current Education Secretary Michael Gove and bales the current administration for bad results reported by the OECD;
- ✓ The current approaches to literacy and numeracy teaching are not working;
- ✓ The current generation of teachers since it represents low standards and therefore is responsible for the low results.
- ✓ School accountability as a driver of bad education results since, as the letter 3 states:
The decline in standards started when governments, with the help of Ofsted inspectors, began to interfere with the curriculum (G2_DT).

The second article (*Labour let down lost generation of children, says Gove*), signed by the journalist Laura Donnelly, introduces the editorial written by the Education Secretary Mr Gove about the upcoming publication by the OECD of the results for the Programme for International Students Assessment's (PISA) test to emphasise the falling standards of English youth in literacy and maths. Here Laura Donnelly only mentions the Survey of Adult Skills once, to provide additional evidence of falling education standards in England and the related Labour party's responsibilities.

The last article (*No dole if maths and English not up to standard*), by the political correspondent Georgia Graham, briefly explains the (then) latest government's decisions, which proposed changes to youth welfare payments to be related to their literacy and numeracy skills. PIAAC is mentioned as a context to these drastic proposals, and the reform of the welfare payment for youth being dependent on their willingness to improve literacy and numeracy skills. In other words, Georgia Graham seems to make tough criticisms of *A culture of worklessness* (G4_DT), that clearly recalls the picture of '*Labour's children educated under a Labour government*' (see G1_DT) previously drawn by Matthew Hancock.

Briefly, regardless of the role PIAAC plays in the article, the themes they address and the professional profile of the authors who wrote them, use the PIAAC results instrumentally as a strategy of attack the Labour Party and its policy choices.

Unsurprisingly, references to issues considered to be politically relevant are a feature that *The Daily Telegraph* widely shares with *The Daily Mail*. *The Daily Mail*, in both articles listed above

(G1_DM; G2_DM), published on October 9, 2013, presents the PIAAC results for England for numeracy and literacy. However these results are presented differently.

In particular, the first article (*Main Schools go backwards: Pupils are worse at maths and literacy than their grandparents*), presents a variety of PIAAC data (also by resorting to bar charts, tables and pictures), and then discusses political parties' responses. It includes the quotation by Matthew Hancock, (appeared at the same time in *The Daily Telegraph*) we mentioned above (see G1_DT), and finally formulates the concluding message according to which gaining more qualifications does not necessarily mean improving skills. In this sense, emblematic is the inclusion of a reference to the opinion of Andreas Schleicher, the Advisor on Education Policy to the Secretary-General OECD:

Andreas Schleicher, of the OECD, said young adults had more qualifications than those nearing retirement, but not greater abilities. This indicated that there had been grade inflation and that qualifications did not necessarily mean better skills. The finding 'doesn't look good for the UK', Mr Schleicher said (G1_DM).

The second article (*Social mobility is among the worst in the developed world*) (*The Daily Mail*, October 9, 2013) refers to the same PIAAC data in order to underline the relationship between literacy and numeracy levels and socio-economic background in England. In particular, the article focuses on the PIAAC results related to social mobility which show a worrying trend of a strong association between the parental background and the proficiency in maths and English.

Another newspaper which published a number of articles in 2013 was *The Financial Times*. Unsurprisingly, *The Financial Times* focuses on the importance of skills for competitive economies. It is the case of '*Bottom of the class; Illiteracy and innumeracy risk blighting Britain's future*'. Published on 11 October 2013, without reference to its author, the article was written as a result of the published OECD results on adult skills, to comment on how the UK fails and what it may mean for economic and social progress. It explains that the PIAAC results present a different picture from the UK's 'self image' of progressive and productive knowledge economy. It also alerts that low literacy and numeracy skills threaten Britain's future prosperity. In doing so, the article carries on some taken for granted assumptions according to which low skills, on the one hand, would undermine economic prosperity, and on the other hand, will threaten social cohesion:

The OECD's survey of adult skills, published this week, will make startling reading for anyone attached to the UK's self-image as a standard-bearer of the knowledge economy. This augurs ill for Britain's future prosperity. It is also a risk to social cohesion, since those who lack basic skills are far more likely to end up unemployed (G2_FT)

Although it sounds less alarming than those that featured *The Daily Telegraph's* style and language, *The Financial Times* also refers to the Labour government's reforms to criticise them.

The Labour government spent heavily on basic skills education. But the resulting improvements, though marked, have not kept pace with the progress being made elsewhere. Large parts of the country still lag behind (G2_FT).

Additionally, this article recalls in part ‘*Smarter ways of working needed to create growth*’ (G1_FT), an editorial written by the OECD expert Andreas Schleicher that only mentions PIAAC data, but similarly recognizes the importance of skills for competitive economies.

OECD data show skills development is more effective if learning and work are linked [...] The toxic combination of unemployed graduates and employers who say they cannot find people with the right skills shows that more education does not automatically translate into better jobs and improved lives [...] Education needs to shift from being qualifications-based to skills orientated, life-long learning

Achieving this will require a different approach. Previously the goal was standardisation and conformity in education. Now it is about personalising educational experiences. The past was curriculum-centred, the future is learner-centred. Yesterday, the policy focus was on the provision of education, today it is on outcomes. Once, we emphasised school management, now we emphasise leadership (G1_FT).

Moreover, it provides advice on what skills should be taught at schools, how to motivate disengaged youths and suggest financial incentives to improve qualifications.

Only a month later, on 6 November 2013, *The Financial Times* publishes an article titled: ‘*IT groups must learn to grow their own talent*’. Here, Peter Whitehead, the editor of *The Financial Times* Executive Appointments, argues that, like in football, the IT companies often prefer to transfer skilled and experienced workers from other companies for large salaries rather than invest into training and development of graduates that need up-skilling. In light of the PIAAC results the author calls for companies to start investing in growing their own talent. The author encourages businesses to play a stronger role in training and development and working closely with policy-makers.

The second challenge is to work closely with policy makers. Governments and individuals cannot hope to keep pace with the changing demands of the IT sector but, with proper incentives and realistic aims, they can provide excellent raw material for IT companies to work with (G3_FT).

A specific mention deserves *The Guardian*, since as mentioned above (see section 8.2), it deals with PIAAC in 7 articles published between 2013 and 2019. Moreover, out of the 7 articles, 6 were published in 2013, half of which are explicitly devoted to the PIAAC data as the main subject matter of the article.

In particular, in ‘*English literacy and numeracy - nothing short of a national disgrace*’, authored by Sir Michael Tomlinson, expert in education, a former Chief inspector of schools for Ofsted, laments the poor standards of literacy and numeracy among 16 to 24 year olds in England. Published on 8 October 2013, this article links the PIAAC data with the future aspirations of young people as follow:

The situation is nothing short of a disgrace and, more importantly, a serious brake on the future aspirations of our young people (G1_G).

Tomlinson continues:

To others, including myself and many employers, the findings are no great surprise [...] The problem, however, is not new; it has been around for at least 20 years, if not longer (G1_G).

Finally, the author makes a point that this problem exists in all socio- economic groups, including university students with good grades on the General Certificate of Secondary

Education (GCSE), an academic qualification, usually taken in a number of subjects by students in secondary education in England, Wales and Northern Ireland.

This relationship between socio-economic background and educational attainments is differently addressed in *'OECD literacy leagues: poverty and inequality blamed for England's results'*, published on 9 October 2013 online and print version under the different title *'Poverty and inequality blamed as UK sinks in adult literacy league: OECD survey flags up big problems for England: Post-16 education blamed for failure to address issue'*.

In this article by the education editor, Richard Adams, the author focuses on the 'main faults' existing in the education system, which are responsible for England's low results in the Survey of Adult Skills. In particular, by quoting Professor Chris Husbands, the Director of the Institute of Education, it attributes low literacy and numeracy skills in England to a weak post-16 education provision:

A failure to sustain education post 16 and the deep-rooted problems of poverty and social inequality were yesterday blamed for England's poor showing in the OECD survey of adult skills", and "It's not that our education system is failing across the board, it's that we are not very good at the compensatory provision between 16 and 19," Husbands said (G2_G)

Moreover, the article links the characteristics of the labour market (i.e., low skilled jobs and lack of workplace training) to skills deterioration:

With a third of employers in the UK not offering any training, the result is that young adults in employment are unable to catch up or maintain their skills [...] But [Lorna] Unwin [Professor Emerita at the Institute of Education, University College London] pointed out that the proportion of low-skilled jobs in the UK was partly responsible for the poor level of vocational education. "We shouldn't separate education from what's happening in the labour market," Unwin said. "If people don't get the opportunity to practise their skills, we know from research that skills deteriorate. That goes for numeracy, literacy as well" (G2_G).

Finally, the article connects achievement in schools to levels of disadvantage:

For all the talk of reform in the education system, it may be that existing levels of disadvantage mean that there are limits to what schools alone can achieve in improving reading, writing and counting" and "A report published yesterday by Save The Children found that children from low-income families are falling behind at school by the age of seven, with most unlikely to go on and achieve good GCSE grades in maths and English (G2_G).

Interestingly, this article echoes and strengthens Tomlinson previously stated (see above) about the relationship between socio-economic background and educational attainments in terms of both the importance and duration of the problem, by quoting Husbands:

It's not a problem of the last five years. It's a problem of consistent and persistent failure over 30 years to address skill development at the lower end of the attainment range," said Husbands [...] It's the classic problem that this country has not solved over 150 years: how do you educate the masses?" Husbands said. "We have never thought about what we want our education system to be like for all our children. We have to get it right and time is running out (G2_G).

The third article that *The Guardian* devoted to PIAAC is *'Young adults falling behind rest of the world on the 3Rs'*. Published on 9 October 2013 under the signature of Ramesh Rande, the social affairs Editor, the article reports on the results of the Survey of Adult Skills, and comments on several negative trends for England. To this aim, it uses several examples of data

trends from the OECD data to emphasise the negative impact on the future labour force. It also presents contrasting political arguments in relation to the reasons of these low results.

On the one hand the article states that the release of data indicating low levels of maths skills among adults in England caused a political stir: a conclusion that also prompted (by legitimating it) a political row in which the Conservatives attacked Labour's record in government. On the other hand, it states that "young adults failed by the system, not by teachers", in a quote by the representative of the Confederation of British Industry, which in a certain way lightens Labour's responsibilities.

Moreover, the article recognises the bad results of young adults as linked to the failure of Labour policies. To this aim, the article reports the same quote - already appeared twice in this study (G1_DT and G1_DM) – to recall the words of Matthew Hancock in *'Labour's children, educated under a Labour government and force-fed a diet of dumbing down and low expectations.'* Then, after having underlined how the Lack of literacy and numeracy skills is linked to "massive youth unemployment", it argues that short-term work experiences did not prepare young people for the "world of tomorrow".

Some have even blamed massive youth unemployment on the lack of literacy and numeracy skills of the under-25s. This is a staggering reversal of responsibility at a time when instead of investing heavily in preparation for employment, youngsters are being offered piecemeal, short term bites of experience which do not equip them for the world of tomorrow (G3_G).

Finally, the article points out the dissonance between improving results of GCSE and low skills in literacy and numeracy as reported by the OECD:

One of the questions raised is how so many adults have been left behind when GCSE results were improving. Andreas Schleicher, the OECD's deputy director for education and skills, said that he could not prove there had been "grade inflation". But intuitively in the UK there appears some truth in this idea (G3_G).

Interestingly, *The Guardian* presents the same contrasting political arguments in *'Letters: Lessons to be learnt from lagging in the 3Rs'*, a selection of letters to the editor published two days following a publication of the above-mentioned article (see G3_G) that puts in place several reflections about both the article itself and PIAAC data. In particular:

In Letter 1, on the example of Japan, South Korea, Finland and the Netherlands (top performers in the cited OECD survey), the author singles out the micro and macro-level factors that affect educational outcomes. In his opinion the problem is with the macro level challenges such as cohesiveness of societies and levels of income inequality and suggests stopping tinkering with the micro level approaches that do not matter.

Letter 2, significantly written by a Labour Member of Parliament, provides examples of policies that had been introduced in the past but their effects were yet to be assessed, hence not included in the OECD reporting.

Letter 3 presents the view that the results provided two important truths: a positive correlation of the phonetic spelling system and the low results of literacy in the UK and US; and that the

formal education systems of teaching do not work, unlike non formalised teaching methods in the 60s.

Moreover, the letters present several political suggestions. In particular:

- ✓ Letter 4 suggests that accountability and testing is to be blamed for the low results of the young people.
- ✓ Letter 5 suggests that the introduction of the new GCSE exams with less attention to spelling, punctuation and grammar in the exam assessment was to blame.
- ✓ Letter 6 focuses on the concept of reading readiness. It suggests that pushing the kids to be school ready to early had negative effects.
- ✓ Letter 7 argues that the level of maths of a 10 year-old for the general adult population was good enough, and asked why the paper made a fuss?
- ✓ Letter 8 comments on the title of the article, which referred to 3Rs using words starting with 'w' and 'a'.

Briefly, it seems that the letters pave the way for a relevant shift. The shift goes from using PIAAC results as a rhetorical strategy for useful propaganda purposes, towards using OECD data as a means stimulating reflections about educational concerns overtly related to education policy agenda, also in terms of teaching methods and curriculum.

It is what clearly emerges from *'Pythagoras and poetry in new tougher GCSE exam'*. Written by the education Editor, Richard Adams, on 2 November 2013, the article focuses on discussing the changes to maths and English curriculum and new GCSE examinations. Moreover, it reports on an increased number of mathematical formulae to be included in maths as well as increased number of poetry items (G5_G).

In particular, the article underlines how more demanding maths curriculum is linked to school attainment to which the PIAAC results are linked. To this aim, and in order to justify the changes in the curriculum, the education secretary, Michael Gove, is mentioned and directly quoted:

The education secretary, Michael Gove, said the introduction of a more demanding maths curriculum was intended to improve the attainment of pupils in England compared with their counterparts in other advanced industrial countries. "The new mathematics GCSE will be more demanding and we anticipate that schools will want to increase the time spent teaching mathematics," Gove said in a written statement to parliament announcing the changes yesterday. "On average, secondary schools in England spend only 116 hours per year teaching mathematics, which international studies show is far less time than that spent on this vital subject by our competitors. Just one extra lesson each week would put England closer to countries like Australia or Singapore, who teach 143 and 138 hours a year of mathematics respectively" (G5_G).

Finally, the article *'The OECD's Pisa delivery man'*, also published in print version under the title of *'Andreas Schleicher: Pisa delivery man: Next week sees publication of the latest international student assessments'*, by Peter Wilby published on 26 November 2013, focuses on the profile of Andreas Schleicher. The narrative about Schleicher allows the author to discuss the upcoming announcement of the OECD PISA results, as well as to bring up some main

controversies surrounding the methodology, the role of PISA and other league tables, as well as the education system of England (G6_G).

Briefly, the article resorts to the authority figure of Schleicher to continue to strengthen a narrative about an importance of PIAAC to sustaining educational concerns (e.g. deficiencies in the UK's school systems, stratified secondary schooling system mentioned in Germany, economic inequality, and curriculum), also related to education policy agenda.

Such concerns, it should be added, are also brought to the public attention two years later (on 19 December 2015) by *The Daily Mail* in 'UK under fire for drilling pupils to pass tests'. This is an online article published previously in a print version under the title: 'British teachers 'obsessed with exam results'. The article reports on the findings from a study by the Oxford University based on the OECD data from PISA and PIAAC that looked at the correlation between inequality and the scores in both OECD surveys. The article links the superficial learning for tests to the level of competitiveness in societies and effort of systems to maximise the test results. Thus, it links low scores for the UK in PIAAC with high competitiveness for tests in schools.

The findings suggest that UK schools focus on short-term knowledge acquisition to help pupils to pass tests and this knowledge is quickly forgotten, he added. the US and UK, exam results matter far more. So the pressure from parents and from schools to get children a C grade rather than a D, or an A* rather than an A is very large. 'In both these countries people try to maximise exam results because young people are entering a labour market where they are going to be paid enormous differences between the minimum wage and the top end.' Professor Dorling said: 'If we had a situation like Japan, where the most disadvantaged people are paid twice as much (as the UK) and you can actually live off a job as a cleaner, parents wouldn't be so worried about exam results (G4_DM).

To recap, PIAAC first round results on adult competences receive a great attention by newspapers in England. All in all, they mainly deal with PIAAC data as strategy to attack the Labour Party and its policy choices.

Unsurprisingly, such a strategy features both *The Daily Telegraph* and *The Daily Mail* and connect them *The Financial Times*. Although less heated in terms of style and language it resorts to, *The Financial Times* also refers to the Labour government's reforms to criticise them. However, this newspaper uses PIAAC data by intertwining economic and education concerns. In fact, it focuses on the importance of skills for competitive economies according to the assumption that low skills would undermine economic prosperity. Moreover, it is interesting to notice how *The Financial Times* seems highlight the relevance of the individual dimension in spite of (and against) that collective. It is what mainly emerges from the relevance that this newspaper recognises to a learner-centred education model, the educational outcomes (more than the educational provision) and the role that private investments should have in education and training. On the contrary, the way in which *The Guardian* resorts to PIAAC data is more socially oriented. In fact, it mainly uses PIAAC data to underline the relationship between socio-economic background and educational attainments as the main fault of the education system in UK without renouncing a pluralist vision in which opinions from different political backgrounds are compared.

8.3.2 PIAAC data and policy design between labour market, migration and higher education

Since 2014, the specific attention to PIAAC in the debate of education by the press has gradually decreased. It is interesting to note that, of the reference to the PIAAC data has contributed, on the one hand, to strengthen the labour market policy discourse agenda and, on the other hand, as a means to enter the debates in other policy fields like migration and higher education.

For example, on 24 January 2014 *The Financial Times* published 'Without the right skills, qualifications prove academic', by Andrew Bounds. The journalist comments PIAAC data to underline how:

The literacy and numeracy skills of young people entering the labour market were no better than those leaving for retirement, and worse than those of many other developed nations (G4_FT)

Moreover, the article quotes Stefano Scarpetta, Director for Employment, Labour and Social affairs at the OECD, to argue that there are too many graduates from school or university with a qualification that does not get them a job. Mr Scarpetta says:

Guidance, guidance, guidance is the key to help young people choose their field of study and be informed about what opportunities there are in the labour market. Business must work more closely with schools to make clear what they are looking for and what jobs will be available. (G4_FT)

What emerges here is the belief according to which schools should be closely connected with market labour:

Germany, Austria and Switzerland, where technical schools are working directly with companies, are the best examples, Mr Scarpetta says. (G4_FT)

In addition, the message that emerges suggests that the number of graduates is so high to constitute a problem. Additionally, the number of high-skilled, high-paying jobs has not kept pace with the number of graduates.

Yet even South Korea has a problem with young people's skills, says Mr Scarpetta of the OECD. He notes that now "60-70 % get a college degree and the economy does not need that many college graduates. The service sector does not need so many highly qualified people. (G4_FT)

Therefore, the article sustains the need to invest in labour policies by paying attention to the labour market needs.

Mr Scarpetta believes governments must spend more on training the unemployed, and dismantle barriers to employment, such as high housing costs in areas where jobs are plentiful. "Most developed economies are becoming knowledge-based, but they need a variety of skills. That's why it is important to [...] provide the right guidance." He accepts, however, that "it is impossible to get a perfect match between jobs and skills. This is not a new phenomenon. It was there before the crisis and it is still there. (G4_FT)

Finally, by recalling what Fiona Kendrick, the Chairman and Chief executive of Nestle UK and Ireland and a government adviser on skills, says about the role of employers, the article sustains the need to invest in lifelong learning:

I believe – Fiona Kendrick - says very firmly that employers have to step up. We cannot just point fingers at government and education." She says companies will also have to plough more resources into continuing

development of workers to keep up with rapid changes in technology. "We are starting to see companies invest in people and make sure we are supporting Upskilling." (G4_FT)

Briefly, the article provides some suggestions, coming from people who represent the reliability and credibility of some policy suggestions, like the need that governments increase spending on training the unemployed, and dismantling barriers to employment, such as high housing costs.

In doing so, *The Financial Times* recognises to educational themes only an ancillary role, since it subordinates educational policies and aims to the market labour needs.

Seemingly, *The Daily Telegraph* in '*BCC seeks new Europe deal free from meddling*', written by a journalist Andrew Critchlow, focuses on a strategic vision presented by the British Chambers of Commerce (BCC) in relation to the next Parliament term and up to 2022. The BCC provided its plan for Britain, which included a target of ranking in the top 10 in the OECD Adult Skills Survey by 2020. One reference is made to adult skills survey. The article lists the main aims of its business plan, which includes:

The creation of a workforce with literacy, numeracy and problem-solving skills that rank in the top 10 in the OECD Adult Skills Survey by 2020. (G5_DT)

Following this publication, *The Financial Times* deals with PIAAC only in one final article. It is '*Why Britons need to go 17,000km for an English lesson*'. Written by Michael Skapinker on 11 December 2014, the article recalls the PIAAC study to focus on a lack of spelling and grammar skills among the English population. It provides examples of mistakes in an example of a written communication, and then provides data from the OECD survey to compare the adult skills in other Anglophone countries, including Australia:

Its ranking of 16- to 65-year-olds' literacy puts England just below the OECD average. Among Anglophone countries, England is well behind Australia and slightly behind Canada, but ahead of the US and Ireland. Australia is the only stellar English-language performer; it is the fourth most literate OECD country after Japan, Finland and the Netherlands. (G5_FT)

In doing so, the article returns to educational issues underlining the relevance of adult skills in literacy regardless of the market labour needs. Briefly the article states that the lack of attention to spelling may undermine peoples' ability to evaluate and interpret. It concludes that mistakes in spelling and grammar undermine confidence.

But I do not think we can let slack writers off that easily. First, while a lack of attention to your own writing may leave you still able to evaluate and interpret other people's, it seems less likely. Second, as long as some still remember traditional spelling and punctuation rules, getting them wrong damages confidence in your ability to get other things right. (G5_FT)

In 2015, *The Daily Telegraph*, mentions PIAAC only once in '*Britain's high achievers take flight*.' Written by Tom Whitehead, and published on 26 February 2015, the article presents findings from a research study done by the University College of London, based on PIAAC data. The study, as the article claims, shows that Britain's most skilled workers were emigrating for better lifestyle. It suggests it is a Cameron's policy failure on migration. The main argument here is that migrants to UK represent low literacy and numeracy skills while at the same time highly

skilled UK citizens live abroad, therefore it may be assumed the low results in literacy and numeracy for UK come from this imbalance:

Between 1964 and 2011 some 684,000 "highly numerate individuals" left the UK. Although a similar number of "very numerate immigrants" came to the UK over the same period, they were dwarfed by the number of low skilled migrants. The academic said immigration added 2.4 million people to the population with low numeracy skills (G6_DT).

The PIAAC data being linked to migration policies have also appeared in *The Daily Mail*, a year later, on 16 September 2016, titled '*Children of immigrants are more likely to get a degree.*' It is a very short news story (not signed) reporting on the OECD findings related to how migrant background influences the university entry with higher levels for those from migrant backgrounds going to university than those with the British parents.

Here the previously statement (G6_DT) about the failure of Cameron's policy on migration, since it attracted low skilled migrants to UK while at the same time highly skilled British citizens were leaving, is somehow overturned. In fact, by providing data from the OECD report the article states:

It found that - in contrast to most OECD countries - gaining a university education in England and Northern Ireland was 'more common among those with an immigrant background than among those without.' In England, 46 % of 25 to 44-year-olds with native-born parents attain this level of education compared to 58 % among those with foreign-born parents. In Northern Ireland the figures are 38 % and 53 %. (G7_DM)

Moreover, the article discusses also the impact of having poorly educated parents.

The OECD also examined the impact of having poorly educated parents. In England, children with poorly educated immigrant parents are twice as likely to go on to university than their native-born counterparts with similarly low achieving families – suggesting they are better able to escape their backgrounds. (G7_DM)

This article introduces the relationship between PIAAC and higher education, which become the main concern of *The Daily Mail* from 2016 forward. Although differently linked to PIAAC results, the theme of 'University' is presented through two articles published under the sign of Sara Harris on 29 January 2016, and two other articles published on 12 September 2018 by, the Education correspondent, Eleanor Harding:

- '*English teens have worst literacy skills in developed world*' (Print version); '*1 in 5 graduates 'barely literate' Their key skills are among worst in developed world*' (Online version) (*The Daily Mail*, January 29, 2016)
- '*A wasted generation editorial team*' (*The Daily Mail*, January 29, 2016)
- '*Just 30% of graduates will pay off their student loans*' (*The Daily Mail*, September 12, 2018)
- '*One in four graduates are stuck in low-skill jobs because their maths and English levels are so low, report finds*' (*The Daily Mail*, September 12, 2018)

The first article (*English teens have worst literacy skills in developed world*) reports the findings from the OECD report on skills for England, which is based on the analysis of the Survey of Adult

skills. It reports data on English teens (16-19 year-old), as well as on graduates. The article refers to what the OECD report recommends in terms of policy.

The OECD, which published its report yesterday, also blamed the huge surge in numbers going to university and the 'expansion among less selective institutions' such as former polytechnics for 'lower entry standards and lower basic skills among graduates'. The OECD said institutions must either stop admitting students who are substandard or not let them graduate until they improve warning that the 'currency of an English university degree' is being undermined. It added that urgent action was needed from the Government and suggested penalties could be introduced for institutions that continue to admit substandard students. (G5_DM)

The second article (*A wasted generation editorial team*) is a very short note included in the comment section following from the above article (G5_DM). It criticises the universities for their approach to degrees and ministers on both sides.

High numbers of university students with low skills undermine quality of university degree – the article states “by packing courses with students entirely unsuited to academic studies, universities are undermining the ‘currency’ of degrees. (G6_DM)

The third article (*Just 30% of graduates will pay off their student loans*), reports that most of the graduates in England never repay all of their loan debt, and compares the statistics with other countries. It emphasizes this has an impact on the public budget. Therefore, value of university degree is judged by the employability chances of the graduates.

Sam Gyimah, the universities minister, has made tackling poor value-for-money degrees a priority this year. In June, he said that too many universities were getting 'bums on seats' for worthless courses, which do not lead to decent jobs. (G8_DM)

Another article by Eleanor Harding published on the same day (*One in four graduates are stuck in low-skill jobs because their maths and English levels are so low, report finds*), however, frames the issues differently. In fact, it focuses on the low skills of university graduates, and pinpoints the issues in the higher education system that allow students to graduate with low literacy and numeracy. These are linked to data that confirms there are high numbers of graduates in England working in low skilled jobs.

Sam Gyimah, the universities minister, has made tackling poor value-for-money degrees a priority this year. He warned in June that too many universities are getting 'bums on seats' for worthless courses, which do not lead to decent jobs. In addition, he is concerned that a fifth of sixth formers now get unconditional offers – meaning they do not have to perform well in their A-levels to get a university place. He has commissioned a project to make graduate outcome data available to school leavers via a mobile phone app to expose those courses which lead to no-where (G9_DM).

Summing up, from 2014 onwards, the specific attention that the newspapers in focus paid to PIAAC data gradually decreased to intertwine with other policy issues. On the one hand, the PIAAC survey is used to strengthen the labour market policy discourse agenda, which also implies that the educational concerns are somehow subordinated to the market labour issues. On the other hand, PIAAC data are used as a means to enter the debates in other policy fields, like to discuss the supposed failures of migration policies and those related to higher education field.

8.4 Concluding remarks

In this study we analysed 28 articles published in UK newspapers between June 2013 and September 2018, which made reference to PIAAC or the Survey of Adult Skills.

At a first stage, PIAAC results recur in many headlines by mainly connecting the worsened trends in adult skills with the related political faults and blame. In general, the newspapers tend to exhaustively present the PIAAC Survey data for UK as a rhetorical strategy useful in terms of propaganda purposes and aims. In fact, the PIAAC results are mainly used to make the Labour government responsible for falling standards of young people.

This line of argument is followed by the two conservative newspapers: *The Daily Telegraph* and *The Daily Mail*. *The Financial Times* (liberal) shares with *The Daily Telegraph* and *The Daily Mail* the critical attitude towards Labour policies. However, it differs from the conservative newspapers in the way it deals with PIAAC data. More than as a rhetorical strategy for propaganda purposes, PIAAC data is used by *The Financial Times* as a discursive device useful to sustain a neo-liberal understanding of education, which no longer focus on educational provision but rather on the relevance of skills and outcomes as essential parts of a productive knowledge economy.

On the contrary *The Guardian* resorts to PIAAC data to underline how educational attainments depend on socio-economic background, on the one hand, and affect the future aspirations of young people, on the other hand. This fact is represented as the main fault of education policies in England. Moreover, in doing so, *The Guardian* proposes a way to deal with PIAAC data as an instrument stimulating reflections about educational concerns, overtly related to the education policy agenda that is commented in a pluralist vision that combines opinions from different political backgrounds.

However, since 2014, the way in which the UK press deals with PIAAC data changes. Briefly, the decreasing of attention paid to PIAAC corresponds to a different way to use it. First, PIAAC results are used by *The Financial Times* (liberal) to sustain the need of investments in labour policies by paying due attention to the labour market needs. At this aim, the newspaper also resorts to the humanist paradigm of education for all. Second, PIAAC data is used by *The Daily Telegraph* (conservative) to show the failure of a migration policy, which produced a serious imbalance between the highly skilled UK citizens who live abroad and the number of low skilled migrants in the UK; and this also determined low results in literacy and numeracy for the UK. Third, *the Daily Mail* (conservative) sustains the blame of a huge surge in numbers going to university to suggest not admitting those who are named “substandard students”. Against this backdrop *The Guardian* (centre-left), by ignoring PIAAC results, leaves the floor to those newspapers that widely resort to PIAAC data as a rhetorical strategy and discursive device.

Chapter 9: Cross-country comparison

Sandra Vatrella (University of Verona)

This chapter provides the main results of the media analysis performed on 116 articles somehow dealing with the Programme for the International Assessment of Adult Competencies (PIACC) between 2012 and 2019 (July). The analysis was conducted to shed light on how standard setting in adult learning influences the public debate (through national newspapers), which informs policy across selected European Union's member states (Estonia, Denmark, Italy, Slovakia, and the United Kingdom).

To this scope, by recovering the selection criteria for country coverage (see section 2.1, p.37), we see standard setting through the lens of the typology of Welfare State Regimes (WSRs) (Roosmaa and Saar, 2017), hence taking into the account “structural and public policy frameworks that underlie different adult learning systems, which are both a product of and influence the interaction between institutions and organisations” (Saar et al, 2013, p. 213).

This typology (table 9.1, next page) proved already useful in the ENLIVEN project as it allowed to understand, on the one hand, strengths and challenges of existing adult education provision (Boeren, Whittaker and Riddell, 2017) and, on the other hand, national adaptations of the Youth Guarantee (Milana and Klatt, 2019b, forthcoming) in the ENLIVEN countries, and how both are linked to types of WSR. Moreover, this typology seems particularly useful for our understanding since it keeps adult education together with labour market policies, that are in turn one of the most widespread concern in the press dealing with PIAAC results from across Europe and beyond (cf. Cort and Larson, 2015; Hamilton, 2017, 2018; Yasukawa, Hamilton and Evans, 2017).

Accordingly, first we connect the WSRs to PIAAC coverage by the press in each of the country under consideration, then, we feature some trends and commonalities in the way in which PIAAC is presented and represented by the press across the countries under consideration in this study.

In particular, the conservative WSR, here represented by **Belgium/Flanders**, is featured by good income protection and a medium developed active labour market policy. Consistently, the education and training system provides appropriate skills, but a comparatively low participation. Against this backdrop, the Belgian press devoted low attention to the release of PIAAC's Survey data since 2013. Cited among other sources, PIAAC is mainly used to debate other subject matters like the training needs of adults (in 2014); illiteracy (in 2015); and reading skills, primarily of age-school students (in 2017), so that it gradually re-opens consideration for the entire education system, and possibly in a lifelong learning perspective.

Table 9.1 - Welfare state regimes by education and labour market policies

Education and Labour Market policies	Welfare State Regime					
	Liberal	Nordic-social democratic	Conservative continental	Southern Europe	Post socialist neo liberal	Post socialist embedded neoliberal
Education and training system	General competence Initially employers invest little in human capital	Industry and/or company-specific competences Initially employers invest in human capital		Limited expenditures for further qualification		
Labour market policy	Minimal income protection	Generous income protection; Strongly developed active labour market	Good income protection; Medium developed active labour market policy	Medium income protection, less developed active labour market policy	Minimal income protection; less developed active labour market policy	Minimal income protection; less developed active labour market policy
Adult education	Relatively widespread, unevenly distributed, mostly in-company training	Prevalent, often subsidised by the State	Education and training provides appropriate skills	Low participation, inequality in participation high	Participation on medium level, unevenly distributed	Participation quite low; Inequality in participation quite low
ENLIVEN'S Selected countries	<i>United Kingdom</i>	<i>Denmark</i>	<i>Belgium/ Flanders</i>	<i>Italy</i>	<i>Estonia</i>	<i>Slovakia</i>

Source: Adapted from Roosmaa and Saar (2017), by Boeren et.al. (2017).

About the social democratic WSR, in **Denmark** there is a generous income protection and a developed active labour market where adult education is often subsidised by the State. The relevance recognised to the education field is somehow mirrored by the high newspaper coverage, following the release of the results from the first round of the Survey of Adult Skills in 2013, and again in 2017. This relevance is moreover confirmed by the fact that almost half of the articles we considered were written by experts representing adult education centres or by educational researchers, independently from the newspapers' political orientation. However, they differently deal with the Survey. In 2013 all newspapers took the Survey results at fact value, with the exception of one article (see section 4.2), but DIFFERENTLY framed possible consequences. The liberal-conservative press (*Berlingske, Jyllands-Posten*) centred attention on youth and the school reform, while the centre-left press (*Politiken*) on adult education, and particularly the Preparatory Adult Education supply. Over the years, the liberal-conservative press (*Berlingske, Kristeligt Dagblad*) connected PIAAC data to PISA results, to pay a major attention to their implications for the Danish society; mainly youth's insufficient reading skills, which would cause long term need for social benefit; and reducing social inequality, and the role adult education could have. Over the same period, the press also paid

attention to the government's decision to invest one billion DKK in improving adult education and training. Yet, while *Politiken* (centre-left) proposed literacy teaching for adults, special literacy teaching for adult immigrants, and education and career guidance for adults as future priorities, *Jyllands-Posten* (liberal-conservative) recommended giving priority to the low-skilled employees. More recently (in 2017) the press brought attention to reading problems in the workplace and the lack of basic digital skills, as core political problems; and during the 2019 election government campaign on the negative effect that constant public savings in education (since 2015) have had, and may have for its future quality.

Against a backdrop of minimal income protection and less developed active labour market policy, **Estonia**, from the so-called post-socialist, neoliberal WSR, records a medium level of participation in adult education, unevenly distributed. Since 2013, the press brought mainly attention to the ICT and the limited ability of Estonians to cope with them. However, the problem is differently framed. Some articles blame the education system and teachers to argue for a digital turn in schools. Others point at the need to increase the productivity of employees and workers to claim that practical and problem-solving skills of the active population are a political issue. Complementing these views are also those that concern the gender wage gap, entrepreneurship abroad, and youth unemployed back home. In most recent years, economic development and productivity remains a topic of concern for the press (*Äripäev*), hence PIAAC data is used to explain both the strengths and problems Estonia still faces, and to suggest possible directions for the country's future development.

In **Italy** medium income protection, less developed active labour market policy and a low and unequal participation in adult education make the country a typical example of the Southern European WSR, where citizens record a serious lack of literacy, numeracy, and digital skills. About this, it is a widespread political concern that contributes to the shape that press gives to PIAAC data and the instrumental use newspapers make of it. However, this use changes across the newspapers under consideration and through the years. The centre-left press (*La Repubblica*) deals with PIAAC results on the basis of some taken for granted assumptions (i.e., individuals as human capital and resources through which educational attainments are linked to the market labour crisis) to play a political role in support of a policy agenda steered by the need to change the labour market system and its entry-rules. The economic press (*Il Sole 24 Ore*) developed over the years a heuristic function, which mainly consists in pushing the link between educational attainments and market labour demand towards a neo-managerialist understanding of both. Differently, *Il Giornale* (right-wing) performs an ideological function by resorting to value based assertions. Over the years the newspapers we considered diversified the issues addressed together with the political priorities they pursue, and the rhetorical strategies they resort to, but regardless of the differences, these newspapers strengthen the roles they respectively play since 2013, and in doing so reinforce the link that connects educational and economic issues.

About the post-socialist, embedded neoliberal WSR that **Slovakia** represents, it records minimal income protection and less developed active labour market policy, while participation in adult

education is quite low but so is inequality in participation. Consistently, the reference to the Slovak results of the Survey has been quite minimal, until PIAAC data made a timing coming back in 2017, when it is used in debates about the Slovaks' capability to adapt to the transformation of jobs, and the national education system being far from value for money as the country can get. However, the appointment of a new Minister of Education, together with a shift of responsibility in the national management of PIAAC, solicited an effort by governmental branches and/or agencies to build public awareness about PIAAC. This has boosted the press' attention to on-going collaboration between the Slovak Republic and the OECD on two fronts: the measurement of adult skills through testing; and people's competency in literacy, numeracy and the use of IT as information useful for national education policy. Both seem to follow the political agenda of improving the national education system of Slovakia, which identifies the Slovak teachers, and their competency levels, as the weak link in the chain. Interestingly, teachers have been in the spotlight of both politicians and the press.

As widely known, the liberal WSR, here represented by **United Kingdom (UK)**, records a minimal income protection and an adult education system that is both relatively widespread, and unevenly distributed. Against this backdrop, in 2013 the press tends to exhaustively present the PIAAC's Survey data for UK as a rhetorical strategy useful in terms of propaganda. In fact, the PIAAC results are mainly used to make the Labour government responsible for falling standards of young people. This line of argument is followed by the centre-right press (*The Daily Telegraph* and *The Daily Mail*) that, on the one hand, shares with the economically-orientated press (*The Financial Times*) a critical attitude towards Labour policies and, on the other hand, resorts to PIAAC data as a discursive device to sustain a neo-liberal understanding of education. This no longer focuses on educational provision but on the relevance of skills and outcomes as essential parts of a productive knowledge economy. On the contrary, the centre-wing press (*The Guardian*) resorts to PIAAC data to underline how educational attainments, on the one hand, depend on socio-economic background, and on the other hand, affect the future aspirations of young people. Since 2014, the decreasing attention paid to PIAAC combines with a different way to use it. First, PIAAC results are used by *The Financial Times* to sustain the need of investments in labour policies by paying attention to the labour market needs. To this scope, this newspaper also resorts to the humanist paradigm of education for all. Second, they are used by *The Daily Telegraph* to show the failure of a migration policy that determines low results in literacy and numeracy for UK by producing a grave imbalance between the highly skilled UK Citizens who live abroad and the low skilled migrants to the UK. Third, *The Daily Mail* blames a huge surge in university enrolment to suggest not admitting "substandard students". Against this backdrop *The Guardian*, by ignoring PIAAC results, leaves the floor to those newspapers that widely resort to PIAAC data to reinforce their positions through different rhetorical strategies.

Overall, the press in the European countries under consideration differently presents and represents the PIAAC Survey, and connects PIAAC data to other subject matters. As shown, variation is found across countries in terms of both the type of political issues debated by the press, and the links made to PIAAC data. Such differences seem attributable to the specific WSRs to which country belongs, but also to the wider context of reference at the time of publication, which relates to the government on power, the socio-economic situation of the country, and on-going or foreseen education and labour markets reforms.

Regardless of such differences, we also record some trends and common topics.

First, we note how newspaper coverage of PIAAC occurred most prominently in 2013 (i.e. except in the cases of the press from Belgium and Slovakia that in general give minimum weight to PIAAC data), following the release of the results from the first round of the Survey of Adult Skills.

Second, since 2014, the weight of PIAAC within national debates about education by the press gradually decreased, while reference to PIAAC data acquires other functions. We refer mainly to the political, ideological, and ontological functions that PIAAC plays through the press.

Politically, PIAAC data is often used to either critique or praise past governments and their responsibilities in the national reforms process in education and the market labour.

Ideologically, PIAAC data is assumed as unquestionable facts, which tend to redefine the ontology of adult learning by strengthening the casual relationship between education and the labour market. All of this favours the promotion of New Public Management's knowledge and practices (Gunther et al. 2016) in the national contexts for adult learning.

Conclusion and recommendations

This report built on previous work on European governance, done under the ENLIVEN project, on the role standard setting plays as a governance mechanism in European adult learning. Yet, it advanced this work by concentrating attention on the ‘implicit’ benchmarking of Level 3 in adults’ literacy, numeracy and problem-solving skills, which is endorsed through the PIAAC Survey on Adult Skills, and the data it produces, at both country and global levels.

The study herein reported took a point of departure in an understanding of standard setting, particularly in European adult learning, as the process involved in the establishment of common rules for states, which implies two coinciding occurrences. On the one is the entitling of some actions as good, desirable, or permissible (*normative action*), which are then codified in texts by international organizations (e.g. the European Union), such as Recommendations, Communications, and so on. Yet the codification of normative action is never value-free. On the other hand, standard setting also implies that those governments or states that are members of international organizations (e.g. the EU) reach an agreement on the *common goals* to be pursued through normative action.

Accordingly, benchmarks, and the process of benchmarking, are instrumental to the process of standard setting within the EU. In fact, they translate policy goals into accepted standards, which are then used to evaluate the approximation of member states’ performances towards those goals. Data generation, and particularly data that is quantifiable, is also instrumental, as it helps designing indicators and linking them to policy and related benchmarks.

On this ground, this reports has examined, through a media coverage and content analysis of 116 news articles, how the highest circulating newspapers in six EU countries belonging to different Welfare State Regimes, have dealt with PIAAC data on adult skills over the period 2012-2019 (July).

On the one hand, this allowed a better understanding of the way quantifiable data, such as that on adults’ literacy, numeracy and problem-solving skills produced by PIAAC, can be instrumentally used by journalists, but also governmental agencies, researchers from within and outside the academia, and other adult education experts (e.g. people representing adult education providers), to bring to the public attention issues of concern that are either high or low on national political agendas. For the most, however, PIAAC data serves to give credibility to political, ideological or ontological statements about the current state of affair with national education and labour market systems. In so doing, adult education provision and other learning opportunities for adults that occur outside the education system, or the work place, are rarely considered (in our study, out of 116 only 2 news articles in Danish newspapers, made reference to PIAAC data to promote adult’s learning that occurs at public libraries, for instance).

On the other hand, the study also allowed exemplifying how standard setting in adult learning influences the public debate through national newspapers, and it is such public debate that informs national policy in EU member states. In other words, the study showed the roles

(political, ideological, and ontological) the press exerts in the production of knowledge about adult learning, and its links to the education system and the labour market. As a matter of fact, the contribution of the national press to raise awareness, form opinions, and feed public debates is itself an underexplored area. This despite an existing tradition in popular pedagogy studies on the educative role of popular culture and the media, and awareness that both “operate pedagogically with and for their adult audiences” (Jubas, Taber, and Brown, 2015: 2).

Therefrom two policy recommendations can be drawn:

1. Make benchmarking in EU adult learning an explicit process, under the solely responsibility of the Union and its member states

Since the 2000 Lisbon Council, indicators and benchmarks have been a cornerstone of European education and training policy, and helped to identify EU common standards. For instance, the Education and Training 2020 programme codified the standard that at least 15% of adults should participate in lifelong learning. Side-lining this process, and implicit benchmarking of adult skills has also occurred through the development of PIAAC, initiated and managed by the Organization for Economic Cooperation and Development (OECD). In fact, ensuing the Europe 2020 strategy, policy directives and recommendations by both the EU and the OECD invited national governments to promote investments in adult skills. This had brought about a need to generate data, and as the OECD had already engaged with assessing adult skills, it was in a position to launch a Survey that contributed strongly to putting adults’ skills back on the European agenda. As a consequence, data produced through the PIAAC Survey made benchmarking in EU adult learning an implicit rather than explicit process, which backed EU standard setting in this area. But, only the EU is authorised (by Treaty) to intervene on those areas of non-exclusive competence, like adult education and learning, when the objectives of an action can be better achieved at Union level. The OECD does not have such a (legal) prerogative.

2. Do not take results from international assessment surveys at face value

International assessment surveys, like PIAAC, are complex endeavours that involve several decisions on what shall be measured and how. This implies making decisions in order to identify the object of study (e.g. adult skills), and how it can be operationalized (e.g. what population shall the study covers? How can this population be sampled in ways that are statistically representative? How is a ‘skill’ defined, and which skill(s) are subject to measurement?). Moreover, international assessment studies also imply constructing a reliability tool for data gathering, which is easily translated into multiple languages and meaningful (i.e., adaptable) across cultures and national systems (e.g. of education, of labour). But they also necessitate adequate infrastructures to collect data in each of the countries covered by these studies, as well as advanced statistical models (and capacities) to analyse the data collected. Moreover, when those who carried out the study produce press releases of these studies’ results, complex

information derived by such studies is by necessity selected and simplified. Hence a number of reductions of knowledge occur at the time of planning, carrying out and disseminating the results of international assessment surveys. While these are inescapable steps, their acknowledgement should cautions to take these studies' results at face value.

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Annex 1. Grid for the content analysis of newspaper articles

A. Descriptive dimension

1. Newspaper (Title and political/cultural orientation)
2. Type of article (Online/print)
3. Date of publication of the article (Year, month, day)
4. Title
4. Signature (Name and Surname)
5. Role of the author/s (If available) (e.g. journalist, politician, expert in education)
6. Page (If present)
7. Section of the newspaper (e.g. economics, politics, culture, news section)
8. Position of PIAAC within the article.

- PIAAC is the main topic/scope of the article
 PIAAC situate in between other issues (e.g. used to support an hypothesis)
 PIAAC is only mentioned but not discussed

9. Please, provide a brief overview on the content of the article (max 100 words)
10. What are the key words of the article?
Please, select between three to five words that best represent the subject/aims of the article and translate them into English.

Key words	Original language	English
1.		
2.		
3.		
4.		
5.		

B. Analytical dimension

B.1 Data and information

11. Please, indicate if the article mainly:

- Presents quantitative data
 Provides a critical/discursive commentary by means of textual information
 Other (specify)

- 11.1 What data/information is the main topic of the article?

- 11.2 What data/information is mentioned only superficially in the article? (e.g. the article mentions but not discusses geographical divide, educational reforms).

11.3 If the article identifies (or indirectly assumes) some kind of causal relationship between data and/or phenomena, please describe this relationship (e.g. the article identifies educational attainment as independent variable of life chance).

11.4 If possible, report an extract from the article in which this relationship appears and translate it in English.

B.2 Graphical displays and images

12. Are there any graphical displays and/or images in the article?

(If yes) Please, **attach the article** and fill in the following table by following the example provided in the first line

Data/information	Table	Figures			Picture	Other (specify).....
		Pie chart	Bar chart	Other (specify)		
<i>e.g. Illiteracy rates by age</i>			1		1	

12.1 Which kind of relationships among variables the graphical displays (tables and figures) encode? Please, specify the type of relationship for each graphical display you mentioned above.

12.2 (If present) What comparisons are highlighted? (e.g. higher/lower-ranked countries; regions; age; gender)

B.3 Credibility and reliability

13. Is there any reference to the reliability and credibility of the data/information presented in the article (e.g. The article mentions surveys previously conducted by well-known national research agencies)? Please, specify.

13.1 In case a person is mentioned in the article please, specify: **who** this person is (his role/expertise and affiliation if you know it); **how** she/he is presented in the article and **why** she/he is cited:

Who
How
Why

13.2 (If applicable) Please report if the article contains incorrect and/or misleading information

13.3 (If applicable) Please, report if the article critiques any person, institution, survey, etcetera for incorrect information, misleading interpretation, methodological biases, etc.

B.4 Policy

14. Is there any reference to politicians, political priorities/agendas, educational reform etc.? If so:

14.1 What politicians are mentioned in the article and why?³

14.2 What political priorities/agendas are mentioned in the article and why?

14.3 What reform processes, laws, rules, etcetera are mentioned and why?

14.4 To what kind of topic/issue/social problem/policy are PIAAC results related/associated?

14.5 How is the problem represented (e.g. *a lack* of sufficient reading skills; the country *is below* average). Please, report the related excerpt (e.g. headlines like ‘Half a million are poor readers’ by Cort & Larson, 2015, 537)

B.5 Language, style and meaning

15. How are PIAAC survey findings presented and represented (E.g. accepted as unquestioned facts and reproduced prominently in press articles; questionable/controversial facts)?

16. Does the author resort to some figures of speech (E.g. metaphor, synecdoche)? Please, report the excerpts and briefly outline the meaning in English

Figure of speech	
Excerpt	
Meaning	

17. (If present) How is the factor of ‘success’ called/represented (e.g. pay check, labour productivity, skills productivity, social inclusion)?

18. (If present) How is the factor of ‘failure’ called/represented (e.g. wasting talent, social problem)?

19. (If present) What are the critics to the PIAAC study and results contained in the article (E.g. a perceived lack of consistency between what tested and daily life experience; text-related stress)?

³ Consider also if and how the article mirrors the preoccupations of politicians to appear in a good light within public debates.

20. What are the words/expressions mentioned the most? (e.g. functional illiteracy; relapse into illiteracy; returning illiteracy). Please, report excerpts/quotations you think of interest in terms of meaning and knowledge they carry on.

21. Please, report and translate into English any extracts not classifiable according to the above dimensions that you consider worth of attention and explain why.

22. Do you have any other reflections?

Annex 2. Newspapers and articles by country

1. Belgium

De Morgen

(G1_DM). *Waarom een zin kunnen schrijven nog steeds zin heeft.* [Why being able to write a sentence still makes sense], August 17, 2018.

De Tijd

(G1_DT). *Oeso: 'Vaardigheden en kennis bepalen succes levensloop* [OECD: "Skills and knowledge determine success of one's life course"'], October 9, 2013.

De Standaard

(G1_DS). *België staart zich te veel blind op loonkosten* [Belgium is too blind about wage costs], October 13, 2013.

(G2_DS). *Na loon- nu ook opleidingshandicap* [After pay, now also training handicap], March 17, 2014.

(G3_DS). *Kunnen meisjes toch niet beter lezen dan jongens?* [Can't girls read better than boys after all?] February 1, 2017.

(G4_DS). *Wie graag leest, leest meer.* [Those who like to read, read more], Kris Van den Branden, December 11, 2017.

Het Laatste Nieuws

(G1_HLN). *"Mijn familie noemde me dom en debiel. Jàren heb ik me geschaamd"* ["My family called me stupid and debile. I was ashamed so many years"], September 9, 2015.

(G2_HLN). *Studenten kunnen niet meer schrijven.* [Students can no longer write], Ann Van den Broek, August 17, 2018.

2. Denmark

Berlingske

(G1_BL). *Hver sjette dansker læser dårligt* [Every sixth Dane is a bad reader], BNB, October 9, 2013.

(G2_BL). *Man kan da læse i Danmark? [One are surely able to read in Denmark?]*, Hans Jørgen Hansen(1), Per Skovgaard Andersen(2) & Pia Sletbjerg Skov(3) December 18 2013.

(G3_BL). *Fagligt dygtige lærere = bedre elever [Proficient teachers = better students]*, Niels Egelund, Frans Ørsted Andersen, December 22, 2013.

(G4_BL). *KNÆK: Læsekurven afgør succes [BREAK: The reading curve determine success]*, Ivar Carstensen (edited by), June 20 2014.

(G5_BL). *Danmark er bedre til social mobilitet end vi tror [Denmark is better at social mobility than we think]*, Tue Vinther-Jørgensen, Jens Peter Thomsen, December 3, 2014.

Børsen

(G1_BO). *Danske voksne er for dårlige til at læse [Danish adults are too bad at reading]*, October 9, 2013.

Information

(G1_IN). *Debat: Kompetencerne er skævt fordelt [Competencies are unevenly distributed]*, Hanne Smidt, November 25, 2013.

(G2_IN). *Dårlige læsere er et voksende problem [People with reading problems is a growing problem]*, Lise Richter, September 4, 2017.

Jyllands-Posten

(G1_JP). *Runde Fødselsdage Søndag Den 18. August [Birthdays Sunday 18 August]*, August 17, 2013.

(G2_JP). *Danske unge er blevet dårligere til at læse [Danish youngsters has become less proficient in reading]*, Anna Gottschalck, October, 10 2013.

(G3_JP). *Kompetenceløft af kortuddannede halter stadig [Improving the competencies of people with little education is still lagging]*, Christina Hasselbach Langpap, February 13, 2015.

(G4_JP). *Ruster medarbejderne til fremtiden [Equips employees for the future]*, Simon Kudal, April 22, 2017.

(G5_JP). *Vi har brug for en fælles alliance for bedre it-, regne- og læsefærdigheder [We need an alliance for better it, numeracy and literacy skills]*, Mikkel Haarder, May 27, 2017.

(G6_JP). *Danskernes basale it-evner overvurderes [The basic IT-skills of the Danes are overrated]*, Mille Østerlund, June 20, 2017.

(G7_JP). *600.000 læsesvage voksne er et brændende spørgsmål* [600.000 adult with weak reading skills is a burning issue], Mikkel Haarder; Claus Hjortdal, August 27, 2017.

(G8_JP). *Støt de læsesvage* [Support the weak readers] Tine Jørgensen, August 25, 2017.

(G9_JP). *To fluer med et smæk: Lad unge lære ensomme ældre at bruge IT* [Two birds with one stone: Let young people teach lonely aged people how to use IT], Soulaima Gourani, July 13, 2018.

Kristeligt Dagblad

(G1_KD). *OECD erkender årtiers fejlurdering: Ulighed skader væksten* [OECD recognizes decades of miscalculation: Inequality hampers growth], Birthe Pedersen, June 25, 2015.

(G2_KD). *Debat: Demokratisk ulighed. 600.000 voksne danskere har svært ved at læse, regne og begå sig digitalt*, Jakob Ratlev, September 26, 2016.

Politiken

(G1_POL). *Tirsdagsanalyse: Voknes læsning bliver ringere* [Tuesday Analysis: Adults' reading skills gets worse], Michael Andersen, November 5, 2013.

(G2_POL). *Flest arbejder i lande med små forskelle i indkomst* [Most works in countries with minor differences in income], Thomas Flensborg, December 13, 2013.

(G3_POL). *Tirsdagsanalyse. Sådan investerer man en milliard* [Tuesday Analysis: How to invest a billion], Ida Marie Behr Bendixen and Michael Andersen, March 4, 2014.

(G4_POL). *Er du klog nok til efteruddannelse?* [Are you smart enough for adult education], Michael Andersen, October 2, 2014.

(G5_POL). *Folkeskolen skal grundlægge bolværket i kampen mod robotterne* [The public school must found the bulwark in the struggle against the robots], Christian Bæk Lindtoft, May 20, 2017.

(G6_POL). *Sæt digitale læringsmål*, Mikke Haarder, May 11, 2018.

(G7_POL). *Børn fra hjem med bøger bliver klogest* [Children from homes with books gets wiser], Emil Bergløv), October 15, 2018.

3. Estonia

Äripäev

(G1_AP). *Partsi retsept tootlikkuse suurendamiseks* [Parts' [Juhan, Prime minister] recipe for increasing productivity*], Juhan Parts, March 13, 2014.

(G2_AP). *Tasuta IT-abi kõigile* [IT-support service for free to everyone], Kärt Liivamägi, October 14, 2016.

(G3_AP). *Keeleoskus avab ukсед'* [Language skills open doors], Terje Tammekivi, March 1, 2017.

(G4_AP). *Eesti mahajäämust põhjustab kehv tervis* [Estonia is held back by poor health], Mihkel Nestor, October 19, 2018.

(G5_AP). *Eestlased – haritud rahvas, kes teeb liiga lihtsat tööd'* [Estonians – educated people, who do too easy a job] March 19, 2019.

Eesti Päevaleht

(G1_EPL) *'Uuringu toed ja eelarvamuse'* [Prejudices and research based truths], October 9, 2013.

(G2_EPL). *'Kes on kõige targem, peeglike?'* [Please tell who is the smartest, my dear mirror?], Aune Valk, October 16, 2013.

(G3_EPL). *Tiigrihüpe on iganenud ja vajab uut hingamist* [Tiger's Leap is outdated and needs new breathing], Mart Laanpere, March 11, 2014.

(G4_EPL). *Anna emale kala, et laps võiks saada õnge'* [Give Mom a fish so that the child can get a fishing rod], Aune Valk, June 19, 2014.

(G5_EPL). *Õpetaja võib uut tehnoloogiat kasutades osa võimu õpilastele loovutada* [The teacher may divest some of his/her power to pupils when using new technologies], September 17, 2014.

(G6_EPL). *Miks saavad Eesti naised meestest kolmandiku võrra vähem palka? 70% ulatuses ikka veel müstika* [Why is the mean salary of Estonian women one third lower than that of men? It is a mystery, as 70% of the difference is still not explained], June 11, 2015.

(G7_EPL). *Eestis on Kärkla linna täis pikaajaliselt töötuid noori, kuidas päästa neid mustast august?'* [In Estonia, the amount of long-term unemployed young people equals to the population of Kärkla, how to save them from the black hole?], Marge Unt, September 30, 2017.

3. Italy

La Repubblica

(G1_R). *I nuovi analfabeti* [New illiterates], Simonetta Fiori, March 29, 2013.

(G2_R). *Giovannini: La legge di Stabilità darà via libera al reddito minimo* [Giovannini: The next Stability Act will give the green light to the minimum income], Roberto Mania, October 10, 2013.

(G3_R). Ocse, italiani "analfabeti" del millennio. Carrozza: serve una inversione di marcia Oecd, [Italians "illiterates" of millenium.

Carrozza: we need a change of direction] Salvatore Intravaia, October 8, 2013.

(G4_R). *Gli italiani non sanno leggere e contare. Bocchiamo i politici che non pensano al future* [Italians can't read and count. We reject politicians who do not think about the future], Tito Boeri, October 10, 2013. talian economist and academic, president of the National Institute of Social Security from 24 December 2014 to 16 February 2013.

(G5_R). *Italiani, un popolo di nuovi analfabeti. 'Ultimi in classifica tra i paesi sviluppati'* [Italians, a people of new illiterates. 'Latest in the ranking of developed countries', Simonetta Fiori, October 9, 2013.

(G6_R) *L'alternanza studio-lavoro. Opportunità, non vincolo* [Study-work alternation. Opportunity, not constraint], Alessandro Rosina; March 15, 2016.

(G7_R). *La Classe Dirigente Degli Anziani* [Elders' ruling class], Franco Buccino, November 2, 2016.

(G8_R). *Creativi, intraprendenti e cooperativi: così i giovani si guadagnano il lavoro* [Creative, enterprising and cooperative: this is how young people earn living], Alessandro Rosina, December 3, 2016.

(G9_R). *Title La scuola italiana è la più inclusiva d'Europa: riduce il gap tra i ricchi e poveri* [Italian school the best in Europe in the rich-poor gap], Salvo Intravaia, March 26, 2017.

(G10_R) *Fake news: dall'Auser al via una grande campagna di alfabetizzazione mediatica* [Fake news: from Auser to the start of a major media literacy campaign], Sara Ficocelli, October 19, 2018.

Il Giornale

(G1_G). Nuove indagini OCSE: italiani inferiori alla media. [New OECD surveys: Italians below EU average], Giovanni Corato, October 10, 2013.

(G2_G) *Usiamo I termini inglesi perchè non amiamo nè sappiamo l'italiano* [We use English words since we don't love nor do we know Italian]. Author not available, February 02, 2015.

(G3_G). *OCSE: "Italiani popolo di illetterati"* [Oecd: "Italian people of illiterates". Teachers already on the war footing], Gian Maria De Francesco, August 8, 2016.

(G4_G). *Buone notizie per la scuola italiana: si reduce il gap tra ricchi e poveri* [Good news for Italian school: reduced the gap between rich and poor] Enrica Iacono, March 29, 2017.

(G5_G). *Università con pochi laureati "Più fondi e integrazione Europea"* [Universities with few graduates "More funds and "EU integration"] Sabrina Cottone, May 23, 2017.

(G6_G) *Troppi laureate in lettere, pochi in scienze. Così l'università italiana è diventata inutile* [Too many graduates in literature, few in science So the university has become useless], Angelo Amante, February 21, 2018.

Il Sole 24 ore

(G1_S) *Isfol: Italia maglia nera nelle competenze alfabetiche e matematiche* [Isfol: Italy black shirt in literacy and numeracy], Claudio Tucci, October 10, 2013.

(G2_S) *investing in knowledge* Ignazio Visco Economist, Governor of the Bank of Italy since 2011, 2013, October 2013.

(G3_S). *L'Ue ci mette in guardia: pochi laureati e alternanza scuola-lavoro inesistente* [The EU warns us: few graduates and no school-work alternation], Eugenio Bruno, March 6, 2014.

(G4_S). *OCSE In Italia meno iscritti alle superiori.*

Ma migliorano i risultati in matematica [OECD: Less enrolled in high school in Italy. But the results in numeracy improve], N/A, September 9, 2014.

(G5_S). *Prospettive professionali* [Professional perspectives], Flavia Foradini, September 14, 2014.

(G6_S). *Insegnante virtuale per tutti* [Virtual teacher for all], Flavia Foradini, October 5, 2014.

(G7_S). *Lincei in campo per la formazione: coinvolti 9mila insegnanti e 300mila alunni'* [Lincei Academy in the field for training: involved 9,000 teachers and 300,000 pupils], Eugenio Bruno, October 8, 2014.

(G8_S). *OCSE: Italia maglia nera per capacità di lettura degli adulti* [OECD Italy black shirt for adult reading skills], Alessia Tripodi, April 15, 2016.

(G9_S). *Italia penultima per capacità di lettura degli over 55* [Italy second to last for reading skills of over55], Guliana Licini, April 26, 2016.

(G10_S). *Perchè I laureati scientifici fanno fatica a trovare lavori adatti (e sono pagati poco)*, [Why graduates in science have difficulty to find suitable jobs (and are poorly paid) Alberto Magnani, October 31, 2016.

(G11_S). *Sui Neet pesano di più le condizioni socio-economiche* [Neets are more affected by socio-economic conditions], Giuliana Licini, March 30, 2017.

(G12_S). *Oltre il TFR*, [Beyond severance pay], Marco Lo Conte, May 29, 2017.

(G13_S). *Perché abbiamo bisogno di una cultura di impresa* [Why we need a corporate culture], Andrea Godstein, March 2, 2018.

(G14_S). *Sei anche tu un analfabeta funzionale?* [Are you also a functional illiterate?], Maddalena Ferrari, Diletta Mazzotta, March 21, 2018.

(G15_S). *Scopri se anche tu sei un analfabeta funzionale* [Find out if you are also a functional illiterate], Aug 13, 2018.

(G16_S). *Le bufale economiche dei TG e l'allergia dei competenti* [The economic buffalo of the TG and the allergy of the competent], Vittorio Pelligra, March 3, 2019.

(G17_S). *Educazione degli adulti. Miur e Anpal avviano la sperimentazione dell'autovalutazione delle competenze.* [Adult education, Miur and Anpal start experimenting with self-assessment of skills], Amedeo Di Filippo, March 20, 2019.

(G18_S). *Tre tipi di prova e sette tracce uguali per tutti* [Three types of test and seven identical examination tracks for all], Carmela Palumbo, March 27, 2019.

4. Slovakia

Denník N

(G1_DN). *Roboty a softvéry nastupujú. Zničia pracovné miesta?* [Robots and software are coming in. Will they destroy jobs?], Vladimír Baláž, February 28, 2017.

Dobré noviny

(G1_DO). *'Pre rezort školstva je problematika celoživotného vzdelávania kľúčová'* [Lifelong learning is a key issue for the education sector], TASR (this article was taken from the main press agency), January 9, 2019.

Hospodárske noviny

(G1_HN). *Vedomosti našich učiteľov: Slovensko v Európe pohorelo'* [The knowledge of our teachers: Slovakia lost to Europe], September 6, 2018.

SME

(G1_SM). *Slovensko má v testovaní PIAAC dobré výsledky, tvrdí Lubyová'* [Slovakia has good results in PIAAC, claims Lubyová'], SITA (press agency), August 7, 2018.

(G2_SM). *Učítelia si budú môcť svoje kompetencie otestovať na webe* [Teachers are going to be able to test their competencies online], TASR (main press agency), March 5, 2019.

Trend

(G1_TR). *Budíček menom PIAAC'* [A wake-up call by PIAAC], November 27, 2013

(G2_TR). *Hodnota za peniaze: Učiteľov slabo platíme, stredoškolákov je priveľa a kvalita vedy nízka'* [Value for money: Teachers are poorly paid, high school students are too high and science quality low], May 10, 2017.

Teraz

(G1_TE). *Medzinárodná konferencia programu PIAAC potrvá do štvrtka'* [The International PIAAC Conference will be ending on Thursday] TASR (press agency), November 28, 2018.

5. United Kingdom

The Daily Mail

(G1_DM). *Schools go backwards: Pupils are worse at maths and literacy than their grandparents, Andrew Levy, October 8, 2013 (Online version);* October 9, 2013 (Print version).

(G2_DM). *Social mobility is among the worst in the developed world, author N/A, October 9, 2013 .*

(G3_DM). *Shame of 500,000 'Neets' who don't even want to work; Alert over the young not in jobs, training or education, Sarah Harris, May 27, 2015.*

(G4_DM). *UK under fire for drilling pupils to pass tests (Online version); British teachers 'obsessed with exam results' (Print version), Sarah Harris, December 19, 2015.*

(G5_DM). *English teens have worst literacy skills in developed world (Print version) 1 in 5 graduates 'barely literate' Their key skills are among worst in developed world (Online version), Sarah Harris, January 29, 2016.*

(G6_DM). *A wasted generation editorial team, Editorial team member, January 29, 2016*

(G7_DM). *Children of immigrants are more likely to get a degree, September 16, 2016.*

(G8_DM). *Just 30% of graduates will pay off their student loans*, Eleanor Harding, September 12, 2018.

(G9_DM). *One in four graduates are stuck in lowskill jobs because their maths and English levels are so low, report finds*, Eleanor Harding, September 12, 2018.

The Financial Times

(G1_FT). *Smarter ways of working needed to create growth*, Andreas Schleicher, June 4, 2013.

(G2_FT). *Bottom of the class; Illiteracy and innumeracy risk blighting Britain's future*, N/A, October 11, 2013.

(G3_FT). *IT groups must learn to grow their own talent*, Peter Whitehead, November 6, 2013.

(G4_FT). *Without the right skills, qualifications prove academic* Andrew Bounds, January 24, 2014.

(G5_FT). *Why Britons need to go 17,000km for an English lesson*. Skapinker Michael, December 11, 2014.

(G5_FT). *Machines do not have to be the enemy*, Sarah O'Connor, November 1, 2017.

The Daily Telegraph

(G1_DT). *English school leavers lagging behind entire developed world*, Graeme Paton, October 9, 2013.

(G2_DT). *Dumbed-down exams are to blame for low literacy and numeracy levels. Letters to editor*, October 10, 2013.

(G3_DT). *Labour let down lost generation of children*, Laura Donnelly, December 2, 2013.

(G4_DT). *No dole if maths and English not up to standard*, Georgia Graham, December 6, 2013.

(G5_DT). *BCC seeks new Europe deal free from meddling*, Critchlow Andrew, September 08, 2015.

(G6_DT). *Britain's high achievers take flight*, Tom Whitehead, February 26, 2015.

The Guardian

(G1_G). *English literacy and numeracy - nothing short of a national disgrace*, Sir Michael Tomlinson, October 8, 2013.

(G2_G). *OECD literacy leagues: poverty and inequality blamed for England's results (Online version); Poverty and inequality blamed as UK sinks in adult literacy league: OECD survey*

flags up big problems for England: Post-16 education blamed for failure to address issue (Print version) October 9, 2013.

(G3_G). *Young adults falling behind rest of the world on the 3Rs* Ramesh Randee, October 8, 2013.

(G4_G). *Letters: Lessons to be learnt from lagging in the 3Rs*, Letters to editor, October 11, 2013.

(G5_G). *Pythagoras and poetry in new tougher GCSE exam*, Richard, Adams, November 2, 2013.

(G6_G). *The OECD's Pisa delivery (Online version); Andreas Schleicher: Pisa delivery man: Next week sees publication of the latest international student assessments (Print version)*, November 26, 2013.