Volume 43 • Number 2 • August 2020

Zeitschrift auch Open Access unter **Springer Link**

Zeitschrift für Weiterbildungsforschung

Journal for Research on Adult Education

Political Economy of Adult Learning Systems

Springer VS

DIE Deutsches Institut für Erwachsenenbildung
Leibniz-Zentrum für Lebenslanges Lernen

Zeitschrift für Weiterbildungsforschung

Redaktion

Dr. Thomas Jung
Deutsches Institut für Erwachsenenbildung, Leibniz-Zentrum für Lebenslanges Lernen e.V.
Heinemannstr. 12-14, 53175 Bonn
T +49 (0)228-3294-182
F +49 (0)228-3294-4182
E-Mail: thomas.jung@die-bonn.de

Wiebke Reinecke
Deutsches Institut für Erwachsenenbildung, Leibniz-Zentrum für Lebenslanges Lernen e.V.
Heinemannstr. 12-14, 53175 Bonn
T +49 (0)228-3294-244
F +49 (0)228-3294-4244
E-Mail: reinecke@die-bonn.de

Das DIE wird vom Bund und dem Land Nordrhein-Westfalen gefördert.

Zielsetzungen

Die *Zeitschrift für Weiterbildungsforschung (ZfW)* ist in Deutschland das zentrale Fachorgan für Forschungsdiskurse und -ergebnisse der Erwachsenen- und Weiterbildungswissenschaft und angrenzender Disziplinen. Sie wurde in den 1970er Jahren als erste und einzige deutsche Zeitschrift gegründet, die sich ausschließlich auf die Erwachsenenbildungswissenschaft bezog.

Die *Zeitschrift für Weiterbildungsforschung*

- präsentiert qualitativ hochwertige Forschungsergebnisse zum Lernen Erwachsener,
- fokussiert den wissenschaftlichen Diskurs zu Bildung und zum Lernen von Erwachsenen,
- befördert den Austausch mit allen wissenschaftlichen Disziplinen, die zur Erwachsenenbildung forschen,
- trägt zur Integration der deutschen Forschung zur Erwachsenenbildung in den internationalen Kontext bei und
- eröffnet Horizonte für künftige Forschungen.

Zeitschrift für Weiterbildungsforschung

43. Jahrgang · Heft 2 · 2020

Inhaltsverzeichnis

ZfW (2020) 43:137–142
https://doi.org/10.1007/s40955-020-00166-z

veröffentlicht in Zusammenarbeit mit DIE

EDITORIAL

The political economy of adult learning systems

Alexandra Ioannidou · Richard Desjardins

Published online: 24 July 2020

The influence of culture, history, economic conditions and geopolitical developments on the formation of adult education and training systems as well as their embeddedness in a nation's education system are well known issues in the adult education community, particularly highlighted in comparative adult education research. Relatively new, though, is the idea that adult education is embedded in characteristic regimes of economic and social institutions, which can be understood in terms of a systematic and emerging political economy of adult learning systems (Rees 2013; Desjardins 2017).

The origins of the term political economy can be traced back to Adam Smith, who is regarded as the father of political economy, and in the work of David Ricardo and Karl Marx. Today, the term has been adopted in various disciplines—from political and social science to psychology, education and environmental sciences—when studying the linkages and interactions between politics and economics and their influence on the formation and organisation of economic and social institutions.

With the increasing scholarly interest from political scientists and economists on the study of education and training, a new research strand focusing on the interrelationships between politics and economics, i.e. the political economy of education and training, has been developed.

The seminal work of Hall and Soskice (2001) on the Varieties of Capitalism (VoC) brought education and training to the frontline of comparative political economy research, as education and training was identified as one of the five institutional

A. Ioannidou (✉)
German Institute of Adult Education—Leibniz Centre for Lifelong Learning, Bonn, Germany
E-Mail: ioannidou@die-bonn.de

R. Desjardins
University of California at Los Angeles, Los Angeles, USA
E-Mail: desjardins@ucla.edu

spheres of political economies (pp. 25–26). The exploration of the linkages between skills and nation-specific institutions such as labour market, industrial relations as well as welfare state formed consequently one of the most interesting research strands in the comparative study of education and training in contemporary period: the political economy of skill formations regimes.

The political economy of adult learning systems has been developed as an offshoot of the debates on comparative welfare state research and considers contributions from different disciplinary perspectives (political science, sociology, education economics) to understanding the causes and consequences of cross-national diversity in adult learning systems across developed democracies.

The core argument in this research strand is that adult learning systems are embedded in specific economic and social arrangements, "they lie at the intersection of a variety of other systems including a nation's education and training system, labour market and employment system and other welfare state and social policy measures" (Desjardins 2017, p. 232).

Investigating the role of "institutional complementarities" or "institutional packages" in shaping adult learning systems contributes to the large body of literature triggered by the VoC approach in comparative political economy of skill formation regimes (Mayer and Solga 2008; Busemeyer and Trampusch 2012). Yet, analyses of the impact of institutional settings on adult learning systems build at present a relatively small research strand, which mainly focuses at explaining differences in participation in adult learning (cf. Blossfeld et al. 2014; Roosma and Saar 2016). Very little scholarship deals with exploring variation in adult learning systems on the grounds of existing institutional complementarities and how the latter affect patterns of coordination and outcomes of adult learning systems (Desjardins and Rubenson 2013; Desjardins 2017).

This issue of the *Zeitschrift für Weiterbildungsforschung* focusing on the political economy of adult learning systems aims at furthering this debate and addressing questions dealing with the role of diverse institutions in framing adult learning systems. This includes questions on the impact of institutional structures on participation, of governance modes and policy interventions on outcomes of adult learning systems or issues related to the political economy of educational research.

The topic met high interest and attracted sound scholarly work from all over the world.

Richard Desjardins and *Alexandra Ioannidou* introduce in their FOKUS-article "The political economy of adult learning systems: some institutional features that promote adult learning participation" into the interdisciplinary research strand of the political economy of adult learning systems. They review recent multi-disciplinary work and different typologies that have emerged out of the field of comparative economics and comparative politics and show how this work has influenced adult education research. Drawing on quantitative analysis of PIAAC, IALS and other OECD data, they provide empirical evidence on cross-national patterns of organized adult learning. This evidence reveals shortcomings in the explanatory framework of existing typologies from comparative welfare state and comparative politics research, despite their virtues. Desjardins & Ioannidou suggest that there are some specific institutional features that seem to be more proximally related to adult learning systems

and appear to play a leading role in explaining the cross-national patterns of variation in the take up, provision and distribution of organised adult learning. Among them: open and flexible formal education structures, public support for education, active labour market policies and programmes that target socially disadvantaged adults.

Explaining variation in participation in adult learning across countries as well as within countries is a challenge for researchers. Improvements with regard to availability and accessibility of international comparable data and advancements in empirical methods enable new insights in this respect. The next two contributions by Miroslav Stefanik and Veronika Philipps deal with explaining cross national participation patterns in adult learning in Europe focusing specifically on the participation of disadvantaged groups.

Miroslav Stefanik in his contribution "Multi-layered Perspective on the Barriers to Learning Participation of Disadvantaged Adults" takes a closer look at disadvantaged adults and proposes a multilevel explanatory model that aims to explain the variability behind participation in adult learning. Departing from available theoretical and empirical research on constraints with regard to participation in adult learning, he explores the barriers to participation among disadvantaged adults across Europe. He focuses on employed adults, specifically on three vulnerable sub-groups: low-skilled; young and low-skilled, and immigrants. He uses microdata from the European Union Labour Force Survey (EU-LFS) for 28 European countries and considers also regional variability by applying a multilevel modelling technique. His model groups the explanatory variables into individual-level determinants, household-level, job-related, employer-level related as well as system-level characteristics. Comparing the results across the vulnerable groups and types of determinants yields interesting insights in understanding the variability in adult learning participation across Europe.

Veronika Philipps in her contribution "Job-related further education of the elderly in Europe: Do institutions matter?" investigates country differences in the participation in further education for older people from an institutional-theoretical perspective. Departing from the empirical evidence that people in their late employment age are rarely involved in job-related further education in Europe she poses the question whether institutions matter. In line with the literature she argues that institutions function in conjunction with one another and that institutional configurations of the labour market and education system account for the relative disadvantages of older people in participation in further education. She identifies four combinations of factors and examines her hypotheses with Qualitative Comparative Analysis (QCA) drawing on data from the European Union Adult Education Survey (AES) in 26 countries. In contrast to other quantitative methods, the QCA allows for examining not only the influence of isolated factors but also the effect of combinations of institutions. The results of her analysis illustrate how important institutional configurations are for the explanation of disparities in further education. In particular, the existence of far-reaching state and well-developed company structures concerning the provision of continuing education as well as a dual vocational training system are crucial for the appearance of relatively lower disadvantages for older people in a given country.

The next two contributions deal with policy changes and educational reforms in adult learning systems in three different countries: Switzerland, Canada and Aotearoa New Zealand.

Michael Geiss reconstructs in his contribution "In Steady Search for Optimization: The Role of Public and Private Actors in Switzerland's Political Economy of Adult Education" the changes in the political economy of adult education in Switzerland since the middle of the 20th century. He argues that, contrary to the literature, the Swiss adult education system is neither exclusively a market-led nor a stakeholder-led regime and deals with the contradictory accounts of the Swiss adult education system. He shows that alongside with the ongoing power of the employers, industry and professional associations, and the liberal-minded national authorities in Switzerland, there are several other corporate actors that played an important role in recent developments in the Swiss adult education system. The article underlines that "history matters" and that the current situation cannot be understood without considering the several government initiatives since the 1970s as well as the efforts of the private national continuing education association SVEB. It concludes with reflections on the expected impact of the first national law on continuing education, which was enacted in 2017. Methodologically, the analysis is based on historical institutionalism and concentrates on path dependencies and critical junctures.

Judith Walker examines in her contribution "Comparing adult education 'systems': Canada and Aotearoa New Zealand" recent policy initiatives in adult education and training in the two countries in relation to previous political and educational reforms, taking an explicit comparative perspective. Both Canada and Aotearoa New Zealand are liberal market economies (LME) with high standards of living, high levels of education, and long histories in the evolution of non-formal adult education. The reforms in both countries share many similarities with their emphasis in skill development, increasing immigration and cultural diversity, and a need to address the legacy of colonisation and marginalisation of indigenous populations. Yet, Walker assigns a dearth of adult education infrastructure in Canada as well as insufficient coordination across the institutions due to a fragmented fiscal federalism. In contrast, New Zealand's centralised policy making, extreme neoliberal reforms of the 1980s and 1990s and subsequent reaction to them during the following decades, resulted in the creation of structures and institutions that allowed for a highly coordinated, regulated, professionalised, and centralised adult education system. Walker's contribution is in the tradition of comparative education research, which takes the nation state as unit of analysis and shows how two LMEs prioritise and approach adult education and training in relation to their unique socio-cultural-historical-political contexts. This reveals also in their reaction to the COVID-19 pandemic.

Michael Schemmann, Dörthe Herbrechter and *Martina Engels* choose a different approach in their contribution about "Researching the Political Economy of Adult Learning Systems: Theoretical Amendments and Empirical Findings". Their focus lays with the level of adult education organisations, which is hardly taken into account when analysing the political economy of adult learning systems. They introduce neo-institutional ideas to specify aspects of the institutional environment of adult education organizations and outline how these theoretical amendments complement the political economy approach and the governance perspective. By re-

analysing interview data from public adult education organizations in Germany they aim at exploring the potential of their theoretical amendments. Their findings provide first empirical indications that the institutional conditions that shape adult learning systems can be further specified with regard to the adult education organizations and their institutionally embedded interdependency relationships with other (organized) actors in their environment.

Finally, *Shalini Singh* looks at the political economy of adult educational research focusing on the "Impact of International Large-Scale Assessments on Adult Education Systems". She takes as a starting point the fact that international large-scale assessments (ILSAs) have become a predominant tool for the measurement of learning outcomes and the sustainability of education systems all over the globe, often despite resistance from several stakeholders. She claims that especially after the adoption of the Sustainable Development Goals (SDGs) in 2015 ILSAs influence state policies directly or indirectly, irrespectively of whether states participate in them or not. She discusses the role of ILSAs in shaping education systems in general and adult education systems in particular. Her methodology includes document analysis, comparative analysis of four ILSAs and the indicators developed by the Global Alliance to Monitor Learning (GAML) as well as mapping of policy linkages between ILSAs and employability policies. The selected ILSAs include the Programme for the International Assessment of Adult Competencies (PIAAC) by the OECD, the Skills Towards Employability and Productivity (STEP) Survey by the World Bank Group (WBG), School-to Work Transition Survey (STWS) by the ILO and Literacy Assessment and Monitoring Program (LAMP) by the UNESCO Institute of Statistics (UIS). The paper views the changes in adult education systems as a part of global policy shift led by the OECD with ILSAs being some of the effective catalysts and acting as windows of opportunity for introducing changes in the education systems.

Together, these contributions on the main topic help to highlight that theory building and comparative empirical evidence are indispensable for furthering the development of this research strand. We hope that we were able to contribute to these efforts with this issue and would like to thank the editors and the editorial team of the ZfW for their support.

In the rubric FORUM, this issue presents two articles. In their contribution "Assessing media pedagogical competence of adult education teachers", *Bernhard Schmidt-Hertha* and *Matthias Rohs* address the (digital) media competence of adult educators, a topic that acquired an increasing importance due to the corona pandemic. It is surprising that despite the intensive academic discussion on the topic, it remains largely unclear what can be understood by 'media-pedagogical competencies'. This includes the question whether the concept describes a specific competence or rather a cross-sectional competence. To develop a structural model of digital media competence, the authors proceed in two steps: First, they engage with the international theoretical discussion; then, they include the specific practical knowledge of experts in adult education. The structure of the model comprises the following facets: field competence, subject-related media competence, subject-didactic competence, pedagogical competence as well as attitudes and self-monitoring. This model (except for media-related competence in different subjects) is tested by using a sam-

ple of more than 600 adult education teachers. The empirical results largely confirm the assumptions of the developed model.

The article "Reversing the Matthew Principle—Adult Education in the context of low numeracy" by *Luise Krejcik* and *Anke Grotlüschen* addresses another topic that has been intensely discussed for many years in educational research generally as well as in adult education research: The so-called Matthew effect that points to the relation between prior educational experience and participation in adult education. This effect has been confirmed by research multiple times. Using a re-analysis of PIAAC-data, the authors examine adults with low numerical skills in order to find out whether this effect may be reverse if one does not take into account only participation, but the volume of participation in adult education. The re-analysis shows that both on an OECD-average and in the majority of the Nordic countries, adults with low numerical skills tend to participate less in further education than adults with high numerical skills. But if they participate, the duration of participation is longer than average, also if sociodemographic and occupational factors are controlled. The authors discuss distinct country-specific differences in the context of different welfare state policies.

References

Blossfeld, H.-P., Kilpi-Jakonen, E., Vono de Vilhena, S., & Buchholz, S. (Eds.). (2014). *Adult learning in modern societies. An international comparison from a life-course perspective*. eduLIFE Lifelong Learning Series, Vol. 1. Cheltenham: Edward Elgar.

Busemeyer, M.R., & Trampusch, C. (Eds.). (2012). *The political economy of collective skill formation*. Oxford: University Press.

Desjardins, R. (2017). *Political economy of adult learning systems. Comparative study of strategies, policies and constraints*. London: Bloomsbury.

Desjardins, R., & Rubenson, K. (2013). Participation patterns in adult education: the role of institutions and public policy frameworks in resolving coordination problems. *European Journal of Education*, *48*(2), 262–280. https://doi.org/10.1111/ejed.12029.

Hall, P.A., & Soskice, D. (2001). An introduction to varieties of capitalism. In P.A. Hall & D. Soskice (Eds.), *Varieties of capitalism. The institutional foundations of comparative advantage* (pp. 1–68). Oxford: University Press.

Mayer, K.U., & Solga, H. (Eds.). (2008). *Skill formation: interdisciplinary and cross-national perspectives*. New York: Cambridge University Press.

Rees, G.M. (2013). Comparing adult learning systems. An emerging political economy. *European Journal of Education*, *48*(2), 200–212. https://doi.org/10.1111/ejed.12025.

Roosma, E., & Saar, E. (2016). Adults who do not want to participate in learning. A cross-national European analysis of their perceived barriers. *International Journal of Lifelong Education*, *36*(3), 254–277. https://doi.org/10.1080/02601370.2016.1246485.

ZfW (2020) 43:169–196
https://doi.org/10.1007/s40955-020-00162-3

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

Multi-layered perspective on the barriers to learning participation of disadvantaged adults

Sofie Cabus · Petya Ilieva-Trichkova · Miroslav Štefánik

Received: 18 February 2020 / Accepted: 23 June 2020 / Published online: 9 July 2020

Abstract We propose a multi-level explanatory model aimed at explaining the variability behind participation in adult learning. Our model focuses on the employed adults, narrowing down to vulnerable sub-groups of employed: low-skilled; young and low-skilled, and immigrants. Adult learning participation is explained identifying determinants at the level of the individual, household, job, employer as well as the system-level. The model is estimated using the European Union Labour Force Survey microdata for 28 European countries. Comparing the results across the vulnerable groups and types of determinants yields interesting insight in understanding the variability in adult learning participation across Europe.

Keywords Barriers to adult learning participation · Learning participation determinants · Multi-level modelling · Structural equation modelling

This research was undertaken within the ENLIVEN project and received funding from the European Union (EU), Horizon 2020 research and innovation programme under grant agreement No. 693989.

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s40955-020-00162-3) contains supplementary material, which is available to authorized users.

S. Cabus
Katholieke Universiteit Leuven, Leuven, Belgium
E-Mail: sofie.cabus@kuleuven.be

P. Ilieva-Trichkova
Bulgarian Academy of Sciences, Sofia, Bulgaria
E-Mail: petya.ilievat@gmail.com

M. Štefánik (✉)
Slovak Academy of Sciences, Bratislava, Slovakia
E-Mail: miroslav.stefanik@savba.sk

Mehrebenen-Perspektive auf die Barriere für die Weiterbildungsteilnahme benachteiligter Erwachsener

Zusammenfassung Wir entwerfen ein mehrstufiges Erklärungsmodell, um die Variabilität der Partizipation an der Erwachsenenbildung zu erklären. Unser Modell konzentriert sich auf erwerbstätige Erwachsene und beschränkt sich auf gefährdete Untergruppen von Erwerbstätigen: Geringqualifizierte, Junge, geringqualifizierte Erwachsene sowie Immigranten. Die Partizipation an Erwachsenenbildung wird erklärt mit Determinanten auf der Ebene des Einzelnen, des Haushalts, des Arbeitsplatzes, des Arbeitgebers sowie auf der Systemebene. Das Modell wird anhand der Mikrodaten der Arbeitskräfteerhebung der Europäischen Union für 28 europäische Länder geschätzt. Der Vergleich der Ergebnisse zwischen den gefährdeten Gruppen und Determinantenarten liefert interessante Einblicke in die Variabilität der Partizipation an der Erwachsenenbildung in Europa.

Schlüsselwörter Lernwiderstände · Hürden · Weiterbildung · Erwachsenenbildung · Determinanten · Mehrebenenmodell · Strukturgleichungsmodellierung

1 Introduction

Adult learning (AL) is high on the Horizon 2020 Agenda, as indicated by one of the EU headline targets of minimal 15% of adults aged 25–64 enrolled in formal or non-formal learning activities. While many EU countries fail to reach the 15%-target, substantial differences in AL participation rates are observed between European countries, with less than 2.5% in Romania and Bulgaria in 2016, to more than 20% in Iceland, Finland, Denmark, Sweden and Switzerland (Eurostat [trng_lfs_01]; Extracted: January 2018). These differences are even more considerable across European regions from 0.7% in Sud-est and Sud-Vest Oltenia in Romania to 36.2% in Zurich in Switzerland (Eurostat [trng_lfs_04]; Extracted: July 2019).

Explaining the differences in participation in adult education remains a challenge for social researchers. Improvements in the availability of the data and advancements in the empirical methodologies open new alleys in this respect. Here we explore one of these alleys. Departing from available theoretical, as well as empirical research on barriers to participation in AL, we aim at exploring the barriers to participation in AL among disadvantaged adults across Europe. To do so, we use data from the European Union Labour Force Survey (EU-LFS) collected in 2016 and apply a multi-level modelling technique.[1] Our model combines variables based on characteristics of individuals, their households, jobs, employers' as well as the macro-level characteristics of the environment where learning takes place.

We see our contribution to the literature mainly in the following five areas.

[1] This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

First, building upon previous frameworks in the field of adult education and economics, we propose a supra-individual comparative framework that covers the multiple layers of the complex problem of participation in AL to reveal those barriers that distinguish participants from nonparticipants in distinct societies. We look at these barriers from the perspective of individuals, while, at the same time, acknowledging that institutions and education and labour market policies may (structurally) impose barriers to individuals (Cross 1981; Chapman et al. 2006; Laal 2011; Boeren 2016; among others).

Second, we apply generalised structural equation modelling (GSEM), as to acknowledge the interdependency of identified system determinants. Doing so, we develop new indicators that up till now have not been fully covered in the analysis of barriers to participation in AL, such as over-education and care for family members.

Third, to the best of our knowledge, most of the previous research on the barriers explores the variability in AL participation at the level of countries, while ignoring the regional-differences (e.g. Rubenson and Desjardins 2009; Roosmaa and Saar 2016). Our modelling approach as well as data consider regional variability in AL participation.

Fourth, we consider participants in AL which belong to various disadvantaged groups, and which to this moment are in the focus of public policies (Tuparevska et al. 2019). It gives us a broader perspective on how barriers potentially differ across different disadvantaged groups of the population.

Fifth, in contrast to previous research on barriers, we take into account that AL is a heterogeneous good. Doing so, we explore the differences in the barriers to participation across two types of AL: formal learning and non-formal learning.

This paper proceeds as follows: In the following section, we frame our approach in the existing research on barriers to AL participation, resulting in a description of our explanatory model. Our empirical strategy is outlined in the second section. Further details on the data and definitions of explanatory variables are provided in the online annexe.[2] The third section lists the most interesting results from fitting the explanatory model to the EU-LFS data. We conclude in the final, fourth section.

2 Explaining adult learning participation

2.1 Theoretical models

There are many theoretical and empirical studies on the reasons why adults participate in education or training. They could be roughly divided into three groups:

1. those that focus on the individuals,
2. those that search the reasons in the macro-level, country context and
3. those that are based on individuals' interactions with different social contexts.

[2] http://ekonom.sav.sk/dokumenty/online_annex.htm.

The first group includes approaches from economics, sociology and psychology such as the human capital theory, rational choice theories, the theory of planned behaviour and the psychosocial interaction model. Most of them are based on the idea that the decisions to participate in further education are rational.

The human capital theory starts from the main idea that as people invest in educational activities, they increase their income, productivity, and skills (Schultz 1961; Becker 1993).

The choice-related explanations of the educational paths (Boudon 1974; Gambetta 1987) are also widely applied. According to the rational choice theory, if benefits outweigh costs, the individual is likely to continue receiving benefits. Thus, the decision to participate in AL can also be seen as being based on a cost-benefit calculus.

The theory of planned behaviour is developed with Fishbein and Ajzen's work on 'reasoned actions' (Fishbein and Ajzen 1980). According to them, there are three central predictors as to whether people will follow certain behaviour patterns: the attitude towards specific behaviour, the subjective norms attached to the behaviour and the perceived behavioural control.

The psychosocial interaction model is developed by Darkenwald and Merriam (1982). It focuses mainly on social environment factors and the socio-economic status of the individual.

The second body of research proves that different macro-level determinants further influence the participation in AL at country level. Macro-level determinants refer to broader structural factors situated and decided at the level of countries or regional level. Among them, gross domestic product, innovativeness, overall participation rate, employment rate, active labour-market policies and characteristics of the educational system are considered as relevant (e.g., Bassanini et al. 2007; Wolbers 2005; Groenez et al. 2007). Other studies have focused on the influence of the welfare regimes on the participation in adult education (e.g. Dammrich et al. 2014; Roosmaa and Saar 2016).

The third group includes models which consider the interaction between the individual and different social contexts. Among them is the Rubenson's expectancy valence model (1975). It links the individual's expectations about the value of participating, their attitude towards participating, and the likelihood of actual participation. According to this theory, participation will occur and persist if the learning activity is consistent with the learner's needs and expectations.

Another model that falls in this group is the Cross's chain-of-response model (Cross 1981). This model suggests that participation relates to a complex chain of responses made by the individual in response to the social circumstances.

For the classification of reasons that may impede learning participation, Rubenson and Desjardins (2009) depart in their study from the frequently cited framework of Cross (1981), classifies 'barriers' to participation in lifelong learning into (1) situational barriers; (2) dispositional barriers; and (3) institutional barriers. Situational barriers are related to a person's life situation at a given point in the family life cycle and working life. Dispositional barriers refer to personality traits or personal qualities acquired through early school experiences. Institutional barriers include institutional practices and procedures that discourage or prevent participation.

These perspectives have become a basis for building more developed comprehensive understandings of participation which incorporate the influence of factors at different levels and which are relevant for comparative research (e.g., Rubenson and Desjardins 2009; Boeren 2017; Lee 2018).

By labelling their model "Bounded Agency", Rubenson and Desjardins (2009) wish to refer to the fact that adults have agency to decide on participation to education or training, however, due to bounds, or restrictions, they cannot take the preferred action to participate. More specifically, they focus on the interaction between structurally and individually based barriers to participation in adult education.

Boeren (2017) sees the participation in AL as a layered problem. Given this, she proposes an understanding of AL as an interplay between different actors: (i) the participants with their intentions, needs, attitudes and other behavioural characteristics as well as their personal characteristics such as gender, age, income and social/cultural capital; (ii) the educational institutions and workplaces being the major learning providers; and (iii) the social policy adopted in the countries where the participants live. These players, representing three different levels, are not isolated but interact with each other in a new comprehensive lifelong learning participation model.

In his conceptual study Lee (2018) develops a framework for a cross-country empirical analysis of the degree of inequality in AL participation.

Specifically, his study considers social origins as a micro-level factor, and social inequality in three of its types: educational, economic and skill inequality and institutional settings such as active labour market policies and strictness of employment protection, as macro-level factors. This framework was empirically tested in a recent study which examined the country variation in social origins differences in AL participation by the use of cross-level interactions (Lee and Desjardins 2019).

2.2 Hypotheses

In this subsection, we describe the relationship between the hypotheses that can be explored in our empirical setting, with links to the literature. We propose ten hypotheses in total. We depart from the situational barriers, dealing with the life situation of an individual and mainly include time constraints owing to family reasons or job-related time allocation (Merriam 2005; Desjardins et al. 2006). Here we aim at answering three hypotheses:

H1 Caring duties are negatively associated with AL participation.

H1a This association is more pronounced in the case of females.

H2 Working longer hours translates into a lower AL participation.

H2a Workplace delivered AL might be positively associated with longer working hours.

H3 The share of non-earners in the household is positively associated with AL participation.

To improve the ability to capture the potential complexity of situational barriers, we restrict our interest to employed individuals. We do so because employed individuals comprise most of the adult lifelong learners in the European Union. At the same time, employed adults share a common life situation, allocating time between family, work and potentially AL. The life course approach proved its advantages in explaining participation in AL (Elder 1998); (Elder and Crosnoe 2002). Defining the population of our interest by conditioning on the employment status, rather than simply by the age group, takes into account also the trends of de-standardisation of the life course (Evans et al. 2013), as life course transitions (such as the transition from schooling to work) become more variable and less uniform. Due to our interest in the employed, we can analyse the hypothesis:

H4 AL participation is lower in the case of individuals employed in more routinised jobs, with a higher risk of computerisation.

H5 There is a statistically significant association between over-education and AL participation.

Concerning financial barriers to AL participation, poverty restricts individuals to invest in education or training, in particular, in the absence of government subsidies. On the other hand, regardless of labour earnings, individuals may be reluctant to pay the invoice when the benefit of learning do not outweigh the costs, or if learning comprises of job-related activities (Dhanidina and Griffith 1975).

The government often subsidises the costs of training of unemployed individuals within the scope of active labour market policy. However, Rubenson and Desjardins (2009) argue that in many European countries, with the exception of the Nordic countries, adult education policy is not aligned with active labour market policy. Due to lack of government support towards AL, high *perceived* costs of AL limit individuals' capability to participate in learning activities.

Furthermore, while a substantial share of European civilians indicates that employers should bear the costs of AL, economists have argued that employers are only willing to pay the invoice (partly) when the learning activity directly benefit the participant's production on the job (Acemoglu and Pischke 1998). Therefore, training offered to employees and paid for by the employer is often job-specific and less aimed at the acquisition of general transferable skills (Lazear 2009). Boeren and Whittaker (2018, p. 5) argue in this respect that *"This is in contrast to the mode of operation of expansive working environments that put more focus on the development of general and transferrable skills."* In line with previous literature, we pose the hypothesis:

H6 Where the perceived costs of AL participation present an obstacle, AL participation is lower.

Psychological drivers of adults to engage in learning, like positive motivation and attitude, are referred to as *dispositional barriers* (Lavrijsen and Nicaise 2017). These might be associated with qualities and past experiences of individuals; such

as low educational aspirations or self-confidence. Capturing these puts additional requirements on data collection. In the case of the analysis presented here, we are not able to directly identify dispositional barriers in the data. Therefore, we proxy for them by distinguishing multiple disadvantaged groups. Such as for example, the low-skilled might be expected to have low educational aspirations.

In general, people have unequal chances to participate in AL (Desjardins et al. 2006). Previous literature shows that namely, those individuals with a high need for learning participate very little (Boeren et al. 2010; Desjardins et al. 2006). Thus, patterns of participation in AL, which have been identified and confirmed by several studies, clearly show that those with low education participate less than people with higher educational attainment (e.g. OECD 2003; Roosmaa and Saar 2012; Desjardins et al. 2006; Kyndt and Baert 2013; European Commission 2015). This is the source of variability we are aiming to explore in our analysis, by identifying various disadvantaged groups of interest in a similar life situation. Taking all this into account, we choose to fit our explanatory model to populations of three disadvantaged groups, namely: employed low-educated persons, employed low-educated young adults;[3] and employed migrants.[4][5]

Institutional barriers exist at the supra-individual level, for example, at the regional level or the country level. They are also referred to as system-level or macro-level determinants. In selecting the relevant system-level determinants of AL participation, we depart from the model outlined in Groenez et al. (2007). Their model is inspirational in selecting the relevant, out of the wide list of potentially observable country-level variables.

With individual returns to AL decreasing with higher age, at the society level, older societies should invest less in AL than the younger ones (Groenez et al. 2007).

When exploring available literature, Groenez et al. (2007) find support for both of the directions of the association between the level of specialisation in initial schooling and AL participation, namely: less specialised and more general systems of initial education precondition higher AL participation because of the lack of specialised skills received during initial education (Antikainen 2006; Brunello 2001); and more specialised and less general systems of initial education precondition higher AL participation because of specialised skills getting obsolete faster than general skills (Bassanini et al. 2007).

We assume that AL participation might be higher in regions with higher employment rate mainly because the workplace generates an additional supply of training (McGivney 2001); adults are more confident that learning will be utilised in a better

[3] We adopt an adjusted definition of early school leavers, looking specifically at youth (between 20 and 30) possessing not higher than lower secondary education. De Witte et al. (2013) dealt with a similar problem in their analysis of the determinants of school dropout using EU LFS data.

[4] For more details on the identified disadvantaged sub-groups, please, refer to Sect. 3.1 on Data and Sample, or the appendix of the Online annexe. Identification of vulnerable sub-groups is in line with Tuparevska et al. (2019) who consider (1) migrants; (2) persons with disabilities; (3) young people; and (4) early school leavers, as disadvantaged groups in more than 50% of the policy documents.

[5] In order to compare the results of each of these three disadvantaged groups, we choose to add an analysis on the determinants of AL participation among the whole employed population as a reference category.

job (McGivney 2001); companies invest more in human capital when confronted with shortages of skilled labour (Gorard and Rees 2002).

Although we control for individual-level working hours, the regional share of temporary contracts is included to proxy for the employment legislation. Lassnigg (2005) and McGivney (2001) hint that employers are less willing to invest in AL of employees working under part-time or temporary contracts, which might imply a lower regional supply of AL.

Finally, the economic performance of the region is assumed to be positively associated with AL participation, either directly, through a better performing labour market or innovation sector. Groenez and co-authors (2007) estimate multiple specifications of explanatory models on AL participation and inequality in AL participation. They identify the level of innovation as one of the key system determinants appearing to be significant in all of their model specifications.

In line with Groenez and co-authors (2007), we are able to suggest three hypotheses dealing with system-level (institutional) characteristics:

H7 Regions and countries with an older population are less incentivised to support AL participation, what is observable on a lower probability of individual-level AL participation.

H8 AL participation is higher, where initial education provides more general skills.

H9 AL participation is higher in regions with better performing labour markets.

H9a AL participation is higher where employment protection is stronger.

H10 AL participation is higher in more innovative economies.

Being aware of the multi-level nature of the drivers and barriers to participation in AL, our aim is to design an explanatory model capturing AL participation in its complex nature. We fit our model to available empirical data and specifically look at how differently the model fits when explaining the participation of the identified groups of interest. Using empirical evidence at the European level, allows us to adopt a supra-individual comparative framework that covers the multiple layers of the complex problem in order to reveal those barriers that distinguish participants from nonparticipants in distinct societies.

2.3 Explanatory model

We aim to explain as much of the variability in AL participation as possible by fitting an explanatory model consisting of multi-level determinants (explanatory variables). Considering the typology of barriers to AL participation, as well as the potential interplay of contextual factors varying at different levels, we group the factors of interest into:

- individual-level determinants;
- household-level determinants;
- job-related determinants;
- employer-level determinants;
- system determinants.

Determinants identified at the individual and household level overlap widely with the situational barriers discussed in the previous section. The household-level de-

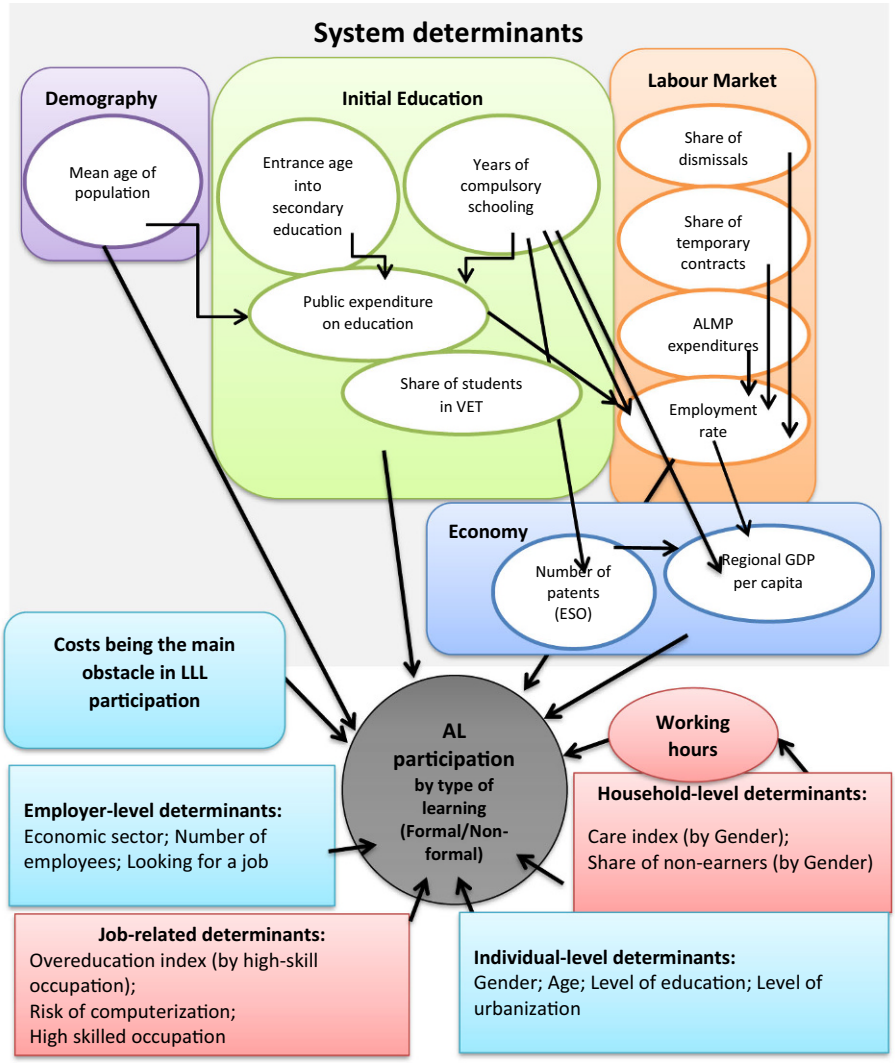

Fig. 1 Overview of the explanatory model (All variables listed in the scheme are assumed to be explanatory variables, thus to have a direct association with the dependent variable (AL participation). For simplification purposes, these associations are not displaied in the Scheme. *Black arrows* only display associations assumed between the explanatory variables)

terminants are designed to capture the need to allocate time to household-related duties. Under the job-related determinants, we consider over-education and the occupation-specific risk of computerisation based on the influential study of Frey and Osborne (2016), assuming lower AL participation in jobs with a higher risk of computerisation.[6]

In an EU-wide analysis of employer-provided learning, CEDEFOP (2015) identifies the main determinants of employer-provided training; among the most important, the sector of economic activity together with the size of the employer.

At the level of system determinants, we focus on four areas, also considered by Groenez and co-authors (2007); namely the:

a. demography;
b. initial education;
c. labour market;
d. economy.

Since especially the system level determinants show a high level of collinearity (see Table B3 appended to the Online annexe), our model also allows associations between explanatory variables. Fig. 1 displays the complete list of explanatory variables included in the model with associations between them. A more detailed description of the considered determinants, with exact definitions of the explanatory variables included in the model, can be found in the online annexe.[7]

3 Empirical strategy

Our analytical framework explains AL participation in a multi-level context, by identifying individual, household, job, employer, as well as supra-individual, system-level determinants of AL participation. The supra-individual level determinants are usually considered at the country level, where the observed heterogeneity of AL participation is already substantial (Rubenson and Desjardins 2009). However, among others, Boeren (2016) already argued that the supply of AL is mostly organised at the regional level, rather than at the country level, because it depends on the availability of providers that are not nationally organised. Given this, we also consider the regional aspect of AL participation.

3.1 Data and sample

The empirical basis of our article is the European Union Labour Force Survey (EU-LFS).[8] The EU-LFS is the only statistical survey measuring AL participation at the

[6] Desjardins (2017) argues that the so called low-skill low-trust societies have more routinized jobs. In these societies less participation in AL is observed, because routinized jobs do not require learning activities of employed individuals. Especially low-educated are engaged in routinized jobs. So less participation in these societies is expected among the low-educated.

[7] http://ekonom.sav.sk/dokumenty/online_annex.htm.

[8] This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

regional level and in a European context. The survey covers EU-28 countries together with Norway, Iceland, and Switzerland. These 31 European countries comprise of 219 regions.[9] Moreover, the data collected at the regional level count enough observations to remain representative. The EU-LFS has the most observations among EU wide surveys administrated by Eurostat. For these two reasons, we have decided to use the EU-LFS data for the year 2016. These data are then further linked with the variables available in the regional database on lifelong learning participation (Cabus et al. 2018).

We restrict our sample to employed individuals only, limiting the number of observations to 1.6 million. Employed individuals present the dominant share of AL participants. Moreover, their decisions to allocate time to AL activities become far more predictable, as they all decide in a similar nexus of work, family and further learning. Additionally, to proxy for the dispositional barriers, we focus on the AL participation of disadvantaged sub-groups of employed; namely the low-educated, younger (low-educated) population and migrants.[10] Doing so, the design of our empirical model becomes more straightforward, and the coefficients easier to interpret. Table 1 summarises the total number of observations for each of the groups of interest.

Geographically, our analytical sample used in further analysis covers 27 EU member states and Norway. As such, we do not include three countries. First, Ireland was excluded because of missing data on "subjective assessment financial costs being the main obstacle to participation in AL"; collected by the authors from the Adult Education Survey (AES) 2016. Assessing the importance of this explanatory variable for our empirical estimations, we decided to leave Ireland from our sample. Additionally, Switzerland and Iceland are excluded from the sample. These countries miss data on important country/regional level system characteristics, like regional GDP per capita, expenditures on active labour market policies, and the subjective

Table 1 Number of unweighted observations in the (EU-LFS 2016 dataset), by the type of AL activity. (Source: EU-LFS 2016)

Groups of interest	Observations in the sample (Unweighted)	Population (Weighted)	Participation rate—Formal AL (%)	Participation rate—Non-formal AL (%)
Employed adults 25–64	1,608,100	200,844,000	2.58	9.91
Low-educated adults 25–64	276,400	34,859,600	0.89	4.23
Low-educated young adults 20–29	31,600	4,958,200	13.37	5.77
Employed migrants 25–64	171,600	25,879,800	3.35	8.20

For exact definitions of the sub-groups, please visit Table A1 in the Online annexe

[9] Regions are defined at the level of NUTS 2. For an overview see: https://ec.europa.eu/eurostat/web/nuts/nuts-maps-.pdf-.

[10] For a detailed definition of the sub-groups, please, refer to the Online annexe (Table A1).

assessment of financial costs being the main obstacle to AL participation. Excluding Ireland, Switzerland, and Iceland from the EU-LFS sample, the total number of observations drops to 1.6 million.[11]

3.2 Dependent variable

The dependent variable for further analysis is the AL participation observed at the individual level. The definition of AL participation differs between available data sources surveying European households (EU-LFS and AES) (CEDEFOP 2015, p. 31). While the AES inquires about AL participation during the period of 12 months prior to the collection of the survey, EU-LFS asks about AL participation within the last four weeks prior to the surveying period. The surveying period of EU-LFS observations shifts randomly during the whole calendar year (to avoid biases caused by seasonality), with a quarterly data collection and sample components remaining in the sample for up to 4 quarters.

EU-LFS further allows a more precise distinction between learning activities by distinguishing between (i) formal and non-formal learning; and (ii) work-related and not work-related learning. Nevertheless, the information necessary to identify work-related AL was not collected in all 31 European countries. Therefore, we only distinguish between formal learning and non-formal learning activities.

Our dependent variable is collected at the level of individuals and has the form of a dummy variable. It indicates whether the surveyed individuals did participate in the particular type of AL activity, during the four weeks reference period (1) or not (0).

3.3 Independent variables

Based on our reading of available literature, we design a rather complex model, by combining explanatory variables measured at multiple levels: individuals, region and countries (see Table 2). Our choice of the independent variables is limited by the options available in the EU-LFS data and based on the explanatory model of AL participation, introduced earlier.

In an attempt to capture some of the situational barriers, we introduce a few innovative variables. The care index is a proxy for the demand for carrying duties based on the age composition of other household members. Share of non-earners captures the share of not-employed household members. Over-education index places the individual based on his/her highest education attained, relative to the median education acquired in his/her occupational group.

Because the variables, especially from the group of system characteristics, are collinear, we allowed some of them to become endogenous to the model in separate sub-equations.

[11] Tables A1–A3, appended to the Online annexe, provide an overview of the group definitions, the number of observations by group and country.

Table 2 List of independent (explanatory) variables used in the model. (Source: Authors)

Variable			Level of measurement	Model status
Individual characteristics	Female		Individual	Exogenous
	Age		Individual	Exogenous
	Level of education		Individual	Exogenous
	Degree of urbanisation		Individual	Exogenous
Household characteristics	Care index		Individual	Exogenous
	Share of non-earners in the HH		Individual	Exogenous
	Working hours		Individual	Endogenous
Job characteristics	Over-education index		Individual	Exogenous
	Risk of computerisation		Individual	Exogenous
	High skilled occupation (dummy)		Individual	Exogenous
	Supervision (dummy)		Individual	Exogenous
Employer's characteristics	Looking for a job		Individual	Exogenous
	Economic sector		Individual	Exogenous
	Number of employees in the local unit		Individual	Exogenous
System characteristic	Costs of AL		Country	Exogenous
	Demography	Mean age of the regional population	Regional	Exogenous
	Initial education	Years of compulsory schooling	Country	Exogenous
		Entrance age into lower secondary education	Country	Exogenous
		Share of students in vocational programmes	Country	Exogenous
		Government expenditure on education as a % of GDP	Country	Endogenous
	Labour market	Employment rate	Regional	Endogenous
		Share of dismissals	Regional	Exogenous
		Share of temporary contracts	Regional	Exogenous
		Active Labour Market Policy expenditure on Training	Country	Exogenous
	Economy	Regional GDP	Regional	Endogenous
		Number of patent applications	Country	Endogenous

3.4 Estimation technique

Dramatic country-level differences in the level of the dependent variables (participation in formal learning and non-formal learning) give us a good reason to expect a hierarchical structure of the data. For this reason, we first explore the variance of AL participation with a simple multi-level logit model allowing only for a random intercept at the level of country and region. In this way, we are able to explore the share of variance observable within and between our classes (countries/regions). Higher values of the interclass correlation index (ICC)[12] observed for classes at the

[12] For the values of the ICC, please visit the Table B4 appended to the Online annexe.

regional level, however, suggest that allowing for a random constant to vary at the regional level should improve the explanatory power of our model.

Because especially the variables referring to the main system determinants of AL participation are strongly inter-correlated,[13] we have decided to design our model as a generalised structural equation model (GSEM), allowing not only association paths between the dependent variable and independent variables, but also between the explanatory variables (StataCorp 2015a).

These two aspects of our data, namely, a hierarchical structure of the data and significant correlations between explanatory variables, motivate our decision to apply the GSEM. This technique allows us to combine a multi-level modelling approach, together with implementing association paths between explanatory variables.

The structure of the model, with particular association paths, reflects the structure introduced in Fig. 1. Our dependent variable is a dummy (0, 1) variable of participation in AL, with the logit link function. All explanatory variables are expected to be associated with the dependent variable. Furthermore, associations between independent variables are allowed. We apply an endogenous function to working hours, public expenditures on education, employment rate, regional GDP and the number of patent applications, which will enable associations with other explanatory variables.

Our model can be formalised as a system of equations:

$$\text{logit}(P\,(AL = 1|x)) = \alpha_0 + \mu_{0j} + \beta_n X_{\text{nij}} + \beta_r S_{rj} + \varepsilon_{ij} \tag{1}$$

$$HOURS = \gamma_0 + \gamma_r X_{\text{rij}} + \epsilon_{ij} \tag{2a}$$

$$EDU\_EXP = \delta_0 + \delta_y S_{yj} + \ddot{\text{O}}_j \tag{2b}$$

$$EMPL = \theta_0 + \theta_z S_{zj} + \sigma_j \tag{2c}$$

$$\log(GDP) = \lambda_0 + \lambda_w S_{wj} + \omega_j \tag{2d}$$

$$\log(INOV) = \eta_0 + \eta_u S_{uj} + \iota_j \tag{2e}$$

The central Eq. 1 predicts the probability of AL participation (AL) conditional on observable characteristics (X), using a logit function. This equation allows region-specific constants (α_0) through the constant specific error (μ_{0j}), which varies between regions (j). X_{nij} is the vector of n explanatory variables varying at the level of regions (j) as well as at the level of individuals (i).[14] These explanatory variables are linked to n coefficients of interest (β_n). S_{rj} is a vector of (r) explanatory variables varying at the level of regions (j).[15] β_n and β_r are the coefficients reported in the next (results) section.

Simultaneously with the main equation, five sub-Eqs. 2a–2e are estimated, with the endogenous explanatory variables from the first equation being the dependent variables. These have the form of a classical regression equation, with simple constants ($\gamma_0, \delta_0, \theta_0, \lambda_0, \eta_0$), errors ($\epsilon_{ij}, \ddot{\text{O}}_j, \sigma_j, \omega_j, \iota_j$). Each of the sub-equations has

[13] For exact values of the correlation coefficients, please visit the Table B3 appended to the Online annexe.

[14] Variable HOURS is one of the n variables in the vector of explanatory variables (X_{nij}).

[15] Because of the limited data availability, some of the variables in the vector S vary only at the country level. Variables: EDU_EXP, EMPL, GDP and INOV present a sub-set of the vector S.

a specific list of explanatory variables (X_r, S_y, S_z, S_w, S_u) with related coefficients ($\gamma_r, \delta_y, \theta_z, \lambda_w, \eta_u$), which are being reported only in the Online annexe.[16]

Considering the character of our model, we use the quasi maximum likelihood (QML) estimation method. This method is not as demanding in terms of assumptions in comparison to the widely used maximum likelihood method. It relaxes the conditional normality assumption and is able to deal with non-normality by adjusting standard errors (StataCorp 2015a, p. 45). It also allows us to use a random constant at the level of NUTS 2 regions as well as identify important associations between explanatory variables.

Selected estimation procedure has, by definition, a built-in model evaluation method, when miss-identified models do not converge (Brown 2006, p. 202). The applied technique is an equation-wise deletion of missing values and treats covariance between observed exogenous variables as given (StataCorp 2015b, p. 668).

4 Estimation results

We report results for eight models in total. These eight models distinguish between the two types of AL (formal and non-formal) and also between the four groups of interest (all employed; low-educated adults; low-educated young adults; and migrants). Interpretations are based exclusively on the statistical significance and direction of the measured associations. Here we focus purely at the associations between independent (explanatory) variables[17] and the dependent variables (participation in formal and non-formal education), although the model includes several sub-equations grasping association between independent variables.

4.1 Assessment of the explanatory power

To give an overview of the fit of the model, we first report the change in the Pseudo R-square[18] attributable to particular blocks of variables (see Figs. 2 and 3).

Models fitted on all employed, low-educated and migrants show explanatory power at levels expectable considering the nature of the data and complexity of the model. The proposed model is, on average, stronger in explaining participation in formal AL. Our model appears to be multiple times as strong in explaining AL participation of young and low-educated. This is mainly due to the contribution of household characteristics, suggesting that household-related barriers play a relatively more important role in the case of individuals under 30 and low-educated. In other words, for the young and low-educated, individual characteristics play a less important role in explaining AL participation, while they present the strongest block of variables in explaining formal AL participation of other considered groups.

[16] Table B5 appended to the Online annexe.

[17] Listed in Table 2.

[18] Being aware of the limitations of the Pseudo-R2 statistics (see e.g. Menard 2000), we decided to use the McFadden's Pseudo R-square calculated from equation level log-likelihood. Despite its limitations, we still believe it is informative and frames the evidence presented here.

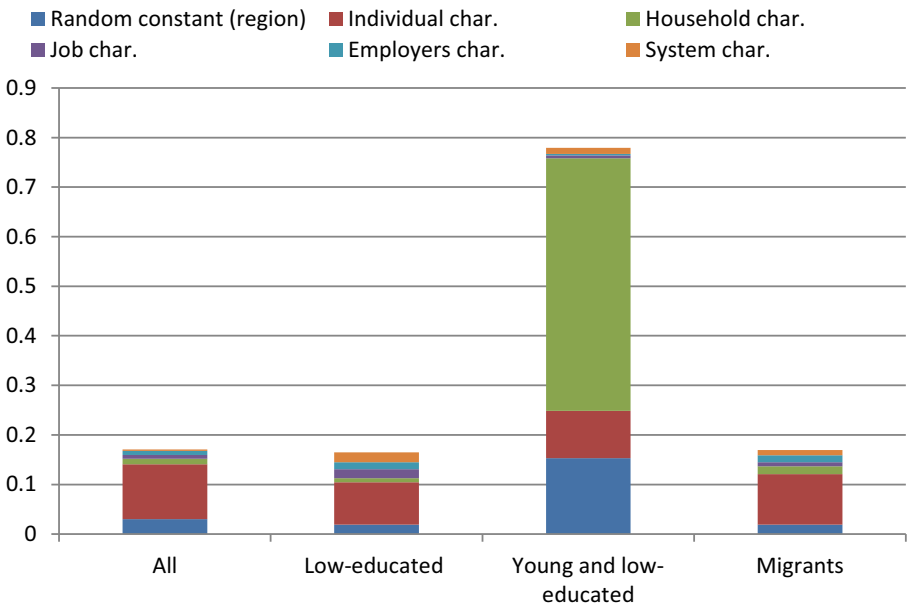

Fig. 2 Pseudo R-square contribution to the model of participation in formal AL. (Source: EU-LFS 2016)

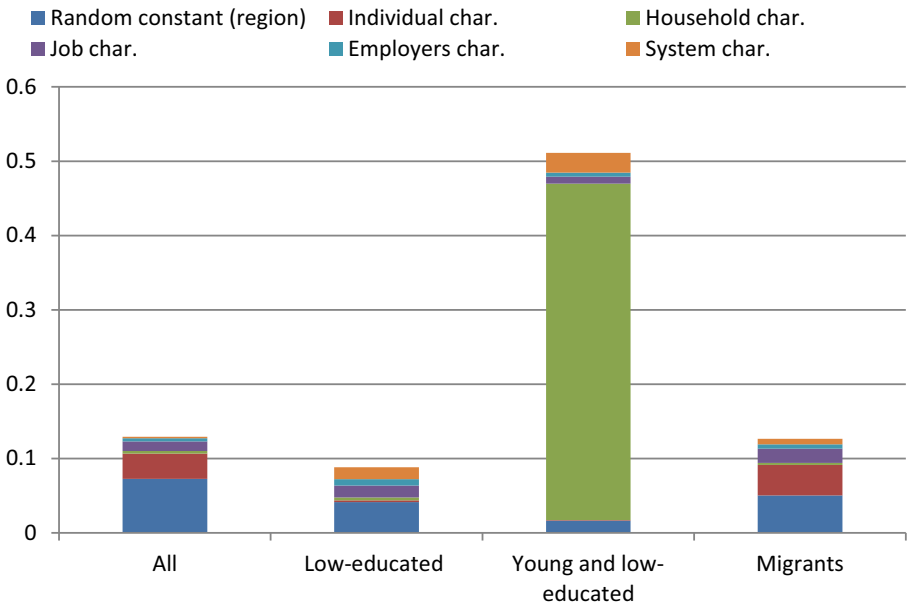

Fig. 3 Pseudo R-square contribution to the model of participation in non-formal AL. (Source: EU-LFS 2016)

The contribution of system-level variables (institutional and policy framework of the country/region) steps forward in the case of disadvantaged groups (especially low-educated). In line with the expectations, job-related characteristics play a more important role in the case of non-formal AL participation.

4.2 Contribution of particular variables

Further, we report the regression coefficients capturing the association of particular explanatory variables and the dependent variable. Presented results are organised in the, already presented, variable blocks.

4.2.1 Individual characteristics

We include variables on the characteristics of individuals as standard, control variables. Jointly, they are stronger in explaining participation in formal AL. In the case of young and low skilled, only two out of four individual characteristics could be included in the model, as age and educational level are used in defining this target group. The results are presented in Table 3.

Out of the individual characteristics, we observe confirmation of the usual patterns widely described also in many previous empirical studies. In the case of non-formal AL, females are more likely to participate than males. This bias favouring women

Table 3 Estimation results for individual characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Female			+ + +						+ +
Age		– – –	– – –	– – –	– – –	(Omitted)	(Omitted)	– – –	– – –
Level of education (primary omitted)	Lower secondary		+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)		+ + +
	Upper secondary	+ + +	+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)	+ + +	+ + +
	Tertiary	+ + +	+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)	+	+ + +
Degree of urbanisation (City omitted)	Town	– – –	–					– – –	
	Rural	– – –	–		+ +			– –	

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

disappears in the sub-group of young and low-educated, where household-related barriers appear to play a substantially more important role (see Figs. 2 and 3).

Older employees are less likely to participate in both formal and non-formal AL. Age is one of the strongest predictors in all of the models; this association is observable across all types of AL as well as target groups.

A higher level of education drives towards further AL in the case of formal as well as non-formal AL. The linear, positive, and statistically significant association between initial education and AL participation also holds across the types of AL, as well as groups of interest.

Living in a less urbanised area barriers mainly from participation in formal AL. Interestingly, this association is not observable for the low-educated, which appear to have a higher chance of participation in non-formal AL if living in a rural area (in comparison to cities).

4.2.2 Household characteristics

Variables constructed from the characteristics of households and their members are designed to proxy for household-related (situational) barriers. The ambition is to grasp the nexus of the allocation of time between the household (family) and labour earnings (work), which is faced by all employed. Employed individuals, when deciding about AL participation, have to find additional time out of their limited time budget. To capture this moment, our model includes indexes of the family-related time demand (Care index) and a proxy for the demand for income (Share of non-earners in the household). Both are included in the model separately for males and females. All four variables are first used to predict the number of usual working hours[19] before their direct association with AL participation is estimated. As can be seen from Figs. 2 and 3, the nexus between family duties, work and participation in education seems to be working exceptionally well in explaining AL participation of young and low-educated (see Table 4).

First, consider the results on the care index. The care index is a proxy for the "care" related barriers and is of the same direction in the case of males and females. If a woman is living in a household with individuals in age usually demanding some care (kids or seniors), her chances to participate in AL are statistically significantly lower (confirming our H1a). This is true for both identified types of AL, formal as well as non-formal, and observed for all four groups. The only exemption is non-formal AL of low-educated young adults, where the coefficient is not statistically significant. When looking at males, the need for care within the household limits their participation only in formal AL (H1 was confirmed only in the case of formal AL). There is only marginally significant evidence for such an association in the case of non-formal AL among low-educated employed males.

Next, consider the share of non-earners in the household. We assume that a higher share of non-earners in the household is positively associated with a higher need for income of the employed individual whose AL participation is being considered. The higher need of income can be reflected either in an immediate increase in the

[19] Which is one of the explanatory variables endogenous to the model, see Eq. 2a in Sect. 3.4.

Table 4 Estimation results for the household characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Household related barriers	Female*care index	– – –	– – –	–	–	– –		– –	– – –
	Male*care index	– – –		– –		–		– –	
	Male*non earners in the HH	+	– – –		–				–
	Female*non earners in the HH	+ + +	– – –		– –			+ +	
	Working hours	– – –	+ + +	– –	+ + +	–		– – –	+ + +

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

number of working hours (for which we account for) or even in upgrading the qualification level in order to attempt for an increase in income (H3). We partially observe a positive association between the share of non-earners in the household and participation in formal AL (mainly in the case of the female when looking at all employed and migrants), thus females when under a higher income pressure seem to be choosing formal AL as a channel of a potential wage increase. Unfortunately, this is not observable for the low-skilled and young low skilled, where the potential benefit could be the highest. This finding is interesting from the perspective of designing a more inclusive AL policy. This pattern is only observable for females; the evidence for males is only marginally significant. We have thus found only partial support in favour of the H3.

We also observe a negative association between non-earners in the household and non-formal AL. Non-formal AL is, to a significant extent, driven by workplace provided AL. It seems that in the case of non-formal AL, increased income pressure results in more working hours as well as more work during the working hours at the expanse of AL.

The number of actual working hours is, in line with the expectations (phrased in H2 and H2a), negatively associated with participation in formal AL and positively associated with the participation in non-formal AL. These associations are one of the strongest in the model and clearly observable across all the groups of interest (with the only exemption of participation of young and low-educated in non-formal AL). There is clear evidence about a negative trade-off between the working time

and formal learning and positive association of non-formal learning and working time.

4.2.3 Job characteristics

With regard to job-related barriers, we explore the information on the occupation of employed individuals. First, we construct the over-education index, which is the difference of individuals' years of schooling from the median years of schooling within his occupational group. We follow this variable separately for those working in a high-skill or low-skill occupation. Thanks to this disaggregation, we intended to be able to observe potential heterogeneity in the direction of the association. Yielded evidence suggests rather towards homogeneity in the association of over-education and AL participation when disaggregated by occupation (see Table 5).

For those employed in a low-skill occupation, being overeducated at their current position leads to higher participation in formal as well as non-formal AL. This association disappears in the case of non-formal AL of low-educated. In support of the H5, those who work in a low-skill occupation where they do not fully utilise their education, AL seem to present a channel for improving this situation. In the case of those already working in high-skilled occupations, this association is less observable.

The risk of computerisation is negatively associated with both types of AL participation. Individuals working in occupations under a higher risk of computerisation

Table 5 Estimation results for the job characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Job related barriers	Low-skilled*Over-education	+ + +	+ + +	+ +		+ +		+ + +	+ + +
	High-skilled*Over-education		+ + +	+					+ +
	Risk of computerisation	– – –	– – –	– –					– – –
	High skilled occupation (dummy)	+ + +	+ + +	+ +	+ + +	+ +		+ + +	+ + +
	Supervision (dummy)	–	+ + +		+ + +				+ + +

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

participate less either in formal AL, as well as in the (dominantly workplace-driven) non-formal AL. Confirming the H4, this is a pattern observable in the case of the main age group of employed, formal AL of low-educated and non-formal AL of employed migrants.

Working in a high skilled occupation (ISCO 1–4) is linked with higher participation in both formal as well as non-formal AL. Occupational complexity, thus according to the expectations, matters for the participation in AL. This association is observable across all the groups of interest (although the coefficient is not statistically significant for non-formal AL of young and low-educated).

Having supervising duties in the current job is associated with lower participation in formal AL and higher participation in (dominantly workplace driven) non-formal AL.

4.2.4 Employer's characteristics

Individuals looking for a new job[20] are more likely to participate in AL. The exemption here is the young and low-educated adults participating in formal AL, this

Table 6 Estimation results for the employer's characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Looking for a job		+ + +	+ + +	+	+ + +	– –			+ +
Economic sector (Public services omitted)	Agriculture	– – –	– – –	– – –	– – –			– –	– –
	Industry	– – –	– – –	– – –	– – –	–	–	– – –	– – –
	Construction	– – –	– – –	– – –	– – –	– –		– – –	– – –
	Private services	– – –	– – –	– – –	– – –	–	– –	– – –	– – –
Number of employees in the local unit (over 50 omitted)	Less than 10	– – –	– – –		– – –				– – –
	11–20		– –						
	21–50	– –							

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

[20] Looking for a new job was used among the characteristics of the employer as an employee's subjective assessment of the working conditions at his current employer.

segment might be fogged by employed individuals with unfinished initial education, not looking for a job until graduation (see Table 6).

Our results confirm that AL participation is higher among people who work in organisations with more employees, as well as in the sector of services and especially public services. Although all the three considered employer's characteristics appear to send a clear message, with dominantly statistically significant coefficients, the overall contribution of this set of variables does not appear as strong in contributing to the explanatory power of the model (Figs. 2 and 3).

4.2.5 System characteristics

In this section, we shift to variables varying at the level of region and country[21]. These are capturing the contextual factors influencing the decisions of individual actors to decide on participation in AL.

Opposing the expectations (H7), subjective assessment of costs being the main obstacle in AL participation shows a positive association with non-formal AL. This becomes more understandable when we again underline, that non-formal AL is dominantly driven by workplace provided training. A positive, statistically significant coefficient for subjective costs then indicates that individuals more likely participate in AL when employers pay for the costs associated with it. Further, as originally expected, a negative association is observed in the case of formal AL and only for low-educated and young and low-educated adults. This suggests that in countries, the low-educated are the most vulnerable to high costs associated with AL.

Evidence on the association between the mean age of the regional population and AL participation is inconclusive. This is contradictory to the expectation, based on the economic theory that the returns to learning declines with age and older countries/regions should thus invest less in AL. Such an assumption seems to be based on an unjustified simplification because when controlling for individual age as well as other characteristics of the countries/regions, no patters suggesting a straightforward association prevail.

Out of the variables capturing the system of initial education in the region, government expenditures on education show a positive association mainly with non-formal AL participation. More interesting is perhaps the positive association between the entrance age into lower secondary education and formal AL participation. This pattern is observed for all groups of interest. The entrance age into secondary education is usually the moment at which specialisation occurs. Therefore, in line with H8, our findings are in favour of providing more general skills and education as a potential precondition for supporting formal AL.

The years of compulsory schooling are negatively associated with participation in non-formal AL of all four groups of interest. In the case of formal AL participation,

[21] Table 7 reports coefficients β_r from Eq. 1. System characteristics are to a higher extent correlated with each other, and, therefore, we need to account for the associations between them. Some system determinant variables were therefore kept in the final version of the model even if their association with AL participation was not statistically significant, but they showed a significant association with other system determinant variables. Table B5 appended to the online annexo summarizes the results of the sub-equations with selected system characteristics as dependent variables.

Table 7 Estimation results for the role of system characteristics in AL participation. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Costs of AL			+ +	– – –	+ + +	– – –	+ + +		+ +
Demography	Mean age of the	–					+ + +		
Initial education	Years of compulsory	– –	– – –		– – –		– – –	– – –	– –
	Entrance age into	+ + +		+ + +		+		+ +	
	Share of students in vocational programmes					–		+ +	
	Government expenditure on		+ + +		+ + +			+ +	+ +
Labour market	Employment rate						+		+ +
	Share of dismissals			– –					
	Share of temporary contracts		– –	+					
	Active Labour Market Policy expenditure on Training		+ +	– –	+ + +			– – –	+ +
Economy	Regional GDP	+		+					
	Number of patent		+ + +		+ +		+ +	+ + +	+

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

a higher number of compulsory schooling seems to decrease formal AL participation of migrants. This association is also observable for formal AL participation of the main age group of employed, but in this case, the statistical significance might be driven by the sample size. This variable is also used in other sub-equations, as it not only strongly determines the expenditures to education, but also the number of patent applications and GDP.

The share of students in vocational programmes at the upper secondary level does not show a clear pattern of association with AL participation. Marginally significant coefficients suggest a negative association with participation in formal AL of young and low-educated and a positive association with formal AL of migrants (see Table 7).

For the regional employment rate, we expected a positive association with AL (H9), but this was only marginally significant for non-formal AL of young, low-educated and migrants.

The evidence for the share of dismissals and temporary contracts is ambivalent, with no clear message in favour of the H9a hypothesis.

The active labour market policy expenditures on training, appear to be positively associated with non-formal AL (employed, low-educated and migrants) and negatively with formal AL (low-educated and migrants).

Finally, the indicators of economic development, regional gross domestic product (GDP) per capita, as well as the number of patent applications are clearly, positively associated with AL participation. The association of regional GDP, in the case of non-formal AL, twists to negative but not statistically significant figures. For the number of patents, a statistically significant and uniformly positive association is observed for most of the combinations of type of AL and group of interest. This is in line with expectations (H10) based on previous studies, as Groenez and co-authors (2007) claim that the innovativeness of the economy should be a strong determinant of AL participation.[22]

5 Conclusions

Building on previous frameworks in the field of adult education and economics, we have developed a supra-individual comparative framework that covers the multiple layers of the complex problem in order to reveal those barriers (hindrances or bounds) that distinguish participants from nonparticipants to AL in distinct societies in 27 European Union countries and Norway. Furthermore, we have constructed new indicators which, to this moment, where not fully covered in the analysis of barriers to participation in AL, such as the indicator for over-education and for caring for family members. We have empirically operationalised the new framework by using Generalised Structural Equation Modelling (GSEM) techniques that allow us to control, as best as possible, for individual-level confounding factors and interdependency of system characteristics. At the same time, we do not have to assume independence of observations, since individual decisions to participate in AL may be jointly influenced; for example by the features of the supply of AL organised at the regional level.

Controlling as for confounding variables and interdependency, we identify several system characteristics that play a key role in AL participation. For example, we estimate a positive association between the entrance age into lower secondary education and formal AL participation. This pattern is observed for all disadvantaged groups. The entrance age into secondary education is usually the moment at which specialisation occurs. From this finding, it is argued that general skills retrieved in initial education are potentially important for engagement with formal AL at adult age.

[22] Results are robust to changes in the definition of the most important explanatory variables, as well as to minor changes in the design of the model (Table C in the Appendix to the Online Annexe).

With regard to other (than education) system characteristics, the (perceived) costs of AL are important determinants of (non-)participation. Here, the results indicate that employees participate more often in AL when the employer pays for the (workplace provided non-formal) AL. However, we find a different picture with regard to participation in formal learning. We observe a negative association between the costs of AL and the participation rate for low-educated employees and for low-educated young adults. From these findings we argue that: (1) the low-educated generally perceive the costs associated with AL higher than the high-educated; (2) the low-educated need support from employers the most, while, according to previous literature, they receive it the least; and (3) altogether the low-educated are most vulnerable to exclusion from AL participation.

Because our analysis separately considers formal and non-formal AL, it was able to reveal different patterns associated to each of the types of AL. For instance, usual working hours are negatively associated with participation in formal AL and positively associated with participation in non-formal AL. This suggests that non-formal AL is driven by workplace training. Further, we observe that overqualified individuals are more likely to participate in AL, especially if they work in a low-skilled occupation. At the same time, working in an occupation with a higher risk of computerisation is linked with a lower AL participation.

It is observed that the nexus between household-related duties and working time works better in explaining AL participation of the low-educated (young) adults, in comparison to other (age) groups. Policymakers and government officials could respond to this observation with a more inclusive policy designed to address their life situation.

Our study results suggest that household-related barriers play a substantially more important role if one is under 30 and low-educated, whereas the individual characteristics present the strongest block of variables in explaining formal AL participation of other considered groups. At the same time, the contribution of system-level variables (institutional and policy framework of the country/region) steps forward in the case of disadvantaged groups (especially low-educated). In line with the expectations, job-related characteristics play a more important role in the case of non-formal AL participation.

Despite the contributions to previous literature we have made, there are limitations to mention. While GSEM offers statistical advantages, it does not account for the problem of reversed causality. This problem implies that, for example, increases in the AL participation rates induce public expenditures on education to rise, in particular, in countries which focus on public provision of formal learning to adults, or in countries with public funding schemes for non-formal learning. The rise in public expenditure on education is then (partially) driven by increase AL. This cannot be disentangled using GSEM.

To conclude, there are avenues for further research. First, statistical analysis would benefit from longitudinal data, which track the same person over time, and from qualitative data that support our findings. Second, we could expand the range of disadvantaged groups. Third, it is worthwhile to consider analyses of informal learning in addition to formal learning and non-formal learning. Moreover, additional research is advised in order to investigate policy or practical implications.

Acknowledgment This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

References

Acemoglu, D., & Pischke, J. S. (1998). Why do firms train? Theory and evidence. *The Quarterly Journal of Economics*, *113*(1), 79–119.

Antikainen, A. (2006). Participation in adult education in a Nordic context. In A. Antikainen, P. Harinen & C. A. Torres (Eds.), *From the margins. Adult education, work and civil society* (pp. 131–145). Rotterdam/Taipei: Sense Publishers.

Bassanini, A., Booth, A., Brunello, G., De Paola, M., & Leuven, E. (2007). Workplace training in Europe. In G. Brunello, P. Garibaldi & E. Wasmer (Eds.), *Education and training in Europe* (pp. 143–309). Oxford: Oxford University Press.

Becker, G. (1993). *Human capital: a theoretical and empirical analysis with special reference to education* (3rd edn.). London: University of Chicago Press.

Boeren, E. (2016). *Lifelong learning participation in a changing policy context: an interdisciplinary theory*. New York: Palgrave Macmillan.

Boeren, E. (2017). Understanding adult lifelong learning participation as a layered problem. *Studies in Continuing Education*, *39*(2), 161–175. https://doi.org/10.1080/0158037X.2017.1310096.

Boeren, E., & Whittaker, S. (2018). A typology of education and training provisions for low educated adults: categories and definitions. *Studies in the Education of Adults*, *50*(1), 4–18. https://doi.org/10.1080/02660830.2018.1520017.

Boeren, E., Nicaise, I., & Baert, H. (2010). Theoretical models of participation in adult education: the need for an integrated model. *International Journal of Lifelong Education*, *29*(1), 45–61.

Boudon, R. (1974). *Education, opportunity, and social inequality: changing prospects in western society*. New York: Wiley.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York: Guilford.

Brunello, G. (2001). *On the complementarity between education and training in Europe*. IZA discussion paper no. 309.

Cabus, S. J., Ilieva-Trichkova, P., & Stefanik, M. (2018). *A pseudo-panel dataset on lifelong learning*. MS3: enliven project.

CEDEFOP (2015). *Job-related adult learning and continuing vocational training in europe, a statistical picture*. Research paper no. 48. Luxembourg: Publications Office of the European Union.

Chapman, J., McGilp, J. E., Cartwright, P., De Souza, M., & Toomey, R. (2006). Overcoming barriers that impede participation in lifelong learning. In J. Chapman, P. Cartwright & J. E. McGilp (Eds.), *Lifelong learning, participation and equity* (pp. 151–174). Dordrecht: Springer.

Cross, K. P. (1981). *Adults as learners: increasing participation and facilitating learning*. San Francisco: Jossey-Bass.

Dammrich, J., Vono de Vilhena, D., & Reichart, E. (2014). Participation in adult learning in Europe: the impact of country-level and individual characteristics. In H. P. Blossfeld, E. Kilpi-Jakonen, D. Vono de Vilhena & S. Buchholz (Eds.), *Adult learning in modern societies: an international comparison from a life-course perspective* (pp. 29–55). Cheltenham: Edward Elgar.

Darkenwald, G. G., & Merriam, S. B. (1982). *Adult education: foundations of practice*. New York: Harper and Row.

De Witte, K., Nicaise, I., Lavrijsen, J., Van Landeghem, G., Lamote, C., & Van Damme, J. (2013). The impact of institutional context, education and labour market policies on early school leaving: a comparative analysis of EU countries. *European Journal of Education*, *48*(3), 331–345.

Desjardins, R. (2017). *Political economy of adult learning systems comparative study of strategies, policies and constraints*. London: Bloomsbum.

Desjardins, R., Rubenson, K., & Milana, M. (2006). *Unequal chances to participate in adult learning: international perspectives*. Paris: UNESCO. (No. null)

Dhanidina, L., & Griffith, W. S. (1975). Costs and benefits of delayed high school completion. *Adult Education*, *25*(4), 217–230.

Elder, G. H. (1998). The life course as developmental theory. *Child Development*, *69*(1), 1–12.

Elder, G. H., & Crosnoe, R. (2002). The influence of early behavior patterns on later life. In L. Pulkkinen & A. Caspi (Eds.), *Paths to successful development* (pp. 157–176). Cambridge: Cambridge University Press.

European Commission/EACEA/Eurydice, 2015. Adult Education and Training in Europe: Widening Access to Learning Opportunities. Eurydice Report. Luxembourg: Publications Office of the European Union.

EUROSTAT (2016). *EU labour force survey explanatory notes*. Luxembourg: EUROSTAT.

Evans, K., Schoon, I., & Weale, M. (2013). Can lifelong learning reshape life chances? *British Journal of Educational Studies*, *61*(1), 25–47. https://doi.org/10.1080/00071005.2012.756163.

Fishbein, M., & Ajzen, I. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.

Frey, C. B., & Osborne, M. A. (2016). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting & Social Change*, *114*, 254–280. https://doi.org/10.1016/j.techfore.2016.08.019.

Gambetta, D. (1987). *Were they pushed or did they jump? Individual decision mechanisms in education*. Cambridge: Cambridge University Press.

Gorard, S., & Rees, G. (2002). *Creating a learning society? Learning careers and policies for lifelong learning*. Bristol: The Policy Press.

Groenez, S., Desmedt, E., & Nicaise, I. (2007). Participation in lifelong learning in the EU-15: the role of macro-level determinants. In *ECER Conference*. Ghent, Belgium, September 19–21. Paper.

Kyndt, E., & Baert, H. (2013). Antecedents of employees' involvement in work-related learning: a systematic review. *Review of Educational Research*, *83*(2), 273–313.

Laal, M. (2011). Barriers to lifelong learning. *Procedia—Social and Behavioral Sciences*, *28*, 612–615.

Lassnigg, L. (2005). *Lifelong learning, school to work and labour market transitions*. Position paper work-package 4. Amsterdam: SISWO/Social Policy Research. TLM.NET 2005 Working Paper No. 2005-06

Lavrijsen, J., & Nicaise, I. (2017). Systemic obstacles to lifelong learning: the influence of the educational system design on learning attitudes. *Studies in Continuing Education*. https://doi.org/10.1080/0158037X.2016.1275540.

Lazear, E. P. (2009). Firm-specific human capital: A skill-weights approach. *Journal of political economy*, *117*(5), 914–940.

Lee, J. (2018). Conceptual foundations for understanding inequality in participation in adult learning and education (ALE) for international comparisons. *International Journal of Lifelong Education*, *37*(3), 297–314.

Lee, J., & Desjardins, R. (2019). Inequality in adult learning and education participation: the effects of social origins and social inequality. *International Journal of Lifelong Education*, *38*(3), 339–359.

McGivney, V. (2001). *Fixing or changing the pattern. Reflections on widening adult participation in learning*. Leicester: NIACE.

Menard, S. (2000). Coefficients of determination for multiple logistic regression analysis. *The American Statistician*, *54*, 17–24.

Merriam, S. B. (2005). How adult life transitions foster learning and development. *New Directions for Adult and Continuing Education*, *108*, 3–13.

OECD (2003). *Beyond rhetoric: adult learning policies and practice*. Paris: OECD.

Roosmaa, E., & Saar, E. (2012). Participation in non-formal learning in EU-15 and EU-8 countries: demand and supply side factors. *International Journal of Lifelong Education*, *31*(4), 477–501. https://doi.org/10.1080/02601370.2012.689376.

Roosmaa, E., & Saar, E. (2016). Adults who do not want to participate in learning: a cross-national European analysis of their perceived barriers. *International Journal of Lifelong Education*, *36*(3), 254–277. https://doi.org/10.1080/02601370.2016.1246485.

Rubenson, K. (1975). *Participation in recurrent education*. Paris: CERI/OECD.

Rubenson, K., & Desjardins, R. (2009). The impact of welfare state regimes on barriers to participation in adult education: a bounded agency model. *Adult Education Quarterly*, *59*, 187–207.

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, *51*(1), 1–17.
StataCorp (2015a). *STATA structural equation modeling reference manual release 14. Statistical software*. College Station, TX: StataCorp LLC.
StataCorp (2015b). *Statabase reference manual release 14. Statistical software*. College Station, TX: StataCorp LLC.
Tuparevska, E., Santibáñez, R., & Solabarrieta, J. (2019). Equity and social exclusion measures in EU lifelong learning policies. *International Journal of Lifelong Education*. https://doi.org/10.1080/02601370.2019.1689435.
Wolbers, M. H. J. (2005). Initial and further education: substitutes or complements? Differences in continuing education and training over the life-course of European workers. *International Review of Education*, *51*(5/6), 459–478.

ZfW (2020) 43:143–168
https://doi.org/10.1007/s40955-020-00159-y

veröffentlicht in Zusammenarbeit mit DIE

IM FOKUS

The political economy of adult learning systems—some institutional features that promote adult learning participation

Richard Desjardins · Alexandra Ioannidou

Received: 12 March 2020 / Accepted: 26 May 2020 / Published online: 18 June 2020

Abstract Recent years have witnessed an increasing scholarly interest in the study of education, training, and skill formation from a comparative political economy perspective. The purpose of this article is to contribute to the emerging field of the political economy of adult learning systems, which seeks to understand the causes and consequences of cross-national diversity in adult learning systems. The article introduces this interdisciplinary research strand by reviewing recent work and different typologies that have emerged out of the field of comparative economics and comparative politics, which are relevant to the study of adult learning systems. The empirical evidence on cross-national patterns of organized adult learning drawn on PIAAC data suggests that existing typologies are insufficient to explain the cross-national patterns. The article discusses some specific institutional features that promote adult learning participation and points out conditions and policies that support effective adult learning systems.

Keywords Political economy of adult learning systems · Welfare state research · Adult learning participation · Comparative research

Prof. R. Desjardins
University of California Los Angeles (UCLA), Los Angeles, CA, USA
E-Mail: desjardins@ucla.edu

Dr. A. Ioannidou (✉)
German Institute for Adult Education (DIE)—Leibniz Centre for Lifelong Learning, Bonn, Germany
E-Mail: ioannidou@die-bonn.de

Die politische Ökonomie von Weiterbildungssystemen – einige institutionelle Merkmale, die Weiterbildungsbeteiligung fördern

Zusammenfassung In den vergangenen Jahren ist ein zunehmendes wissenschaftliches Interesse an der Untersuchung von Bildung, Ausbildung und Weiterbildung aus einer vergleichenden politisch-ökonomischen Perspektive zu verzeichnen. Der Artikel untersucht Ursachen und Folgen der länderspezifischen Vielfalt in Weiterbildungssystemen und leistet damit einen Beitrag zu dem neu entstehenden Forschungsbereich der politischen Ökonomie von Weiterbildungssystemen. Der Beitrag führt in diesen interdisziplinären Forschungsstrang ein, indem er einen Überblick über die jüngsten Arbeiten und verschiedene Typologien gibt, die aus dem Bereich der vergleichenden Ökonomie und der vergleichenden Politikwissenschaft hervorgegangen und die für die Untersuchung von Weiterbildungssystemen relevant sind. Die empirische Evidenz zu länderspezifischen Mustern des organisierten Erwachsenenlernens, die sich auf PIAAC-Daten stützt, legt nahe, dass die bestehenden Typologien nicht ausreichen, um die länderspezifischen Muster zu erklären. Der Artikel erörtert einige spezifische institutionelle Merkmale, die Weiterbildungsbeteiligung fördern, und zeigt Bedingungen und Politiken auf, die effektive Weiterbildungssysteme unterstützen.

Schlüsselwörter Politische Ökonomie von Weiterbildungssystemen · Wohlfahrtsstaatsforschung · Weiterbildungsbeteiligung · International-vergleichende Forschung

1 Introduction

The term "political economy" is often associated with economic processes and socio-political conditions under which production is organized within nation states. The origins of the term can be traced back to the works of Adam Smith, David Ricardo and Karl Marx who are regarded as some of the most important forbearers of political economy. Today, it has been adopted in a variety of disciplines and fields when studying the linkages and interactions between politics and the formation, organisation, and functioning of economic and social institutions. Recent years have witnessed an increasing scholarly interest from political scientists, economists and sociologists to study education, training, lifelong learning and skills, leading to a proliferation of concepts such as the political economy of skills (Brown et al. 2001; Thelen 2004; Busemeyer and Trampusch 2012), the political economy of education reform (Busemeyer 2015), and the political economy of adult learning (Rees 2013; Desjardins 2017, 2018) among others. Education, training, adult learning and skills are central topics of the educational sciences including comparative education, but they have now become increasingly a focal point of interest for scholars of comparative politics and comparative economics. Typically, a common feature among these concepts is that they primarily deal with the political, economic and social institutions that affect the evolution of education and skill formation systems, policies and reforms as well as related distributional aspects and conflicts.

The purpose of this article is to introduce the emerging interdisciplinary field of the political economy of adult learning and highlight some institutional features that promote adult learning including insights and nuances relevant to furthering this field of research. First, we review some of the literature related to the political economy of Adult Learning Systems (ALS) and associated variants such as the political economy of skill formation and the political economy of education more generally. A full review of the relevant literature goes beyond the scope of this article, which is why we focus on typologies that have emerged out of the field of comparative politics and comparative economics that are applied more directly to the educational sciences, including comparative education, whereby education, training, adult learning and skills have been the focal points. Second, drawing on PIAAC and IALS data we provide empirical evidence on cross-national participation patterns in organized adult learning, which suggests that existing typologies of "institutional packages" are insufficient to explain the cross-national patterns. Finally, we discuss a range of more specific institutional features that are more proximally related to ALS and point out conditions that shape effective and inclusive ALS.

2 Multi-disciplinary scholarship contributing to the political economy of adult learning systems

2.1 Defining adult learning systems

In discussing the emerging field of the political economy of adult learning systems (ALS), we first define what we mean by the term "adult learning systems". Our perspective is that ALS refer to the mass of *organized* learning opportunities (both formal and non-formal) available to adults along with their underlying structures and stakeholders that shape their organization and governance (Desjardins 2017). Organized adult learning is defined as any learning opportunities, formal and non-formal, undertaken by adults (both younger and older) who are not in their regular cycle of education and includes *non-traditional students* in formal education. Non-traditional students are defined as adults (both younger and older) who are not in their regular cycle of education but undertake organized learning opportunities including the completion (or pursuit) of a formal qualification in a manner, that does not follow a "traditional" or exclusively "front-loaded" path. The latter typically involves *second chance* adaptations to formal education that enable and support (older) adults, but in some cases, it might simply involve flexibility and the opening up of formal education structures to non-traditional students.

As defined, ALS interact with formal education structures in many countries and they are often regarded as part of the education system but extend well beyond involving a variety of institutions from labour market to civil society. Moreover, in terms of input, outcomes and returns, ALS are clearly interrelated with the economic and production system. For example, the skill orientation of an economy can influence the conditions for the acquisition, use and maintenance of skills; specific educational and labour market institutions (e.g. dual training) can facilitate or hamper the transition from school to working life.

From this perspective, ALS are embedded in characteristic regimes of economic and social institutions, which can be understood in terms of a systematic and emerging political economy of ALS (Rees 2013; Desjardins 2017, 2018). ALS contain provisions that are less regulated and less standardised than K-12, higher education, or vocational education and training (VET), and are not mainly financed by the state (Ioannidou and Jenner 2020). ALS differ considerably across countries, more than the regular cycle of formal education does, where the latter tends to reflect "institutional isomorphism" (DiMaggio and Powell 1983, pp. 148–53; Meyer and Ramirez 2003)—a process of increasing homogeneity amongst different organisations according to sociological neo-institutionalism—around the world. In many countries, ALS have manifested themselves through various bottom-up processes, for example, on the initiative of labour and civil society movements. In others, public policy frameworks led by the state have played a substantial role in fostering the development of ALS by emphasizing the extension of basic education and second chances to adults, as well as opening up vocational and higher education to young and older adults who may not have followed an exclusively "front-loaded" path (i.e. non-traditional students). Yet in many other countries, ALS are lacking some of the institutional features necessary to even be considered a system per se.

ALS are in general not only less regulated but also less homogeneous than the regular cycle of formal education regarding their institutional structure, function and target groups. They include—according to the classification provided by Desjardins (2017, pp. 19–20)—Adult Basic (and General) Education (ABE/AGE), Adult Higher Education (AHE), Adult Vocational Education (AVE), and Adult Liberal Education (ALE). ABE/AGE typically involve formal education, which corresponds to the UNESCO International Standardized Education Classification (ISCED) 1, 2 or 3, but are undertaken by non-traditional students as defined above. AHE typically involve formal education undertaken by non-traditional students, which corresponds to ISCED 5 or 6. AVE can involve formal education undertaken by non-traditional students—corresponding to ISCED 3b, 3c, 4, or 5b—but also non-formal education that has no links to the formal qualification system (e.g. on-the-job training or workshops and seminars that are job-related). Adult Liberal Education (ALE) is mostly non-formal and associated with the civil society sector. Yet, in highly flexible systems such as in Denmark, even some ALE courses may be linked to formal recognized qualifications via a modular and flexible approach.

2.2 Multi-disciplinary scholarship stimulating adult education research from a political economy perspective

This section reviews multi-disciplinary scholarship that has stimulated adult education research and provides a brief overview of different typologies that have emerged out of the field of comparative economics and comparative politics, which are relevant to, and have directly contributed to, the study of the political economy of adult learning systems.

The seminal work of Hall and Soskice (2001) in comparative economics on the *Varieties of Capitalism* (VoC) brought education and training to the forefront for many social scientists including economists, sociologists and political scientists.

This work was preceded by the influential work of Esping-Andersen in comparative politics about the *Three Worlds of Welfare Capitalism* (1990) and their implications for social policy including education.

Esping-Andersen provided a broad way of classifying welfare conditions by examining the relationship between market and state, in particular the extent of social benefits along the two dimensions of de-commodification and stratification. De-commodification described the relative independence of the individual from the labour market (Esping-Andersen 1998, pp. 21–22). A high degree of de-commodification indicates a welfare state with extensive access to social services and benefits. The other dimension, stratification, shows the extent to which a welfare state does not only degrade inequalities, but also creates them by preserving social differences or privileges for certain groups. It is claimed that the welfare state—apart from its purely income-distributive role—shapes class and status in a variety of ways: "The education system is an obvious and much-studied instance, in which individuals' mobility chances not only are affected, but from which entire class structures evolve" (Ibid., pp. 57–58).

Esping-Andersen differentiates between three "ideal" types of welfare state regimes: *the liberal, the conservative and the social democratic welfare state*. The liberal welfare state emphasizes the free market and shows a low degree of de-commodification (the dependency of the individuals is hardly restricted by de-commodified services) and a low institutional stratification (e.g. United States, Canada, and Australia). In contrast to this, the conservative welfare state (e.g. Austria, France, and Germany) demonstrates corporatist structures, maintaining of status differences accompanied by a high degree of stratification, moderate degree of de-commodification and a clear dependency of access to government benefits from the position on the labour market. The social-democratic welfare state (Scandinavian countries) is characterized by guaranteeing universal services based on citizenship and therefore a high degree of de-commodification and a low degree of stratification, which both lead to a reduced social inequality (see Esping-Andersen 1998, pp. 27–28).

Esping-Andersen's typology has been by far the most influential classification in comparative welfare state research and has successfully oriented scholarship in various research fields, also with regard to education (Allmendinger and Leibfried 2003; Willemse and de Beer 2012). Although the typology and its various extensions to other regime types (e.g. Southern European, see Ferrara 1996) is still widely used in comparative political research, it has been extensively challenged both on empirical and analytical grounds (Powell 2015; Rice 2013; Arts and Gelissen 2002; Ferragina and Seeleib-Kaiser 2011). Besides the fact that many empirical welfare states seem to be hybrid cases of the established welfare regime categories, the typology dates back to the 1990s with data designed around the 1980s. A re-assessment of its robustness as well as the inclusion of new dimensions seem necessary (Danforth 2014), taking also into account that in the meantime many countries have undergone major transformations. More important, a meta-review that claims that 23 studies confirm Esping-Andersen's typology exclude all studies that consider health care and education as part of the welfare state because these two social policy areas fol-

low 'a distinct, different logic from de-commodification [and] social stratification' (Ferragina and Seeleib-Kaiser 2011, p. 587).

A major alternative to Esping-Andersen's welfare state classification is the *Varieties of Capitalism* approach by Hall and Soskice (2001). Hall and Soskice identified education and training as one of the five institutional spheres of political economies (2001, pp. 25–26) and they explicitly connect skill formation systems with types of market economies by linking distinct systems of skill formation to varieties of capitalism. They point to nation-specific institutions such as labour market institutions, production regimes and welfare state that play a crucial role and shape "institutional complementarities" in the sense that 'the presence (or efficiency) of one institution increases the returns from the other' (Ibid, p. 17). At the highest level of their typology, they distinguish between *liberal market economies* (LME) and *coordinated market economies* (CME) (Ibid.). A crucial element in their typology is that the specificity of skills among the population differ by regimes. Whereas LME such as the case of the USA generate primarily generic skills through general and higher education, which can be complemented by on the job training over the lifespan, CME such as in the case of Germany emphasize specific skills through a well-developed VET system including apprenticeship schemes. Whether LME or rather CME are more conducive to adult education and training is subjected to empirical examination. There is contradictory evidence and also theoretical models with regard to that (Brunello 2004; Wolbers 2005; Culpepper and Thelen 2008).

The work of Esping-Andersen and Hall & Soskice has been followed by a vibrant strand of comparative research emphasizing the linkages between different types of welfare regimes, or alternatively production regimes, and education (and skills). For example, the influential concept of *skill formation regimes*—defined as a self-reinforcing configuration of institutions, or alternatively institutional packages, at the intersection among welfare state, labor market, and education and training systems—has been put forth in the VoC literature when examining development paths of different worlds of human capital formation and their sustainability over time and across countries. In this strand of research, scholars highlight the institutional complementarities between industrial relations, labour market institutions, production regime as well as welfare state and study their linkages and interconnections to explain variety in the emergence of different skill formation systems (Estevez-Abe et al. 2001; Iversen and Soskice 2001; Iversen and Stephens 2008; Mayer and Solga 2008; Busemeyer and Trampusch 2012; Busemeyer 2015).

From a comparative politics lens, Iversen and Stephens (2008) emphasise the mutually reinforcing relationships between skill formation, social protection systems and the role of the state. They distinguish three distinct types of *human capital formation*: *liberal market regimes* and *coordinated market regimes*, in which the latter are further subdivided into the *social democratic regime* and the *Christian democratic regime*. The liberal market regime is characterised by high private investments in general skills, a low level of public spending on active labour market policies (ALMP) and VET, as well as a low level of employment protection. This pattern results in skills polarisation, i.e. low levels of specific skills and of general skills at the bottom, but a high level of general skills at the top. The social democratic regime features heavy spending on public education, a well-developed VET

system, advanced ALMP, and moderate levels of employment protection. Outcomes in terms of skills result in high levels of industry-specific and occupational-specific skills as well as general skills. The Christian Democratic regime is characterised by a well-developed VET system and high levels of employment protection, though, low levels of public spending on ALMP. High levels of employment protection have facilitated investment in firm- and industry-specific skills with skilled workers being favoured, whereas the interest of low-skilled workers being largely ignored and vulnerable to social exclusion. Iversen and Soskice (2001) emphasise the distinct character of political coalition formation underpinning each of the three regimes.

From the perspective of *historical institutionalism*, Busemeyer and Trampusch (2012) highlight the role of the state vs. private actors (households, market) in the provision and financing of VET as a crucial factor explaining the divergent development paths of skill formation regimes. Extending the two categories found in the VoC literature (liberal market regime and coordinated market regime) they propose a new category, namely collective skill formation systems, to which Austria, Denmark, Germany, the Netherlands and Switzerland belong.

Referring to the characteristics of different skill formation regimes, they identify the following types:

- the *liberal skill regime* demonstrating little public commitment or employer involvement, dominance of on-the-job training with no specific (or weakly developed) vocational tracks in general schools;
- the *statist skill* regime featuring medium to strong public commitment to VET, but little employer involvement (due to crowding out effects), integration of VET into general school systems and academic drift;
- the *segmentalist skill regime* providing often quite broad training, but in a firm-specific setting, with labour market mobility limited to internal labour markets and little public commitment, resulting in the delegation of VET to firms;
- the *collective skill regime* featuring high involvement of employers and unions in governance and—partly—financing of skill formation and a strong role for intermediary associations.

This typology allows for explaining the evolvement of divergent development paths and cross-national variation as a product of historical path dependencies and critical junctures.

Other important areas of research have long suggested with evidence the importance of education, training, and skills from a *system level perspective*. Not least among these, is the *economics of education*, particularly the theory of human capital, which has and continues to play a powerful role in conveying the economic value of education, training and skills, namely by revealing their monetary returns in terms of earnings and employability effects as well as labour market mobility (Becker 1993; Hanushek et al. 2015, 2017). Research in the *sociology of education* has consistently revealed the consequences of inequality of access to quality education and learning in terms of equity, inclusion, well-being and a well-functioning society (Torres and Morrow 1995; Allmendinger and Leibfried 2003; UNESCO 2013, 2018). These multi-disciplinary research strands have stimulated empirical work that focuses more directly on effects of adult education and training. Research on the wider benefits

of learning over the lifespan (Bynner et al. 2003; Feinstein und Hammond 2004; Field 2009) added considerably to these perspectives with evidence. Recent work highlights specific outcomes of participation in adult learning, both monetary and non-monetary, in terms of well-being, political participation and civic engagement (Ruhose et al. 2020; Gauly et al. 2020; for an overview: Schrader et al. 2020). Other intensively studied topics in the field concern inequalities of educational opportunities and the influence of social background on participation in (adult) education and training (Hadjar and Gross 2016; Blossfeld et al. 2020; Allmendinger et al. 2011; Cincinnato et al. 2016). Together, these strands of research have revealed the importance of widely extending diverse learning opportunities over the lifespan. In light of salient empirical evidence underlining the key role of education in the distribution of opportunities for participation in society and labour market, recent scholarship from the social investment perspective repositions education to the centre of social policy reforms (Kazepov et al. 2020) and addresses educational policies as part of an overall welfare state policy (Allmendinger and Nikolai 2010; Willemse and de Beer 2012).

2.3 New insights in the study of adult learning systems

The contribution of comparative political economy and welfare state research, in particular the typologies developed by Esping-Andersen (1990) as well as Hall and Soskice (2001) and their extensions and variants provided new insights in the way ALS can be perceived and inspired adult education research.

For example, Rubenson and Desjardins (2009) adopted the welfare state regimes framework to analyse the state's role in shaping the broader structural conditions that are relevant for participation in adult education. They argue that participation in adult education is the result of the interplay between individual agency and structural conditions and that individual educational choices are constrained by institutions, leading to the concept of "bounded agency". The type of welfare state regime influences both structural conditions and individual agency. Based on analysis of quantitative indicators (the amount of public and private education expenditure in connection to the distribution of competences), Allmendinger and Leibfried (2003) as well as Busemeyer (2015) provide further evidence for the degree of stratification in education systems in relation to partisan politics. Adapting Esping-Andersen's theoretical approach Knauber and Ioannidou (2016) examine how different types of welfare state regimes develop and implement basic education policies for adults with low literacy skills focusing on the dimension of de-commodification.

The theoretical and methodological insights gained in particular from the VoC literature have stimulated the study of adult education and training from a political economy perspective. Specifically, the political economy of ALS has been developed as an offshoot of the debates on comparative welfare state research and considers contributions from different disciplinary perspectives (political science, the sociology of education, and economics of education) to understanding the causes and consequences of cross-national diversity in ALS across advanced industrialised nations and developed liberal democracies. A core argument in this research strand is that ALS are embedded in specific economic and social arrangements, 'they lie at the

intersection of a variety of other systems including a nation's education and training system, labour market and employment system and other welfare state and social policy measures' (Desjardins 2017, p. 232). As such, they are linked to a range of stakeholders (associations, chambers, communities of interest, industry) according to the historical origins of adult education and training in each country, the type of educational governance, and the type of skill formation regime.

The influence of culture, history, economic conditions and geopolitical developments on the formation of adult education and training systems as well as their embeddedness in a nation's education system are well known issues in the field of adult education, particularly highlighted in comparative adult education research. However, analyses of the impact of institutional settings (or packages) in shaping ALS still represents a relatively small research strand, which mainly focuses on explaining differences in participation in adult learning (Roosmaa and Saar 2010; Saar et al. 2014; Blossfeld et al. 2014; Dämmrich et al. 2014; Kaufmann et al. 2014).

Looking at the political and institutional linkages between adult education and training and other institutions (labour market, welfare state, economy etc.), Desjardins (2017) reviews the extent and nature of adult learning structures that exist in different nation-states, considers the factors that explain the emergence of different adult learning system regimes and examines how these structures impact a range of economic and social outcomes. Building on the VoC literature, which suggests that a key feature of the comparative advantage of nation-states is the nature in which different institutional configurations enable the coordination of social problems, Desjardins suggests a *typology on the variety of ALS* in some of the most advanced industrialized economies. Looking from a governance perspective at patterns and mechanisms of coordination that underlie ALS, he distinguishes between *market-led adult learning regimes, state-led regimes, stakeholder-led regimes and state-led regimes with a high degree of stakeholder involvement* (Ibid., pp. 25–31). This typology is mainly based on the distinction between state vs market involvement on the existence (supply) and take-up (demand) of adult learning opportunities. To develop his typology Desjardins uses in depth analysis of country studies and combines them with quantitative macro data from large-scale assessments.

An important common feature in the political economy of skill formation regimes and ALS regimes is the emphasis put on "institutional packages" or "institutional complementarities". Naturally, the variety of national institutional configurations of ALS is closely connected to that of skill formation systems, as ALS lie at the intersection of education and training systems, labour market institutions, and welfare systems. These nation-specific institutional packages affect patterns of coordination and can yield strikingly different outcomes both in terms of participation in adult education and in terms of political reforms (Saar et al. 2013).

Another common feature in typologies on skill formation and adult learning system regimes is that actors and actors' constellations are to a certain degree similar, at least in the biggest segment of adult learning (Adult Vocational Education, AVE), which is job-related and employer-sponsored. Yet, there is a greater variety of stakeholders involved in the governance of ALS, especially in countries with well-developed Adult Liberal Education (ALE). The relative weight of AVE is also influenced by regime characteristics. In particular, intermediary associations involving

non-market based stakeholder coordination are crucial in collective skill regimes (stakeholder-led or state-led with high degree of stakeholder involvement). Also, parties and partisan politics may have an impact on the evolution of distinctive ALS as well as on patterns of coordination and governance. However, and in contrast with extended literature from comparative public policy and welfare state research, their influence, have not been studied yet. Literature reveals that partisan politics have an impact on the evolution of specific skill formation regimes, hence, the strength of partisanship varies across time: it seems to be more important in earlier periods of historical development and critical junctures (Busemeyer 2015, pp. 123–174). It is further argued that institutions with their path dependencies and veto players matter (with regard to VET systems see Thelen 2004; with regard to lifelong learning see Ioannidou 2010).

The typologies that emerged out of comparative welfare state and political economy research have widely contributed to new theoretical and methodological insights to the study of adult education and training systems. Obviously, a key shortcoming of these typologies developed in other disciplinary contexts is a systematic integration of more specific institutional features that are more proximal to the take up, and provision of, organized adult learning. For example, the empirical cross-national patterns on the level of participation in organized adult learning, as presented in the following sections, do not neatly line up with the typologies mentioned in 2.2. This suggests a need to take account of specific institutional features that are more proximally related to organized adult learning, some of which are introduced and elaborated below as suggestions to develop these typologies for comparing ALS and to further this field of research.

3 Data and method of analysis

The analysis focuses on cross-national patterns revealed by available secondary sources of data and utilizes logical and structural forms of comparison of the patterns to draw out interpretations of the observed patterns (Ragin 1981). The purpose is not to identify causation, universal 'truths' or to generalize but to reveal differences and similarities in the patterns so as to elicit insights and nuances regarding structural and institutional features which are relevant to the comparative study of policy relevant factors related to the level and distribution of organized adult learning in selected advanced industrialized nations.

Data made available by the 2012 Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC) as well as the 1994–1998 International Adult Literacy Survey (IALS) are used as sources to estimate cross-national patterns of organized adult learning. These are large scale comparative studies which were administered to nationally representative samples of adults aged 16 to 65 (large sample sizes ranging between 2000 to 5000 cases per country) (for details on study design see OECD 2013a; OECD and Statistics Canada 2000; for details on study quality see OECD 2013b; Murray et al. 1997). While these studies were primarily designed as international comparative assessments of literacy proficiency, IALS was effectively the first large scale international

comparative study of adult learning ever undertaken which offers an important baseline measurement of the extent and distribution of adult learning in the 1990s for a wide range of OECD countries. As a follow up study, PIAAC collected in a comparable manner detailed information on a range of education and training activities undertaken by adults in the 12 months preceding the interview including formal education programmes and other non-formal learning activities such as workshops, seminars, on-the-job training as well as leisure and civic related courses. Therefore, with both datasets it is possible to empirically estimate the extent of growth in adult education since the 1990s. We follow the definition of organized adult learning as outlined above in detail in Sect. 2.1 in terms of non-traditional (adult) students and different types of organized adults learning. Furthermore, PIAAC collected the age at which adults completed their highest qualification which is used to estimate the proportion of adults who attained their highest qualification as non-traditional students as defined above in Sect. 2.1 (also see note for Fig. 4 for specific ages used to define non-traditional students).

The countries included in the analysis are those that participated in the 2012 OECD PIAAC and for which the data was made available, as well as for those that participated in both IALS and PIAAC. For the purposes of this analysis, countries that participated in later cycles of PIAAC were not included since the 2012 sample provides ample variation in terms of regions and in terms of the key variables considered.

Additionally, data made available by the 2011 OECD Aggregated Social Expenditure database, which roughly corresponds to the 12-month period in which the PIAAC data was collected, is used as the source of comparable data for social expenditures including total welfare spending, public spending on education, public spending on active labour market programmes and public assistance and housing.

4 The empirical evidence on cross-national patterns of organized adult learning

This section presents some of the empirical evidence on cross-national patterns of organized adult learning.

Participation rates in different types of organized adult learning based on PIAAC data are reported in Fig. 1, whereas Fig. 2 provides estimates of the growth of participation in organized adult learning since the 1990s using comparable data from IALS. Both surveys allow for a distinction between job- and non-job-related organized adult learning as well as whether the participation was employer-supported. The pattern as can be seen in Fig. 1 overwhelmingly suggests that the majority of organized adult learning is in some way employer-supported, is job-related, and is non-formal. Another key point is that the extent to which employers are supporting formal adult education (that leads to qualifications) has become rather substantial (i.e. 5–9% of the adult population) in nine out of 21 countries.

In terms of trends over the approximate 20-year interim period (depending on country) shown in Fig. 2, several findings stand out.

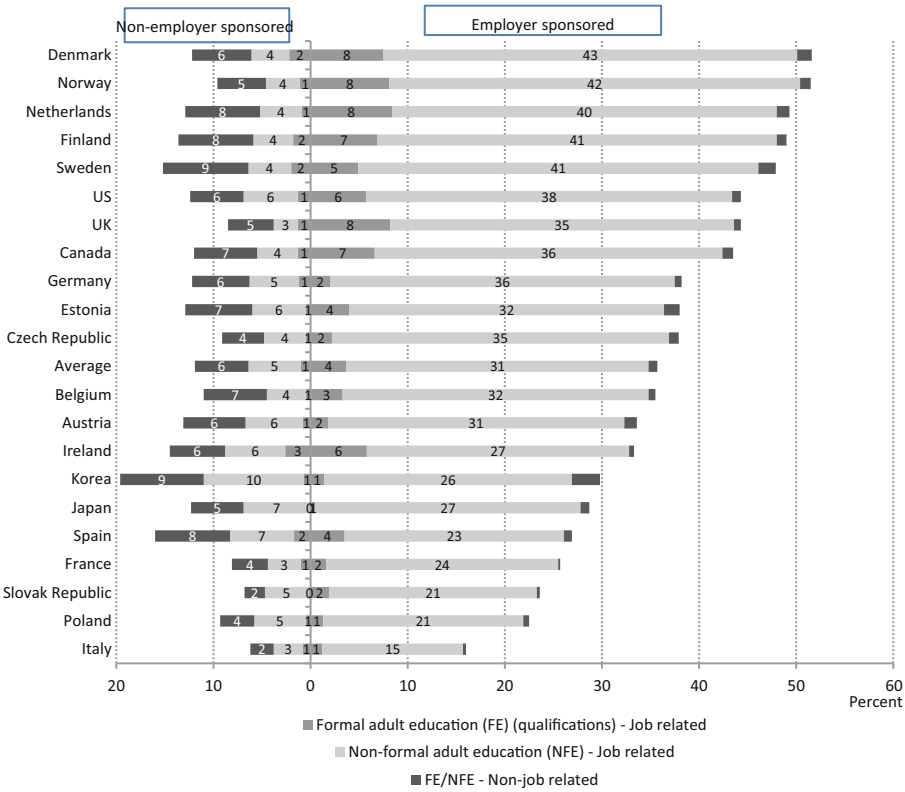

Fig. 1 Percent of adults aged 16–65 who participated in organized adult learning in 12-month period. (Source: Own calculations based on the Survey of Adult Skills (PIAAC), 2012)

First, the growth of participation rates in organized adult learning has been remarkable. All countries demonstrate a substantial increase in the proportion of adult populations who participate in organized adult learning on an annual basis, which implies major growth in the provision of organized learning opportunities. Even if calculations based on data from two different times are not enough to establish a trend, estimates of the annualized growth rate of participation based on the annual EU Labour Force Survey (LFS) data confirm the sharp growth (see Desjardins 2017, Table 12.1, pp. 185).

Second, many countries are catching up with the Nordic countries in terms of participation in organized adult learning. Countries that featured already comparatively high rates in the 1990s like Sweden, Finland, and Denmark, have been growing at a slower pace. Notably, the Netherlands, US, UK, and Canada have all grown at a faster pace, and nearly catching up to the Nordic countries. Other countries that had low rates of participation in the 1990s have experienced very high rates of growth estimated to be around 5% per annum. The only country that had a very low rate in the 1990s and did not experience growth is Italy.

Third, employer-supported organized adult learning is growing at a significantly higher pace in all countries.

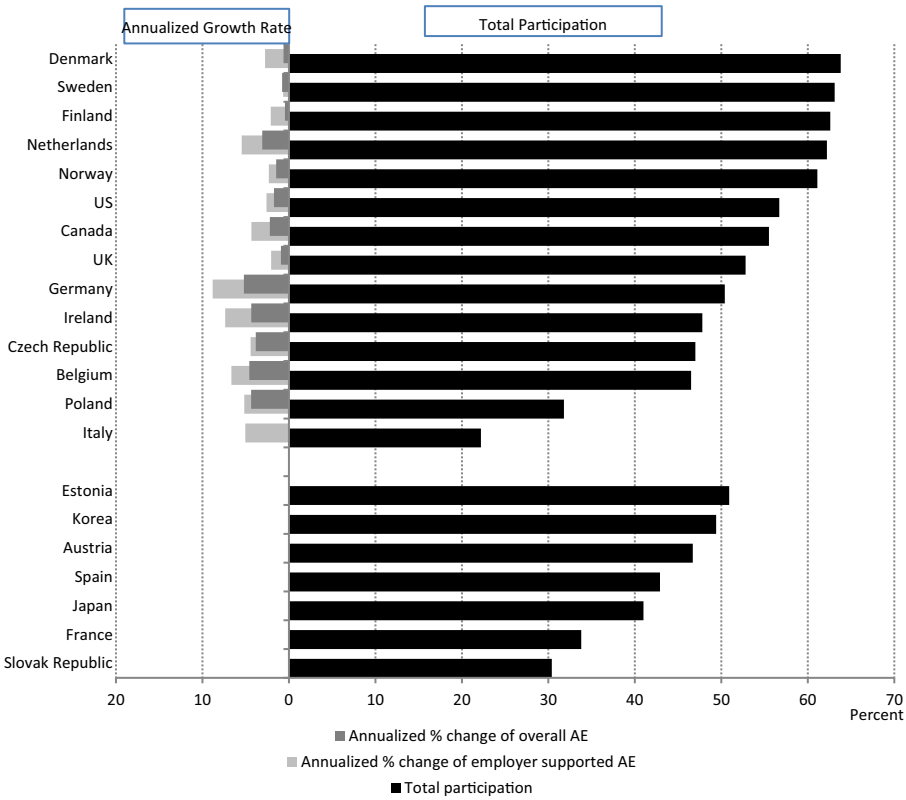

Fig. 2 Annualized growth rate of organized adult learning between PIAAC (2012) and IALS (1990s). (Source: Own calculations based on the Survey of Adult Skills (PIAAC), 2012; and, International Adult Literacy Survey, 1994–1998. Annualized growth rate for each country that participated in both IALS and PIAAC was calculated by the percentage change in participation rates from IALS to PIAAC and divided by the number of years between the surveys)

Separate analyses have revealed that the overall growth of organized adult learning has significantly narrowed inequality in overall participation between various socially disadvantaged vs advantaged groups (i.e. young-old, low SES-high SES, low educated-high educated) in most countries including the market-led regimes such as US and the UK (Desjardins and Kim 2019). Some specific institutional features as well as government policies and programmes may have incentivized employers' investment in disadvantaged workers; though, this cannot readily be ascertained from the PIAAC data.

Taken together, the cross-national patterns that emerge from Figs. 1 and 2 as well as other analyses reveal that the above-mentioned typologies in the preceding section do not sufficiently explain the observed variation in the extent and distribution of participation in organized adult learning. A number of countries (about 10) now appear to display similar patterns in terms of the extent and distribution of overall participation. Yet, many of these countries continue to vary substantially in terms of their institutional variation related to the welfare state, including the level of social

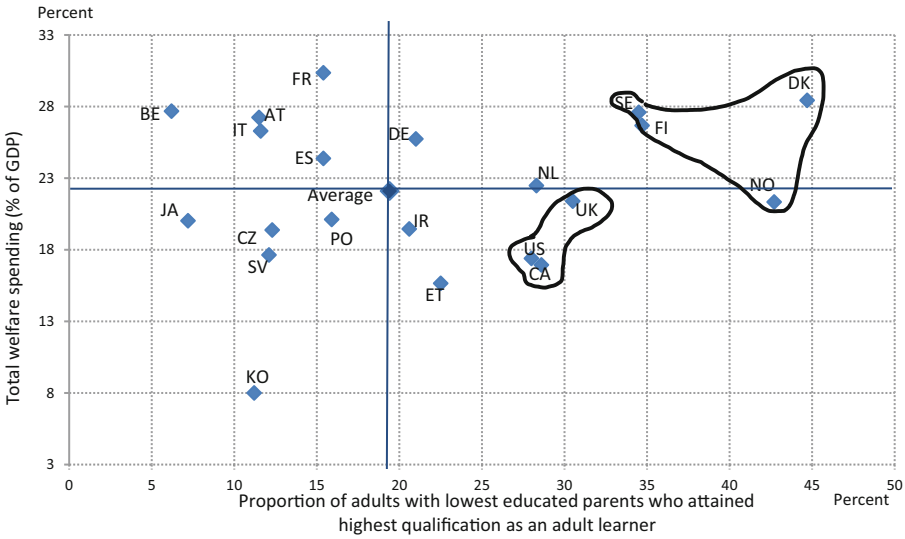

Fig. 3 Total welfare spending and proportion of adults with lowest educated parents who attained highest qualifications as an adult learner. (Source: Survey of Adult Skills (PIAAC), 2012; OECD Aggregated Social Expenditure Database (2011). Adults with lowest educated parents are defined as those with both parents having attained less than upper secondary education. Total welfare spending as per OECD Aggregated Social Expenditure Database includes: old age survivor, disability; health; family and housing; unemployment; active labour market programmes; and, other (fractional proportion). It does not include public spending on education)

expenditures that make up the welfare state. In particular, countries like the US and the UK which are often conceived as being more closely aligned with the market-led (or neoliberal) regime have rapidly caught up with the Nordic countries which are often conceived as being more closely aligned with the state-led model with a higher degree of stakeholder involvement (or social democratic) regime.

As put forth by Esping-Andersen (1998), it is not just the size of the welfare state, as measured by level of welfare spending, that can matter for distributional outcomes such as access to organized learning opportunities but also the composition of spending—what is emphasized and who gets the benefits. Indeed, the data highlight a weak overall relationship between the level of welfare spending and the probability of participation for the most disadvantaged groups. As can be seen in Fig. 3, the relationship between the overall level of welfare state expenditures and the proportions of adults who attained their highest qualifications as older adult learners (i.e. non-traditional students) is not uniform. The pattern reveals a weak overall relationship between the level of welfare spending and the proportions of adults who attained their highest qualifications as adult learners.

The countries that are most successful in extending organized adult learning opportunities to the most disadvantaged feature the highest levels of welfare state expenditures (upper right quadrant). These are also the countries that demonstrate the highest levels of overall participation (as shown in Fig. 1)—Denmark, Finland and Sweden. Norway is similar to the other Nordic countries especially when taking into

account the non-standard level of its GDP as consequence of its oil industry. There is also a range of countries in the lower left quadrant of Fig. 3 that spend less on average on welfare programmes and feature low levels of participation in organized adult learning in general, and among the most disadvantaged adults (defined as adults with both parents having attained less than upper secondary education) in particular. However, there are a number of countries in between. The Netherlands is a country that features relatively high and widely distributed levels of organized adult learning but its overall welfare spending is less than Italy's by about 4%. In contrast, Italy features among one of the lowest levels of participation in organized adult learning. Similarly, Austria, Belgium, France and Germany feature high overall levels of welfare state expenditures but lag Canada, Ireland, the UK and US in terms of extending organized adult learning opportunities to the most disadvantaged, even though the latter are below average spenders on all types of welfare programmes.

In summary, the data focusing on the take up and distribution of organized adult learning reveal shortcomings in the explanatory framework of the typologies discussed above in terms of explaining variation in the cross-national patterns. The next section considers some institutional features that are more proximal to the take up, provision and distribution of organized adult learning.

5 Some institutional features that are more proximal to ALS

In the explanatory framework of the political economy of ALS, institutional features such as those relating to education, labour market or welfare state and associated public policy frameworks, including their absence, play an important role in mitigating or exacerbating inequalities in adult learning. This can be a direct consequence, whereby policies are devised to intentionally address such problems with ad-hoc measures like one-off subsidies or specific programmes, but it can also be an indirect consequence since specific institutional features can affect the existence (supply) and take-up (demand) of organized adult learning opportunities in unintended ways (Desjardins 2017, p. 32).

Several specific institutional features can play a role in fostering high and widely distributed levels of participation in organized adult learning. A challenge for comparative research is to integrate these into the typologies already discussed in a more systematic manner by linking the different perspectives from various disciplines. The focus here is to outline some key institutional features that might considered in order to further this field of research.

A closer look at the composition of welfare spending in a way that distinguishes between categories that are deemed to be more *proximal* or *distal* to organized adult learning is revealing. As an example, Austria, Belgium, France, Germany and Italy's welfare expenditures (as per the OECD Aggregated Social Expenditure Database for year 2011) tends to be concentrated on old age and health benefits, especially when compared to Canada, Ireland, the UK and the US. These are categories that can be considered as more distal to adult learning.

The following focuses on a number of institutional features that are more proximal to ALS and enable the provision, take up and distribution of organized adult learning:

open and flexible formal education structures, public support for education, active labour market policies and programmes that target socially disadvantaged adults.

5.1 Open and flexible education structures

The extent to which adults can attain qualifications at older ages reflects the "openness" and "permeability" of the formal education structures as well as their "flexibility" in catering to the needs of non-traditional students. Fig. 4 highlights that *open* and *flexible* education structures that cater to needs of adult learners, specifically non-traditional students as defined above, is a key feature explaining overall participation rates. In several countries (Denmark, Norway, Sweden, Finland, Canada and the United States), more than a quarter of the population attained their highest qualification as a non-traditional student, which also tend to be the countries with the highest overall rates of participation in organized adult learning.

The integration of adults into the formal education system where possible or access to equivalent qualifications affects their motivation and shows high returns in terms of both employment probabilities and income growth (Kilpi-Jakonen and

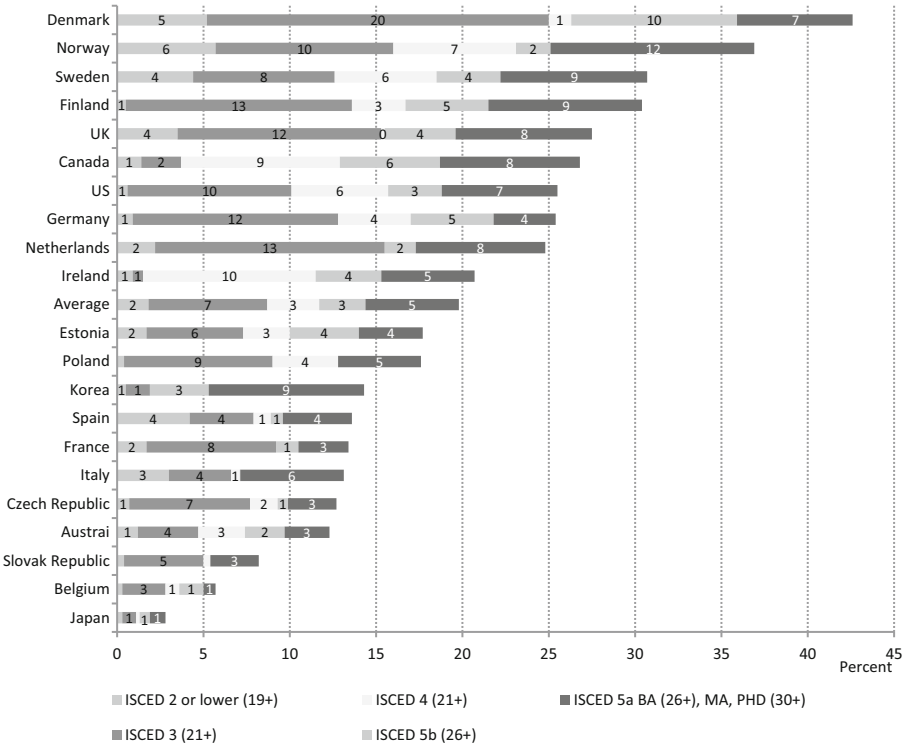

Fig. 4 Percent of adults who attained their highest qualification as non-traditional students. (Source: Own calculations based on the Survey of Adult Skills (PIAAC), 2012. Non-traditional students are defined as adults who completed: ISCED 2 or lower at age 19 or older; ISCED 3 or 4 at age 21 or older; ISCED 5b or 5A (BA) at 26 or older; and, ISCED 5a (MA or PhD) at age 30 or older)

Sirniö 2020). Adult learning activities that can be linked to qualifications motivate, whether the undertaking is formal or non-formal, because they communicate value among stakeholders, and thus enhance the labour market value of investing in adult learning (Singh 2015; Singh and Duvekot 2013). This has knock-on effects promoting continued adult learning because there is a direct relation between higher levels of qualifications and continued learning throughout the lifespan (Desjardins et al. 2006; Rubenson 2018). However, creating parallel non-formal systems or lower tier tracks can have adverse effects on individual benefits and in turn, on individual motivation if they are associated with lower status and stigma.

The extent to which non-formal adult learning activities can be linked to qualification systems, for example via the Recognition of Prior Learning (RPL) mechanisms, is crucial as it allows for much greater flexibility and permeability to cater to the needs of diverse groups by enabling customization, targeting and outreach. Countries that continually develop their adult learning provision structures in terms of "integrating opportunities" to seamlessly connect them to all kinds of formal qualifications are more successful in boosting participation, skills, assuring quality of the programmes and enhancing the value of adult learning.

5.2 Public support for education combined with open and flexible education structures

In contrast to total welfare spending, public spending on education has a stronger relationship with organized adult learning related outcomes but this is not straightforward. Specifically, the level of public spending on education tends to be related to higher and more widely distributed levels of organized adult learning on the condition that formal systems are more *open* and *flexible* to adults. Simply put, in many countries, public support for education does not benefit access to organized adult learning because the formal educational structures are closed off to adults and tend to be reserved for younger adults who follow the traditional front loaded and most direct path to their highest qualification. However, in countries where these structures are more flexible and accommodate adults, then public support for education including those for regular formal educational structures may be more successful in reaching adults, particularly those who are disadvantaged and could not follow the more traditional front-loaded path.

Fig. 5 shows the relationship between public spending on education and the probability of participation in organized adult learning for adults with both parents having attained less than upper secondary education. The patterns suggest that countries with higher public expenditures on education are successful in boosting qualifications for the disadvantaged but this seems at least partly contingent on having flexible educational structures that accommodate adults that did not follow the traditional front-loaded path. Canada, the UK and the US, along with Ireland spend more or similar on public education compared to Germany and Spain and a range of other countries who are less successful in extending opportunities to the most disadvantaged. Austria, Belgium and France are above average spenders on public education but this does not translate into higher rates of participation. This might be related to the fact that the formal education systems in those countries are less *open*

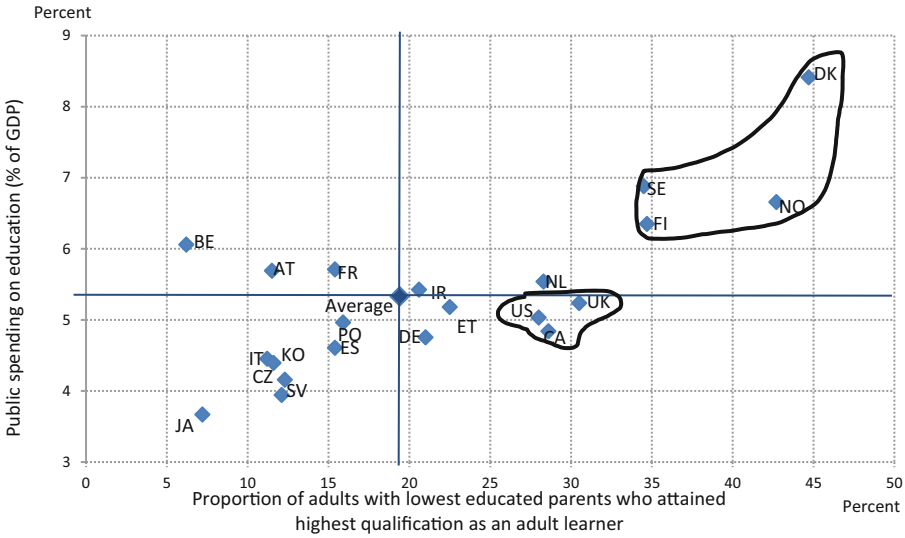

Fig. 5 Public spending on education and proportion of adults with lowest educated parents who attained highest qualifications as an adult learner. (Source: Survey of Adult Skills (PIAAC), 2012; OECD Aggregated Social Expenditure Database (2011))

to older adults as was shown in Fig. 4. In contrast, the Nordic countries along with the Netherlands, Canada, US and UK, closely followed by Germany and Spain, feature formal education systems that are more *open* to adult learners, which is consistent with their above average success in boosting participation and extending opportunities to a wider range of adult learners as shown in Fig. 1.

5.3 Active labour market policies

Active Labour Market Policies (ALMPs) can interact with organized adult learning and are specifically designed to boost employment. In their most basic form, ALMPs typically comprise of public employment services including job centres and labour exchanges, which improve job-searching efforts. Such employment services may simply help with developing skills to obtain a job such as interview skills or writing curriculum vitae. Nevertheless, they may also be more directly connected to organized adult learning by offering training schemes, such as courses or apprenticeships, or other formal programmes, to boost employability. As such, depending on how they are operationalized, ALMPs may form an important part of ALS. In contrast, ALMPs can simply involve employment subsidies and thus be limited in their relationship to organized adult learning, especially if there are limited provision structures related to organized adult learning (including "closed" formal education structures). Some countries like Denmark, Finland, Sweden and the Netherlands provide public support for the unemployed to participate in organized adult learning provisions that already exist and as such, ALMPs of this kind form an important part of ALS in those countries.

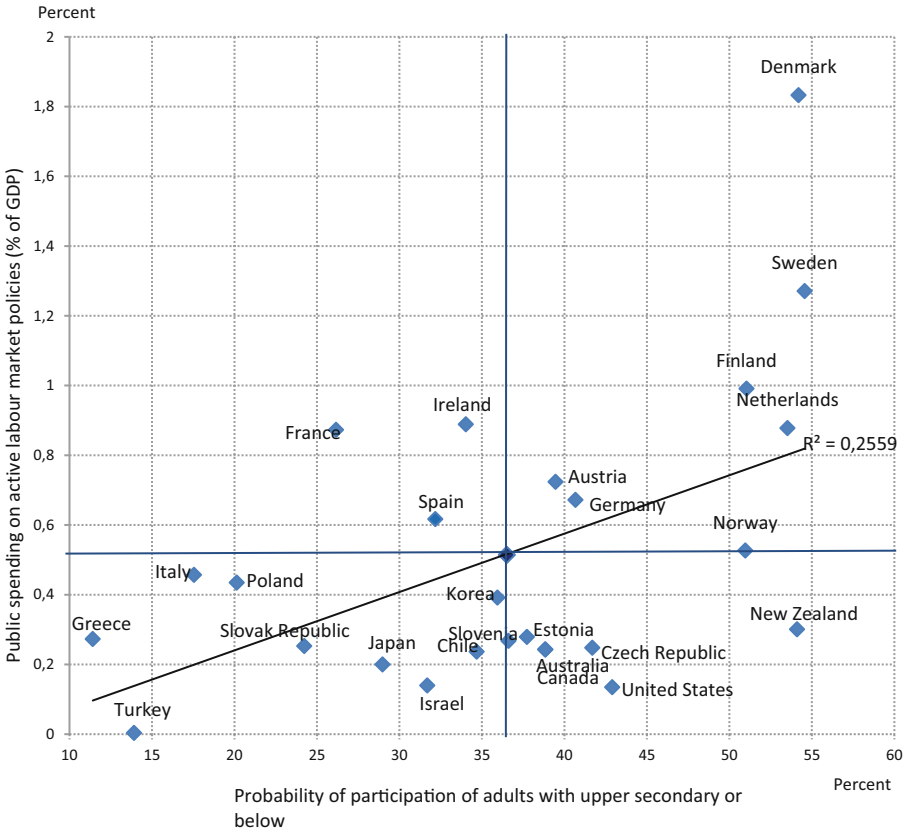

Fig. 6 Public spending on active labour market programmes and probability of participation of adults with upper secondary education (ISCED 3) or below. (Source: Survey of Adult Skills (PIAAC), 2012–2016; OECD Aggregated Social Expenditure Database (2011 and 2012))

As can be seen in Fig. 6, not all spending on ALMPs seems to be equally effective in boosting participation, particularly among adults with the lowest levels of education. Results show that whereas France, Ireland and Spain are above average spenders on ALMPs, this does not necessarily lead to success in boosting participation among those with lower levels of education (ISCED 3 or below). In contrast, Australia, Canada, the Czech Republic, the United States and New Zealand spend relatively little on these programmes, but feature above average levels of participation among those with lower levels of education. A key point is that ALMPs do not necessarily relate to participation in organized adult learning because it depends on the prevalence of related provision structures, including how *open* and *flexible* the ALS is and how well it is catering to the needs of disadvantaged adults. Therefore, the extent to which welfare-spending categories like ALMPs actually aim to foster participation of a particular kind matters. For example, the ALMP programmes in the Nordic countries are designed to provide working age adults access to organized adult learning and often lead to formal qualifications.

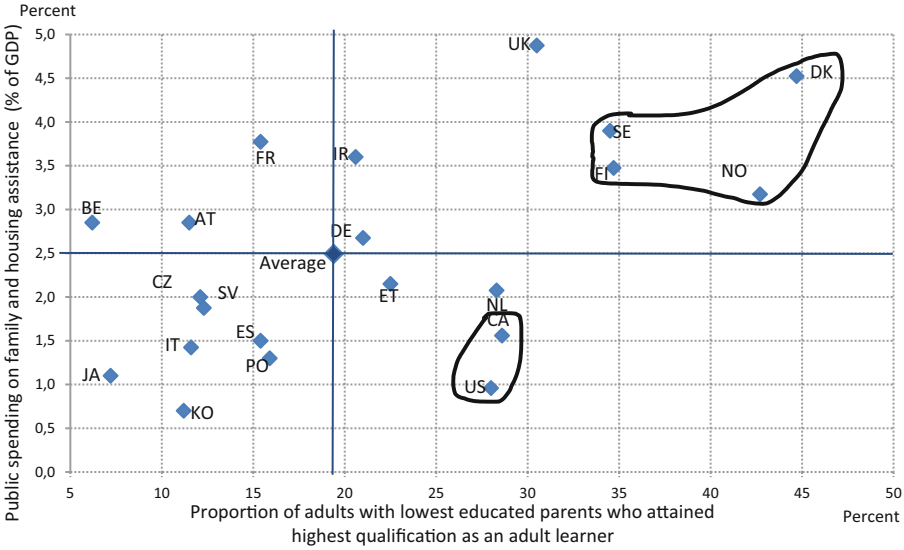

Fig. 7 Public spending on family assistance and housing and proportion of adults with lowest educated parents who attained highest qualifications as an adult learner. (Source: Survey of Adult Skills (PIAAC), 2012; OECD Aggregated Social Expenditure Database (2011))

5.4 Targeting

Policies related to customization, targeting and outreach are an indication of active policy making that seeks to boost the level and equitable distribution of organized adult learning. Targeting and outreach, especially for adults with little or no qualifications, are crucial tools for tackling inequality and disadvantage. They imply non-market-based solutions, based on state aims related to equity and social justice, not necessarily market or narrow stakeholder interests.

Public spending on family assistance can be seen as a proximal factor to organized adult learning to the extent that it may help disadvantaged adults to overcome barriers to participation. This type of spending can be helpful for addressing structural constraints to participation relating to family and other situational-based constraints (as discussed in Rubenson and Desjardins 2009).

As shown in Fig. 7, public spending on family assistance shows a stronger relationship to cross-national participation patterns compared, for example, to overall welfare spending as shown in Fig. 3. It can be seen that Ireland and the UK register relatively high spending in this category, which is consistent with the relatively higher participation rates of the most disadvantaged in those two countries.

6 Conclusions

This article provides an overview of the state of art in the study of adult learning systems from a political economy perspective. Our review of typologies that have

emerged out of the field of comparative economics and comparative politics in Sect. 2 has shown that these fields have contributed powerful theoretical concepts and triggered interdisciplinary empirical research on the impact of institutional settings and institutional packages on Adult Learning Systems (ALS). Typologies allow not only the clustering of countries along specific institutional features but also the empirical validation of hypotheses derived by the theory. Research so far has mainly focused on explaining differences in participation in adult education, whereas very little scholarship has dealt with exploring variation on the grounds of existing institutional complementarities and how the latter affect patterns of coordination and outcomes of ALS.

Our brief overview of some of the most salient patterns of participation in organized adult learning across countries in Sect. 4 based on analysis of PIAAC data suggests that existing typologies of welfare state regimes or skills formation systems are insufficient to explain variation in the cross-national patterns. A range of countries appear to display similar patterns in terms of the extent and distribution of overall participation, particularly as ALS have grown rapidly in the last 20 years. Yet, many of these countries continue to vary substantially with regard to their overall institutional variation related to the type of welfare state. We argue that there are some institutional features that are more directly related to the provision, take up and distribution of organized adult learning. Our analysis in Sect. 5 reveals that it is not just public spending on education or total welfare spending that matter, but rather structural factors relevant to social policy, institutional and public policy frameworks seem to play a prominent role in explaining the patterns of participation in organized adult learning. We focus our discussion on a number of institutional features that are more proximal to organized adult learning and argue that these features can play a role in fostering high and widely distributed levels of participation in adult learning: open and flexible formal education structures, public support for education, active labour market policies and programmes that target socially disadvantaged adults. Countries that feature high and widely distributed levels of participation in organized adult learning can be seen as those with the most effective ALS.

The role of the state is particularly important for balancing the interests of diverse social groups and to mitigate inequalities. There is plenty of evidence to suggest that participation in organized adult learning varies considerably according to individual-level characteristics such as age, education, gender, occupation (Blossfeld et al. 2014; Boeren and Holford 2016; Lee and Desjardins 2019). Those who are already better educated and those with relatively secure professional positions are cumulatively expanding their lead even further through additional investment in adult learning, the so-called Matthew principle (Boeren 2009; Blossfeld et al. 2020; Ioannidou et al. 2020). Research findings to date also confirm that, for a number of reasons, companies support those employees in their competence development who already possess higher skills. Therefore, if employers and workers are left to their own, they will almost automatically commit themselves to behavioural patterns that exacerbate inequalities. A key contextual condition underlying effective ALS is the degree of state involvement via public and social policies as well as stakeholder involvement

via an inclusion of social partners; in other words, the type of governance of ALS matters.

The use and extent of social policy instruments (a form of non-market coordination) can be crucial to foster the development of adult learning opportunities (e.g. public spending in open and flexible education systems, ALMPs, targeting) as well as to enable adults to overcome the various structural constraints associated with those opportunities (e.g. family assistance, childcare). No less important is the use of public policies and stakeholder arrangements (forms of non-market coordination) to influence the skill orientation of the economy by emphasising both an increase in the supply of skills as well as incentives to use skills in production in ways that boost innovation and productivity. Several studies demonstrate a strong link between the skill orientation of the economy and the extent and distribution of adult learning opportunities (OECD 2012; Desjardins 2017).

From a comparative political-economy perspective a common and pressing challenge for all ALS is how to cope with major upheavals in the future of work by automation and digitization and the socio-ecological transformation towards more sustainability (e.g. farewell to the lignite industry). Even if we do not yet know whether the jobs created will eventually balance out those destroyed, as was the case with previous technological revolutions, there can be little doubt that dislocations are likely to be substantial and mass unemployment will probably loom in certain countries, regions and industries. The provision of adult learning opportunities to ensure 'reskilling' will be a major challenge for ALS and will necessitate coordinated public policy responses, a high level of investment in skills and political commitment from all stakeholders.

Given the positive monetary and non-monetary outcomes of participation in adult learning, however, this is a worthy undertaking. Indeed, many countries who feature high and widely distributed levels of organized adult learning have well-developed governance structures that foster coordination among stakeholders; financing structures that align incentives and foster co-investment; and provision structures that enable open, flexible and targeted opportunities that are designed to mitigate barriers to participation. Policy makers thus have at their disposal several tools to help citizens overcome barriers to participation, ranging from broad social policies to economic and labour market policies.

References

Allmendinger, J., & Leibfried, S. (2003). Education and the welfare state: the four worlds of competence production. *Journal of European Social Policy*, *13*(1), 63–81.

Allmendinger, J., & Nikolai, R. (2010). Bildungs- und Sozialpolitik: Die zwei Seiten des Sozialstaats im internationalen Vergleich. *Soziale Welt*, *61*(2), 105–119.

Allmendinger, J., Kleinert, C., Antoni, M., Christoph, B., Drasch, K., Janik, F., Leuze, K., Matthes, B., Pollak, R., & Ruland, M. (2011). Adult education and lifelong learning. *Zeitschrift für Erziehungswissenschaft*, *14*(2), 283–299.

Arts, W., & Gelissen, J. (2002). Three worlds of welfare capitalism or more? A state-of-the-art report. *Journal of European Social Policy*, *12*(2), 138–158.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd edn.). Chicago: University of Chicago Press.

Blossfeld, H.-P., Kilpi-Jakonen, E., Vono de Vilhena, D., & Buchholz, S. (2014). *Adult learning in modern societies: an international comparison from a life-course perspective. (EduLIFE lifelong learning)*. Cheltenham, Northampton: Edward Elgar Publishing.

Blossfeld, H.-P., Kilpi-Jakonen, E., Vono de Vilhena, D., & Buchholz, S. (2020). Is there a Matthew effect in adult learning? Results from a cross-national comparison. In J. Schrader, A. Ioannidou & H.-P. Blossfeld (Eds.), *Monetäre und nicht monetäre Erträge von Weiterbildung – Monetary and non-monetary effects of adult education and training*. Edition ZfE, Vol. 7. Wiesbaden: VS.

Boeren, E. (2009). Adult education participation: the Matthew principle. *Filosofija Sociologija*, *20*(2), 154–161.

Boeren, E., & Holford, J. (2016). Vocationalism varies (a lot). A 12-country multivariate analysis of participation in formal adult learning. *Adult Education Quarterly,*, *66*(2), 120–142.

Brown, P., Green, A., & Lauder, H. (2001). *High skills. Globalization, competitiveness, and skill formation*. Oxford: Oxford University Press.

Brunello, G. (2004). Labour market institutions and the complementarity between education and training in europe. In D. Checchi & C. Lucifora (Eds.), *Education, training and labour market outcomes in Europe* (pp. 188–210). London: Palgrave Macmillian.

Busemeyer, M. R. (2015). *Skills and Inequality. Partisan politics and the political economy of education reforms in western welfare states*. Cambridge: Cambridge University Press.

Busemeyer, M. R., & Trampusch, C. (2012). *The political economy of collective skill formation*. New York: Oxford University Press.

Bynner, J., Schuller, T., & Feinstein, L. (2003). Wider Benefits of education: skills, higher education and civic engagement. *Zeitschrift für Pädagogik*, *49*(3), 341–361.

Cincinnato, S., de Wever, B., van Keer, H., & Valcke, M. (2016). The influence of social background on participation in adult education: applying the cultural capital framework. *Adult Education Quarterly*, *66*(2), 143–168.

Culpepper, P. D., & Thelen, K. (2008). Institutions and collective actors in the provision of training. Historical and cross-national comparisons. In I. K. U. Mayer & H. Solga (Eds.), *Skill Formation. Interdisciplinary and cross-national perspectives* (pp. 21–49). New York: Cambridge University Press.

Dämmrich, J., Vono, D., & Reichart, E. (2014). Participation in adult learning in Europe: the impact of country-level and individual characteristics. In H.-P. Blossfeld, E. Kilpi-Jakonen, D. Vono de Vilhena & S. Buchholz (Eds.), *Adult learning in modern societies: patterns and consequences of participation from a life-course perspective* (pp. 25–51). Cheltenham: Edward Elgar.

Danforth, B. (2014). Worlds of welfare in time: a historical reassessment of the three-world typology. *Journal of European Social Policy*, *24*(2), 164–182.

Desjardins, R. (2017). *Political economy of adult learning systems. Comparative study of strategies, policies and constraints*. London: Bloomsbury.

Desjardins, R. (2018). Economics and the political economy of adult education. In M. Milana, S. Webb, J. Holford, R. Waller & P. Jarvis (Eds.), *The Palgrave international handbook on adult and lifelong education and learning* (pp. 211–226). Houndsmill: Palgrave Macmillan.

Desjardins, R., Rubenson, K., & Milana, M. (2006). *Unequal chances to participate in adult learning: International perspectives*. Fundamentals of Educational Planning Series. Paris: UNESCO International Institute of Educational Planning.

Desjardins, R., & Kim, J. (2019). *The growth of employer-supported adult education and its role in mitigating unequal chances to participate*. Unpublished manuscript.

DiMaggio, P. J., & Powell, W. (1983). The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160.
Esping-Andersen, G. (1990). *Three worlds of welfare capitalism*. Princeton: Princeton University Press.
Esping-Andersen, G. (1998). *The three worlds of welfare capitalism*. Princeton: Princeton University Press.
Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: a reinterpretation of the welfare state. In P. Hall & D. Soskice (Eds.), *Varieties of capitalism. The institutional foundations of comparative advantage* (pp. 1–47). Oxford: Oxford University Press.
Feinstein, L., & Hammond, C. (2004). The contribution of adult learning to health and social capital. *Oxford Review of Education*, *30*(2), 199–221.
Ferragina, E., & Seeleib-Kaiser, M. (2011). Welfare regime debates: past, present, futures? *Policy and Politics*, *39*(4), 583–611.
Ferrara, M. (1996). The southern model of welfare in social Europe. *Journal of European Social Policy*, *6*, 179–189.
Field, J. (2009). Good for your soul? Adult learning and mental well-being. *International Journal of Lifelong Education*, *28*(2), 175–191.
Gauly, B., Lechner, C., & Reder, S. (2020). Does job-related training benefit adult numeracy skills? Evidence from a German panel study. In J. Schrader, A. Ioannidou & H.-P. Blossfeld (Eds.), *Monetäre und nicht monetäre Erträge von Weiterbildung – Monetary and non-monetary effects of adult education and training*. Edition ZfE, Vol. 7. Wiesbaden: VS.
Hadjar, A., & Gross, C. (2016). *Education systems and inequalities. International comparisons*. Bristol: Policy Press.
Hall, P., & Soskice, D. (2001). *Varieties of capitalism. The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
Hanushek, E. A., Schwerdt, G., Wiederhold, S., & Woessmann, L. (2015). Returns to skills around the world: evidence from PIAAC. *European Economic Review*, *73*, 103–130.
Hanushek, E. A., Schwerdt, G., Woessmann, L., & Zhang, L. (2017). General education, vocational education, and labor-market outcomes over the life-cycle. *Journal of Human Resources*, *52*(1), 48–87. https://doi.org/10.3368/jhr.52.1.0415-7074R.
Ioannidou, A. (2010). *Steuerung im transnationalen Bildungsraum. Internationales Bildungsmonitoring zum Lebenslangen Lernen*. Bielefeld: wbv.
Ioannidou, A., & Jenner, A. (2020). Regulation in a contested space: Economization and standardization in adult and continuing education. In I. S. Jornitz & A. Wilmers (Eds.), *International perspectives on school settings, education policy and digital strategies: a transatlantic discourse in education research*. Opladen: Budrich.
Ioannidou, A., Parma, A., & Matsaganis, M. (2020). *Risk of job automation and participation in adult education and training: Exploring Matthew effects*. Unpublished manuscript.
Iversen, T., & Soskice, D. (2001). An asset theory of social policy preferences. *American Political Science Review*, *95*(4), 875–893.
Iversen, T., & Stephens, J. (2008). Partisan politics, the welfare state, and the three worlds of human capital formation. *Comparative Political Studies*, *41*, 600–637.
Kaufmann, K., Reichart, E., & Schömann, K. (2014). Der Beitrag von Wohlfahrtsstaatsregimen und Varianten kapitalistischer Wirtschaftssysteme zur Erklärung von Weiterbildungsteilnahmestrukturen bei Ländervergleichen. *Report – Zeitschrift für Weiterbildungsforschung*, *37*(2), 39–54.
Kazepov, Y., Cefalo, R., & Pot, M. (2020). A social investment perspective on lifelong learning: the role of institutional complementarities in the development of human capital and social participation. In I. M. P. d. Amaral, S. Kovacheva & X. Rambla (Eds.), *Lifelong learning policies for young adults in Europe. Navigating between knowledge and economy* (pp. 43–62). Bristol: Policy Press.
Kilpi-Jakonen, E., & Sirniö, O. (2020). Formal adult education and labour market inequalities in Finland. In J. Schrader, A. Ioannidou & H. P. Blossfeld (Eds.), *Erträge von Weiterbildung.* Zeitschrift für Erziehungswissenschaft – Sonderheft. Berlin Heidelberg: Springer.
Knauber, C., & Ioannidou, A. (2016). Politiken der Grundbildung im internationalen Vergleich: von der Politikformulierung zur Implementierung. *Report – Zeitschrift für Weiterbildungsforschung*, *39*, 131–148.
Lee, J., & Desjardins, R. (2019). Inequality in adult learning and education participation: the effects of social origins and social inequality. *International Journal of Lifelong Education*, *38*(3), 339–359.
Mayer, K. U., & Solga, H. (2008). *Skill formation. Interdisciplinary and cross-national perspectives*. Cambridge: Cambridge University Press.
Meyer, J., & Ramirez, F. (2003). The World Institutionalization of Education. In J. Schriewer (Ed.), *Discourse formation in comparative education* (pp. 111–132). Bern: Peter Lang.

Murray, T. S., Kirsch, I. S., & Jenkins, L. B. (1997). *Adult literacy in OECD countries: technical report on the first international adult literacy survey (NCES 98-053). U.S. Department of education, national center for education statistics*. Washington, DC: U.S. Government Printing Office. https://nces.ed.gov/pubs98/98053.pdf.

OECD (2012). *Better skills, better jobs, better lives. A strategic approach to skills policies*. Paris: OECD Publishing.

OECD (2013a). *OECD skills outlook 2013: first results from the survey of adult skills*. Paris: OECD Publishing.

OECD (2013b). *The survey of adult skills: reader's companion*. Paris: OECD Publishing.

OECD, & Statistics Canada (2000). *Literacy in the information age: final report on the international adult literacy survey*. Paris, Ottawa: Organization for Economic Cooperation and Development and Statistics Canada.

Powell, M. (2015). A re-specification of the welfare state: conceptual issues in the three worlds of welfare capitalism. *Social Policy & Society*, *14*(2), 247–258.

Ragin, C. (1981). Comparative sociology and the comparative method. *International Journal of Comparative Sociology*, *22*(1–2), 102–117.

Rees, G. (2013). Comparing adult learning systems. An emerging political economy. *European Journal of Education*, *48*(2), 200–212.

Rice, D. (2013). Beyond welfare regimes: from empirical typology to conceptual ideal types. *Social Policy and Administration*, *47*(1), 93–110.

Roosmaa, E.-L., & Saar, E. (2010). Participating in non-formal learning. Patterns of inequality in EU-15 and the new EU-8 member countries. *Journal of Education and Work*, *23*(3), 179–206. https://doi.org/10.1080/13639080.2010.486396.

Rubenson, K. (2018). Conceptualizing participation in adult learning and education: equity issues. In M. Milana, S. Webb, J. Holford, R. Waller & P. Jarvis (Eds.), *The Palgrave international handbook on adult and lifelong education and learning* (pp. 337–357). Houndsmill: Palgrave Macmillan.

Rubenson, K., & Desjardins, R. (2009). The impact of welfare state regimes on barriers to participation in adult education: a bounded agency model. *Adult Education Quarterly*, *59*(3), 187–207.

Ruhose, J., Thomsen, S., & Weilage, I. (2020). Work-related Training and Subjective Well-being. Estimating the Effect of Training Participation on Satisfaction, Worries and Health in Germany. In J. Schrader, A. Ioannidou & H.-P. Blossfeld (Eds.), *Monetäre und nicht monetäre Erträge von Weiterbildung – Monetary and non-monetary effects of adult education and training*. Edition ZfE, Vol. 7. Wiesbaden: VS.

Saar, E., Ure, O. B., & Desjardins, R. (2013). The role of diverse institutions in framing adult learning systems. *European Journal of Education*, *48*(2), 213–232.

Saar, E., Ure, O. B., & Holford, J. (2014). *Lifelong learning in Europe. National patterns and challenges*. Cheltenham: and Northhampton, MA, US. Edward Elgar Pub.

Schrader, J., Ioannidou, A., & Blossfeld, H.-P. (2020). Wirkungen der Erwachsenen- und Weiterbildung: Zugänge und Befunde der empirischen Bildungsforschung. In J. Schrader, A. Ioannidou & H.-P. Blossfeld (Eds.), *Monetäre und nicht monetäre Erträge von Weiterbildung – Monetary and non-monetary effects of adult education and training*. Edition ZfE, Vol. 7. Wiesbaden: VS.

Singh, M. (2015). *Global perspectives on recognising non-formal and informal learning. Why recognition matters*. Hamburg, Cham: UNESCO Institute for Lifelong Learning, Springer.

Singh, M., & Duvekot, R. (2013). *Linking Recognition Practices and National Qualifications Frameworks. International benchmarking of experiences and strategies on the recognition, validation and accreditation (RVA) of non-formal and informal learning*. Hamburg: UNESCO Institute for Lifelong Learning.

Thelen, K. (2004). *How institutions evolve*. New York: Cambridge University Press.

Torres, C. A., & Morrow, R. A. (1995). *Social theory and education. A critique of theories of social and cultural reproduction*. New York: State University of New York Press.

UNESCO (2013). Inequalities in Education. In UNESCO (Eds.), *Education For All Global Monitoring Report, 1–18*. https://unesdoc.unesco.org/ark:/48223/pf0000220440. Accessed March 15, 2020.

UNESCO (2018). *Ensuring the right to equitable and inclusive quality education: results of the ninth consultation of Member States on the implementation of the UNESCO Convention and Recommendation against Discrimination in Education*. Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000251463

Willemse, N., & De Beer, P. (2012). Three worlds of educational welfare states? A comparative study of higher education systems across welfare states. *Journal of European Social Policy*, *22*(2), 105–117.

Wolbers, M. H. J. (2005). Initial and further education: substitutes or complements? *International Review of Education*, *51*(5–6), 459–478.

ZfW (2020) 43:169–196
https://doi.org/10.1007/s40955-020-00162-3

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

Multi-layered perspective on the barriers to learning participation of disadvantaged adults

Sofie Cabus · Petya Ilieva-Trichkova · Miroslav Štefánik

Received: 18 February 2020 / Accepted: 23 June 2020 / Published online: 9 July 2020

Abstract We propose a multi-level explanatory model aimed at explaining the variability behind participation in adult learning. Our model focuses on the employed adults, narrowing down to vulnerable sub-groups of employed: low-skilled; young and low-skilled, and immigrants. Adult learning participation is explained identifying determinants at the level of the individual, household, job, employer as well as the system-level. The model is estimated using the European Union Labour Force Survey microdata for 28 European countries. Comparing the results across the vulnerable groups and types of determinants yields interesting insight in understanding the variability in adult learning participation across Europe.

Keywords Barriers to adult learning participation · Learning participation determinants · Multi-level modelling · Structural equation modelling

This research was undertaken within the ENLIVEN project and received funding from the European Union (EU), Horizon 2020 research and innovation programme under grant agreement No. 693989.

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s40955-020-00162-3) contains supplementary material, which is available to authorized users.

S. Cabus
Katholieke Universiteit Leuven, Leuven, Belgium
E-Mail: sofie.cabus@kuleuven.be

P. Ilieva-Trichkova
Bulgarian Academy of Sciences, Sofia, Bulgaria
E-Mail: petya.ilievat@gmail.com

M. Štefánik (✉)
Slovak Academy of Sciences, Bratislava, Slovakia
E-Mail: miroslav.stefanik@savba.sk

Mehrebenen-Perspektive auf die Barriere für die Weiterbildungsteilnahme benachteiligter Erwachsener

Zusammenfassung Wir entwerfen ein mehrstufiges Erklärungsmodell, um die Variabilität der Partizipation an der Erwachsenenbildung zu erklären. Unser Modell konzentriert sich auf erwerbstätige Erwachsene und beschränkt sich auf gefährdete Untergruppen von Erwerbstätigen: Geringqualifizierte, Junge, geringqualifizierte Erwachsene sowie Immigranten. Die Partizipation an Erwachsenenbildung wird erklärt mit Determinanten auf der Ebene des Einzelnen, des Haushalts, des Arbeitsplatzes, des Arbeitgebers sowie auf der Systemebene. Das Modell wird anhand der Mikrodaten der Arbeitskräfteerhebung der Europäischen Union für 28 europäische Länder geschätzt. Der Vergleich der Ergebnisse zwischen den gefährdeten Gruppen und Determinantenarten liefert interessante Einblicke in die Variabilität der Partizipation an der Erwachsenenbildung in Europa.

Schlüsselwörter Lernwiderstände · Hürden · Weiterbildung · Erwachsenenbildung · Determinanten · Mehrebenenmodell · Strukturgleichungsmodellierung

1 Introduction

Adult learning (AL) is high on the Horizon 2020 Agenda, as indicated by one of the EU headline targets of minimal 15% of adults aged 25–64 enrolled in formal or non-formal learning activities. While many EU countries fail to reach the 15%-target, substantial differences in AL participation rates are observed between European countries, with less than 2.5% in Romania and Bulgaria in 2016, to more than 20% in Iceland, Finland, Denmark, Sweden and Switzerland (Eurostat [trng_lfs_01]; Extracted: January 2018). These differences are even more considerable across European regions from 0.7% in Sud-est and Sud-Vest Oltenia in Romania to 36.2% in Zurich in Switzerland (Eurostat [trng_lfs_04]; Extracted: July 2019).

Explaining the differences in participation in adult education remains a challenge for social researchers. Improvements in the availability of the data and advancements in the empirical methodologies open new alleys in this respect. Here we explore one of these alleys. Departing from available theoretical, as well as empirical research on barriers to participation in AL, we aim at exploring the barriers to participation in AL among disadvantaged adults across Europe. To do so, we use data from the European Union Labour Force Survey (EU-LFS) collected in 2016 and apply a multi-level modelling technique.[1] Our model combines variables based on characteristics of individuals, their households, jobs, employers' as well as the macro-level characteristics of the environment where learning takes place.

We see our contribution to the literature mainly in the following five areas.

[1] This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

First, building upon previous frameworks in the field of adult education and economics, we propose a supra-individual comparative framework that covers the multiple layers of the complex problem of participation in AL to reveal those barriers that distinguish participants from nonparticipants in distinct societies. We look at these barriers from the perspective of individuals, while, at the same time, acknowledging that institutions and education and labour market policies may (structurally) impose barriers to individuals (Cross 1981; Chapman et al. 2006; Laal 2011; Boeren 2016; among others).

Second, we apply generalised structural equation modelling (GSEM), as to acknowledge the interdependency of identified system determinants. Doing so, we develop new indicators that up till now have not been fully covered in the analysis of barriers to participation in AL, such as over-education and care for family members.

Third, to the best of our knowledge, most of the previous research on the barriers explores the variability in AL participation at the level of countries, while ignoring the regional-differences (e.g. Rubenson and Desjardins 2009; Roosmaa and Saar 2016). Our modelling approach as well as data consider regional variability in AL participation.

Fourth, we consider participants in AL which belong to various disadvantaged groups, and which to this moment are in the focus of public policies (Tuparevska et al. 2019). It gives us a broader perspective on how barriers potentially differ across different disadvantaged groups of the population.

Fifth, in contrast to previous research on barriers, we take into account that AL is a heterogeneous good. Doing so, we explore the differences in the barriers to participation across two types of AL: formal learning and non-formal learning.

This paper proceeds as follows: In the following section, we frame our approach in the existing research on barriers to AL participation, resulting in a description of our explanatory model. Our empirical strategy is outlined in the second section. Further details on the data and definitions of explanatory variables are provided in the online annexe.[2] The third section lists the most interesting results from fitting the explanatory model to the EU-LFS data. We conclude in the final, fourth section.

2 Explaining adult learning participation

2.1 Theoretical models

There are many theoretical and empirical studies on the reasons why adults participate in education or training. They could be roughly divided into three groups:

1. those that focus on the individuals,
2. those that search the reasons in the macro-level, country context and
3. those that are based on individuals' interactions with different social contexts.

[2] http://ekonom.sav.sk/dokumenty/online_annex.htm.

The first group includes approaches from economics, sociology and psychology such as the human capital theory, rational choice theories, the theory of planned behaviour and the psychosocial interaction model. Most of them are based on the idea that the decisions to participate in further education are rational.

The human capital theory starts from the main idea that as people invest in educational activities, they increase their income, productivity, and skills (Schultz 1961; Becker 1993).

The choice-related explanations of the educational paths (Boudon 1974; Gambetta 1987) are also widely applied. According to the rational choice theory, if benefits outweigh costs, the individual is likely to continue receiving benefits. Thus, the decision to participate in AL can also be seen as being based on a cost-benefit calculus.

The theory of planned behaviour is developed with Fishbein and Ajzen's work on 'reasoned actions' (Fishbein and Ajzen 1980). According to them, there are three central predictors as to whether people will follow certain behaviour patterns: the attitude towards specific behaviour, the subjective norms attached to the behaviour and the perceived behavioural control.

The psychosocial interaction model is developed by Darkenwald and Merriam (1982). It focuses mainly on social environment factors and the socio-economic status of the individual.

The second body of research proves that different macro-level determinants further influence the participation in AL at country level. Macro-level determinants refer to broader structural factors situated and decided at the level of countries or regional level. Among them, gross domestic product, innovativeness, overall participation rate, employment rate, active labour-market policies and characteristics of the educational system are considered as relevant (e.g., Bassanini et al. 2007; Wolbers 2005; Groenez et al. 2007). Other studies have focused on the influence of the welfare regimes on the participation in adult education (e.g. Dammrich et al. 2014; Roosmaa and Saar 2016).

The third group includes models which consider the interaction between the individual and different social contexts. Among them is the Rubenson's expectancy valence model (1975). It links the individual's expectations about the value of participating, their attitude towards participating, and the likelihood of actual participation. According to this theory, participation will occur and persist if the learning activity is consistent with the learner's needs and expectations.

Another model that falls in this group is the Cross's chain-of-response model (Cross 1981). This model suggests that participation relates to a complex chain of responses made by the individual in response to the social circumstances.

For the classification of reasons that may impede learning participation, Rubenson and Desjardins (2009) depart in their study from the frequently cited framework of Cross (1981), classifies 'barriers' to participation in lifelong learning into (1) situational barriers; (2) dispositional barriers; and (3) institutional barriers. Situational barriers are related to a person's life situation at a given point in the family life cycle and working life. Dispositional barriers refer to personality traits or personal qualities acquired through early school experiences. Institutional barriers include institutional practices and procedures that discourage or prevent participation.

These perspectives have become a basis for building more developed comprehensive understandings of participation which incorporate the influence of factors at different levels and which are relevant for comparative research (e.g., Rubenson and Desjardins 2009; Boeren 2017; Lee 2018).

By labelling their model "Bounded Agency", Rubenson and Desjardins (2009) wish to refer to the fact that adults have agency to decide on participation to education or training, however, due to bounds, or restrictions, they cannot take the preferred action to participate. More specifically, they focus on the interaction between structurally and individually based barriers to participation in adult education.

Boeren (2017) sees the participation in AL as a layered problem. Given this, she proposes an understanding of AL as an interplay between different actors: (i) the participants with their intentions, needs, attitudes and other behavioural characteristics as well as their personal characteristics such as gender, age, income and social/cultural capital; (ii) the educational institutions and workplaces being the major learning providers; and (iii) the social policy adopted in the countries where the participants live. These players, representing three different levels, are not isolated but interact with each other in a new comprehensive lifelong learning participation model.

In his conceptual study Lee (2018) develops a framework for a cross-country empirical analysis of the degree of inequality in AL participation.

Specifically, his study considers social origins as a micro-level factor, and social inequality in three of its types: educational, economic and skill inequality and institutional settings such as active labour market policies and strictness of employment protection, as macro-level factors. This framework was empirically tested in a recent study which examined the country variation in social origins differences in AL participation by the use of cross-level interactions (Lee and Desjardins 2019).

2.2 Hypotheses

In this subsection, we describe the relationship between the hypotheses that can be explored in our empirical setting, with links to the literature. We propose ten hypotheses in total. We depart from the situational barriers, dealing with the life situation of an individual and mainly include time constraints owing to family reasons or job-related time allocation (Merriam 2005; Desjardins et al. 2006). Here we aim at answering three hypotheses:

H1 Caring duties are negatively associated with AL participation.

H1a This association is more pronounced in the case of females.

H2 Working longer hours translates into a lower AL participation.

H2a Workplace delivered AL might be positively associated with longer working hours.

H3 The share of non-earners in the household is positively associated with AL participation.

To improve the ability to capture the potential complexity of situational barriers, we restrict our interest to employed individuals. We do so because employed individuals comprise most of the adult lifelong learners in the European Union. At the same time, employed adults share a common life situation, allocating time between family, work and potentially AL. The life course approach proved its advantages in explaining participation in AL (Elder 1998); (Elder and Crosnoe 2002). Defining the population of our interest by conditioning on the employment status, rather than simply by the age group, takes into account also the trends of de-standardisation of the life course (Evans et al. 2013), as life course transitions (such as the transition from schooling to work) become more variable and less uniform. Due to our interest in the employed, we can analyse the hypothesis:

H4 AL participation is lower in the case of individuals employed in more routinised jobs, with a higher risk of computerisation.

H5 There is a statistically significant association between over-education and AL participation.

Concerning financial barriers to AL participation, poverty restricts individuals to invest in education or training, in particular, in the absence of government subsidies. On the other hand, regardless of labour earnings, individuals may be reluctant to pay the invoice when the benefit of learning do not outweigh the costs, or if learning comprises of job-related activities (Dhanidina and Griffith 1975).

The government often subsidises the costs of training of unemployed individuals within the scope of active labour market policy. However, Rubenson and Desjardins (2009) argue that in many European countries, with the exception of the Nordic countries, adult education policy is not aligned with active labour market policy. Due to lack of government support towards AL, high *perceived* costs of AL limit individuals' capability to participate in learning activities.

Furthermore, while a substantial share of European civilians indicates that employers should bear the costs of AL, economists have argued that employers are only willing to pay the invoice (partly) when the learning activity directly benefit the participant's production on the job (Acemoglu and Pischke 1998). Therefore, training offered to employees and paid for by the employer is often job-specific and less aimed at the acquisition of general transferable skills (Lazear 2009). Boeren and Whittaker (2018, p. 5) argue in this respect that *"This is in contrast to the mode of operation of expansive working environments that put more focus on the development of general and transferrable skills."* In line with previous literature, we pose the hypothesis:

H6 Where the perceived costs of AL participation present an obstacle, AL participation is lower.

Psychological drivers of adults to engage in learning, like positive motivation and attitude, are referred to as *dispositional barriers* (Lavrijsen and Nicaise 2017). These might be associated with qualities and past experiences of individuals; such

as low educational aspirations or self-confidence. Capturing these puts additional requirements on data collection. In the case of the analysis presented here, we are not able to directly identify dispositional barriers in the data. Therefore, we proxy for them by distinguishing multiple disadvantaged groups. Such as for example, the low-skilled might be expected to have low educational aspirations.

In general, people have unequal chances to participate in AL (Desjardins et al. 2006). Previous literature shows that namely, those individuals with a high need for learning participate very little (Boeren et al. 2010; Desjardins et al. 2006). Thus, patterns of participation in AL, which have been identified and confirmed by several studies, clearly show that those with low education participate less than people with higher educational attainment (e.g. OECD 2003; Roosmaa and Saar 2012; Desjardins et al. 2006; Kyndt and Baert 2013; European Commission 2015). This is the source of variability we are aiming to explore in our analysis, by identifying various disadvantaged groups of interest in a similar life situation. Taking all this into account, we choose to fit our explanatory model to populations of three disadvantaged groups, namely: employed low-educated persons, employed low-educated young adults;[3] and employed migrants.[4][5]

Institutional barriers exist at the supra-individual level, for example, at the regional level or the country level. They are also referred to as system-level or macro-level determinants. In selecting the relevant system-level determinants of AL participation, we depart from the model outlined in Groenez et al. (2007). Their model is inspirational in selecting the relevant, out of the wide list of potentially observable country-level variables.

With individual returns to AL decreasing with higher age, at the society level, older societies should invest less in AL than the younger ones (Groenez et al. 2007).

When exploring available literature, Groenez et al. (2007) find support for both of the directions of the association between the level of specialisation in initial schooling and AL participation, namely: less specialised and more general systems of initial education precondition higher AL participation because of the lack of specialised skills received during initial education (Antikainen 2006; Brunello 2001); and more specialised and less general systems of initial education precondition higher AL participation because of specialised skills getting obsolete faster than general skills (Bassanini et al. 2007).

We assume that AL participation might be higher in regions with higher employment rate mainly because the workplace generates an additional supply of training (McGivney 2001); adults are more confident that learning will be utilised in a better

[3] We adopt an adjusted definition of early school leavers, looking specifically at youth (between 20 and 30) possessing not higher than lower secondary education. De Witte et al. (2013) dealt with a similar problem in their analysis of the determinants of school dropout using EU LFS data.

[4] For more details on the identified disadvantaged sub-groups, please, refer to Sect. 3.1 on Data and Sample, or the appendix of the Online annexe. Identification of vulnerable sub-groups is in line with Tuparevska et al. (2019) who consider (1) migrants; (2) persons with disabilities; (3) young people; and (4) early school leavers, as disadvantaged groups in more than 50% of the policy documents.

[5] In order to compare the results of each of these three disadvantaged groups, we choose to add an analysis on the determinants of AL participation among the whole employed population as a reference category.

job (McGivney 2001); companies invest more in human capital when confronted with shortages of skilled labour (Gorard and Rees 2002).

Although we control for individual-level working hours, the regional share of temporary contracts is included to proxy for the employment legislation. Lassnigg (2005) and McGivney (2001) hint that employers are less willing to invest in AL of employees working under part-time or temporary contracts, which might imply a lower regional supply of AL.

Finally, the economic performance of the region is assumed to be positively associated with AL participation, either directly, through a better performing labour market or innovation sector. Groenez and co-authors (2007) estimate multiple specifications of explanatory models on AL participation and inequality in AL participation. They identify the level of innovation as one of the key system determinants appearing to be significant in all of their model specifications.

In line with Groenez and co-authors (2007), we are able to suggest three hypotheses dealing with system-level (institutional) characteristics:

H7 Regions and countries with an older population are less incentivised to support AL participation, what is observable on a lower probability of individual-level AL participation.

H8 AL participation is higher, where initial education provides more general skills.

H9 AL participation is higher in regions with better performing labour markets.

H9a AL participation is higher where employment protection is stronger.

H10 AL participation is higher in more innovative economies.

Being aware of the multi-level nature of the drivers and barriers to participation in AL, our aim is to design an explanatory model capturing AL participation in its complex nature. We fit our model to available empirical data and specifically look at how differently the model fits when explaining the participation of the identified groups of interest. Using empirical evidence at the European level, allows us to adopt a supra-individual comparative framework that covers the multiple layers of the complex problem in order to reveal those barriers that distinguish participants from nonparticipants in distinct societies.

2.3 Explanatory model

We aim to explain as much of the variability in AL participation as possible by fitting an explanatory model consisting of multi-level determinants (explanatory variables). Considering the typology of barriers to AL participation, as well as the potential interplay of contextual factors varying at different levels, we group the factors of interest into:

- individual-level determinants;
- household-level determinants;
- job-related determinants;
- employer-level determinants;
- system determinants.

Determinants identified at the individual and household level overlap widely with the situational barriers discussed in the previous section. The household-level de-

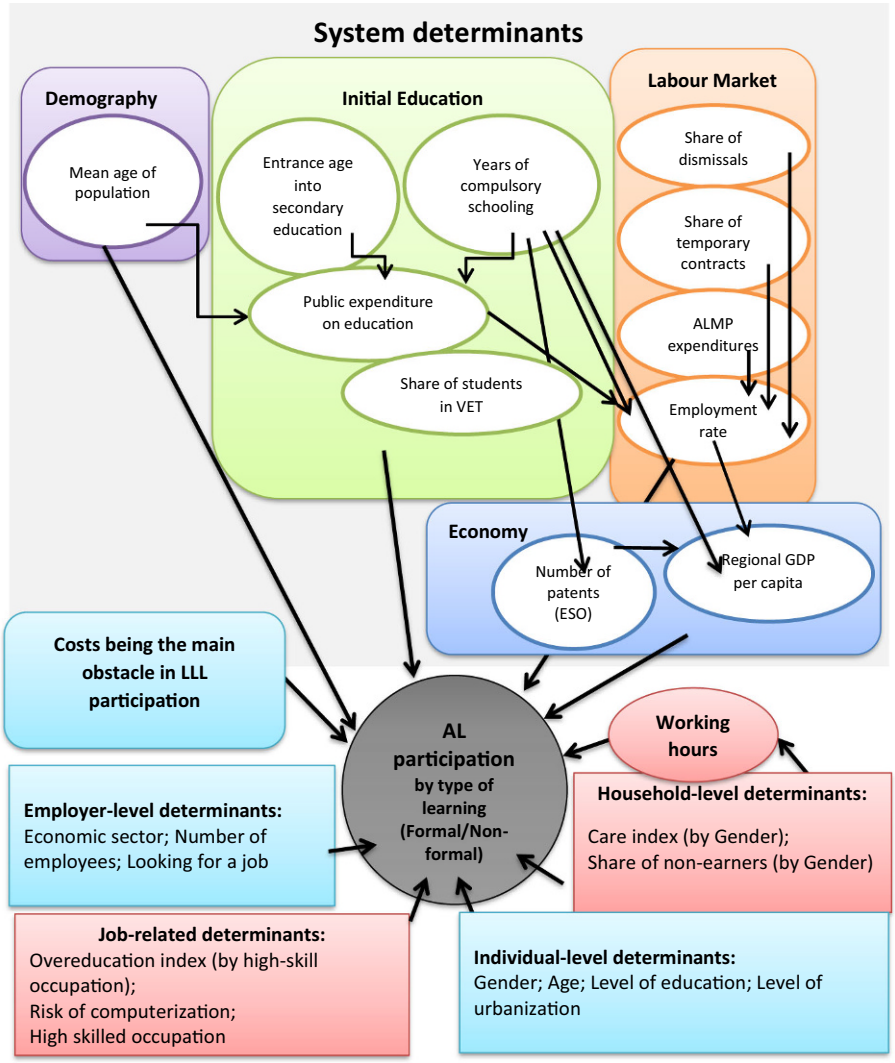

Fig. 1 Overview of the explanatory model (All variables listed in the scheme are assumed to be explanatory variables, thus to have a direct association with the dependent variable (AL participation). For simplification purposes, these associations are not displaied in the Scheme. *Black arrows* only display associations assumed between the explanatory variables)

terminants are designed to capture the need to allocate time to household-related duties. Under the job-related determinants, we consider over-education and the occupation-specific risk of computerisation based on the influential study of Frey and Osborne (2016), assuming lower AL participation in jobs with a higher risk of computerisation.[6]

In an EU-wide analysis of employer-provided learning, CEDEFOP (2015) identifies the main determinants of employer-provided training; among the most important, the sector of economic activity together with the size of the employer.

At the level of system determinants, we focus on four areas, also considered by Groenez and co-authors (2007); namely the:

a. demography;
b. initial education;
c. labour market;
d. economy.

Since especially the system level determinants show a high level of collinearity (see Table B3 appended to the Online annexe), our model also allows associations between explanatory variables. Fig. 1 displays the complete list of explanatory variables included in the model with associations between them. A more detailed description of the considered determinants, with exact definitions of the explanatory variables included in the model, can be found in the online annexe.[7]

3 Empirical strategy

Our analytical framework explains AL participation in a multi-level context, by identifying individual, household, job, employer, as well as supra-individual, system-level determinants of AL participation. The supra-individual level determinants are usually considered at the country level, where the observed heterogeneity of AL participation is already substantial (Rubenson and Desjardins 2009). However, among others, Boeren (2016) already argued that the supply of AL is mostly organised at the regional level, rather than at the country level, because it depends on the availability of providers that are not nationally organised. Given this, we also consider the regional aspect of AL participation.

3.1 Data and sample

The empirical basis of our article is the European Union Labour Force Survey (EU-LFS).[8] The EU-LFS is the only statistical survey measuring AL participation at the

[6] Desjardins (2017) argues that the so called low-skill low-trust societies have more routinized jobs. In these societies less participation in AL is observed, because routinized jobs do not require learning activities of employed individuals. Especially low-educated are engaged in routinized jobs. So less participation in these societies is expected among the low-educated.

[7] http://ekonom.sav.sk/dokumenty/online_annex.htm.

[8] This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

regional level and in a European context. The survey covers EU-28 countries together with Norway, Iceland, and Switzerland. These 31 European countries comprise of 219 regions.[9] Moreover, the data collected at the regional level count enough observations to remain representative. The EU-LFS has the most observations among EU wide surveys administrated by Eurostat. For these two reasons, we have decided to use the EU-LFS data for the year 2016. These data are then further linked with the variables available in the regional database on lifelong learning participation (Cabus et al. 2018).

We restrict our sample to employed individuals only, limiting the number of observations to 1.6 million. Employed individuals present the dominant share of AL participants. Moreover, their decisions to allocate time to AL activities become far more predictable, as they all decide in a similar nexus of work, family and further learning. Additionally, to proxy for the dispositional barriers, we focus on the AL participation of disadvantaged sub-groups of employed; namely the low-educated, younger (low-educated) population and migrants.[10] Doing so, the design of our empirical model becomes more straightforward, and the coefficients easier to interpret. Table 1 summarises the total number of observations for each of the groups of interest.

Geographically, our analytical sample used in further analysis covers 27 EU member states and Norway. As such, we do not include three countries. First, Ireland was excluded because of missing data on "subjective assessment financial costs being the main obstacle to participation in AL"; collected by the authors from the Adult Education Survey (AES) 2016. Assessing the importance of this explanatory variable for our empirical estimations, we decided to leave Ireland from our sample. Additionally, Switzerland and Iceland are excluded from the sample. These countries miss data on important country/regional level system characteristics, like regional GDP per capita, expenditures on active labour market policies, and the subjective

Table 1 Number of unweighted observations in the (EU-LFS 2016 dataset), by the type of AL activity. (Source: EU-LFS 2016)

Groups of interest	Observations in the sample (Unweighted)	Population (Weighted)	Participation rate—Formal AL (%)	Participation rate—Non-formal AL (%)
Employed adults 25–64	1,608,100	200,844,000	2.58	9.91
Low-educated adults 25–64	276,400	34,859,600	0.89	4.23
Low-educated young adults 20–29	31,600	4,958,200	13.37	5.77
Employed migrants 25–64	171,600	25,879,800	3.35	8.20

For exact definitions of the sub-groups, please visit Table A1 in the Online annexe

[9] Regions are defined at the level of NUTS 2. For an overview see: https://ec.europa.eu/eurostat/web/nuts/nuts-maps-.pdf-.

[10] For a detailed definition of the sub-groups, please, refer to the Online annexe (Table A1).

assessment of financial costs being the main obstacle to AL participation. Excluding Ireland, Switzerland, and Iceland from the EU-LFS sample, the total number of observations drops to 1.6 million.[11]

3.2 Dependent variable

The dependent variable for further analysis is the AL participation observed at the individual level. The definition of AL participation differs between available data sources surveying European households (EU-LFS and AES) (CEDEFOP 2015, p. 31). While the AES inquires about AL participation during the period of 12 months prior to the collection of the survey, EU-LFS asks about AL participation within the last four weeks prior to the surveying period. The surveying period of EU-LFS observations shifts randomly during the whole calendar year (to avoid biases caused by seasonality), with a quarterly data collection and sample components remaining in the sample for up to 4 quarters.

EU-LFS further allows a more precise distinction between learning activities by distinguishing between (i) formal and non-formal learning; and (ii) work-related and not work-related learning. Nevertheless, the information necessary to identify work-related AL was not collected in all 31 European countries. Therefore, we only distinguish between formal learning and non-formal learning activities.

Our dependent variable is collected at the level of individuals and has the form of a dummy variable. It indicates whether the surveyed individuals did participate in the particular type of AL activity, during the four weeks reference period (1) or not (0).

3.3 Independent variables

Based on our reading of available literature, we design a rather complex model, by combining explanatory variables measured at multiple levels: individuals, region and countries (see Table 2). Our choice of the independent variables is limited by the options available in the EU-LFS data and based on the explanatory model of AL participation, introduced earlier.

In an attempt to capture some of the situational barriers, we introduce a few innovative variables. The care index is a proxy for the demand for carrying duties based on the age composition of other household members. Share of non-earners captures the share of not-employed household members. Over-education index places the individual based on his/her highest education attained, relative to the median education acquired in his/her occupational group.

Because the variables, especially from the group of system characteristics, are collinear, we allowed some of them to become endogenous to the model in separate sub-equations.

[11] Tables A1–A3, appended to the Online annexe, provide an overview of the group definitions, the number of observations by group and country.

Table 2 List of independent (explanatory) variables used in the model. (Source: Authors)

Variable			Level of measurement	Model status
Individual characteristics	Female		Individual	Exogenous
	Age		Individual	Exogenous
	Level of education		Individual	Exogenous
	Degree of urbanisation		Individual	Exogenous
Household characteristics	Care index		Individual	Exogenous
	Share of non-earners in the HH		Individual	Exogenous
	Working hours		Individual	Endogenous
Job characteristics	Over-education index		Individual	Exogenous
	Risk of computerisation		Individual	Exogenous
	High skilled occupation (dummy)		Individual	Exogenous
	Supervision (dummy)		Individual	Exogenous
Employer's characteristics	Looking for a job		Individual	Exogenous
	Economic sector		Individual	Exogenous
	Number of employees in the local unit		Individual	Exogenous
System characteristic	Costs of AL		Country	Exogenous
	Demography	Mean age of the regional population	Regional	Exogenous
	Initial education	Years of compulsory schooling	Country	Exogenous
		Entrance age into lower secondary education	Country	Exogenous
		Share of students in vocational programmes	Country	Exogenous
		Government expenditure on education as a % of GDP	Country	Endogenous
	Labour market	Employment rate	Regional	Endogenous
		Share of dismissals	Regional	Exogenous
		Share of temporary contracts	Regional	Exogenous
		Active Labour Market Policy expenditure on Training	Country	Exogenous
	Economy	Regional GDP	Regional	Endogenous
		Number of patent applications	Country	Endogenous

3.4 Estimation technique

Dramatic country-level differences in the level of the dependent variables (participation in formal learning and non-formal learning) give us a good reason to expect a hierarchical structure of the data. For this reason, we first explore the variance of AL participation with a simple multi-level logit model allowing only for a random intercept at the level of country and region. In this way, we are able to explore the share of variance observable within and between our classes (countries/regions). Higher values of the interclass correlation index (ICC)[12] observed for classes at the

[12] For the values of the ICC, please visit the Table B4 appended to the Online annexe.

regional level, however, suggest that allowing for a random constant to vary at the regional level should improve the explanatory power of our model.

Because especially the variables referring to the main system determinants of AL participation are strongly inter-correlated,[13] we have decided to design our model as a generalised structural equation model (GSEM), allowing not only association paths between the dependent variable and independent variables, but also between the explanatory variables (StataCorp 2015a).

These two aspects of our data, namely, a hierarchical structure of the data and significant correlations between explanatory variables, motivate our decision to apply the GSEM. This technique allows us to combine a multi-level modelling approach, together with implementing association paths between explanatory variables.

The structure of the model, with particular association paths, reflects the structure introduced in Fig. 1. Our dependent variable is a dummy (0, 1) variable of participation in AL, with the logit link function. All explanatory variables are expected to be associated with the dependent variable. Furthermore, associations between independent variables are allowed. We apply an endogenous function to working hours, public expenditures on education, employment rate, regional GDP and the number of patent applications, which will enable associations with other explanatory variables.

Our model can be formalised as a system of equations:

$$\text{logit}(P\,(AL = 1|x)) = \alpha_0 + \mu_{0j} + \beta_n X_{\text{nij}} + \beta_r S_{rj} + \varepsilon_{ij} \tag{1}$$

$$HOURS = \gamma_0 + \gamma_r X_{\text{rij}} + \epsilon_{ij} \tag{2a}$$

$$EDU\_EXP = \delta_0 + \delta_y S_{yj} + \ddot{\text{O}}_j \tag{2b}$$

$$EMPL = \theta_0 + \theta_z S_{zj} + \sigma_j \tag{2c}$$

$$\log(GDP) = \lambda_0 + \lambda_w S_{wj} + \omega_j \tag{2d}$$

$$\log(INOV) = \eta_0 + \eta_u S_{uj} + \iota_j \tag{2e}$$

The central Eq. 1 predicts the probability of AL participation (AL) conditional on observable characteristics (X), using a logit function. This equation allows region-specific constants (α_0) through the constant specific error (μ_{0j}), which varies between regions (j). X_{nij} is the vector of n explanatory variables varying at the level of regions (j) as well as at the level of individuals (i).[14] These explanatory variables are linked to n coefficients of interest (β_n). S_{rj} is a vector of (r) explanatory variables varying at the level of regions (j).[15] β_n and β_r are the coefficients reported in the next (results) section.

Simultaneously with the main equation, five sub-Eqs. 2a–2e are estimated, with the endogenous explanatory variables from the first equation being the dependent variables. These have the form of a classical regression equation, with simple constants ($\gamma_0, \delta_0, \theta_0, \lambda_0, \eta_0$), errors ($\epsilon_{ij}, \ddot{\text{O}}_j, \sigma_j, \omega_j, \iota_j$). Each of the sub-equations has

[13] For exact values of the correlation coefficients, please visit the Table B3 appended to the Online annexe.

[14] Variable HOURS is one of the n variables in the vector of explanatory variables (X_{nij}).

[15] Because of the limited data availability, some of the variables in the vector S vary only at the country level. Variables: EDU_EXP, EMPL, GDP and INOV present a sub-set of the vector S.

a specific list of explanatory variables (X_r, S_y, S_z, S_w, S_u) with related coefficients ($\gamma_r, \delta_y, \theta_z, \lambda_w, \eta_u$), which are being reported only in the Online annexe.[16]

Considering the character of our model, we use the quasi maximum likelihood (QML) estimation method. This method is not as demanding in terms of assumptions in comparison to the widely used maximum likelihood method. It relaxes the conditional normality assumption and is able to deal with non-normality by adjusting standard errors (StataCorp 2015a, p. 45). It also allows us to use a random constant at the level of NUTS 2 regions as well as identify important associations between explanatory variables.

Selected estimation procedure has, by definition, a built-in model evaluation method, when miss-identified models do not converge (Brown 2006, p. 202). The applied technique is an equation-wise deletion of missing values and treats covariance between observed exogenous variables as given (StataCorp 2015b, p. 668).

4 Estimation results

We report results for eight models in total. These eight models distinguish between the two types of AL (formal and non-formal) and also between the four groups of interest (all employed; low-educated adults; low-educated young adults; and migrants). Interpretations are based exclusively on the statistical significance and direction of the measured associations. Here we focus purely at the associations between independent (explanatory) variables[17] and the dependent variables (participation in formal and non-formal education), although the model includes several sub-equations grasping association between independent variables.

4.1 Assessment of the explanatory power

To give an overview of the fit of the model, we first report the change in the Pseudo R-square[18] attributable to particular blocks of variables (see Figs. 2 and 3).

Models fitted on all employed, low-educated and migrants show explanatory power at levels expectable considering the nature of the data and complexity of the model. The proposed model is, on average, stronger in explaining participation in formal AL. Our model appears to be multiple times as strong in explaining AL participation of young and low-educated. This is mainly due to the contribution of household characteristics, suggesting that household-related barriers play a relatively more important role in the case of individuals under 30 and low-educated. In other words, for the young and low-educated, individual characteristics play a less important role in explaining AL participation, while they present the strongest block of variables in explaining formal AL participation of other considered groups.

[16] Table B5 appended to the Online annexe.

[17] Listed in Table 2.

[18] Being aware of the limitations of the Pseudo-R2 statistics (see e.g. Menard 2000), we decided to use the McFadden's Pseudo R-square calculated from equation level log-likelihood. Despite its limitations, we still believe it is informative and frames the evidence presented here.

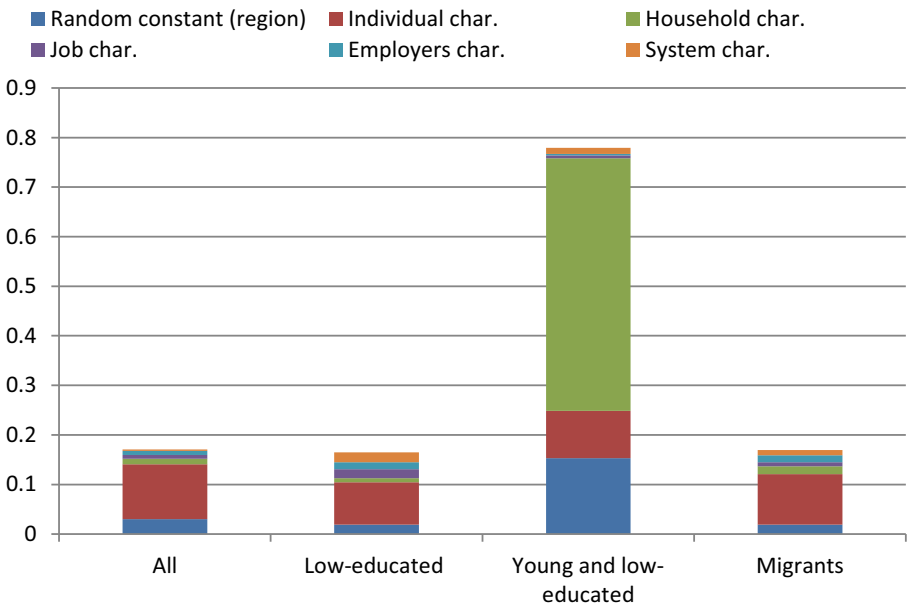

Fig. 2 Pseudo R-square contribution to the model of participation in formal AL. (Source: EU-LFS 2016)

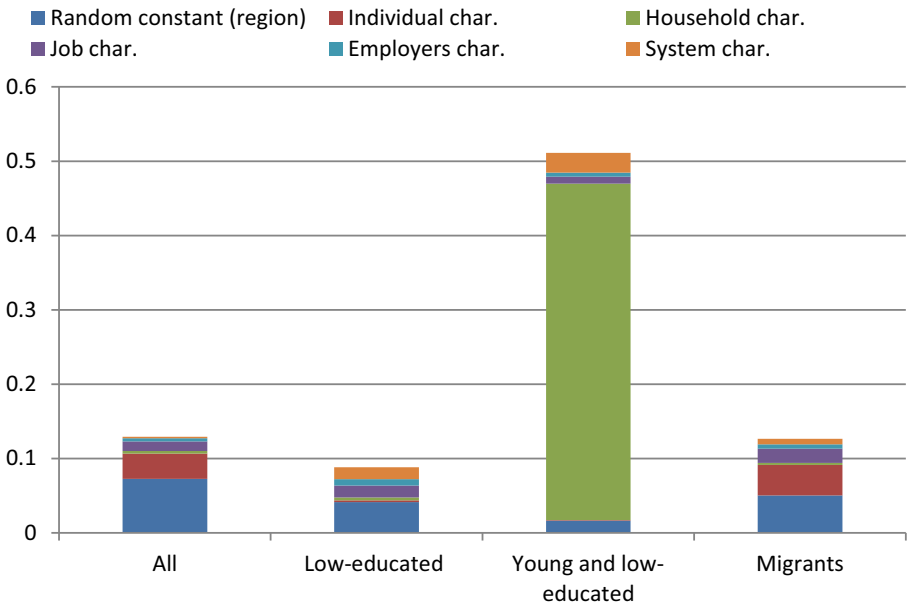

Fig. 3 Pseudo R-square contribution to the model of participation in non-formal AL. (Source: EU-LFS 2016)

The contribution of system-level variables (institutional and policy framework of the country/region) steps forward in the case of disadvantaged groups (especially low-educated). In line with the expectations, job-related characteristics play a more important role in the case of non-formal AL participation.

4.2 Contribution of particular variables

Further, we report the regression coefficients capturing the association of particular explanatory variables and the dependent variable. Presented results are organised in the, already presented, variable blocks.

4.2.1 Individual characteristics

We include variables on the characteristics of individuals as standard, control variables. Jointly, they are stronger in explaining participation in formal AL. In the case of young and low skilled, only two out of four individual characteristics could be included in the model, as age and educational level are used in defining this target group. The results are presented in Table 3.

Out of the individual characteristics, we observe confirmation of the usual patterns widely described also in many previous empirical studies. In the case of non-formal AL, females are more likely to participate than males. This bias favouring women

Table 3 Estimation results for individual characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Female			+ + +						+ +
Age		– – –	– – –	– – –	– – –	(Omitted)	(Omitted)	– – –	– – –
Level of education (primary omitted)	Lower secondary		+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)		+ + +
	Upper secondary	+ + +	+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)	+ + +	+ + +
	Tertiary	+ + +	+ + +	(Omitted)	(Omitted)	(Omitted)	(Omitted)	+	+ + +
Degree of urbanisation (City omitted)	Town	– – –	–					– – –	
	Rural	– – –	–		+ +			– –	

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

disappears in the sub-group of young and low-educated, where household-related barriers appear to play a substantially more important role (see Figs. 2 and 3).

Older employees are less likely to participate in both formal and non-formal AL. Age is one of the strongest predictors in all of the models; this association is observable across all types of AL as well as target groups.

A higher level of education drives towards further AL in the case of formal as well as non-formal AL. The linear, positive, and statistically significant association between initial education and AL participation also holds across the types of AL, as well as groups of interest.

Living in a less urbanised area barriers mainly from participation in formal AL. Interestingly, this association is not observable for the low-educated, which appear to have a higher chance of participation in non-formal AL if living in a rural area (in comparison to cities).

4.2.2 Household characteristics

Variables constructed from the characteristics of households and their members are designed to proxy for household-related (situational) barriers. The ambition is to grasp the nexus of the allocation of time between the household (family) and labour earnings (work), which is faced by all employed. Employed individuals, when deciding about AL participation, have to find additional time out of their limited time budget. To capture this moment, our model includes indexes of the family-related time demand (Care index) and a proxy for the demand for income (Share of non-earners in the household). Both are included in the model separately for males and females. All four variables are first used to predict the number of usual working hours[19] before their direct association with AL participation is estimated. As can be seen from Figs. 2 and 3, the nexus between family duties, work and participation in education seems to be working exceptionally well in explaining AL participation of young and low-educated (see Table 4).

First, consider the results on the care index. The care index is a proxy for the "care" related barriers and is of the same direction in the case of males and females. If a woman is living in a household with individuals in age usually demanding some care (kids or seniors), her chances to participate in AL are statistically significantly lower (confirming our H1a). This is true for both identified types of AL, formal as well as non-formal, and observed for all four groups. The only exemption is non-formal AL of low-educated young adults, where the coefficient is not statistically significant. When looking at males, the need for care within the household limits their participation only in formal AL (H1 was confirmed only in the case of formal AL). There is only marginally significant evidence for such an association in the case of non-formal AL among low-educated employed males.

Next, consider the share of non-earners in the household. We assume that a higher share of non-earners in the household is positively associated with a higher need for income of the employed individual whose AL participation is being considered. The higher need of income can be reflected either in an immediate increase in the

[19] Which is one of the explanatory variables endogenous to the model, see Eq. 2a in Sect. 3.4.

Table 4 Estimation results for the household characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Household related barriers	Female*care index	– – –	– – –	–	–	– –		– –	– – –
	Male*care index	– – –		– –		–		– –	
	Male*non earners in the HH	+	– – –		–				–
	Female*non earners in the HH	+ + +	– – –		– –			+ +	
	Working hours	– – –	+ + +	– –	+ + +	–		– – –	+ + +

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

number of working hours (for which we account for) or even in upgrading the qualification level in order to attempt for an increase in income (H3). We partially observe a positive association between the share of non-earners in the household and participation in formal AL (mainly in the case of the female when looking at all employed and migrants), thus females when under a higher income pressure seem to be choosing formal AL as a channel of a potential wage increase. Unfortunately, this is not observable for the low-skilled and young low skilled, where the potential benefit could be the highest. This finding is interesting from the perspective of designing a more inclusive AL policy. This pattern is only observable for females; the evidence for males is only marginally significant. We have thus found only partial support in favour of the H3.

We also observe a negative association between non-earners in the household and non-formal AL. Non-formal AL is, to a significant extent, driven by workplace provided AL. It seems that in the case of non-formal AL, increased income pressure results in more working hours as well as more work during the working hours at the expanse of AL.

The number of actual working hours is, in line with the expectations (phrased in H2 and H2a), negatively associated with participation in formal AL and positively associated with the participation in non-formal AL. These associations are one of the strongest in the model and clearly observable across all the groups of interest (with the only exemption of participation of young and low-educated in non-formal AL). There is clear evidence about a negative trade-off between the working time

and formal learning and positive association of non-formal learning and working time.

4.2.3 Job characteristics

With regard to job-related barriers, we explore the information on the occupation of employed individuals. First, we construct the over-education index, which is the difference of individuals' years of schooling from the median years of schooling within his occupational group. We follow this variable separately for those working in a high-skill or low-skill occupation. Thanks to this disaggregation, we intended to be able to observe potential heterogeneity in the direction of the association. Yielded evidence suggests rather towards homogeneity in the association of over-education and AL participation when disaggregated by occupation (see Table 5).

For those employed in a low-skill occupation, being overeducated at their current position leads to higher participation in formal as well as non-formal AL. This association disappears in the case of non-formal AL of low-educated. In support of the H5, those who work in a low-skill occupation where they do not fully utilise their education, AL seem to present a channel for improving this situation. In the case of those already working in high-skilled occupations, this association is less observable.

The risk of computerisation is negatively associated with both types of AL participation. Individuals working in occupations under a higher risk of computerisation

Table 5 Estimation results for the job characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Job related barriers	Low-skilled*Over-education	+ + +	+ + +	+ +		+ +		+ + +	+ + +
	High-skilled*Over-education		+ + +	+					+ +
	Risk of computerisation	– – –	– – –	– –					– – –
	High skilled occupation (dummy)	+ + +	+ + +	+ +	+ + +	+ +		+ + +	+ + +
	Supervision (dummy)	–	+ + +		+ + +				+ + +

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

participate less either in formal AL, as well as in the (dominantly workplace-driven) non-formal AL. Confirming the H4, this is a pattern observable in the case of the main age group of employed, formal AL of low-educated and non-formal AL of employed migrants.

Working in a high skilled occupation (ISCO 1–4) is linked with higher participation in both formal as well as non-formal AL. Occupational complexity, thus according to the expectations, matters for the participation in AL. This association is observable across all the groups of interest (although the coefficient is not statistically significant for non-formal AL of young and low-educated).

Having supervising duties in the current job is associated with lower participation in formal AL and higher participation in (dominantly workplace driven) non-formal AL.

4.2.4 Employer's characteristics

Individuals looking for a new job[20] are more likely to participate in AL. The exemption here is the young and low-educated adults participating in formal AL, this

Table 6 Estimation results for the employer's characteristics. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Looking for a job		+ + +	+ + +	+	+ + +	– –			+ +
Economic sector (Public services omitted)	Agriculture	– – –	– – –	– – –	– – –			– –	– –
	Industry	– – –	– – –	– – –	– – –	–	–	– – –	– – –
	Construction	– – –	– – –	– – –	– – –	– –		– – –	– – –
	Private services	– – –	– – –	– – –	– – –	–	– –	– – –	– – –
Number of employees in the local unit (over 50 omitted)	Less than 10	– – –	– – –		– – –				– – –
	11–20		– –						
	21–50	– –							

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

[20] Looking for a new job was used among the characteristics of the employer as an employee's subjective assessment of the working conditions at his current employer.

segment might be fogged by employed individuals with unfinished initial education, not looking for a job until graduation (see Table 6).

Our results confirm that AL participation is higher among people who work in organisations with more employees, as well as in the sector of services and especially public services. Although all the three considered employer's characteristics appear to send a clear message, with dominantly statistically significant coefficients, the overall contribution of this set of variables does not appear as strong in contributing to the explanatory power of the model (Figs. 2 and 3).

4.2.5 System characteristics

In this section, we shift to variables varying at the level of region and country[21]. These are capturing the contextual factors influencing the decisions of individual actors to decide on participation in AL.

Opposing the expectations (H7), subjective assessment of costs being the main obstacle in AL participation shows a positive association with non-formal AL. This becomes more understandable when we again underline, that non-formal AL is dominantly driven by workplace provided training. A positive, statistically significant coefficient for subjective costs then indicates that individuals more likely participate in AL when employers pay for the costs associated with it. Further, as originally expected, a negative association is observed in the case of formal AL and only for low-educated and young and low-educated adults. This suggests that in countries, the low-educated are the most vulnerable to high costs associated with AL.

Evidence on the association between the mean age of the regional population and AL participation is inconclusive. This is contradictory to the expectation, based on the economic theory that the returns to learning declines with age and older countries/regions should thus invest less in AL. Such an assumption seems to be based on an unjustified simplification because when controlling for individual age as well as other characteristics of the countries/regions, no patters suggesting a straightforward association prevail.

Out of the variables capturing the system of initial education in the region, government expenditures on education show a positive association mainly with non-formal AL participation. More interesting is perhaps the positive association between the entrance age into lower secondary education and formal AL participation. This pattern is observed for all groups of interest. The entrance age into secondary education is usually the moment at which specialisation occurs. Therefore, in line with H8, our findings are in favour of providing more general skills and education as a potential precondition for supporting formal AL.

The years of compulsory schooling are negatively associated with participation in non-formal AL of all four groups of interest. In the case of formal AL participation,

[21] Table 7 reports coefficients β_r from Eq. 1. System characteristics are to a higher extent correlated with each other, and, therefore, we need to account for the associations between them. Some system determinant variables were therefore kept in the final version of the model even if their association with AL participation was not statistically significant, but they showed a significant association with other system determinant variables. Table B5 appended to the online annexo summarizes the results of the sub-equations with selected system characteristics as dependent variables.

Table 7 Estimation results for the role of system characteristics in AL participation. (Source: EU-LFS 2016)

Target group		Employed							
		All		Low educated		Young and low-educated		Migrants	
Type of AL		Formal	Non-formal	Formal	Non-formal	Formal	Non-formal	Formal	Non-formal
Costs of AL			+ +	– – –	+ + +	– – –	+ + +		+ +
Demography	Mean age of the	–					+ + +		
Initial education	Years of compulsory	– –	– – –		– – –		– – –	– – –	– –
	Entrance age into	+ + +		+ + +		+		+ +	
	Share of students in vocational programmes					–		+ +	
	Government expenditure on		+ + +		+ + +			+ +	+ +
Labour market	Employment rate						+		+ +
	Share of dismissals			– –					
	Share of temporary contracts		– –	+					
	Active Labour Market Policy expenditure on Training		+ +	– –	+ + +			– – –	+ +
Economy	Regional GDP	+		+					
	Number of patent		+ + +		+ +		+ +	+ + +	+

+++ positive coefficient with $p < 0.001$
++ positive coefficient with $p < 0.01$
+ positive coefficient with $p < 0.05$
– negative coefficient with $p < 0.05$
– – negative coefficient with $p < 0.01$
– – – negative coefficient with $p < 0.001$

a higher number of compulsory schooling seems to decrease formal AL participation of migrants. This association is also observable for formal AL participation of the main age group of employed, but in this case, the statistical significance might be driven by the sample size. This variable is also used in other sub-equations, as it not only strongly determines the expenditures to education, but also the number of patent applications and GDP.

The share of students in vocational programmes at the upper secondary level does not show a clear pattern of association with AL participation. Marginally significant coefficients suggest a negative association with participation in formal AL of young and low-educated and a positive association with formal AL of migrants (see Table 7).

For the regional employment rate, we expected a positive association with AL (H9), but this was only marginally significant for non-formal AL of young, low-educated and migrants.

The evidence for the share of dismissals and temporary contracts is ambivalent, with no clear message in favour of the H9a hypothesis.

The active labour market policy expenditures on training, appear to be positively associated with non-formal AL (employed, low-educated and migrants) and negatively with formal AL (low-educated and migrants).

Finally, the indicators of economic development, regional gross domestic product (GDP) per capita, as well as the number of patent applications are clearly, positively associated with AL participation. The association of regional GDP, in the case of non-formal AL, twists to negative but not statistically significant figures. For the number of patents, a statistically significant and uniformly positive association is observed for most of the combinations of type of AL and group of interest. This is in line with expectations (H10) based on previous studies, as Groenez and co-authors (2007) claim that the innovativeness of the economy should be a strong determinant of AL participation.[22]

5 Conclusions

Building on previous frameworks in the field of adult education and economics, we have developed a supra-individual comparative framework that covers the multiple layers of the complex problem in order to reveal those barriers (hindrances or bounds) that distinguish participants from nonparticipants to AL in distinct societies in 27 European Union countries and Norway. Furthermore, we have constructed new indicators which, to this moment, where not fully covered in the analysis of barriers to participation in AL, such as the indicator for over-education and for caring for family members. We have empirically operationalised the new framework by using Generalised Structural Equation Modelling (GSEM) techniques that allow us to control, as best as possible, for individual-level confounding factors and interdependency of system characteristics. At the same time, we do not have to assume independence of observations, since individual decisions to participate in AL may be jointly influenced; for example by the features of the supply of AL organised at the regional level.

Controlling as for confounding variables and interdependency, we identify several system characteristics that play a key role in AL participation. For example, we estimate a positive association between the entrance age into lower secondary education and formal AL participation. This pattern is observed for all disadvantaged groups. The entrance age into secondary education is usually the moment at which specialisation occurs. From this finding, it is argued that general skills retrieved in initial education are potentially important for engagement with formal AL at adult age.

[22] Results are robust to changes in the definition of the most important explanatory variables, as well as to minor changes in the design of the model (Table C in the Appendix to the Online Annexe).

With regard to other (than education) system characteristics, the (perceived) costs of AL are important determinants of (non-)participation. Here, the results indicate that employees participate more often in AL when the employer pays for the (workplace provided non-formal) AL. However, we find a different picture with regard to participation in formal learning. We observe a negative association between the costs of AL and the participation rate for low-educated employees and for low-educated young adults. From these findings we argue that: (1) the low-educated generally perceive the costs associated with AL higher than the high-educated; (2) the low-educated need support from employers the most, while, according to previous literature, they receive it the least; and (3) altogether the low-educated are most vulnerable to exclusion from AL participation.

Because our analysis separately considers formal and non-formal AL, it was able to reveal different patterns associated to each of the types of AL. For instance, usual working hours are negatively associated with participation in formal AL and positively associated with participation in non-formal AL. This suggests that non-formal AL is driven by workplace training. Further, we observe that overqualified individuals are more likely to participate in AL, especially if they work in a low-skilled occupation. At the same time, working in an occupation with a higher risk of computerisation is linked with a lower AL participation.

It is observed that the nexus between household-related duties and working time works better in explaining AL participation of the low-educated (young) adults, in comparison to other (age) groups. Policymakers and government officials could respond to this observation with a more inclusive policy designed to address their life situation.

Our study results suggest that household-related barriers play a substantially more important role if one is under 30 and low-educated, whereas the individual characteristics present the strongest block of variables in explaining formal AL participation of other considered groups. At the same time, the contribution of system-level variables (institutional and policy framework of the country/region) steps forward in the case of disadvantaged groups (especially low-educated). In line with the expectations, job-related characteristics play a more important role in the case of non-formal AL participation.

Despite the contributions to previous literature we have made, there are limitations to mention. While GSEM offers statistical advantages, it does not account for the problem of reversed causality. This problem implies that, for example, increases in the AL participation rates induce public expenditures on education to rise, in particular, in countries which focus on public provision of formal learning to adults, or in countries with public funding schemes for non-formal learning. The rise in public expenditure on education is then (partially) driven by increase AL. This cannot be disentangled using GSEM.

To conclude, there are avenues for further research. First, statistical analysis would benefit from longitudinal data, which track the same person over time, and from qualitative data that support our findings. Second, we could expand the range of disadvantaged groups. Third, it is worthwhile to consider analyses of informal learning in addition to formal learning and non-formal learning. Moreover, additional research is advised in order to investigate policy or practical implications.

Acknowledgment This article uses data from Eurostat obtained for the needs of Research Project Proposal 124/2016-LFS-AES-CVTS-CSIS. The responsibility for all conclusions drawn from the data lies entirely with the authors.

References

Acemoglu, D., & Pischke, J. S. (1998). Why do firms train? Theory and evidence. *The Quarterly Journal of Economics*, *113*(1), 79–119.

Antikainen, A. (2006). Participation in adult education in a Nordic context. In A. Antikainen, P. Harinen & C. A. Torres (Eds.), *From the margins. Adult education, work and civil society* (pp. 131–145). Rotterdam/Taipei: Sense Publishers.

Bassanini, A., Booth, A., Brunello, G., De Paola, M., & Leuven, E. (2007). Workplace training in Europe. In G. Brunello, P. Garibaldi & E. Wasmer (Eds.), *Education and training in Europe* (pp. 143–309). Oxford: Oxford University Press.

Becker, G. (1993). *Human capital: a theoretical and empirical analysis with special reference to education* (3rd edn.). London: University of Chicago Press.

Boeren, E. (2016). *Lifelong learning participation in a changing policy context: an interdisciplinary theory*. New York: Palgrave Macmillan.

Boeren, E. (2017). Understanding adult lifelong learning participation as a layered problem. *Studies in Continuing Education*, *39*(2), 161–175. https://doi.org/10.1080/0158037X.2017.1310096.

Boeren, E., & Whittaker, S. (2018). A typology of education and training provisions for low educated adults: categories and definitions. *Studies in the Education of Adults*, *50*(1), 4–18. https://doi.org/10.1080/02660830.2018.1520017.

Boeren, E., Nicaise, I., & Baert, H. (2010). Theoretical models of participation in adult education: the need for an integrated model. *International Journal of Lifelong Education*, *29*(1), 45–61.

Boudon, R. (1974). *Education, opportunity, and social inequality: changing prospects in western society*. New York: Wiley.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York: Guilford.

Brunello, G. (2001). *On the complementarity between education and training in Europe*. IZA discussion paper no. 309.

Cabus, S. J., Ilieva-Trichkova, P., & Stefanik, M. (2018). *A pseudo-panel dataset on lifelong learning*. MS3: enliven project.

CEDEFOP (2015). *Job-related adult learning and continuing vocational training in europe, a statistical picture*. Research paper no. 48. Luxembourg: Publications Office of the European Union.

Chapman, J., McGilp, J. E., Cartwright, P., De Souza, M., & Toomey, R. (2006). Overcoming barriers that impede participation in lifelong learning. In J. Chapman, P. Cartwright & J. E. McGilp (Eds.), *Lifelong learning, participation and equity* (pp. 151–174). Dordrecht: Springer.

Cross, K. P. (1981). *Adults as learners: increasing participation and facilitating learning*. San Francisco: Jossey-Bass.

Dammrich, J., Vono de Vilhena, D., & Reichart, E. (2014). Participation in adult learning in Europe: the impact of country-level and individual characteristics. In H. P. Blossfeld, E. Kilpi-Jakonen, D. Vono de Vilhena & S. Buchholz (Eds.), *Adult learning in modern societies: an international comparison from a life-course perspective* (pp. 29–55). Cheltenham: Edward Elgar.

Darkenwald, G. G., & Merriam, S. B. (1982). *Adult education: foundations of practice*. New York: Harper and Row.

De Witte, K., Nicaise, I., Lavrijsen, J., Van Landeghem, G., Lamote, C., & Van Damme, J. (2013). The impact of institutional context, education and labour market policies on early school leaving: a comparative analysis of EU countries. *European Journal of Education*, *48*(3), 331–345.

Desjardins, R. (2017). *Political economy of adult learning systems comparative study of strategies, policies and constraints*. London: Bloomsbum.

Desjardins, R., Rubenson, K., & Milana, M. (2006). *Unequal chances to participate in adult learning: international perspectives*. Paris: UNESCO. (No. null)

Dhanidina, L., & Griffith, W. S. (1975). Costs and benefits of delayed high school completion. *Adult Education*, *25*(4), 217–230.

Elder, G. H. (1998). The life course as developmental theory. *Child Development*, *69*(1), 1–12.

Elder, G. H., & Crosnoe, R. (2002). The influence of early behavior patterns on later life. In L. Pulkkinen & A. Caspi (Eds.), *Paths to successful development* (pp. 157–176). Cambridge: Cambridge University Press.

European Commission/EACEA/Eurydice, 2015. Adult Education and Training in Europe: Widening Access to Learning Opportunities. Eurydice Report. Luxembourg: Publications Office of the European Union.

EUROSTAT (2016). *EU labour force survey explanatory notes*. Luxembourg: EUROSTAT.

Evans, K., Schoon, I., & Weale, M. (2013). Can lifelong learning reshape life chances? *British Journal of Educational Studies*, *61*(1), 25–47. https://doi.org/10.1080/00071005.2012.756163.

Fishbein, M., & Ajzen, I. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.

Frey, C. B., & Osborne, M. A. (2016). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting & Social Change*, *114*, 254–280. https://doi.org/10.1016/j.techfore.2016.08.019.

Gambetta, D. (1987). *Were they pushed or did they jump? Individual decision mechanisms in education*. Cambridge: Cambridge University Press.

Gorard, S., & Rees, G. (2002). *Creating a learning society? Learning careers and policies for lifelong learning*. Bristol: The Policy Press.

Groenez, S., Desmedt, E., & Nicaise, I. (2007). Participation in lifelong learning in the EU-15: the role of macro-level determinants. In *ECER Conference*. Ghent, Belgium, September 19–21. Paper.

Kyndt, E., & Baert, H. (2013). Antecedents of employees' involvement in work-related learning: a systematic review. *Review of Educational Research*, *83*(2), 273–313.

Laal, M. (2011). Barriers to lifelong learning. *Procedia—Social and Behavioral Sciences*, *28*, 612–615.

Lassnigg, L. (2005). *Lifelong learning, school to work and labour market transitions*. Position paper work-package 4. Amsterdam: SISWO/Social Policy Research. TLM.NET 2005 Working Paper No. 2005-06

Lavrijsen, J., & Nicaise, I. (2017). Systemic obstacles to lifelong learning: the influence of the educational system design on learning attitudes. *Studies in Continuing Education*. https://doi.org/10.1080/0158037X.2016.1275540.

Lazear, E. P. (2009). Firm-specific human capital: A skill-weights approach. *Journal of political economy*, *117*(5), 914–940.

Lee, J. (2018). Conceptual foundations for understanding inequality in participation in adult learning and education (ALE) for international comparisons. *International Journal of Lifelong Education*, *37*(3), 297–314.

Lee, J., & Desjardins, R. (2019). Inequality in adult learning and education participation: the effects of social origins and social inequality. *International Journal of Lifelong Education*, *38*(3), 339–359.

McGivney, V. (2001). *Fixing or changing the pattern. Reflections on widening adult participation in learning*. Leicester: NIACE.

Menard, S. (2000). Coefficients of determination for multiple logistic regression analysis. *The American Statistician*, *54*, 17–24.

Merriam, S. B. (2005). How adult life transitions foster learning and development. *New Directions for Adult and Continuing Education*, *108*, 3–13.

OECD (2003). *Beyond rhetoric: adult learning policies and practice*. Paris: OECD.

Roosmaa, E., & Saar, E. (2012). Participation in non-formal learning in EU-15 and EU-8 countries: demand and supply side factors. *International Journal of Lifelong Education*, *31*(4), 477–501. https://doi.org/10.1080/02601370.2012.689376.

Roosmaa, E., & Saar, E. (2016). Adults who do not want to participate in learning: a cross-national European analysis of their perceived barriers. *International Journal of Lifelong Education*, *36*(3), 254–277. https://doi.org/10.1080/02601370.2016.1246485.

Rubenson, K. (1975). *Participation in recurrent education*. Paris: CERI/OECD.

Rubenson, K., & Desjardins, R. (2009). The impact of welfare state regimes on barriers to participation in adult education: a bounded agency model. *Adult Education Quarterly*, *59*, 187–207.

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, *51*(1), 1–17.
StataCorp (2015a). *STATA structural equation modeling reference manual release 14. Statistical software*. College Station, TX: StataCorp LLC.
StataCorp (2015b). *Statabase reference manual release 14. Statistical software*. College Station, TX: StataCorp LLC.
Tuparevska, E., Santibáñez, R., & Solabarrieta, J. (2019). Equity and social exclusion measures in EU lifelong learning policies. *International Journal of Lifelong Education*. https://doi.org/10.1080/02601370.2019.1689435.
Wolbers, M. H. J. (2005). Initial and further education: substitutes or complements? Differences in continuing education and training over the life-course of European workers. *International Review of Education*, *51*(5/6), 459–478.

ZfW (2020) 43:197–226
https://doi.org/10.1007/s40955-020-00156-1

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

Berufliche Weiterbildungsbeteiligung von Älteren im europäischen Vergleich – Welche Rolle spielen Institutionen?

Veronika Philipps

Eingegangen: 6. Februar 2020 / Angenommen: 24. April 2020 / Online publiziert: 19. Mai 2020

Zusammenfassung Personen in der späten Erwerbsphase sind in Europa selten in berufliche Weiterbildung eingebunden. Der Beitrag betrachtet Länderdifferenzen in der Weiterbildungsteilnahme Älterer aus institutionentheoretischer Perspektive und berücksichtigt dabei, dass Institutionen in Verbindung miteinander funktionieren. Daher werden Zusammenhänge zwischen institutionellen Konfigurationen des Arbeitsmarktes und Bildungssystems für die relativen Weiterbildungsnachteile Älterer in 26 europäischen Ländern untersucht und es wird aufgezeigt, dass institutionelle Konfigurationen eine hohe Bedeutung für die Erklärung von Weiterbildungsdisparitäten besitzen. Für geringe Weiterbildungsnachteile Älterer sind insbesondere das Vorhandensein weitreichender staatlicher und betrieblicher Weiterbildungsstrukturen sowie ein duales Berufsausbildungssystem bedeutsam.

Schlüsselwörter Berufliche Weiterbildung · Lebenslanges Lernen · Arbeitsmarktinstitutionen · Bildungsinstitutionen · Adult Education Survey · Qualitative Comparative Analysis

Dr. V. Philipps (✉)
Professur für Wirtschaftspädagogik mit dem Schwerpunkt Berufliches Lehren und Lernen, Georg-August-Universität Göttingen, Göttingen, Deutschland
E-Mail: veronika.philipps@uni-goettingen.de

Job-related further education of the elderly in Europe: Do institutions matter?

Abstract People in the late employment age are rarely involved in job-related further education in Europe. The article investigates national differences in the participation in continuing education for older people from an institutional-theoretical perspective, taking into account that institutions function in conjunction with one another. Connections between institutional configurations of the labour market and education system for the relative disadvantages of older people in further education in 26 European countries are examined and it is illustrated that institutional configurations are very important for the explanation of disparities in further education. In particular, the existence of far-reaching state and company structures concerning continuing education and a dual vocational training system are crucial for low disadvantages of older people in the adult education system.

Keywords Job-related further education · Lifelong Learning · Labour market institutions · Educational institutions · Adult Education Survey · Qualitative Comparative Analysis

1 Einleitung

Eine berufliche Weiterentwicklung auch nach dem Abschluss einer Erstausbildung wird als zentraler Bestandteil des Erwerbslebens angesehen und immer wieder von Wissenschaft und Politik auf nationaler und europäischer Ebene betont (z. B. OECD 2019). Insbesondere für Personen in der späten Erwerbsphase ist das Erhalten und Erweitern von beruflichen Fähigkeiten und Wissen wichtig (Becker 2018; Mayer und Solga 2008). Denn Beschäftigte müssen aufgrund des ansteigenden Renteneintrittsalters länger im Erwerbsleben verbleiben und sind somit auf alters- und alternsgerechte Arbeitsbedingungen angewiesen. Zudem können Weiterbildungsmaßnahmen dazu beitragen, vorzeitige Austritte aus dem Erwerbsleben zu reduzieren und somit das Arbeitskräftepotenzial zu erhalten oder auszubauen (Dietz und Walwei 2011; Fourage und Schils 2009; Moraal und Schönfeld 2007). Darüber hinaus gibt es Hinweise, dass ältere Lernende stabilere Beschäftigungsverhältnisse und bessere Chancen auf Wiederbeschäftigung nach einem Arbeitsplatzverlust haben (Bassanini 2006).

Dennoch spiegelt sich die hohe Bedeutung von Weiterbildung für Ältere nicht in der Realität wider: Die Teilnahmequote Älterer (50- bis 60-Jähriger) liegt in Europa mit durchschnittlich 29 % unter derjenigen der 25- bis 49-Jährigen (38 %) (Abb. 1). Gleichzeitig variiert das Ausmaß dieser Altersunterschiede zwischen den Ländern Europas, so dass die Nachteile Älterer gegenüber Jüngeren von Land zu Land unterschiedlich hoch ausfallen: Ältere in der Schweiz weisen z. B. mit einer Teilnahmequote an Weiterbildung von etwa 52 % geringere Nachteile gegenüber Jüngeren (57 %) auf als es bspw. in Portugal – auf insgesamt niedrigerem Teilnahmeniveau – der Fall ist (25 % versus 45 %).

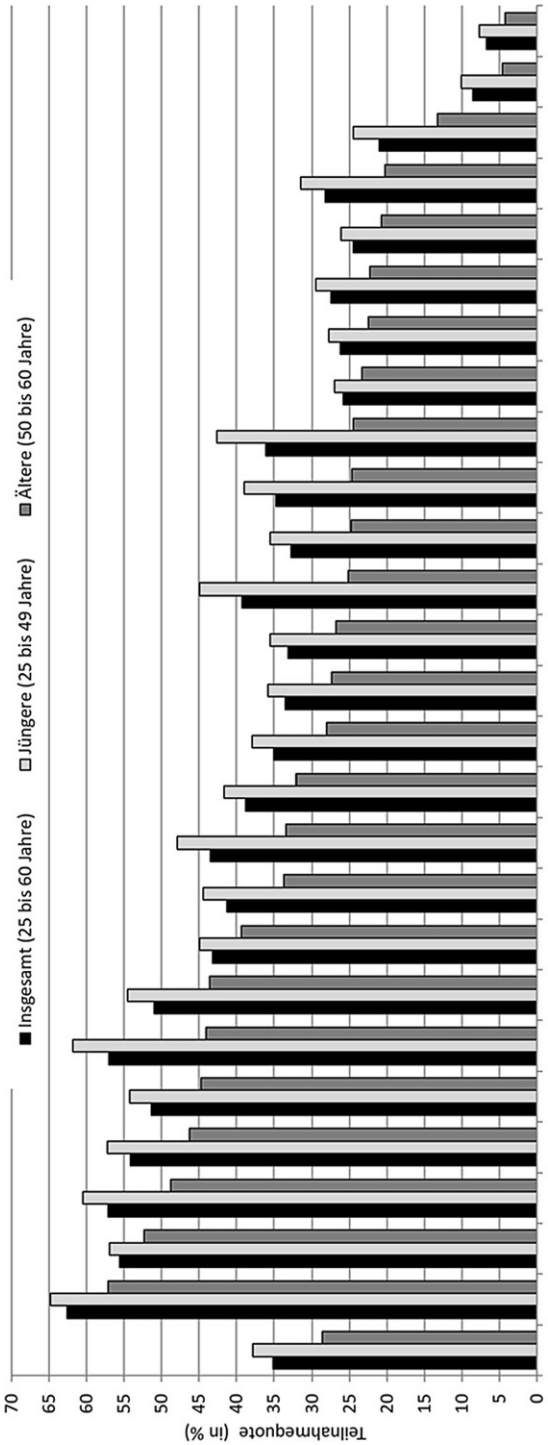

Abb. 1 *Teilnahmequote an Weiterbildung 2011 nach Altersgruppen und Land (in %).* Teilnahme an mind. einer non-formalen oder formalen Lernaktivität in den letzten 12 Monaten; $N = 159.698$; Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Diese Länderunterschiede werden nicht allein auf individuelle Weiterbildungsentscheidungen zurückzuführen sein, sondern mit der länderspezifischen Ausgestaltung von Institutionen des Arbeitsmarktes und des Bildungssystems zusammenhängen. National unterschiedlich ausgeprägte Institutionen beschränken und ermöglichen soziales Handeln (Scott 2001) und können auch das individuelle und betriebliche Weiterbildungsverhalten beeinflussen. Da Institutionen aufgrund ihrer Komplementarität nicht unabhängig voneinander wirken (Hall und Soskice 2001), geht der Beitrag über die Betrachtung einzelner institutioneller Einflussfaktoren hinaus und nimmt die Rolle von Institutionenkonstellationen für die Weiterbildung Älterer in den Blick. An der unzureichenden Befundlage zu institutionellen Konstellationen und ihrer Wirkung auf die Weiterbildungsteilnahme Älterer setzt der Beitrag an und fragt: Welche Konstellationen institutioneller Bedingungen können die Länderunterschiede in Europa bei den relativen Weiterbildungsnachteilen Älterer erklären?

2 Weiterbildungsteilnahme Älterer im Ländervergleich: Forschungsüberblick und theoretische Erklärungsansätze

2.1 Forschungsstand zu Einflussfaktoren auf die Weiterbildung (Älterer)

Zahlreiche Studien belegen, dass nicht alle Bevölkerungsgruppen gleichermaßen an Weiterbildung partizipieren. So ist festzuhalten, dass länderübergreifend Personen mit hohem schulischen oder beruflichen Bildungsabschluss eine höhere Weiterbildungsteilnahme aufweisen als jene mit niedrigem Bildungsabschluss (Dämmrich et al. 2014; Martin und Rüber 2016). Die Weiterbildungsbeteiligung ist bei Jüngeren generell höher als bei Älteren (Fourage und Schils 2009), ebenso bei Personen ohne Migrationshintergrund (Kuper et al. 2013; Öztürk 2011). Weniger eindeutig sind die Befunde bezüglich des Geschlechts (Dämmrich et al. 2014; Dieckhoff und Steiber 2011) sowie des Vorhandenseins von Kindern (Dieckhoff und Steiber 2011; Knipprath und De Rick 2015). Das Ausüben einer Erwerbstätigkeit wird dagegen als zentraler Faktor für eine Weiterbildungsteilnahme genannt. So werden in ländervergleichenden Studien tätigkeitsbezogene Merkmale wie eine Vollzeitbeschäftigung (Kaufmann und Widany 2013), eine hohe Zahl an Beschäftigten im Betrieb (Markowitsch und Hefler 2007) sowie die Branche – und hier insbesondere der öffentliche Sektor und einzelne Dienstleistungsbereiche (Arulampalam et al. 2004; Dieckhoff et al. 2007) – als zentrale positive Einflussgrößen auf Weiterbildung identifiziert. In der nachfolgenden Analyse wird daher berücksichtigt, dass sich Länder in ihrer Zusammensetzung nach diesen Einflussfaktoren unterscheiden und solche Kompositionsunterschiede Weiterbildungsdifferenzen zwischen Ländern verursachen können.

Die Rolle institutioneller Rahmenbedingungen für Weiterbildung wurde bisher weniger umfassend untersucht, auch wenn es in der Forschung zu Bildungsaktivitäten Erwachsener zunehmend ländervergleichende Studien gibt (z. B. Boeren und Holford 2016; Ioannidou und Knauber 2019). So wird das Bildungssystem und insbesondere die Ausgestaltung des beruflichen Ausbildungssystems in den Blick genommen. Es gibt Hinweise, dass in stratifizierten Schulsystemen – wie in Deutschland, wo die Bildungswege klar voneinander getrennt sind (Allmendinger 1989; Mül-

ler und Shavit 1998) und berufliche Spezialisierung in der Erstausbildung stattfindet – die Weiterbildungsteilnahme niedriger ist als in weniger stratifizierten Schulsystemen wie in Großbritannien (Brunello 2004; Groenez et al. 2007; Vogtenhuber 2015). Dagegen sprechen Befunde, die eher ein komplementäres Verhältnis von beruflicher Erstausbildung und Weiterbildung feststellen. So findet Wolbers (2005), dass in Ländern mit einer engen Verbindung von Qualifizierung und Beschäftigung die Weiterbildungsteilnahme höher ist. Ebenso sind Bildungsausgaben des öffentlichen Sektors (jedoch ohne den Weiterbildungsbereich) mit einer höheren Weiterbildungsteilnahme assoziiert (Martin und Rüber 2016). Weitere Studien nehmen den Einfluss der Erwachsenenbildung in den Blick und stellen fest, dass Faktoren wie Zugangsbarrieren, Verfügbarkeit finanzieller Ressourcen, Beratungseinrichtungen und Ausmaß von Angeboten positiv auf die Teilnahme an Weiterbildung wirken (Dämmrich et al. 2014; Groenez et al. 2007).

Zudem werden Institutionen des Arbeitsmarktes und des Wohlfahrtsstaates betrachtet. Es wird konstatiert, dass sich mit steigenden Ausgaben für soziale Sicherung die Weiterbildungsteilnahme in einem Land erhöht (Dämmrich et al. 2014). Auch die Ausrichtung auf eine aktive Arbeitsmarktpolitik bewirkt eine hohe Weiterbildungsbeteiligung (Groenez et al. 2007). Ebenso werden gewerkschaftliche Aktivitäten mit Weiterbildung assoziiert. So findet sich ein positiver Zusammenhang zwischen dem Grad der Gewerkschaftsmitgliedschaft in einem Land und der Weiterbildungsteilnahme (ebd.). Auch bei Beschäftigten in Branchen mit hoher Gewerkschaftsdichte besteht eine höhere Wahrscheinlichkeit der Weiterbildungsteilnahme (Dieckhoff et al. 2007). Dagegen stehen jedoch Befunde, die weniger eindeutig sind und teilweise keine Effekte von Gewerkschaften feststellen (Brunello 2004; Coulombe und Tremblay 2007). Auch der Einfluss des Umfangs des Beschäftigungsschutzes auf Weiterbildung ist nicht ganz eindeutig: Manche Studien konstatieren tendenziell einen negativen Zusammenhang (Bassanini et al. 2005; Brunello 2004), andere Studien bringen gegenteilige Ergebnisse hervor (Almeida und Aterido 2008; Vogtenhuber 2015). Die Ausgestaltung des Rentensystems wird als Institution diskutiert, die speziell auf die Weiterbildung Älterer wirkt. In Ländern mit generösen Frühverrentungsregelungen, die einen frühen Renteneintritt bei hohem Rentenbezug ermöglichen, ist die Weiterbildungsteilnahme Älterer eher gering (Bassanini et al. 2005; Fourage und Schils 2009).

Der Einfluss des wirtschaftlichen Kontextes wird ebenfalls als relevant erachtet. Tendenziell geht eine hohe Arbeitslosenquote mit geringeren Weiterbildungschancen einher (Coulombe und Tremblay 2007; Wolbers 2005). Der Innovationsgrad in einem Land und das Ausmaß wissensintensiver Beschäftigung scheinen dagegen positiv auf die Weiterbildungsbeteiligung zu wirken (Dämmrich et al. 2014; Groenez et al. 2007).

Wenngleich der Forschungsüberblick teilweise widersprüchliche Ergebnisse aufzeigt, sind institutionelle Einflüsse auf die Weiterbildungsbeteiligung deutlich erkennbar. Das wesentliche Forschungsdefizit besteht jedoch darin, dass ausgewählte institutionelle Faktoren lediglich isoliert betrachtet werden, ohne dass institutionelle Komplementaritäten einfließen. Zudem existieren international vergleichende Beiträge vor allem im Bereich der beruflichen Erstausbildung (vgl. Knauber 2017), und Befunde zu strukturellen Bedingungen der Weiterbildung Älterer fehlen weitestge-

hend. An dieser Forschungslücke setzt der Beitrag an und nimmt die Gruppe der Älteren und ihrer Weiterbildungsbedingungen in den Blick.

2.2 Institutionelle Erklärungsansätze der Weiterbildungsbeteiligung (Älterer)

Aus humankapitaltheoretischer Sicht stellt Weiterbildung eine Investition in Humankapital dar (Becker 1964), die sich für ältere Beschäftigte aufgrund der kürzeren Zeitspanne bis zum Ende des Erwerbslebens nicht mehr lohnen würde (Becker 2018). Diese Argumentation lässt jedoch die Existenz von Länderdifferenzen außer Acht, da die Annahmen der Humankapitaltheorie für alle Länder gleichermaßen Gültigkeit besitzen. Für eine Erklärung der Länderunterschiede in der Weiterbildungsteilnahme (Älterer) bedarf es vielmehr der Integration mehrerer Ebenen: Neben der Mikroebene müssen sowohl die Mesoebene der Weiterbildungsanbieter als auch die Makroebene in den Blick genommen werden (Boeren 2016, S. 146–148). Nach institutionentheoretischen Ansätzen legen Institutionen Grenzen und Optionen für soziales Handeln fest (Scott 2001) und beeinflussen individuelles und betriebliches Handeln (Heinz 1992). Individuen sind sich dabei der Hürden und Gelegenheiten für Lernprozesse bewusst (Cross 1981), nehmen die von den strukturellen Bedingungen hervorgerufenen Opportunitätsstrukturen wahr und interpretieren diese, woraus Entscheidungen für oder gegen eine Weiterbildung resultieren (Evans et al. 2012; Rubenson und Desjardins 2009). Dabei wirken Institutionen aufgrund ihrer Komplementarität nicht unabhängig voneinander. Das Vorhandensein einer Institution kann somit die Funktionalität und Effizienz einer anderen verstärken (Hall und Soskice 2001, S. 17–18).

Institutionen umfassen regulative, normative und kulturell-kognitive Elemente (Scott 2001, S. 48), die auch im Bereich der Weiterbildung existieren. Dies sind Regelungen wie gesetzliche Ansprüche und steuerliche Anreize für Weiterbildungsmaßnahmen, aber auch vorherrschende Vorstellungen und Normen zu Weiterbildung, z. B. ob eine Weiterbildung im späten Erwerbsalter als unangemessen gesehen wird. Ebenso ist die Wahrnehmung und Interpretation von Regelungen und Normen in Form von kulturellen Skripten relevant, wonach Weiterbildungsangebote entsprechend des kulturellen Kontextes interpretiert werden.

Für Weiterbildung zentrale Institutionen sind nicht nur jene des Bildungssystems, sondern auch Institutionen, die den Arbeitsmarkt regulieren und die die Bedingungen der Herausbildung und Nutzung von Qualifikationen beeinflussen (Mayer und Solga 2008). Ein theoretisch relevanter Faktor für die Weiterbildung (Älterer) aus dem Bereich des Bildungssystems sind die länderspezifischen *Qualifikationsstrategien verschiedener Ausbildungssysteme*, die sich durch eine unterschiedliche Art des Herausbildens von Kompetenzen kennzeichnen („*skill formation*“) (Culpepper und Thelen 2008). Diese sind mit der beruflichen Tätigkeit und dem Beschäftigungssystem verbunden. Anzunehmen ist, dass Weiterbildung in Ländern mit einer engen Verbindung von Qualifikation und Beschäftigung und einem standardisierten Berufsbildungssystem, wo die erforderlichen Qualifikationen in der Erstausbildung vermittelt werden, weniger notwendig ist als in Ländern mit einer lockeren Verbindung von Qualifikation und Beschäftigung und einem unstandardisierten Berufsbildungssystem, in dem berufliche Kenntnisse im Betrieb vermittelt und Defizite

aus der Erstausbildung durch Weiterbildung während des Erwerbslebens kompensiert werden (Brunello 2004; Culpepper und Thelen 2008; Müller und Shavit 1998). Aufgrund der relativ vielen Stellenwechsel zu Beginn des Erwerbslebens kann vermutet werden, dass mehr Einarbeitung in neue Arbeitsplätze nötig ist. In Ländern mit loser Kopplung müsste demnach die Weiterbildungsteilnahme Jüngerer wie Älterer höher sein als in Ländern mit anders strukturierten Bildungssystemen und Arbeitsmärkten. Da insbesondere Jüngere verstärkt an Weiterbildung teilnehmen und damit eine höhere Weiterbildungsteilnahme verzeichnen, müssten die relativen Nachteile für Ältere in der Weiterbildung gering sein.

Einige Argumente beziehen sich auf die Arbeitsmarktstruktur, die für Erstausbildung und Weiterbildung bedeutsam ist (Brunello 2004). Dazu zählt die *Ausrichtung der Arbeitsmarktpolitik*, die im Falle einer aktiven Ausrichtung Maßnahmen zur Erhaltung von Arbeitsplätzen und Schaffung neuer Arbeitsplätze sowie Weiterbildungsangebote und Arbeitsmarktmaßnahmen – auch für ältere Beschäftigte – fördert (Eurofound 2013). Solche arbeitsmarktpolitischen Maßnahmen zielen vor allem auf die Erhaltung der Erwerbstätigkeit Älterer und die Reduzierung des Anteils an Frühverrentungen (Ebbinghaus und Hofäcker 2013). Da zur Wiedereingliederung in den Arbeitsmarkt und zur Erhaltung der „Beschäftigungsfähigkeit“ Bildungsmaßnahmen besucht werden müssen, wird dies die Weiterbildungsteilnahme erhöhen. Ebenso sind *Regelungen zum Übergang in den Ruhestand* relevant. Wohlfahrtsstaatliche Regelungen wie Altersrente, Sonderregelungen zur Frühverrentung, Berufs- und Erwerbsunfähigkeitsrenten und Arbeitslosengeld beeinflussen das Renteneintrittsverhalten (ebd.). Der Anreiz für Individuen und Betriebe kann bei großzügigen Regelungen den Anreiz zur Weiterbildungsteilnahme bzw. zu Weiterbildungsangeboten verringern, da sich die „Investition“ nicht mehr lohnen würde. Durch die Möglichkeit eines frühen Ausscheidens aus dem Erwerbsleben sollte sich zudem die potenzielle Teilnahme Älterer an Weiterbildung verringern. Ebenso ist anzunehmen, dass weitreichende Regelungen zum *Beschäftigungsschutz* zu einer erhöhten Arbeitsplatzsicherheit beitragen, da Beschäftigte seltener ausgetauscht werden und somit längere Beschäftigungsverhältnisse bestehen (Acemoglu und Pischke 1999; Estevez-Abe et al. 2001). Argumentiert wird, dass sich Investitionsrisiken für Betriebe verringern und Beschäftigte verstärkt qualifiziert werden, so dass ein strenger Beschäftigungsschutz förderlich für die Weiterbildung Älterer wäre (Dieckhoff 2007). *Gewerkschaftliche Aktivitäten* können mit Vereinbarungen und Tarifverträgen bezüglich Weiterbildung einhergehen und somit die Gestaltung von Weiterbildungsangeboten in Betrieben regeln (Acemoglu und Pischke 1999; O’Connell und Jungblut 2008). Auch hängen solche Aktivitäten mit der Einbindung von Arbeitnehmervertretungen bezüglich Weiterbildung und mit Weiterbildungsangeboten speziell für benachteiligte Gruppen zusammen (Ok und Tergeist 2003), so dass dies positiv auf die Weiterbildungsteilnahme Älterer wirken sollte.

Generell ist die *Weiterbildungsfinanzierung* relevant und dabei insbesondere folgende Fragen: Inwieweit sind Maßnahmen staatlich geregelt und finanziert? Oder hängt die Finanzierung vielmehr von den Betrieben oder Individuen selbst ab (Boeren 2016, S. 114–115)? In diesem Zusammenhang spielt die Ausgestaltung des Wohlfahrtsstaates eine Rolle, die das individuelle und betriebliche Investitionsverhalten beeinflussen kann. So lässt sich argumentieren, dass sich Betriebe auf die

wohlfahrtsstaatliche Absicherung hinsichtlich Arbeitslosenschutz, Lohnabsicherung und Beschäftigungsschutz verlassen; dies hängt mit betrieblichen Qualifizierungsstrategien zusammen (Estevez-Abe et al. 2001). Insofern ist zu erwarten, dass eine höhere wohlfahrtsstaatliche soziale Sicherheit die Bereitschaft, eine Weiterbildung zu verfolgen, erhöht.

Institutionen, die sich speziell auf Ältere beziehen, können insbesondere für die Weiterbildung Älterer theoretisch relevant sein. So ist das Ziel von *Arbeitsmarkt- und Weiterbildungsprogrammen für Ältere*, diese Gruppe länger in Erwerbstätigkeit zu halten bzw. wieder ins Erwerbsleben zu integrieren (Eurofound 2013). Ebenso kann das Angebot an umfassenden *berufsbezogenen Rehabilitationsmaßnahmen*, die auf die Unterstützung des Verbleibs von älteren Beschäftigten im Arbeitsleben zielen sowie die Existenz von *Antidiskriminierungsgesetzen bezogen auf die Beschäftigung Älterer*, die eine direkte Benachteiligung Älterer verbieten, einen Einfluss haben (ebd.).

Ökonomische Rahmenbedingungen werden als strukturelle Einflussfaktoren von Weiterbildung diskutiert. Ein hohes Ausmaß an *wissensintensiver Beschäftigung* und innovativen Branchen kann einen höheren Bedarf an Qualifizierung und Weiterbildung bewirken (Vogtenhuber 2015). Wenn das *Angebot an qualifizierten Fachkräften* gering ist, kann dies die Weiterbildungsbereitschaft in Betrieben erhöhen, um ihren Bedarf an Fachkräften zu decken. Eine schlechte *Wirtschaftslage* kann die Bereitschaft zu Weiterbildungsinvestitionen einschränken (Markowitsch und Hefler 2007).

Die institutionellen Faktoren lassen sich zu theoretischen Konstrukten – im Folgenden „Faktorenbündel" – zusammenfassen, da in der geplanten Analyse nur eine begrenzte Anzahl an Bedingungen aufgenommen werden kann (Schneider und

Tab. 1 *Institutionelle Einflussfaktoren der Weiterbildungsteilnahme und institutionelle Faktorenbündel.* Eigene Darstellung

Institutioneller Einflussfaktor	Faktorenbündel	Faktorenbündel in der Analyse
Ausrichtung der Arbeitsmarktpolitik Beschäftigungsschutzmaßnahmen Ruhestandsregelungen und Frühverrentungsmöglichkeiten	Arbeitsmarktpolitik	Beschäftigungsfördernde Arbeitsmarktpolitik (*AMP*)
Berufliches Bildungssystem/berufliche Qualifizierungsstrategien	Qualifikation und Beschäftigungssystem	Lockere Verbindung von Qualifikation und Beschäftigungssystem (*QUAL*)
Staatliche Finanzierung von Weiterbildung Betriebliche Finanzierung von Weiterbildung Gewerkschaftliche Bestimmungen bzgl. Weiterbildung	Staatliche und betriebliche Weiterbildungsstruktur	Gut ausgebaute staatliche und betriebliche Weiterbildungsstruktur (*WBSTR*)
Arbeitsmarkt- und Weiterbildungsprogramme für Ältere Berufsbezogene Rehabilitationsmaßnahmen Antidiskriminierungsgesetze bzgl. Beschäftigung Älterer	Inkludierende/exkludierende staatliche Regulierungen bezüglich Älterer	Inkludierende staatliche Regulierungen bezüglich Älterer (*INKL*)
Wirtschaftliche Lage Wissensintensive Beschäftigung Angebot an qualifizierten Arbeitskräften	Ökonomische Rahmenbedingungen	–

Wagemann 2007, S. 101–104). Die als theoretisch relevant identifizierten institutionellen Faktoren werden also durch Faktorenbündel repräsentiert und für die Analyse entsprechend der Annahme benannt, in welche Richtung sie als Bedingungen auf *geringe* relative Nachteile Älterer in der Weiterbildung wirken (Tab. 1). Das Faktorenbündel „ökonomische Rahmenbedingungen" wird nicht separat analysiert, da es bereits durch Indikatoren der anderen Faktorenbündel mit abgebildet wird (Abschn. 3.2.2).

2.3 Theoretische Erwartungen

Die vier institutionellen Faktorenbündel werden als notwendige und/oder hinreichende Bedingungen für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) untersucht. Eine Bedingung ist dann *notwendig*, wenn sie immer auch vorliegt, wenn *WBREL* auftritt. Sie ist also die Voraussetzung für das Eintreten geringer relativer Weiterbildungsnachteile Älterer. Eine Bedingung ist *hinreichend*, wenn bei deren Erfüllung zwangsweise gefolgert werden kann, dass *WBREL* auch eintritt, d. h. die vorliegende Bedingung führt auch immer zu *WBREL* (Abschn. 3.2.1).

Generell ist anzunehmen, dass eine beschäftigungsfördernde Arbeitsmarktpolitik (*AMP*), eine lockere Verbindung von Qualifikation und Beschäftigungssystem (*QUAL*), eine gut ausgebaute staatliche und betriebliche Weiterbildungsstruktur (*WBSTR*) und inkludierende staatliche Regulierungen bezüglich Älterer (*INKL*) geringe relative Weiterbildungsnachteile Älterer hervorrufen.

H1: Eine beschäftigungsfördernde Arbeitsmarktpolitik ist eine Voraussetzung für geringe relative Weiterbildungsnachteile Älterer, da Ältere durch einen hohen Beschäftigungsschutz, Ruhestandsregelungen für einen späteren Renteneintritt und durch aktive arbeitsmarktpolitische Maßnahmen länger im Erwerbsleben bleiben und dadurch Zugangsmöglichkeiten zu Weiterbildung erhalten. Daher wird *AMP* als Voraussetzung und damit als *notwendig* für geringe relative Weiterbildungsnachteile Älterer angesehen.

H2: Eine lockere Verbindung von Qualifikation und Beschäftigungssystem bewirkt eine höhere Weiterbildungsteilnahme Älterer, da Defizite aus der Erstausbildung durch Weiterbildung ausgeglichen werden, so dass Weiterbildung kontinuierlich im Erwerbsleben – insbesondere für Jüngere aufgrund häufiger Stellenwechsel und Einarbeitung in der frühen Erwerbsphase – stattfindet. Demnach ist anzunehmen, dass sich *QUAL* als *hinreichend* für geringe Nachteile Älterer in der Weiterbildung zeigt.

H3: Gut ausgebaute staatliche und betriebliche Weiterbildungsstrukturen spielen eine wesentliche Rolle für die Weiterbildungsteilnahme und ermöglichen zudem auch Älteren, an Weiterbildung zu partizipieren. Daher wird sich *WBSTR* als *hinreichende* Bedingung für geringe Weiterbildungsnachteile Älterer gegenüber Jüngeren zeigen.

H4: Inkludierende staatliche Regulierungen spielen eine besondere Rolle für die Weiterbildungsteilnahme Älterer, da in diesem Fall die Gruppe der Älteren in besonderer Weise berücksichtigt und speziell gefördert sowie eine Benachteiligung Älterer gesetzlich (und kulturell) missbilligt bzw. geahndet wird. Daher sollte *INKL* als *hinreichende* Bedingung für geringe relative Weiterbildungsnachteile Älterer auftreten.

H5: Aufgrund der institutionellen Komplementarität wird erwartet, dass das Auftreten mehrerer dieser Faktorenbündel in Kombination die Weiterbildungsteilnahme Älterer begünstigt. Daher sollten die Faktorenbündel in Kombination als *hinreichende* Bedingungen auftreten.

3 Methodisches Vorgehen und Daten

3.1 Erster Analyseschritt

Um die Forschungsfrage beantworten zu können, werden zunächst die Nachteile Älterer gegenüber Jüngeren in der Weiterbildung ermittelt. Dafür werden Kompositionseffekte auf die Weiterbildungsteilnahme berücksichtigt. Denn Merkmale wie der erreichte Bildungsabschluss, der einen Einfluss auf das individuelle Weiterbildungsverhalten hat, ist zwischen den Ländern unterschiedlich ausgeprägt und kann Länderdifferenzen verursachen. Als Datengrundlage dient der *Adult Education Survey* (AES) von Eurostat, der zwischen Juli 2011 und Juni 2012 individuelle Weiterbildungsaktivitäten von Personen zwischen 25 und unter 65 Jahren in 30 europäischen Staaten erhebt.[1] Aufgrund der teilweise abweichenden Datenerhebung müssen das Vereinigte Königreich und Irland aus der Analyse ausgeschlossen werden. Zudem fehlen Makrodaten zur institutionellen Ausgestaltung von Malta und Serbien, so dass hier 26 Länder ($N = 159.698$) ausgewertet werden.

Zur Berechnung der relativen Nachteile Älterer unter Berücksichtigung von Kompositionsunterschieden werden binär logistische Regressionen je Land unter Kontrolle von folgenden individuellen und tätigkeitsbezogenen Merkmalen durchgeführt: höchster erreichter allgemeinbildender und beruflicher Abschluss, Migrationshintergrund, Geschlecht, Anzahl jüngerer Kinder im Haushalt, Erwerbstätigkeit nach den Beschäftigungsmerkmalen Betriebsgröße und Branche. Die abhängige Variable wird als Teilnahmequote an Weiterbildung operationalisiert. Als Teilnehmende zählen 25- bis 60-Jährige, wenn sie in den letzten 12 Monaten an mindestens einer non-formalen und/oder formalen Lernaktivität zu beruflichen Zwecken teilgenommen haben.[2] Darunter fallen sowohl der Besuch von Bildungsgängen als auch Kurse außerhalb des formalen Bildungssystems, die nicht unbedingt zu einem formalen

[1] Der AES 2011 umfasst alle 27 EU-Mitgliedsstaaten sowie Norwegen, die Schweiz und Serbien. Zukünftig wird der AES alle fünf Jahre durchgeführt (European Commission/Eurostat 2013, S. 8). Das Erkenntnisinteresse besteht hier darin, die Weiterbildung durch institutionelle Bedingungskonstellationen zu erklären, wofür aktuellere Daten nicht notwendig sind.

[2] Für die gemeinsame Betrachtung von non-formalem und formalem Lernen spricht, dass es im Ländervergleich ein unterschiedliches Verständnis von Weiterbildung gibt und daraus teilweise abweichende Zuordnungsweisen zu den Lernformen resultieren (Behringer und Schönfeld 2014, S. 385).

Abschluss führen. Um den Effekt des Alters zu berechnen, wird als unabhängige Variable das Alter mit den Ausprägungen 25- bis 49-Jährige („Jüngere“) und 50- bis 60-Jährige („Ältere“) genutzt. Damit wird die Lebensphase umfasst, in der Ältere in der Regel noch erwerbstätig und nicht im Ruhestand sind bzw. nicht unmittelbar vor ihrem Renteneintritt stehen. Aus den logistischen Regressionen je Land ergeben sich vorhergesagte Wahrscheinlichkeiten, auf deren Grundlage der Quotient der geschätzten Teilnahmequote Älterer und der geschätzten Teilnahmequote Jüngerer berechnet wird.[3] Diese relative Teilnahmewahrscheinlichkeit beschreibt das Ausmaß der relativen Weiterbildungsnachteile Älterer je Land (unabhängig von Kompositionsunterschieden) und wird im zweiten Analyseschritt weiter genutzt.

3.2 Zweiter Analyseschritt

3.2.1 Methodisches Vorgehen

Im zweiten Analyseschritt werden die institutionellen Einflüsse auf der Länderebene fokussiert und untersucht, welche institutionellen Konstellationen die Länderunterschiede bei den relativen Nachteilen Älterer in der Weiterbildung bedingen. Mit dem hier angewandten Verfahren der *Qualitative Comparative Analysis* (QCA) kann auf Basis mengentheoretischer Beziehungen die Wirkung von (Kombinationen von) Bedingungen auf ein zu erklärendes Phänomen (Outcome) erforscht werden (Ragin 1987, 2009). Dazu wird untersucht, welche Kombinationen von Institutionen (Bedingungen) als notwendig und/oder hinreichend für geringe relative Nachteile Älterer in den europäischen Ländern (Fälle) identifiziert werden. Eine Bedingung ist dann *notwendig*, wenn sie immer auch vorliegt, wenn geringe relative Weiterbildungsnachteile Älterer (Outcome) auftreten. Tritt also das Outcome ein, ist notwendigerweise auch die Bedingung erfüllt. Die Bedingung ist in diesem Fall also die Voraussetzung für das Eintreten eines Outcomes. Eine Bedingung ist *hinreichend*, wenn bei deren Erfüllung gefolgert werden kann, dass das Outcome auch eintritt, d. h. die vorliegende Bedingung führt auch immer zum Outcome (Schneider und Wagemann 2007).

Im Gegensatz zu anderen quantitativen Verfahren lässt sich mit der QCA nicht nur der Einfluss isolierter Faktoren betrachten, sondern die Wirkung von *Kombinationen* von Institutionen. Eine QCA berücksichtigt, dass die Wirkung einer Bedingung erst mit weiteren Faktoren eintreten kann und dass verschiedene Bedingungen zum selben Outcome führen können („Äquifinalität“) (Wagemann und Schneider 2010, S. 385–387). Basierend auf Bool’scher Algebra und mengentheoretischen Beziehungen zwischen Outcome und Bedingungen – im Vergleich zu quantitativen Verfahren mit linearer Algebra und additiven Beziehungen –, stellt sie eine explorative Methode dar, die als Ausgangspunkt für weitere Forschung dienen kann.[4]

[3] Eine relative Teilnahmewahrscheinlichkeit von 1 würde eine identische Teilnahmequote beider Altersgruppen bedeuten, Werte unter 1 drücken einen Nachteil Älterer gegenüber Jüngeren aus. Damit wird die Wahrscheinlichkeit der Älteren sowie der Jüngeren geschätzt, wenn alle anderen Variablen im Modell auf ihrem jeweiligen Mittelwert gehalten werden.

[4] QCA ist bereits für die Analyse von Bildungssystemen angewendet worden (z. B. Borgna 2017). Für einen Überblick über Anwendungsbereiche in der Soziologie siehe Buche und Siewert (2015).

Um Zusammenhänge zwischen Kombinationen von Bedingungen und dem Outcome aufdecken zu können, wird den Fällen (hier Länder) der Grad ihrer Zugehörigkeit zu einer Menge im Outcome und in den Bedingungen (als „Mitgliedschaft" bezeichnet) zugewiesen. Dies geschieht mithilfe der sogenannten Kalibrierung, die der Operationalisierung bei anderen Verfahren ähnelt. Dazu werden die Werte der Ausgangsvariablen in „Fuzzy-Werte" zwischen 0 für keine Mitgliedschaft und 1 für volle Mitgliedschaft in der Menge transformiert. Anschließend wird geprüft, welche Bedingungskombinationen in der Realität auftauchen (dargestellt in der „Wahrheitstabelle") und es lassen sich die empirisch vorhandenen Konfigurationen auf ihre kürzeste Lösung reduzieren.[5] Diese beschreibt die identifizierten notwendigen und/oder hinreichenden Bedingungen und lässt sich anhand folgender Gütemaße, die zwischen 0 und 1 variieren, beurteilen (Schneider und Wagemann 2007, S. 203–211): Die Konsistenz gibt an, inwieweit eine Konfiguration hinreichend für das Auftreten des Outcomes ist (Anpassungsgüte; beim Wert 1 wäre die Teilmengenbeziehung perfekt geschätzt). Die Abdeckung zeigt, welcher Anteil des zu erklärenden Outcomes von der hinreichenden Bedingung erklärt wird.

3.2.2 Daten und Kalibrierung

Das Outcome „Geringe relative Nachteile Älterer in der Weiterbildung" (kurz *WBREL*) wird auf Basis der um Kompositionsunterschiede bereinigten relativen Weiterbildungsnachteile Älterer aus dem ersten Analyseschritt (Abschn. 3.1) kalibriert. Die Ausgangswerte für relative Nachteile werden anhand von drei Ankerpunkten in Fuzzy-Werte überführt: Erstens wird die Schwelle zur vollen Mitgliedschaft in der Menge *WBREL* zwischen Dänemark und Norwegen bei 0,81 gesetzt (Abb. 2). Zweitens wird am unteren Ende der Bruch in der Verteilung zwischen Portugal und Ungarn (0,48) als Ankerpunkt für eine Nicht-Mitgliedschaft genutzt. Damit werden alle Länder, in denen die Wahrscheinlichkeit einer Weiterbildungsteilnahme Älterer weniger als die Hälfte der Jüngeren beträgt, als kein Mitglied der Länder mit geringen Weiterbildungsnachteilen Älterer definiert. Drittens wird als Indifferenzpunkt der Durchschnitt von 0,63 gesetzt, der den Punkt mit der größten Ambiguität wiedergibt. Werte zwischen den Ankerpunkten werden mithilfe einer logistischen Funktion zugewiesen.[6] Tab. 2 gibt einen Überblick über die Ankerpunkte von Outcome und Bedingungen.

Die verwendeten Indikatoren sowie die Kalibrierung der Bedingungen werden aus Platzgründen hier nicht ausführlich dargestellt und können im Detail bei Philipps (2019) nachvollzogen werden (einen Überblick über Indikatoren, Datenbasis und Ankerpunkte bieten Abb. 5, 6, 7 und 8 im Anhang). Eine beschäftigungsfördernde Arbeitsmarktpolitik (*AMP*) wird anhand von zwei Indikatoren kalibriert: Erstens „aktive Arbeitsmarktpolitik" (*AKT*), gemessen an den Ausgaben für aktive arbeitsmarktpolitische Maßnahmen (in % des BIP) je 1 % Arbeitslosigkeit und zweitens

[5] Dies wird mithilfe des Quine McCluskey-Algorithmus durchgeführt. Die Analyse erfolgt mit dem Programm *fsQCA3.0* (Ragin und Davey 2016).

[6] Robustheitstests beim Festlegen der Ankerpunkte bringen weitestgehend stabile Ergebnisse hervor (vgl. Philipps 2019, Anhang D).

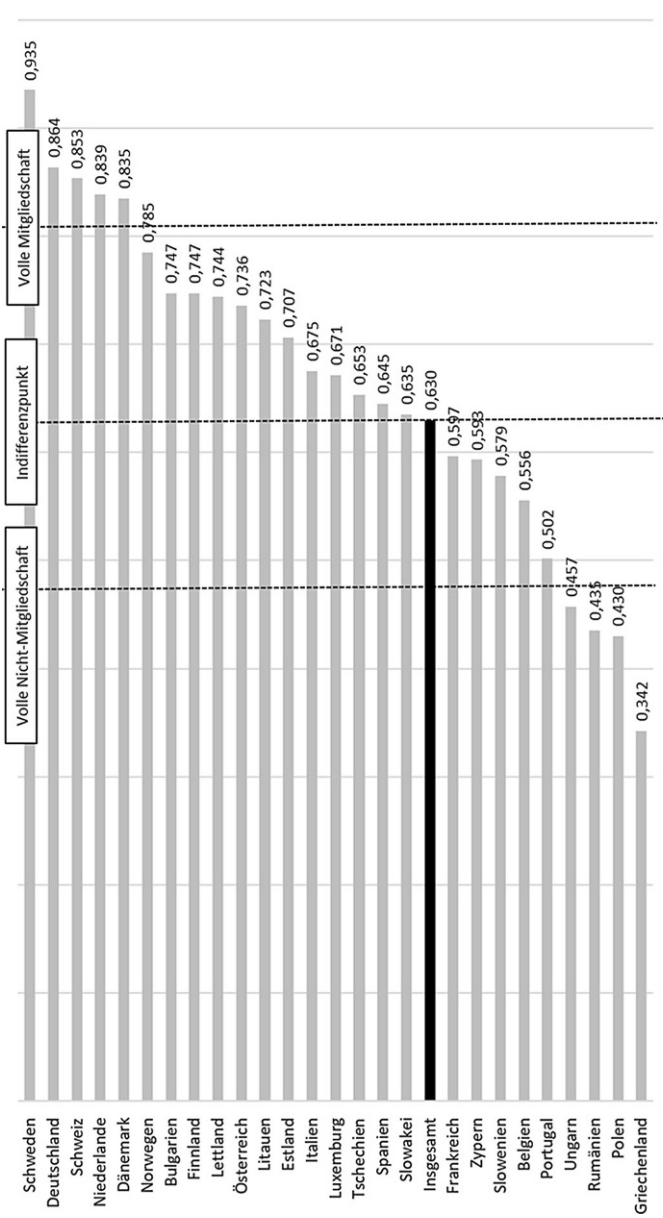

Abb. 2 *Relative Teilnahmewahrscheinlichkeit Älterer in der Weiterbildungsteilnahme (unter Kontrolle von Kompositionsunterschieden) 2011 und Ankerpunkte für die Kalibrierung.* Berechnet auf Basis logistischer Regressionsmodelle (vorhergesagte Wahrscheinlichkeiten; getrennte Modelle je Land); kontrolliert für Bildungsabschluss, Migrationshintergrund, Geschlecht, Anzahl jüngerer Kinder im Haushalt, Erwerbstätigkeit nach Betriebsgröße und Branche. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Tab. 2 *Messung und Kalibrierung von Outcome und institutionellen Bedingungen.* Eigene Darstellung

Menge	Messung	Kalibrierung (Mitgliedschaft in der Menge)		
		Nicht-Mitgliedschaft	Indifferenzpunkt	Volle Mitgliedschaft
WBREL: Geringe relative Nachteile Älterer in der WB	Relative Nachteile Älterer (Quotient geschätzte Teilnahmequote Älterer und Jüngerer)	0,48	0,63	0,81
AMP: Beschäftigungsfördernde Arbeitsmarktpolitik	Ausgaben aktive AMP (in % des BIP) je 1 % Arbeitslosigkeit (*AKT*) UND	0,035	0,08	0,208
	Beschäftigungsschutzindex (*BESCH*)	1,60	2,31	2,92
QUAL: Lockere Verbindung Qualifikation und Beschäftigung	Anteil Schüler/innen in Sek. II in kombiniertem schulischen und betrieblichen Bildungsgang (in %)	39,95	13,95	0,15
WBSTR: Gute staatliche und betriebliche Weiterbildungsstruktur	Betriebliche Ausgaben für Weiterbildung je Beschäftigtem (*WBBETR*) UND	61,5	223,0	371,5
	Umfang staatlicher Angebote an Weiterbildung (*WBSTAAT*)	Sehr gering	–	Sehr hoch
INKL: Inkludierende staatliche Regulierungen für Ältere	Umfang Arbeitsmarkt- und Weiterbildungsprogramme für Ältere	Sehr gering	–	Sehr hoch

Beschäftigungsschutz, abgebildet anhand des Beschäftigungsschutzindexes bezüglich individueller Entlassungen im Rahmen unbefristeter Beschäftigung (*BESCH*). Beide Indikatoren werden als konstitutive Bestandteile einer beschäftigungsfördernden Arbeitsmarktpolitik gesehen und im Faktorenbündel *AMP* kombiniert.[7] Auf den Indikator „Alter des erstmaligen Rentenbezugs“ wird in diesem Faktorenbündel aufgrund des hohen Zusammenhangs mit aktiver Arbeitsmarktpolitik und seiner geringeren Varianz verzichtet (Philipps 2019, S. 104–105).

Die Bedingung „Lockere Verbindung von Qualifikation und Beschäftigungssystem“ (*QUAL*) wird basierend auf dem Anteil der Schülerinnen und Schüler in beruflichen Ausbildungsgängen im Sekundarbereich II, bei denen in der Schule und im Betrieb vermittelte Elemente kombiniert werden, kalibriert. Ein niedriger Anteil kennzeichnet eine lockere Verbindung von Qualifikation und Beschäftigung, ein hoher Anteil eine enge Verbindung bzw. ein duales Ausbildungssystem. Die berufliche Ausbildung auf mittlerer Qualifikationsebene stellt hier also den zentralen Faktor dar und repräsentiert das Faktorenbündel, wenngleich andere Merkmale der Erstausbildung wie die schulische Berufsausbildung nicht mit einfließen.

Für die Bedingung „Gut ausgebaute staatliche und betriebliche Weiterbildungsstruktur“ (*WBSTR*) ist entscheidend, dass sowohl die betriebliche Finanzierung von

[7] Dies geschieht durch eine Intersektion, die auf Basis des logischen UND berechnet wird (Schneider und Wagemann 2007, S. 185–189). Dafür wird das Minimum der Fuzzy-Werte der Einzelfaktoren herangezogen (s. Tab. 4 im Anhang).

Weiterbildung (*WBBETR*) als auch der Umfang staatlicher Angebote an Weiterbildung (*WBSTAAT*) ausgeprägt sind, so dass diese im Faktorenbündel *WBSTR* kombiniert werden. Betriebliche Weiterbildungsausgaben lassen sich anhand der direkten Kosten der Unternehmen für Weiterbildung je Beschäftigtem abbilden, für den Umfang staatlicher Angebote an Weiterbildung fehlen dagegen geeignete Indikatoren. Daher werden qualitative Länderstudien ausgewertet, die Informationen zum Ausmaß von Rechtsansprüchen und Instrumenten wie individuelle Lernkonten, Bildungsurlaube, Weiterbildungsfonds und steuerliche Anreize für Individuen und Betriebe einbeziehen.[8] Basierend auf diesem Wissen über die Länder wird nach der „indirekten Methode" (Ragin 2009) in der Form kalibriert, dass die Länder Fuzzy-Werten auf einer sechsstufigen Skala von „sehr geringem" bis „sehr hohem Umfang staatlicher Weiterbildungsangebote" zugeordnet werden. Auch wenn dafür teilweise verschiedene Datenquellen herangezogen wurden, so kann basierend auf den erstellten Länderportraits (Philipps 2019, S. 108–129) das Ausmaß staatlicher Weiterbildungsangebote untersucht werden.

Für „Inkludierende staatliche Regulierungen bezüglich der Weiterbildung Älterer" (*INKL*) werden qualitative Informationen aus einer Studie zu Arbeitsmarkt- und Weiterbildungsprogrammen für Ältere (Eurofound 2013) herangezogen und untersucht, inwieweit Weiterbildungsprogramme speziell für Ältere und für arbeitslose Ältere, Beschäftigungsprogramme in Form von subventionierten Arbeitsplätzen für ältere Beschäftigte, Regelungen bezüglich der Kostenübernahme oder Steuerermäßigungen für Betriebe bei Einstellung Älterer sowie Subventionen für die Beschäftigung älterer Arbeitsloser existieren. Auch wenn damit das Problem des Fehlens quantifizierbarer Informationen umgangen werden kann, wären weitere Informationen zur Einordnung und Wirkung der Programme nützlich gewesen. Daher lässt sich *INKL* nur auf einer weniger kleinteiligen vierstufigen Fuzzy-Skala von „sehr geringem" bis „sehr hohem Umfang" kalibrieren.

Das Faktorenbündel „ökonomische Rahmenbedingungen" wird bereits durch Indikatoren anderer Faktorenbündel abgebildet, so dass dieses nicht separat analysiert wird. So weisen das BIP pro Kopf sowie der Beschäftigtenanteil in wissensintensiven Branchen in einem Land einen hohen Zusammenhang mit den Ausgaben für aktive Arbeitsmarktpolitik auf (Philipps 2019, S. 138–142). Zudem fehlen geeignete Daten oder qualitative Informationen für gewerkschaftliche Bestimmungen bezogen auf Weiterbildung sowie für berufliche Rehabilitationsmaßnahmen und Antidiskriminierungsgesetze bezüglich der Beschäftigung Älterer (ebd.).

Um das generelle Weiterbildungsniveau eines Landes bei der Analyse der Bedingungen zu berücksichtigen, wird das Untersuchungssample – anhand der durchschnittlichen Weiterbildungsquote der Bevölkerung – in 13 Länder mit hohem und 13 Länder mit niedrigem Weiterbildungsniveau aufgeteilt.[9]

[8] Als Hauptquelle dient die Datenbank vom European Centre for the Development of Vocational Training (CEDEFOP) „Financing adult learning" (http://www.cedefop.europa.eu/FinancingAdultLearning, letzter Zugriff 27.01.2020), sowie die Länderberichte „VET in Europe" von CEDEFOP.

[9] Länder mit hohem Weiterbildungsniveau: Dänemark, Deutschland, Estland, Finnland, Frankreich, Luxemburg, Niederlande, Norwegen, Österreich, Portugal, Schweden, Schweiz, Ungarn; Länder mit niedrigem Weiterbildungsniveau: Belgien, Bulgarien, Griechenland, Italien, Lettland, Litauen, Polen, Rumänien, Slowakei, Slowenien, Spanien, Tschechien, Zypern.

4 Institutioneller Erklärungsbeitrag der Weiterbildungsnachteile Älterer

Wie hoch sind die Weiterbildungsnachteile Älterer gegenüber Jüngeren – bereinigt um die Kompositionseffekte – in den europäischen Ländern? Ältere haben im Vergleich zu Jüngeren im Durchschnitt aller untersuchten Länder eine geringere Teilnahmewahrscheinlichkeit von 0,63 (Abb. 3). Damit beträgt die Wahrscheinlichkeit für Ältere, an einer Weiterbildung teilzunehmen, weniger als zwei Drittel im Vergleich zu Jüngeren. Das Ausmaß dieser relativen Nachteile findet auf ganz unterschiedlichen Weiterbildungsniveaus statt und variiert zwischen Schweden am oberen Ende mit der höchsten relativen Teilnahmewahrscheinlichkeit Älterer (0,94) – und damit den geringsten Nachteilen – und am unteren Ende Griechenland mit der geringsten relativen Teilnahmewahrscheinlichkeit Älterer in der Weiterbildung (0,34). Demnach lassen sich die Länderdifferenzen nur teilweise auf Kompositionseffekte zurückführen.

Für die Analyse der institutionellen Konfigurationen und ihrer Rolle für die zuvor bestimmten Weiterbildungsnachteile Älterer werden nun für die beiden Untersuchungssamples notwendige und hinreichende Bedingungen für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) untersucht.

Eine beschäftigungsfördernde Arbeitsmarktpolitik ist keine notwendige Bedingung für geringe Weiterbildungsnachteile Älterer, weder in Ländern mit hohem noch in jenen mit niedrigem Weiterbildungsniveau. Demnach können – entgegen der Erwartung (H1) – die Nachteile Älterer in der Weiterbildung auch in Ländern gering sein, in denen die Arbeitsmarktpolitik wenig beschäftigungsfördernd ist.[10]

Um die Kombinationen von Bedingungen aufzudecken, die zu *WBREL* führen, wird für jede empirisch beobachtbare Konfiguration (Tab. 5 im Anhang) entschieden, ob diese hinreichend für *WBREL* ist.[11] Drei Konfigurationen werden als hinreichend für das Outcome identifiziert (Tab. 3): Die erste Konfiguration *qual*[12] * *WBSTR* beschreibt eine enge Verbindung von Qualifikation und Beschäftigung, also ein duales Ausbildungssystem, mit gut ausgebauten staatlichen und betrieblichen Weiterbildungsstrukturen. In der zweiten Konfiguration *AMP* * *WBSTR* ist eine beschäftigungsfördernde Arbeitsmarktpolitik mit guten Weiterbildungsstrukturen kombiniert, die zu geringen relativen Weiterbildungsnachteilen Älterer führt. Die dritte Konfiguration *amp* * *qual* * *inkl* enthält eine wenig beschäftigungsfördernde Arbeitsmarktpolitik, verbunden mit einer engen Kopplung von Qualifikation und Beschäftigung sowie wenig inkludierenden staatlichen Regulierungen bezüglich Älterer. Die Konsistenz ist mit 0,867 insgesamt sehr hoch und deutet darauf hin, dass die Bedingung zu einem hohen Grad hinreichend für *WBREL* ist. Die Gesamtabde-

[10] Die Konsistenzwerte aller Bedingungen liegen unter dem benötigten Schwellenwert für notwendige Bedingungen von 0,9 (Schneider und Wagemann 2007, S. 213) und zeigen damit, dass das Outcome keine Teilmenge der Bedingungen ist.

[11] Für die Analyse der hinreichenden Bedingungen sollten die Konsistenzwerte der Konfigurationen mindestens 0,75 betragen (Schneider und Wagemann 2007).

[12] Die Abwesenheit einer Bedingung wird klein geschrieben.

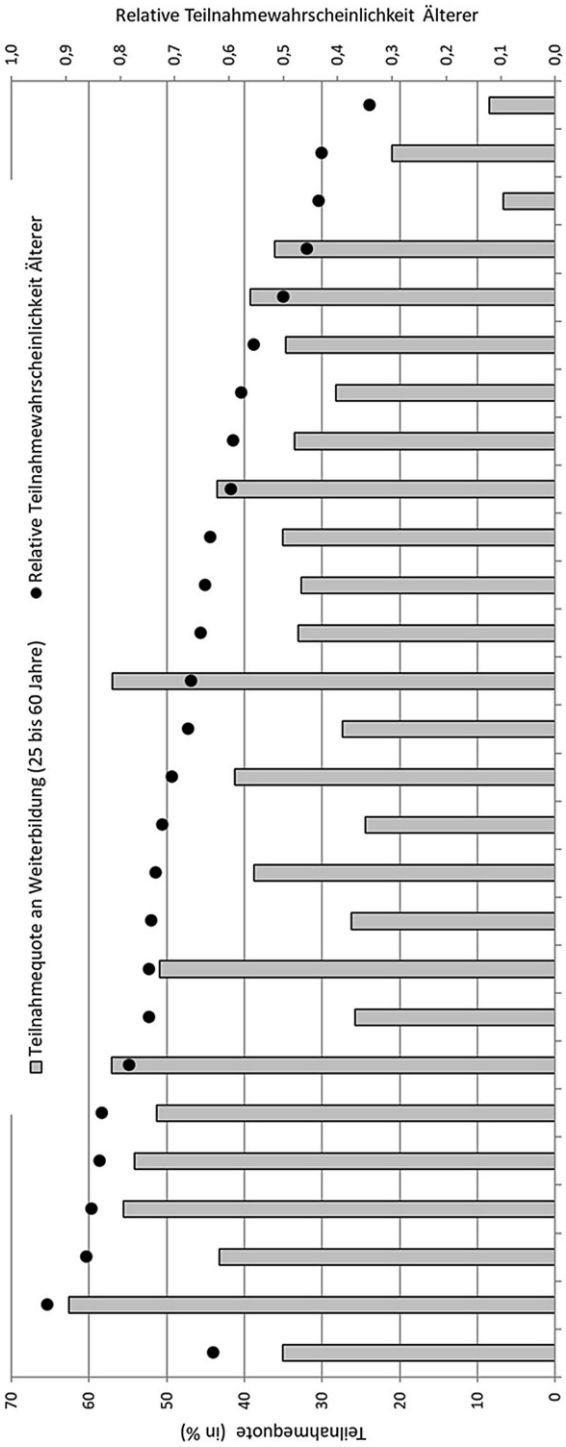

Abb. 3 *Teilnahmequote an Weiterbildung der 25- bis 60-jährigen Bevölkerung und relative Teilnahmewahrscheinlichkeit Älterer in der Weiterbildung (unter Kontrolle von Kompositionsunterschieden) 2011 nach Land.* Relative Teilnahmewahrscheinlichkeit Älterer berechnet auf Basis logistischer Regressionsmodelle (vorhergesagte Wahrscheinlichkeiten; getrennte Modelle je Land); kontrolliert für Kompositionsunterschiede. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Tab. 3 Hinreichende Bedingungen für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) in Ländern mit hohem Weiterbildungsniveau

Lösungspfad	Konsistenz	Abdeckung	Alleinige Abdeckung	Länder
(1) qual*WBSTR	0,956	0,547	0,086	Niederlande, Luxemburg, Norwegen, Deutschland, Dänemark, Österreich
(2) AMP* WBSTR	0,887	0,492	0,099	Niederlande, Deutschland, Finnland, Schweden, *Frankreich*
(3) amp*qual*inkl	0,874	0,376	0,060	Luxemburg, Norwegen, Schweiz, *Ungarn*

Nicht konsistente Fälle sind kursiv gesetzt; Ergebnisse auf Basis der „Complex Solution“. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

ckung von 0,706 zeigt, dass alle hinreichenden Bedingungen zusammen etwa 71 % des Outcomes erklären.

Die ersten beiden Konfigurationen haben gemeinsam, dass sie beide eine gute staatliche und betriebliche Weiterbildungsstruktur enthalten, während diese in der ersten mit einer engen Verbindung zwischen Qualifikation und Arbeitsmarkt, in der zweiten mit einer beschäftigungsfördernden Arbeitsmarktpolitik kombiniert ist. In diesen Ländern bewirken also gute Weiterbildungsstrukturen in Verbindung mit Bildungsinstitutionen und/oder Arbeitsmarktinstitutionen geringe Nachteile Älterer in der Weiterbildung. Die dritte Konfiguration besitzt mit einer Abdeckung von 0,376 die geringste Erklärungskraft, während die erste die größte Erklärungskraft (0,547) aller aufweist. Deutschland, Luxemburg, die Niederlande und Norwegen sind in mehreren Konfigurationen enthalten. In diesen Ländern existieren also funktionale Äquivalente der hier untersuchten Institutionen und damit verschiedene Möglichkeiten, um geringe Weiterbildungsnachteile Älterer zu erreichen.[13]

Abb. 4 zeigt die Mitgliedschaftswerte der Länder in *WBREL* und in der gesamten Lösung. Die Mehrheit der Fälle ist konsistent und befindet sich oberhalb der Diagonalen im rechten oberen Quadranten, was die hohe Gesamtkonsistenz bestätigt. Es lassen sich 11 von 13 Fällen erklären, lediglich für Estland und Portugal finden sich keine hinreichenden Bedingungen. In diesen beiden Ländern spielen offenbar andere Faktoren für die Ausprägung der Weiterbildungsnachteile Älterer eine Rolle als die hier untersuchten. Frankreich und Ungarn widersprechen zudem der hinreichenden Bedingung, da diese Länder zwar Mitglied in der Konfiguration sind, gleichzeitig aber eine zu geringe Mitgliedschaft im Outcome aufweisen.

Für die Länder mit niedrigem Weiterbildungsniveau ist dagegen keine der hier untersuchten Bedingungen hinreichend für *WBREL*, da keine Konfiguration eine ausreichende Konsistenz aufweist (Tab. 6 im Anhang). Dass sich geringe Weiterbildungsnachteile Älterer in Ländern, in denen das Weiterbildungsniveau niedrig ist, nicht durch die in die Analyse einbezogenen Institutionen erklären lassen, verweist auf zusätzlichen Forschungsbedarf und den nötigen Einbezug weiterer hier nicht erfasster Faktoren.

Die Ergebnisse bestätigen, dass staatliche und betriebliche Unterstützung von Weiterbildung – in Kombination mit weiteren Institutionen – eine herausragende

[13] Daher ist die alleinige Abdeckung der einzelnen Konfigurationen vergleichsweise gering.

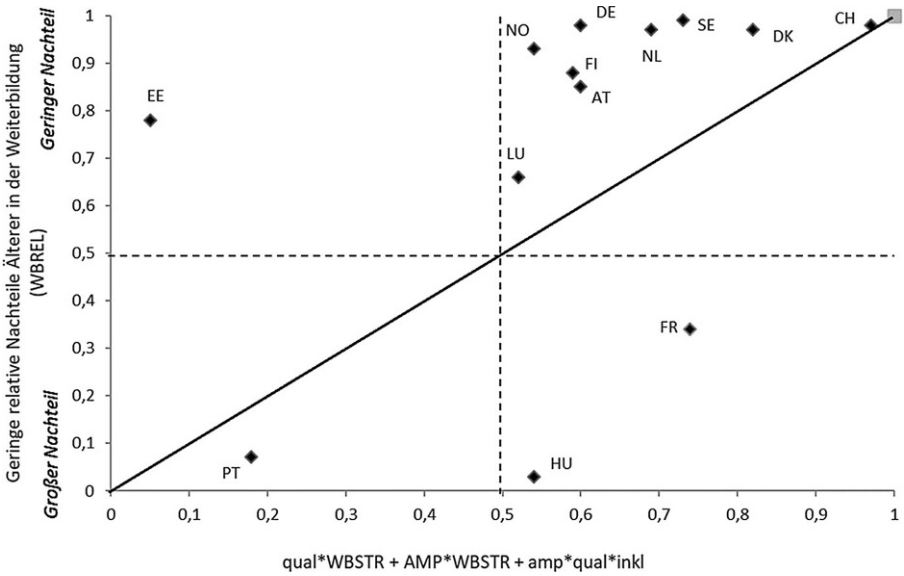

Abb. 4 *Hinreichende Bedingungen für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) in Ländern mit hohem Weiterbildungsniveau.* Fälle oberhalb und auf der Diagonale sind konsistent. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Bedeutung für geringe relative Weiterbildungsnachteile Älterer hat, da sich dies in Ländern mit hohem Weiterbildungsniveau als hinreichende Bedingung für *WBREL* zeigt (H3). Auch eine beschäftigungsfördernde Arbeitsmarktpolitik führt zu geringen Weiterbildungsnachteilen Älterer gegenüber Jüngeren, sie ist aber keine notwendige Bedingung und somit keine Voraussetzung dafür (H1).

Entgegen der Annahme finden sich keine Hinweise darauf, dass eine lockere Verbindung zwischen Qualifikation und Beschäftigungssystem entscheidend für geringe Nachteile Älterer ist, um Defizite aus der Erstausbildung durch Weiterbildung auszugleichen (H2). Stattdessen ist eine enge Verzahnung im Zusammenhang mit weiteren Faktoren für geringe Weiterbildungsnachteile Älterer verantwortlich. Dies kann damit zusammenhängen, dass eine lockere Verbindung zwar für Jüngere mehr Weiterbildung hervorruft, für Ältere aufgrund der lange zurückliegenden Erstausbildung aber nicht; daher gibt es einen größeren Nachteil für Ältere. Zudem kann in den Ländern mit eng gekoppelter Qualifikation und Beschäftigung eine starke Betriebsbindung bei gleichzeitig hohem Bedarf bestehen, ältere Beschäftigte im Betrieb zu halten und diese weiterzubilden.

Inkludierende staatliche Regulierungen scheinen dagegen keine besondere Rolle für die Erklärung geringer relativer Nachteile Älterer zu spielen, da sich diese in keiner der gefundenen Konfigurationen finden (H4). So können exkludierende Regulierungen bezüglich Älterer (kombiniert mit *amp* und *qual*) in manchen Ländern zu *WBREL* führen, jedoch ist die Erklärungskraft dieser Konfiguration gegenüber den anderen beiden gering und bleibt erklärungsbedürftig. Dies kann an der Definition des hier verwendeten Faktorenbündels liegen, das aufgrund der begrenzten

Informationen zu Wirkung und Umfang der hier aufgenommenen Maßnahmen für Ältere einen recht engen Ausschnitt inkludierender Regulierungen darstellt.

Darüber hinaus treten alle untersuchten Bedingungen niemals als Einzelfaktoren als hinreichend für das Outcome auf, sondern immer in Kombination mit weiteren Faktoren. Dies entspricht der Annahme (H5) und unterstreicht, dass es kombinierte Effekte von institutionellen Konfigurationen auf relative Weiterbildungsnachteile Älterer gibt.

5 Diskussion

Mit dieser Untersuchung ließen sich Zusammenhänge aufdecken, die die bedeutende Rolle institutioneller Konstellationen des Arbeitsmarkts und des Bildungssystems für die Weiterbildungsteilnahme Älterer unterstreichen. Gleichzeitig ist darauf zu verweisen, dass sich die Befunde nur auf die hier untersuchten institutionellen Bedingungen beziehen, für die geeignete Daten verfügbar waren. Ebenso lassen sich die Ergebnisse nur begrenzt auf andere Länder übertragen.

Für einige der betrachteten Länder zeigt sich, dass es nicht die direkte Unterstützung speziell für Ältere, sondern die vorhandenen staatlichen und betrieblichen Weiterbildungsstrukturen sind, die auch die Weiterbildung der Älteren im Vergleich zu Jüngeren fördern. Dies ist in allen skandinavischen Ländern der Fall, ebenso in Deutschland, Luxemburg, den Niederlanden und Österreich. In den Lösungen finden sich viele der konservativen Wohlfahrtsstaaten und alle skandinavischen Länder sowie die Niederlande wieder. Anders als die Mehrheit der süd- und osteuropäischen Länder ist in diesen Ländern die Erklärungskraft gut. Dies verweist auf Ähnlichkeiten zu Wohlfahrtsstaatstypen (Esping-Andersen 1990) und *Varieties of capitalism* bzw. *skill formation systems* (z. B. Hall und Soskice 2001; Estevez-Abe et al. 2001). Gleichzeitig trennen sich die Ergebnisse für konservative Wohlfahrtsstaaten in jene mit dualem Ausbildungssystem (Deutschland und Österreich), die gut durch die Analyse erklärbar sind, und jene ohne dieses (Belgien und Frankreich). Trotz der Ähnlichkeiten zu bekannten Typologien lassen sich die Nachteile Älterer in der Weiterbildung also nicht allein durch diese deuten.

Um Ursachen für Nachteile in der Weiterbildungsbeteiligung zu erforschen, müssen zukünftig weitere Institutionen des Arbeitsmarktes und des Bildungssystems sowie differenzielle Erklärungsansätze bezüglich des Weiterbildungsniveaus berücksichtigt werden. Auch ergeben sich Hinweise zu den teilweise unklaren Ergebnissen der bisherigen Forschung, die lediglich einzelne Institutionen in den Blick nehmen (Abschn. 2.1). Die mitunter konträren Befunde können gerade durch die Nichtbeachtung des Zusammenspiels mehrerer Institutionen zustande kommen.

Generell spricht die Tatsache, dass Institutionen ausschließlich in Kombination miteinander geringe relative Nachteile Älterer in der Weiterbildung bewirken, dafür, dass sich Maßnahmen zur Förderung der Weiterbildungsbeteiligung Älterer – und vermutlich auch anderer in der Weiterbildung unterrepräsentierter Bevölkerungsgruppen – immer auf die institutionellen Konfigurationen im Land beziehen sollten. Ebenfalls zeigen sich in manchen Ländern alternative Handlungsmöglichkeiten hinsichtlich sozialpolitischer Maßnahmen, um die Nachteile Älterer in der

Weiterbildung zu verringern. Dabei sollten insbesondere Weiterbildungsstrukturen auf staatlicher und betrieblicher Ebene insgesamt verbessert werden, denn die für alle zugänglichen Weiterbildungsangebote sind nach der vorliegenden Studie entscheidend für das Weiterbildungsverhalten von Personen in der späten Erwerbsphase. Somit sind nicht nur Maßnahmen wie Weiterbildungsprogramme speziell für Ältere zum Abbau von Disparitäten Älterer in der Weiterbildung wichtig, sondern der Ausbau allgemeiner öffentlicher und betrieblicher Weiterbildungsangebote. Der Staat kann hier betriebliche Angebote und Maßnahmen fördern, um vor allem Anreize für die bisher in der Weiterbildung unterrepräsentierten kleinen und mittleren Betriebe zu schaffen.

Anhang

Tab. 4 Fuzzy-Werte für Outcome und institutionelle Bedingungen

Land	Outcome *WBREL*	*AKT*	*BESCH*	FB[a] *AMP*	FB[a] *QUAL*	*WBSTAAT*	*WBBETR*	FB[a] *WBSTR*	FB[a] *INKL*
Länder mit hohem Weiterbildungsniveau									
DK	0,97	0,98	0,24	0,24	0,03	1,0	0,82	0,82	0,7
DE	0,98	0,75	0,75	0,75	0,03	0,6	0,84	0,60	1,0
EE	0,78	0,01	0,08	0,01	0,95	0,4	0,09	0,09	0
FI	0,88	0,68	0,59	0,59	0,53	1,0	0,60	0,60	0,3
FR	0,34	0,74	0,81	0,74	0,59	0,8	0,96	0,80	0,7
LU	0,66	0,66	0,47	0,47	0,48	0,8	0,90	0,80	0,3
NL	0,97	0,98	0,93	0,93	0,31	0,8	0,98	0,80	0,3
NO	0,93	0,90	0,42	0,42	0,46	1,0	0,67	0,67	0
AT	0,85	0,89	0,31	0,31	0,08	0,6	0,94	0,60	0,7
PT	0,07	0,18	1,00	0,18	0,95	0,4	0,42	0,40	0,7
SE	0,99	0,73	0,74	0,73	0,95	1,0	0,96	0,96	0
CH	0,98	0,78	0,03	0,03	0	0,4	0,85	0,40	0
HU	0,03	0,17	0,11	0,11	0,46	0,2	0,22	0,20	0,3
Länder mit niedrigem Weiterbildungsniveau									
BE	0,19	0,56	0,53	0,53	0,91	0,6	0,97	0,60	1,0
BG	0,88	0,01	0,11	0,01	0,95	0,2	0,04	0,04	0,7
EL	0	0,02	0,87	0,02	0,95	0,2	0,06	0,06	0,3
IT	0,68	0,07	0,81	0,07	0,95	0,4	0,15	0,15	0,7
LV	0,87	0,03	0,78	0,03	0,95	0,2	0,04	0,04	0,3
LT	0,82	0,02	0,42	0,02	0,95	0,4	0,06	0,06	0,3
PL	0,02	0,34	0,39	0,34	0,83	0,2	0,10	0,10	0,3
RO	0,02	0,01	0,38	0,01	0,94	0,2	0,02	0,02	0,7
SK	0,52	0,02	0,38	0,02	0,15	0	0,33	0	0,3
SI	0,27	0,31	0,65	0,31	0,95	0,2	0,59	0,20	0,3
ES	0,56	0,08	0,41	0,08	0,95	0,4	0,28	0,28	0,7
CZ	0,59	0,08	0,97	0,08	0,11	0,2	0,16	0,16	0
CY	0,32	0,09	0,07	0,07	0,95	0,6	0,34	0,34	0,3

[a]*FB* Faktorenbündel
Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Tab. 5 Wahrheitstabelle für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) in Ländern mit hohem Weiterbildungsniveau

AMP	QUAL	WBSTR	INKL	WBREL	Fallzahl	Konsistenz	Länder
1	0	1	0	1	1	0,975	Niederlande
0	0	1	0	1	2	0,946	Luxemburg, Norwegen
1	0	1	1	1	1	0,943	Deutschland
1	1	1	0	1	2	0,940	Finnland, Schweden
0	0	1	1	1	2	0,938	Dänemark, Österreich
0	0	0	0	1	2	0,828	Schweiz, Ungarn
1	1	1	1	1	1	0,771	Frankreich
0	1	0	0	0	1	0,738	Estland
0	1	0	1	0	1	0,558	Portugal

Anmerkung: Die Werte 1 und 0 geben an, ob die jeweiligen Bedingungen vorhanden (Wert 1) oder nicht vorhanden (Wert 0) sind. Jede Zeile zeigt eine institutionelle Konfiguration, die im Sample vorhanden ist; fehlende Zeilen weisen auf Konfigurationen ohne empirische Fälle hin. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

Tab. 6 Wahrheitstabelle für geringe relative Nachteile Älterer in der Weiterbildung (*WBREL*) in Ländern mit niedrigem Weiterbildungsniveau

AMP	QUAL	WBSTR	INKL	WBREL	Fallzahl	Konsistenz	Länder
0	0	0	0	0	2	0,694	Slowakei, Tschechien
0	1	0	1	0	4	0,678	Bulgarien, Italien, Rumänien, Spanien
1	1	1	1	0	1	0,614	Belgien
0	1	0	0	0	6	0,572	Griechenland, Lettland, Litauen, Polen, Slowenien, Zypern

Anmerkung: Die Werte 1 und 0 geben an, ob die jeweiligen Bedingungen vorhanden (Wert 1) oder nicht vorhanden (Wert 0) sind. Jede Zeile zeigt eine institutionelle Konfiguration, die im Sample vorhanden ist; fehlende Zeilen weisen auf Konfigurationen ohne empirische Fälle hin. Datenbasis: Eurostat, AES 2011, eigene Berechnungen

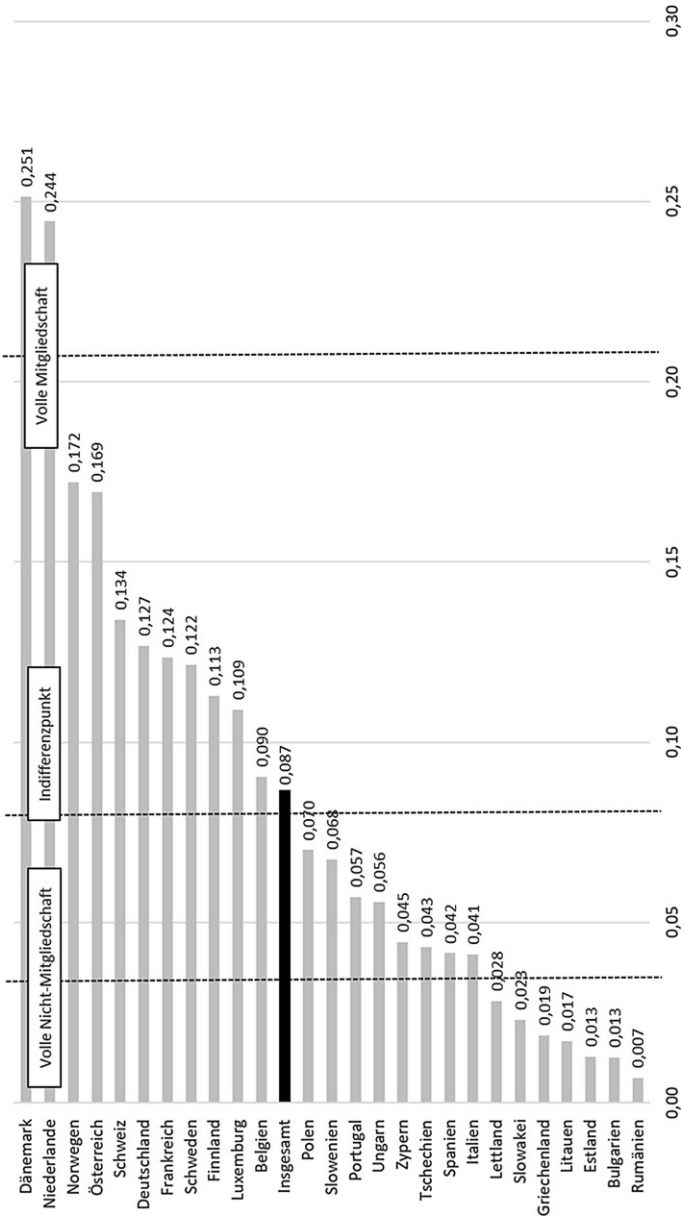

Abb. 5 *Ausgaben für aktive arbeitsmarktpolitische Maßnahmen (in % des BIP) je 1% Arbeitslosigkeit 2010 und Ankerpunkte für die Kalibrierung*. Datenbasis: Eurostat Labour Market Programme-Database (Codes lmp_ind_exp; lfsa_urgan); Daten für die Schweiz aus OECD (2013); eigene Berechnungen

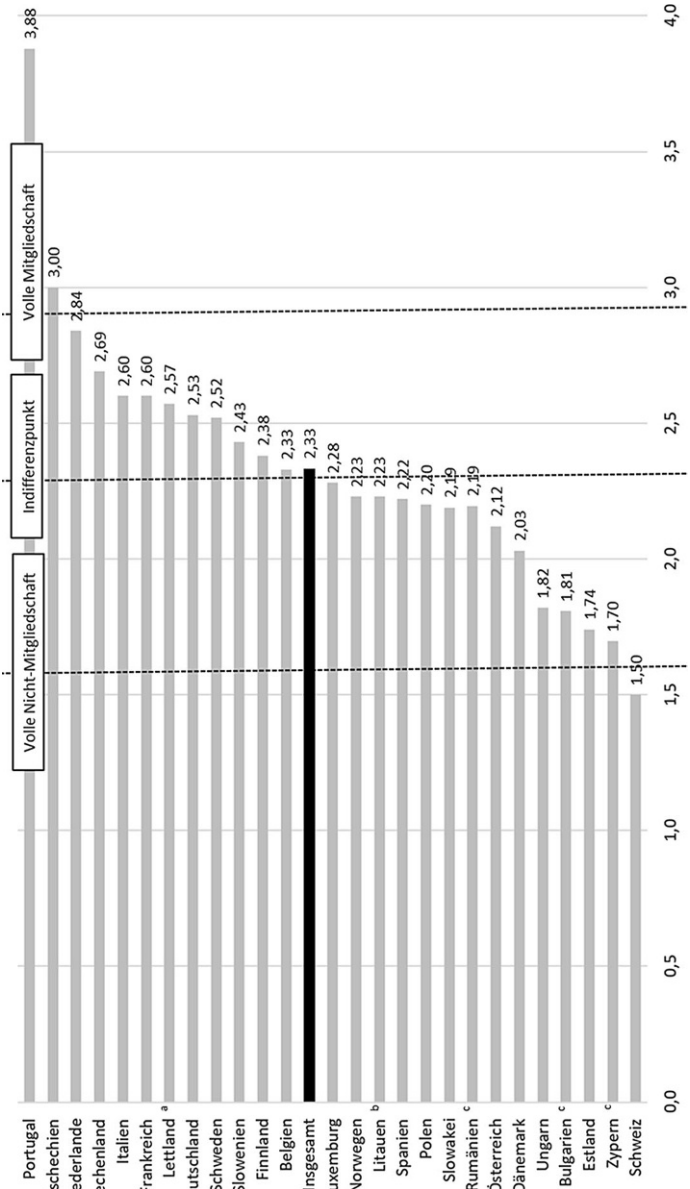

Abb. 6 *Beschäftigungsschutzindex vor individuellen Entlassungen (unbefristete Beschäftigung) 2010 und Ankerpunkte für die Kalibrierung.* [a]Bezugsjahr 2012; [b]Bezugsjahr 2014; [c]Keine OECD-Daten für Bulgarien, Rumänien, Zypern (Berechnung anhand eines Umrechnungsfaktors aus Daten des ILO-EPLex, vgl. Philipps 2019, S. 99–100). Datenbasis: OECD Employment Protection Database: OECD-Index Beschäftigungsschutz (Code eprv_v3); ILO Employment Protection Legislation (EPLEX) indicators; eigene Berechnungen

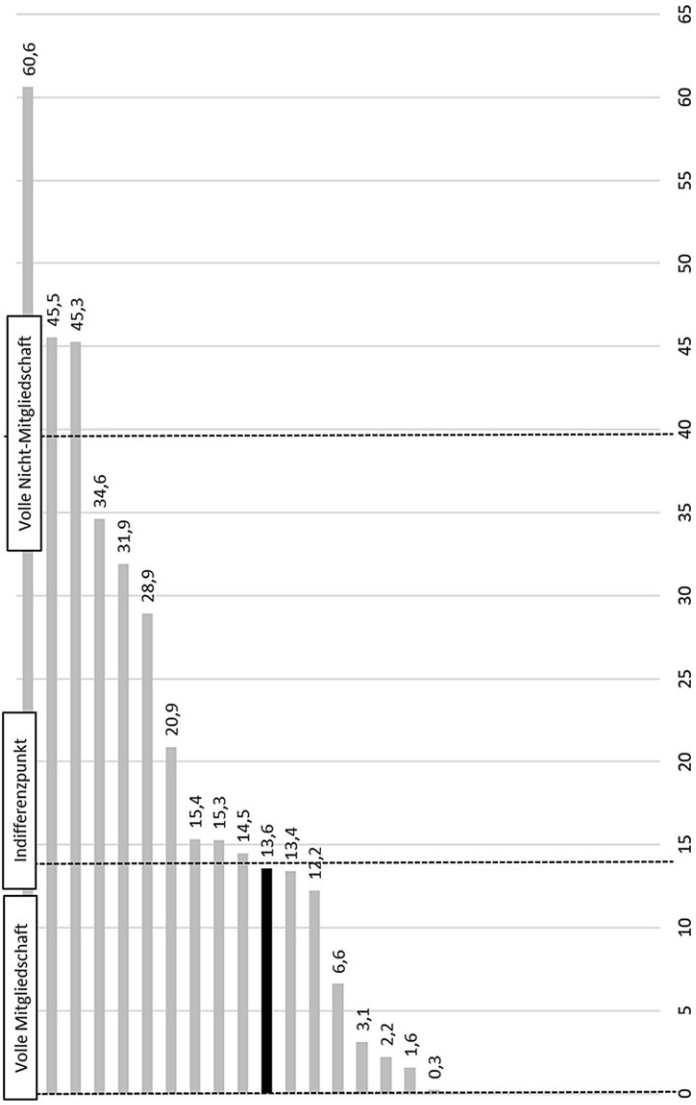

Abb. 7 *Anteil der Schüler/innen in beruflichen Ausbildungsgängen im Sekundarbereich II mit Besuch eines kombinierten schulischen und betrieblichen Bildungsgangs*[a] *2010 (in %) und Ankerpunkte für die Kalibrierung.* [a]Duale Ausbildungen sowie Programme, die parallel Ausbildung in der Schule und am Arbeitsplatz anbieten oder bei denen diese Phasen abwechselnd erfolgen; bezogen auf 15- bis 19-Jährige. Datenbasis: OECD (2012)

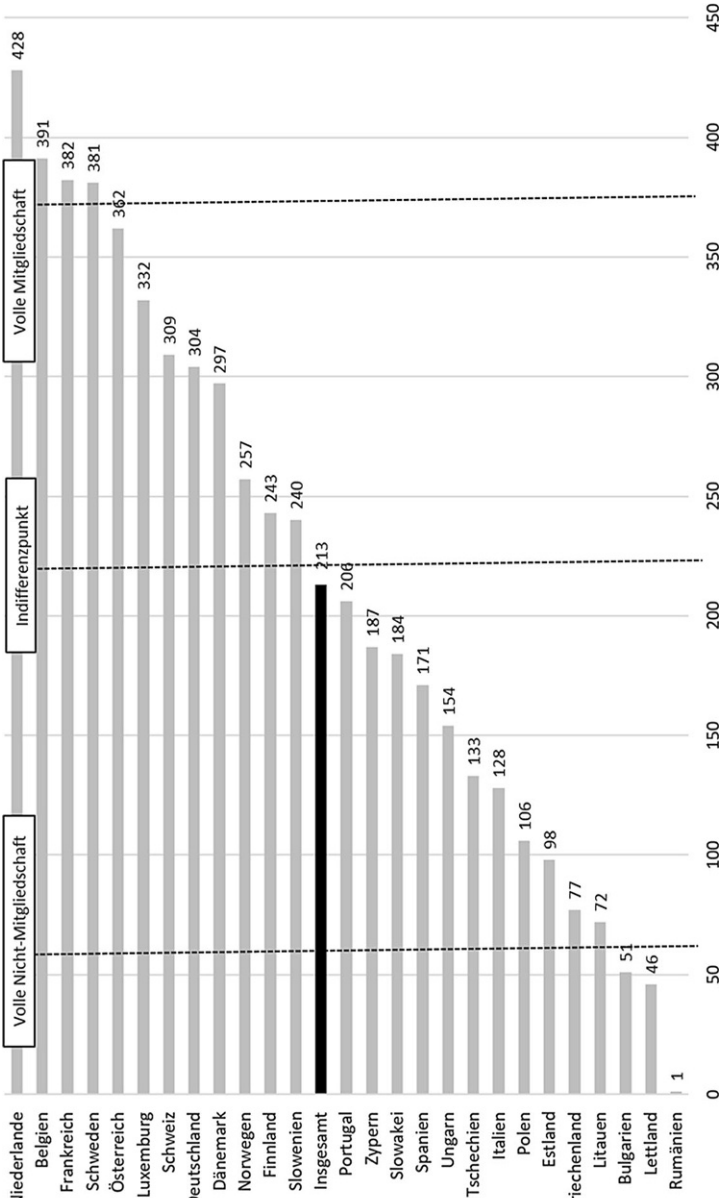

Abb. 8 *Direkte Kosten der Unternehmen für Weiterbildung je Beschäftigtem 2010 (in Kaufkraftstandards) und Ankerpunkte für die Kalibrierung*. Datenbasis: Eurostat, Continuing Vocational Training Survey – CVTS4 (Codes trng_cvts62, trng_cvts20); Für Daten aus der Schweiz: Bundesamt für Statistik (2014), eigene Berechnung in KKS

Literatur

Acemoglu, D., & Pischke, J.-S. (1999). Beyond Becker. Training in imperfect labour markets. *The Economic Journal*, *109*, 112–142.

Allmendinger, J. (1989). Educational systems and labor market outcomes. *European Sociological Review*, *5*(3), 231–250.

Almeida, R. K., & Aterido, R. (2008). *The incentives to invest in job training: do strict labor codes influence this decision?* Social protection discussion paper, Bd. 0832. Washington, DC: World Bank.

Arulampalam, W., Booth, A. L., & Bryan, M. L. (2004). Training in Europe. *Journal of the European Economic Association*, *2*(2/3), 346–360.

Bassanini, A. (2006). Training, wages and employment security: an empirical analysis on European data. *Applied Economics Letters*, *13*, 523–527.

Bassanini, A., Booth, A., Brunello, G., De Paola, M., & Leuven, E. (2005). *Workplace training in Europe*. IZA discussion paper, Bd. 1640. Bonn: Forschungsinstitut zur Zukunft der Arbeit.

Becker, G. S. (1964). *Human capital. A theoretical and empirical analysis with special reference to education*. New York: NBER.

Becker, R. (2018). Berufliche Weiterbildung im Arbeitsmarkt. In M. Abraham & T. Hinz (Hrsg.), *Arbeitsmarktsoziologie* (S. 311–353). Wiesbaden: Springer VS.

Behringer, F., & Schönfeld, G. (2014). Schwerpunktthema: Lernen Erwachsener in Deutschland im europäischen Vergleich. In Bundesinstitut für Berufsbildung (Hrsg.), *Datenreport zum Berufsbildungsbericht 2014. Informationen und Analysen zur Entwicklung der beruflichen Bildung* (S. 381–413). Bielefeld: W. Bertelsmann.

Boeren, E. (2016). *Lifelong learning participation in a changing policy context: an interdisciplinary theory*. Basingstoke: Palgrave Macmillan.

Boeren, E., & Holford, J. (2016). Vocationalism varies (a lot): a 12-country multivariate analysis of participation in formal adult learning. *Adult Education Quarterly*, *66*(2), 120–142.

Borgna, C. (2017). Different systems, same inequalities? Post-compulsory education and young adults' literacy in 18 OECD-countries. *Journal of European Social Policy*, *27*(4), 332–345.

Brunello, G. (2004). Labour market institutions and the complementarity between education and training in Europe. In D. Checchi & C. Lucifora (Hrsg.), *Education, training and labour market outcomes in Europe* (S. 188–210). London: Palgrave Macmillian.

Buche, J., & Siewert, M. B. (2015). Qualitative Comparative Analysis (QCA) in der Soziologie. Perspektiven, Potentiale und Anwendungsbereiche. *Zeitschrift für Soziologie*, *44*(6), 386–406.

Bundesamt für Statistik (2014). *Berufliche Weiterbildung in Unternehmen der Schweiz. Ergebnisse der Erhebung zur beruflichen Weiterbildung in Unternehmen 2011* (S. 23). Neuchâtel: Bundesamt für Statistik.

Coulombe, S., & Tremblay, J.-F. (2007). Explaining cross-country differences in job-related training: Macroeconomic evidence from OECD countries. *Economie internationale*, *110*(2), 5–29.

Cross, P. K. (1981). *Adults as learners. Increasing participation and facilitating learning*. San Francisco, London: Jossey-Bass.

Culpepper, P. D., & Thelen, K. (2008). Institutions and collective actors in the provision of training. Historical and cross-national comparisons. In K. U. Mayer & H. Solga (Hrsg.), *Skill Formation. Interdisciplinary and cross-national perspectives* (S. 21–49). New York: Cambridge University Press.

Dämmrich, J., Vono de Vilhena, D., & Reichart, E. (2014). Participation in adult learning in Europe: the impact of country-level and individual characteristics. In H.-P. Blossfeld (Hrsg.), *Adult learning in modern societies. An international comparison from a life-course perspective* (S. 29–55). Cheltenham: Edward Elgar.

Dieckhoff, M. (2007). Does it work? The effect of continuing training on labour market outcomes: a comparative study of Germany, Denmark and the United Kingdom. *European Sociological Review*, *23*(3), 295–308.

Dieckhoff, M., & Steiber, N. (2011). A re-assessment of common theoretical approaches to explain gender differences in continuing training participation. *British Journal of Industrial Relations*, *49*, 135–157.

Dieckhoff, M., Jungblut, J.-M., & O'Connell, P. J. (2007). Job-related training in Europe: Do institutions matter? In D. Gallie (Hrsg.), *Employment regimes and the quality of work* (S. 77–103). Oxford: Oxford University Press.

Dietz, M., & Walwei, U. (2011). Germany. No country for old workers? *Zeitschrift für Arbeitsmarktforschung*, *44*, 363–376.

Ebbinghaus, B., & Hofäcker, D. (2013). Trendwende bei der Frühverrentung in modernen Wohlfahrtsstaaten. Paradigmenwechsel zur Überwindung von Push- und Pull-Faktoren. *Comparative Population Studies – Zeitschrift für Bevölkerungswissenschaft*, *38*(4), 841–880.

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Cambridge: Polity Press.

Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: a reinterpretation of the welfare state. In P. A. Hall & D. Soskice (Hrsg.), *Varieties of capitalism. The institutional foundations of comparative advantage* (S. 145–183). Oxford: OUP.

Eurofound (2013). *Role of governments and social partners in keeping older workers in the labour market*. Dublin: European Foundation for the Improvement of Living and Working Conditions.

European Commission, & Eurostat (2013). Draft Adult Education Survey Manual. Version 9. https://circabc.europa.eu/sd/a/23580311-3517-422b-9588-b365c10dc440/AES_MANUAL_2013_November.pdf. Zugegriffen: 27. Jan. 2020.

Evans, K., Schoon, I., & Weale, M. (2012). Life chances, learning and the dynamics of risk in the life course. In D. N. Aspin (Hrsg.), *Second international handbook of lifelong learning* (S. 245–268). Dordrecht: Springer.

Fourage, D., & Schils, T. (2009). The effect of early retirement incentives on the training participation of older workers. *Labour*, *23*(Special Issue), 85–109.

Groenez, S., Desmedt, E., & Nicaise, I. (2007). Participation in lifelong learning in the EU-15: the role of macro-level determinants. http://www.academia.edu/333827/Participation_In_Lifelong_Learning_In_the_EU–15_The_Role_of_Macro-Level_Determinants. Zugegriffen: 27. Jan. 2020. Paper for the ECER Conference, Ghent, Belgium, September 2007.

Hall, P. A., & Soskice, D. (2001). An introduction to varieties of capitalism. In P. A. Hall & D. Soskice (Hrsg.), *Varieties of capitalism. The institutional foundations of comparative advantage* (S. 1–68). Oxford: OUP.

Heinz, W. R. (1992). Introduction: institutions and gatekeeping in the life course. In W. R. Heinz (Hrsg.), *Institutions and gatekeeping in the life course* (S. 9–27). Weinheim: Deutscher Studien Verlag.

Ioannidou, A., & Knauber, C. (2019). Adult literacy and basic education policies in a comparative perspective. Selected findings from four country cases. *Studies in Adult Education and Learning*, *25*(3), 125–140.

Kaufmann, K., & Widany, S. (2013). Berufliche Weiterbildung. Gelegenheits- und Teilnahmestrukturen. *Zeitschrift für Erziehungswissenschaft*, *16*, 29–54.

Knauber, C. (2017). International-vergleichende Forschung zur Bildungspolitik: Literatur-Review theoretischer Ansätze und Perspektiven der vergleichenden Politikwissenschaft. *Zeitschrift für Weiterbildungsforschung*, *40*, 171–198.

Knipprath, H., & De Rick, K. (2015). How social and human capital predict participation in lifelong learning: a longitudinal data analysis. *Adult Education Quarterly*, *65*(1), 50–66.

Kuper, H., Unger, K., & Hartmann, J. (2013). Multivariate Analyse zur Weiterbildungsbeteiligung. In F. Bilger (Hrsg.), *Weiterbildungsverhalten in Deutschland. Resultate des Adult Education Survey 2012. Theorie und Praxis der Erwachsenenbildung* (S. 95–107). Bielefeld: W. Bertelsmann.

Markowitsch, J., & Hefler, G. (2007). To Train or Not to Train—Explaining differences in average enterprise training performance in Europe. A framework approach. http://trainingineurope.com/mmedia/2007.10.22/1193059438.pdf. Zugegriffen: 27. Jan. 2020.

Martin, A., & Rüber, I. E. (2016). Die Weiterbildungsbeteiligung von Geringqualifizierten im internationalen Vergleich – Eine Mehrebenenanalyse. *Zeitschrift für Weiterbildungsforschung – Report*, *39*, 149–169.

Mayer, K. U., & Solga, H. (2008). Skill Formation. Interdisciplinary and crossnational perspectives. In K. U. Mayer & H. Solga (Hrsg.), *Skill Formation. Interdisciplinary and cross-national perspectives* (S. 1–18). New York: Cambridge University Press.

Moraal, D., & Schönfeld, G. (2007). Paradigmenwechsel: Weiterbildung statt Frühverrentung? Weiterbildung für ältere Arbeitnehmerinnen, Arbeitnehmer und Arbeitslose im internationalen Vergleich. In P. Kaune, J. Rützel & G. Spöttl (Hrsg.), *Berufliche Bildung, Innovation, soziale Integration: internationale Wettbewerbsfähigkeit, Entwicklung und Karriere, Mitgestaltung von Arbeit und Technik* (S. 24–38). Bielefeld: W. Bertelsmann.

Müller, W., & Shavit, Y. (1998). The institutional embeddedness of the stratification process: a comparative study of qualifications and occupations in thirteen countries. In Y. Shavit & W. Müller (Hrsg.), *From school to work. A comparative study of educational qualifications and occupational destinations* (S. 1–48). Oxford: Clarendon.

O'Connell, P., & Jungblut, J.-M. (2008). What do we know about training at work? In K. U. Mayer & H. Solga (Hrsg.), *Skill formation. Interdisciplinary and cross-national perspectives* (S. 109–125). New York: Cambridge University Press.

OECD (2012). *Education at a Glance 2012: OECD indicators* (S. 332). Paris: Organisation for Economic Co-operation and Development.

OECD (2013). Statistical annex. In *OECD employment outlook 2013* (S. 263). Paris: OECD Publishing.

OECD (2019). *Getting skills right: future-ready adult learning systems, getting skills right*. Paris: Organisation for Economic Co-operation and Development.

Ok, W., & Tergeist, P. (2003). *Improving workers' skills: analytical evidence and the role of the social partners*. OECD social, employment and migration working papers, Bd. 10. Paris: OECD Publishing.

Öztürk, H. (2011). Weiterbildung im Kontext heterogener Lebenswelten. *Zeitschrift für Bildungsforschung*, *1*, 151–164.

Philipps, V. (2019). *Die Bedeutung von Institutionen für die Weiterbildung Älterer. Eine vergleichende Studie erwerbsbezogener Weiterbildungsteilnahme in Europa*. Wiesbaden: Springer VS.

Ragin, C. C. (1987). *The comparative method: moving beyond quantitative and qualitative strategies*. Berkeley: University of Berkeley Press.

Ragin, C. C. (2009). Qualitative comparative analysis using fuzzy sets (fsQCA). In B. Rihoux & C. C. Ragin (Hrsg.), *Configurational comparative methods. Qualitative comparative analysis (QCA) and related techniques* (S. 87–121). Los Angeles: SAGE.

Ragin, C.C., & Davey, S. (2016). Fuzzy Set/Qualitative Comparative Analysis 3.0. Irvine: Department of Sociology, University of California

Rubenson, K., & Desjardins, R. (2009). The impact of welfare state regimes on barriers to participation in adult education: a bounded agency model. *Adult Education Quarterly*, *59*(3), 187–207.

Schneider, C. Q., & Wagemann, C. (2007). *Qualitative Comparative Analysis und Fuzzy Sets. Ein Lehrbuch für Anwender und jene, die es werden wollen*. Opladen, Farmington Hills: Barbara Budrich.

Scott, W. R. (2001). *Institutions and organizations. Foundations for organizational science*. Thousand Oaks: SAGE.

Vogtenhuber, S. (2015). Explaining country variation in employee training: an institutional analysis of education systems and their influence on training and its returns. *European Sociological Review*, *31*(1), 77–90.

Wagemann, C., & Schneider, C. Q. (2010). Qualitative comparative analysis (QCA) and fuzzy-sets: agenda for a research approach and a data analysis technique. *Comparative Sociology*, *9*, 376–396.

Wolbers, M. H. J. (2005). Initial and further education: substitutes or complements? *International Review of Education*, *51*(5/6), 459–478.

ZfW (2020) 43:227–239
https://doi.org/10.1007/s40955-020-00157-0

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

In steady search for optimization: the role of public and private actors in Switzerland's political economy of adult education

Michael Geiss

Received: 30 January 2020 / Accepted: 24 April 2020 / Published online: 11 May 2020

Abstract This article reconstructs the changes in the political economy of adult education in Switzerland since the middle of the 20th century. Methodologically, the analysis is based on historical institutionalism and concentrates on path dependencies and critical junctures. It is shown that the Swiss adult education system is neither exclusively a marked-led nor a stakeholder-led regime. Instead, it is demonstrated that the current situation cannot be understood without considering the several government initiatives in the context of digital change since the 1970s as well as the efforts of the private national continuing education association SVEB. The article concludes with reflections on the expected impact of the first national law on continuing education which has been enacted in 2017.

Keywords Market · Corporatism · Switzerland · Stakeholder · Legislation

Dr. M. Geiss (✉)
Institute of Education, Education and Work Research Unit, University of Zurich, Zurich, Switzerland
E-Mail: mgeiss@ife.uzh.ch

Auf der stetigen Suche nach Optimierung: Die Rolle der öffentlichen und privaten Akteure in der politischen Ökonomie der Erwachsenenbildung in der Schweiz

Zusammenfassung Dieser Artikel rekonstruiert die Veränderungen in der politischen Ökonomie der Schweizer Erwachsenenbildung seit Mitte des 20. Jahrhunderts. Methodisch stützt sich die Analyse auf den historischen Institutionalismus und konzentriert sich damit auf Pfadabhängigkeiten und sogenannte „critical junctures". Im Folgenden wird gezeigt, dass die Entwicklung des Weiterbildungssystems in der Schweiz weder allein korporatistischen noch ausschließlich Marktprinzipien folgt. Vielmehr wird gezeigt, dass die gegenwärtige Situation nicht ohne Berücksichtigung der verschiedenen nationalen Initiativen im Kontext des digitalen Wandels seit den 1970er Jahren sowie der Arbeit des Schweizerischen Verbands für Weiterbildung SVEB verstanden werden kann. Der Artikel schließt mit Überlegungen zu den erwarteten Auswirkungen des ersten nationalen Weiterbildungsgesetzes, das 2017 in Kraft getreten ist.

Schlüsselwörter Markt · Korporatismus · Schweiz · Stakeholder · Gesetzgebung

1 Introduction

In comparative research, adult education in Switzerland is considered either as part of a collective skill formation system with a strong role for business associations or it is stressed that supply and demand in general and vocational continuing education is regulated by the market (Desjardins 2017, pp. 25–31). This article deals with these contradictory accounts of the Swiss adult education system. It reconstructs path dependencies and critical junctures in the institutional development of adult education in Switzerland. It depicts the ongoing power of the employers, industry and professional associations, and the liberal-minded national authorities in Switzerland. It also shows that several other corporate actors played an important role in more recent developments too. These include the national continuing education association (SVEB) and single education providers like the private so-called Migros Club Schools, and in one important instance even the Swiss trade unions to which a weak role is usually attributed in the Swiss political economy (Bonoli 2019).

The following analyses concentrate on the national level and mention cantonal developments only where they complement the picture in a decisive way. Methodologically, the article follows the approach of historical institutionalism. The focus is put primarily on political developments. This is not the only possible perspective on the development of adult education. However, a reconstruction based on participation rates or finances is not possible due to a lack of data for most of the 20th century.

The state of research, the methodological approach and the data are discussed in the first section (2). The next step is to describe the relationship between vocational and general adult education up to the late 1960s and to introduce the key players (3).

A significant shift was then initiated with the two oil crises in the 1970s. The state invested in research, development and qualifications in the field of new technologies, which also had consequences for vocational and even general adult education (4). At the same time, the national umbrella organization for adult education reorganized itself in several steps and developed highly formalized instruments for professionalizing and consolidating continuing education (5). From here it was not a big step to a law on continuing education which was enacted in 2017 (6).

2 State of research and methodology

By international comparison, participation in continuing education and training can be regarded as very high (SBFI 2019). However, in comparative research on the political economy of adult education the Swiss case is characterized very differently. In 2003, an OECD report on post-secondary education in Switzerland concluded that Swiss continuing education was primarily based on market principles and that the state's claims to regulation were generally rejected (OECD 2003, p. 92). Weber and Wittpoth also stress the role of private providers and trace the repeated failed attempts since the 1970s to regulate adult education at the federal level. At the same time however, they show how an increasing state involvement was observed at the cantonal level. Weber and Wittpoth explain the much more cautious policy of continuing education compared with Germany by the fact that Switzerland has never had a social-democrat-oriented administration through the all-party government (Weber and Wittpoth 1999; Weber 2007).

Taking these ambiguities into account, it is not surprising that the Swiss system can be characterized as a market-led regime, but is also clearly conservative and corporatist. Desjardins has pointed out that, depending on the analytical perspective and weighting of different factors, countries can be assigned to different types of nobility and there are hybrid forms (Desjardins 2017, pp. 25–31). Last, but not least, the interpretation of the Swiss case depends on the extent to which both general and vocational adult education are considered. If only vocational continuing education is taken into account, Switzerland appears as an example of the type of "coordinated market economies" (CME) with a strong tradition of "collective skill formation" (Rees 2013, p. 203; Busemeyer and Trampusch 2012). Even specialized analyses have not changed this picture: Trampusch and Eichenberger have shown that the reluctance of the Swiss state authorities in the area of adult education is partly counteracted by their willingness to declare the collective labour agreements binding (Trampusch and Eichenberger 2012).

Overall, it must be conceded that research on adult education has never been established at Swiss universities. It is being promoted by the national continuing education association SVEB, often in cooperation with individual researchers from various academic disciplines. This is reflected last but not least in the fact that research in Switzerland focused on very particular subjects or questions. In order to understand the Swiss political economy of adult education, it is not sufficient to concentrate on continuing vocational education (CVET) alone or to stress the role of private schools. The picture would not be complete without mentioning the

almost uncoordinated interplay between the federal state boards and the SVEB. It is also essential to give appropriate recognition to the role of one private provider, Migros Club Schools, which is cross-financed by a giant supermarket chain and retail company (Geiss 2016; Schläfli and Sgier 2008).

While most presentations on the structure and governance of adult education in Switzerland argue rather statically, the focus of this article is on institutional change. The analysis thus follows the approach of historical institutionalism, focusing on the genesis and stabilization of institutional arrangements on the one hand, and at the same time asking about certain points in history where fundamental change became possible (Thelen and Steinmo 1992; Capoccia 2016).

There are some restrictions associated with the methodological approach applied here. Developments in individual economic sectors or specific areas of adult education must be neglected in favour of a coherent picture. Historical institutionalism also tends to overemphasize national developments and to lose sight of entanglements and transnational phenomena (Peck and Theodore 2007; Jessop 2011).

My sources include government reports, legal documents, thematic brochures, publications of associations and historical newspapers or journal articles. These are analysed in order to determine which actors expressed themselves at different points in time and what were their demands. In addition, I have evaluated previous analyses of the political economy of skill formation and continuing education policy in Switzerland.

3 Adult education in Switzerland before the oil crises

To understand the political economy of adult education in Switzerland, a sharp distinction must be made between continuing vocational education and training and all other fields of adult education. The former was already mentioned in the first National Vocational Training Act of 1930. The law wanted CVET to remain a voluntary matter, but established the eligibility of this area for subsidies. This applied not only to the preparation for the master craftsman's examination in the manual trades, but also to other courses (Schweizerischer Bundesrat 1928, 1932, Art. 50e). CVET was further strengthened with the first revision of the law in 1963. The main arguments used here were the noticeable shortage of skilled workers on all sides, rapid change and increasing specialization (Schweizerischer Bundesrat 1962). Until the end of the century, non-vocational adult education remained in the responsibility of the individual cantons and civil society initiatives. The financial support of adult education by the Federal Government was only possible to a limited extent and only via the detour of cultural policy and other auxiliary constructions (Geiss 2016).

In the middle of the 20th century, the Swiss adult education landscape was more or less settled. On the CVET side, cantons, vocational schools, training workshops, technical schools, professional associations and single providers all offered courses. This was the area covered by the Vocational Training Act. On the non-vocational side of adult education Folk high schools, the *Volksbildungsheime*, consumer's leagues, institutions for workers' education, Christian education and civic adult education

joined together to form an umbrella organization in 1950. In the self-image of these groups, adult education was meant to serve individual perfection and the community rather than be profit-making or geared towards professional careers (SVEB 1955).

In 1944, a powerful player appeared in Switzerland dedicated entirely to adult education as a form of leisure activity and pursuing no monetary interests; it was called the Migros Club Schools (OECD 2003, p. 61, 203). It had no qualms about seeing adult education as a consumer good like any other. For decades, the offers were cross-subsidized through the profits of the parent company and were thus able to offer massively cheaper courses compared with other private for-profit providers. By joining the umbrella organization for adult education directly, the Migros Club Schools underlined their claim not to profit from the educational needs of the population (Link 1955).

The second player, which is more difficult to classify, is the Swiss Commercial Association, founded as early as 1873 and one of the most important providers of continuing vocational training in Switzerland. Nevertheless, it also joined the umbrella organization for adult education directly and in this context emphasized its commitment to general education (Galliker 1955).

The first critical juncture was the shift towards more vocational offerings by providers of general adult education as well as the national continuing education association SVEB. The Migros Club Schools started their adult education programme with internal domestic courses during World War II and then quickly expanded their portfolio with languages, very successful arts and crafts courses and other leisure activities (Sarno 2010). From 1970 on, a shift towards CVET took place, which was accompanied by a professionalization strategy and increased coordination of course offerings. The courses were redesigned, the subjects were redefined, the demands on lecturers were clarified, the production of teaching materials was promoted, the courses were systematically evaluated and the participants were surveyed. However, the opening up towards CVET was only one aspect of the repositioning of the Migros Club Schools. At the same time, courses on psychology and social support, on a range of sports and on other non-career related subjects were established, thus making the programme extremely diverse (Link 1950; Migros-Genossenschafts-Bund 1969; König 1977).

Within the national continuing education association SVEB, there were repeated disputes in the 1960s about whether to accept profit-oriented adult education providers. Politically, the umbrella organization SVEB urged that adult education be developed as part of the education system (SVEB 1970). Like the Migros Club Schools, SVEB now turned its attention to the relationship between general and vocational adult education and also sought exchange with the private sector (SVEB 1972). Providers for the continuing education of owners of small and medium-sized enterprises and the professional training of skilled workers also became members (SVEB 1976).

The small public contribution that subsidized the administration of SVEB came mainly from two sources: the cultural policy foundation Pro Helvetia opened by the federal government and the intercantonal body of the ministers of education. Further ad hoc individual grants could then be used to finance other individual concerns. Much more significant were the funds in the CVET area that subsidized up to 40%

of course costs. However, this only applied to those courses that were covered by the Vocational Training Act. This excluded not only non-vocational adult education, but also the social, pedagogical and medical professions since training was not regulated at federal level in these areas (Amberg 1984; SVEB 1976).

4 A new political agenda

The trade unions hardly knew how to capitalize on this shift. In the 1970s and 1980s, they were unable to enforce their general demands for educational leave or the right to continuing education and retraining (Schlienger 1975; Schweizerischer Gewerkschaftsbund 1987). However, it seemed to be possible within the framework of collective labour agreements. In 1972, Switzerland's largest trade union succeeded in ensuring that for the engineering industry at least, employee representatives could take paid educational leave. Since 1993, this has applied to all employees in this sector (SMUV 2004, p. 42). Numerous other collective employment agreements for different sectors also regulated further training, albeit in varying degrees of detail (SECO 2003; Trampusch and Eichenberger 2012).

In a less obvious way, trade union positions had a lasting influence on the political economy of adult education in Switzerland. However, this was only possible because a part of the private sector was pushing in the same direction and because the negotiations in this case did not go through the established corporatist institutions. Until the 1970s the discussion on CVET in Switzerland was driven primarily by the economic boom. The two oil crises and the structural change that followed in Switzerland changed the whole landscape of adult education. The new qualification requirements resulting from electronic data processing and rapid technological change seemed to make flexibility and lifelong learning, to which private and state actors were now committed, a necessity (Sacchi et al. 2005; Gugerli and Tanner 2012; Büchel et al. 2020).

The government responded to the challenges posed by the new technologies with a series of impulse programs, each of which was associated with funding in the area of continuing vocational education and training. The first initiatives were pushed forward by a former trade unionist who, as a government delegate, was responsible for negotiations with the various stakeholders. This was a novelty in Switzerland, as business associations were usually closely involved with the liberal minded national economic authorities and were therefore able to get their people into these positions (Jacob 1983; Straumann 2001). In Switzerland, there was no change from a Keynesian to a neoliberal economic and social policy. Rather, approaches based on strong central planning had hardly any lobby in Switzerland, even in the boom decades. Radical federalism, pronounced corporatism and economic liberalism or strong anticommunism made interventionist policies hardly an option even before the two oil crises (Speich Chassé 2016). What can be traced, however, is that in Switzerland, as in other countries, there was a new interventionist agenda in questions of technological development that challenged the established political economy in many areas. The successes of the USA and Japan in the field of microchip technology seemed

to call for concerted action in technological research, development and qualification (Straumann 2001).

Thus, there was a conflict in Switzerland between the still rigid liberal minded economic representatives and those who advocated a more interventionist policy, i.e., direct public investment in research, development and qualification of skilled workers. Vocational adult education benefited from this. In October 1978, the Swiss government approached the two chambers of parliament with a programme designed to respond to the consequences of the first oil crisis. Part of this very disparate initiative was aimed at further training in the field of information technology. A so-called software school was to be temporarily supported from the funds (Mey 1982). The new governmental approach generated strong protests on the part of employers. At the same time, conflicts arose within the business associations and between the companies. Some companies were already directly affected by technological change, while others saw no fundamental need for reform of the established Swiss political economy of skill formation and technology development (Jucker 1980a, 1980b; Mey 1982). For this reason, the temporary character of impulse programmes was an important concern of the government. However, as early as 1982, the next initiative was decided upon. It was to last six years and included the establishment of a continuing education institution in the field of business informatics (Schweizerischer Bundesrat 1982). A third impulse programme, designed to run for five years and adopted in 1985, was aimed primarily at IT training at universities, but also contained individual measures to promote continuing education. At the higher technical schools, for example, the in-service training of teaching staff was to be financially supported. A further focus was on further training of engineers (Schweizerischer Bundesrat 1986).

At the beginning of the 1990s, the various impulse programmes resulted in a final "Continuing education initiative", which continued to have a clear connection to technological change, but was now also intended to promote the expansion of postgraduate continuing education at Switzerland's universities (Angst 1991). The funds could be allocated to the cantons, employers and employee associations and also to public or private non-profit providers. The addressees were skilled and unskilled workers, women and foreigners, persons wishing to re-enter working life. In addition, the measures were meant to promote the basic willingness of the population to undergo further training (Schmitter 1992). Even if the universities were initially sceptical, this project represented a central thrust for the institutionalization of post-tertiary continuing education. The subsequent development of modularized programmes (Certificate of Advanced Studies, Diploma of Advanced Studies and Master of Advanced Studies) has led to a nationwide consolidation of adult education programmes at universities in Switzerland (Gonon 2019). The continuing education initiative ended when the European Union proclaimed the Year of Lifelong Learning, which was also celebrated in Switzerland with a so called "learning festival" which took place in all Swiss cantons (Dohmen 1997).

5 Cantonal legislation, soft power and educational lobbyism

Since the middle of the 20th century, at least continuing vocational education in Switzerland did not have a pure market character. Rather, it was integrated into the established and finely balanced corporatism and was also partly regulated and funded through the National Vocational Training Act. As the common understanding of vocational education and training became more fluid and a new paradigm of lifelong learning emerged in Europe (Centeno 2011), non-vocational adult education increasingly moved into the focus of centralistic government initiatives. The impulse programmes and the rapid technological change with regular new qualification requirements, had partly softened the rigid position of employers, but without fundamentally calling into question the traditional political economy of skill formation in Switzerland. Technological change seemed to call for centralist interventions and direct investment in private sector research, development and continuing vocational education and training. At the same time, concerns remained on the business side about greater centralization in education policy. In Switzerland, the employers and the liberal discourse remained powerful. The government had to ensure that the individual programmes were always only "impulses" and not sustainable structural programmes. Continuing education was meant to remain with individuals, business associations and companies. This also continued to be the position of the federal authorities (EVD 2009).

The solution for these contradictory developments was the formalization of adult education, modularization and the establishment of so-called qualification systems. This was not initially promoted by the state authorities, but by the national continuing education association SVEB, which was committed to the professionalization of staff and the stronger formal structuring of the course landscape. This development started as early as the 1960s and was continuously reinforced until the end of the century (Rohrer and Sgier 1995, 1996).

However, education was to remain a matter for the cantons, as the population repeatedly decided in the 20th century. A constitutional amendment, which included an article on education and also defined adult education as a federal matter, was rejected in a referendum in 1973. The same happened in 1986 and 1994 with two referenda that were to give constitutional status to cultural promotion and that would also have covered general adult education (Weber 2007). The situation was different for continuing vocational education and training, which was even strengthened by the 1978 revision of the law. Remarkably, this revision introduced a broader understanding of adult vocational education and training, which included measures dedicated to improving general education (Rohrer and Sgier 1995, 1996).

At the cantonal level, at least some developments took place. By 1985, articles on adult education were included in the school laws in four cantons. In two other cantons they were mentioned in the laws on cultural matters. Some cantons set up specialized departments and consultative boards or appointed experts in matters relating to adult education. In 1992, the Canton of Berne passed its own Adult Education Act. However, this new cantonal law excluded all ideologically bound providers (trade unions, churches) from funding (Rohrer and Sgier 1995, 1996).

The establishment of qualification systems was thus first promoted by the private umbrella association SVEB, not by the authorities and not by employer and business associations or trade unions. In the late 1960s, SVEB was responsible for a study on "Success in adult education" (SVEB 1969). This laid the foundation for various attempts at formalization and professionalization over the following decades, which the federal authorities were then able to follow up directly. Since the late 1960s, SVEB has also been working to professionalize its staff, commission studies and improve documentation. Since 1970, SVEB has trained lecturers in adult education and also awarded a certificate. The whole effort was at this point under the motto of efficiency in adult education (SVEB 1976). In 1994, SVEB issued a two-stage qualification procedure to qualify adult educators (Schläfli and Sgier 2008).

The SVEB lobbied continuously for stronger state regulation and public funding of adult education and submitted proposals for laws and entire packages of measures. For the second time in 1983, the association submitted its "Proposals for laws to promote adult education" (SVEB 1983). While the federal authorities continued to be reticent about subsidizing general continuing education, they were now committed to improving knowledge about participation in continuing education. The state authorities contributed to this formalization of adult education by increasingly commissioning empirical surveys from which the need for political or private action could then be derived. In 1987, they commissioned the first national survey on the "continuing education behaviour of the Swiss population" (Dal Maso and Locher 1989).

In 1994 a working group developed a concept for continuing vocational training using a modular system, which was subsequently tested. Following a petition in the national parliament, the pilot project was intended to provide a basis for subsequent legal regulation. The federal state boards also planned to create a central body to coordinate and control the activities of the module suppliers (Schweizerischer Bundesrat 1996). After a phase of great modular euphoria, the organization of the federal authorities was reformed and the will to shape the future weakened. There was also resistance from one of the largest and most influential business associations, which opposed more state regulation in the area of the CVET. Although the principle of modularization was widely accepted, this could not be implemented without substantial support from the federal authorities (Gonon 1998; Wettstein 2005).

This gap was filled by the extremely successful quality label "eduQua", which was developed at the end of the millennium by the Federal Board for Vocational Education and Training as well as the umbrella association SVEB. It was officially launched after the turn of the millennium. The aim of the label is to make the continuing education market more transparent both for clients and for the allocation of public funds. It is aimed at all adult education providers, both vocational and general (Sroka 2005).

6 The national continuing education law: a critical juncture?

In 2017, a national law on continuing education came into force in Switzerland. In a small, decentralized state, which to date has 26 cantonal school laws. However,

the new regulation is only a framework law which has little funding of its own. The regulations on questions of adult education in 80 other national laws continue to remain in force. The primary aim of the law is not to create new areas of state support as to coordinate the governance of continuing education at federal and cantonal level. The law lays down principles, but hardly makes any comments on specific issues. The main addressees are the federal state boards and the cantons. The law applies to all special laws containing regulations on adult education. The substance of these special laws is therefore not affected (Schweizerischer Bundesrat 2013; Schläfli and Sgier 2014). However, one section of the law is dedicated to the provision of basic skills for adults (Schweizerischer Bundesrat 2014, Art. 13–16).

In a referendum in 2006, for the first time in Swiss history a general article on educational matters was included in the constitution. Previously the state only had competence in vocational education and training. As a result, a separate continuing education law became necessary. The new regulations were organized as a framework law and contained only an absolute minimum programme (Schweizerischer Bundesrat 2013).

Thus, the law sanctions the already established structure. However, the national but private continuing education association SVEB, can directly assume tasks under state responsibility. In application of Article 12 of the Continuing Education Act, SVEB is now able to conclude multi-year performance agreements with the State Secretariat for Education, Research and Innovation SERI (SVEB 2016). The models and certificates developed earlier by adult education organizations help as highly formalized instruments to advance the development of qualification systems. Since 2018, the SVEB holds the responsibility for the eduQua label. The association also hosts the eduQua office. Government funding for SVEB is used to further develop adult education, to conduct studies, to set up think tanks or carry out work in the field of quality assurance (SVEB 2017).

One can see from the law that there is a balancing act between not calling the established structure into question and yet taking the constitutional amendment into account. The law explicitly highlights personal initiative and employability as central features of the legal framework for continuing education in Switzerland. Claims and obligations are not formulated, but softer intentions are articulated instead. Before a section comments on "equal opportunities", an article clarifies: "The individual person bears the responsibility for his or her continuing education" (Schweizerischer Bundesrat 2014, Art. 5.1).

In Switzerland, continuing education is not simply regulated via the market. At least in the case of vocational adult education, it is strongly structured by collective skill formation, which also determines initial vocational education and training. Historically, state subsidies were possible at an early stage and the professional associations are still involved in this area today. At the same time, the market for continuing education was for a long time dominated by one provider, Migros Club Schools, which was founded by a company and was private. At the same time, the courses offered by Migros Club Schools systematically undercut market prices because they were partially cross-financed by the parent company.

Finally, developments are hard to understand if the educational lobbyism of SVEB, the umbrella organization for adult education, is not included. For a long

time, this was neglected by the federal authorities. Nevertheless, SVEB developed highly formalized concepts for professionalization and quality assurance with great expertise, which the federal authorities were later able to follow up. With the impulse programmes seen since the late 1970s, the government repeatedly broke with its liberal regulatory agenda. The federal law on continuing education and the subsequent ordinances and service agreements were able to follow on from this and thus did not have to install a completely new regulatory practice. The law was therefore, as far as can be assessed at present, not a critical juncture. The decisive course was set earlier.

Literature

Amberg, H.-U. (1984). Eigenheiten der schweizerischen Erwachsenenbildung. In H.-U. Amberg, et al. (Ed.), *Thema Erwachsenenbildung: Versuche zur Begriffserklärung in der Schweiz* (pp. 13–19). Frankfurt a.M.: Pädagogische Arbeitsstelle des Deutschen Volkshochschul-Verbandes.

Angst, K. (1991). Die Weiterbildungsoffensive des Bundes. Sinn und Grenzen des staatlichen Engagements im quartären Weiterbildungsbereich. In H. Giger (Ed.), *Bildungspolitik im Umbruch: Staatsmonopol in der Weiterbildung?* (pp. 263–272). Zurich: Neue Zürcher Zeitung.

Bonoli, L. (2019). Where are the trade unions? Some insights into the historical evolution of the Swiss VET system. In M.F. Fernando & M.J. Chisvert-Tarazona (Eds.), *Pedagogical concerns and market demands in VET*. Proceedings of the 3rd Crossing Boundaries in VET conference, Vocational Education and Training Network (VETNET). (pp. 137–142). Valencia: Zenodo.

Büchel, K., Geiss, M., & Hägi, L. (2020). Berufsbildung, Konjunktur und Arbeitsmarkt. In I. Brühwiler, L. Criblez, C. Crotti, M. Helfenberger & M. Hofmann (Eds.), *Bildungsgeschichte der Schweiz – 19. und 20. Jahrhundert*. Zurich: Chronos.

Busemeyer, M.R., & Trampusch, C. (2012). The comparative political economy of collective skill formation. In M.R. Busemeyer & C. Trampusch (Eds.), *The political economy of collective skill formation* (pp. 3–40). Oxford: Oxford University Press.

Capoccia, G. (2016). Critical junctures. In O. Fioretos, T.G. Falleti & A. Sheingate (Eds.), *The oxford handbook of historical institutionalism* (pp. 95–108). Oxford: University Press.

Centeno, V. (2011). Lifelong learning: a policy concept with a long past but a short history. *International Journal of Lifelong Education*, *30*(2), 133–150. https://doi.org/10.1080/02601370.2010.547616.

Desjardins, R. (2017). *Political economy of adult learning systems: comparative study of strategies, policies and constraints*. London: Bloomsbury Academic.

Dohmen, G. (1997). Das Jahr des lebenslangen Lernens – Was hat es gebracht? In H. Faulstich-Wieland, et al. (Ed.), *REPORT Literatur- und Forschungsreport Weiterbildung* (Vol. 39, pp. 10–26).

EVD – Eidgenössisches Volkswirtschaftsdepartement (2009). *Bericht des EVD über eine neue Weiterbildungspolitik des Bundes in Zusammenarbeit mit dem Eidgenössischen Departement des Inneren*. Berne: EVD.

Galliker, A. (1955). Erwachsenenbildung im schweizerischen Kaufmännischen Verein. In SVEB (Ed.), *Erwachsenenbildung in der Schweiz* (pp. 151–159). Zurich: Artemis.

Geiss, M. (2016). Sanfter Etatismus: Weiterbildungspolitik in der Schweiz. In L. Criblez, C. Rothen & T. Ruoss (Eds.), *Staatlichkeit in der Schweiz: Regieren und Verwalten vor der neoliberalen Wende* (pp. 219–246). Zurich: Chronos.

Gonon, Ph (1998). Modularisierung als reflexive Modernisierung. In D. Euler (Ed.), *Berufliches Lernen im Wandel – Konsequenzen für die Lernorte?* (pp. 305–321). Nürnberg: Institut für Arbeitsmarkt- und Berufsforschung.

Gonon, Ph (2019). Zur Legitimität von Hochschulweiterbildung in der Schweiz – Zwischen Wissenschafts- und Arbeitsmarktorientierung. In C. Imdorf, R. J. Leemann & P. Gonon (Eds.), *Bildung und Konventionen. Die „Economie des conventions" in der Bildungsforschung* (pp. 375–403). Wiesbaden: Springer VS.

Gugerli, D., & Tanner, J. (2012). Wissen und Technologie. In P. Halbeisen, M. Müller & B. Veyrassat (Eds.), *Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert* (pp. 265–316). Basel: Schwabe.

Jacob, A. (1983). Die Bedeutung der Impulsprogramme für die Schweizer Wirtschaft: positive Bilanz. *Schweizer Ingenieur und Architekt*, *46*(83), 1104–1105.

Jessop, B. (2011). Rethinking the diversity of capitalism: varieties of capitalism, variegated capitalism, and the world market. In G. Wood & C. Lane (Eds.), *Capitalist diversity and diversity within capitalism* (pp. 209–237). London: Routledge.

Jucker, W. (1980a). Beziehungen zwischen Schule, Wirtschaft und Technik. *Gewerkschaftliche Rundschau*, *72*(1), 1–10.

Jucker, W. (1980b). Wirtschaftliche und soziale Auswirkungen der Mikroelektronik und elektronischen Datenverarbeitung. *Gewerkschaftliche Rundschau*, *72*(3), 83–95.

König, J. (1977). *Entwicklungstendenzen in der schweizerischen Erwachsenenbildung, verglichen anhand sozialisationstheoretischer und bildungstheoretischer Gesichtspunkte*. Zurich: Juris.

Link, P. (1950). *Die Klubschule Migros*. Zurich: s.n.

Link, P. (1955). Klubschule Migros. In SVEB (Ed.), *Erwachsenenbildung in der Schweiz* (pp. 103–107). Zurich: Artemis.

Dal Maso, G., & Locher, J. (1989). *Weiterbildung in der Schweiz: Auswertung einer Umfrage. Die Analyse von Weiterbildungsdaten: eine spezielle Auswertung der Untersuchung „Das psychologische Klima der Schweiz (PKS)" der Demoskop AG*. Berne: Bundesamt für Bildung und Wissenschaft.

Mey, H. (1982). Die Software-Schule Schweiz. *Hasler-Mitteilungen*, *41*(2), 21–27.

Migros-Genossenschafts-Bund (1969). *25 Jahre Klubschule Migros*. Zurich: Migros-Genossenschafts-Bund.

OECD (2003). *Tertiary education in Switzerland: reviews of national policies for education*. Paris: OECD.

Peck, J., & Theodore, N. (2007). Variegated capitalism. *Progress in Human Geography*, *31*(6), 731–772.

Rees, G. (2013). Comparing adult learning systems: an emerging political economy. *European Journal of Education*, *48*(2), 200–212. https://doi.org/10.1111/ejed.12025.

Rohrer, C., & Sgier, I. (1995). *Erwachsenenbildungs-Politik in der Schweiz: Strukturen, Rechtsgrundlagen, Tendenzen Ein Forschungsbericht*. Zurich: SVEB.

Rohrer, C., & Sgier, I. (1996). Switzerland. *International Review of Education*, *42*(1–3), 131–150.

Sacchi, S., Salvisberg, A., & Buchmann, M. (2005). Long-term dynamics of skill demand in Switzerland from 1950–2000. In H. Kriesi, P. Farago, M. Kohli & M. Zarin-Nejadan (Eds.), *Contemporary Switzerland: revisiting the special case* (pp. 105–134). New York: Palgrave Macmillan.

Sarno, S. (2010). *Die Entstehung der Migros Klubschule (=Lizenziatsarbeit der Philosophischen Fakultät der Universität Zürich)*. Zurich: University of Zurich.

SBFI – Staatssekretariat für Bildung, Forschung und Innovation SBFI (2019). *Indikatoren zum Monitoring des Weiterbildungsgesetzes*. Bern: SBFI. https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/07/indikatoren-webig.pdf.download.pdf/indikatoren_webig_d.pdf

Schläfli, A., & Sgier, I. (2008). *Porträt Weiterbildung Schweiz*. Vol. 2. Bielefeld: W. Bertelsmann.

Schläfli, A., & Sgier, I. (2014). *Weiterbildung in der Schweiz* (3rd edn.). Bielefeld: W. Bertelsmann.

Schlienger, U. W. (1975). *Bildungsurlaub: Einflüsse, Meinungen und Argumentationen*. Onex Genève: Selbstverlag.

Schmitter, Ch (1992). Die Weiterbildungsoffensive (WBO) im Berufsbildungsbereich – eine Zwischenbilanz. *Volkswirtschaft*, *2*(92), 40–43.

Schweizerischer Bundesrat (1932). Verordnung Nr. 1 vom 23. Dezember 1932 zum Bundesgesetz über die berufliche Ausbildung. http://www.edudoc.ch/static/infopartner/mediothek_fs/bis_1997/010356.pdf. Accessed April 30, 2020.

Schweizerischer Bundesrat (1928). Botschaft des Bundesrates an die Bundesversammlung zum Entwurf eines Bundesgesetzes über die berufliche Ausbildung vom 9. November 1928. *Bundesblatt*, *1928*(46), 725–798.

Schweizerischer Bundesrat (1962). Botschaft des Bundesrates an die Bundesversammlung zum Entwurf eines Bundesgesetzes über die Berufsbildung vom 28. September 1962. *Bundesblatt*, *1962*(4), 885–980.

Schweizerischer Bundesrat (1982). Botschaft über Massnahmen zur Förderung der technologischen Entwicklung und Ausbildung vom 3. Februar 1982. *Bundesblatt*, *1982*(17), 1263–1320.

Schweizerischer Bundesrat (1986). Botschaft über Sondermassnahmen zugunsten der Ausbildung und Weiterbildung sowie der Forschung in der Informatik und den Ingenieurwissenschaften vom 2. Dezember 1985. *Bundesblatt*, *1986*(5), 321–383.

Schweizerischer Bundesrat (1996). *Bericht des Bundesrates über die Berufsbildung (Bundesgesetz über die Berufsbildung)*. Bern: Schweizerischer Bundesrat. http://www.panorama.ch/pdf/bba1620b.pdf

Schweizerischer Bundesrat (2013). Botschaft zum Bundesgesetz über die Weiterbildung vom 15. Mai 2013. *Bundesblatt*, *2013*, 3729–3804.

Schweizerischer Bundesrat (2014). *Bundesgesetz über die Weiterbildung (WeBiG) vom 20. Juni 2014*. https://www.admin.ch/opc/de/classified-compilation/20141724/index.html.

Schweizerischer Gewerkschaftsbund (1987). III. Die Situation in der Schweiz: Vor- und Nachteile des Weges über die Gesetzgebung, resp. den Gesamtarbeitsvertrag. *Gewerkschaftliche Rundschau*, *79*(5), 178–184.

SECO – Staatssekretariat für Wirtschaft (2003). *Bericht des Bundesrates zur Weiterbildung im Arbeitsrecht*. Berne: SECO.

SMUV – Gewerkschaft Industrie, Gewerbe, Dienstleistungen (2004). *Keinen Schritt umsonst getan: Blicke auf die Gewerkschaft SMUV, 1970–2000*. Baden: hier + jetzt.

Speich Chassé, D. (2016). Gab es in der Schweiz eine neoliberale Wende? Ein Kommentar. In L. Criblez, C. Rothen & T. Ruoss (Eds.), *Staatlichkeit in der Schweiz. Regieren und verwalten vor der neoliberalen Wende* (pp. 369–384). Zurich: Chronos.

Sroka, W. (2005). *Evaluation und Qualitätsmanagement in Weiterbildungseinrichtungen der Schweiz*. Berlin: DIPF.

Straumann, T. (2001). Rezession, Technologiepolitik und Risikokapital: das Scheitern der Innovationsrisikogarantie, 1985. In H.-J. Gilomen, R. Jaun, M. Müller & B. Veyrassat (Eds.), *Innovationen: Voraussetzungen und Folgen – Antriebskräfte und Widerstände* (pp. 403–419). Zurich: Chronos.

SVEB – Schweizerische Vereinigung für die Erwachsenenbildung (1955). *Erwachsenenbildung in der Schweiz*. Zurich: Artemis.

SVEB – Schweizerische Vereinigung für die Erwachsenenbildung (1970in). *Bildungsreform ja – aber auch für Erwachsene, in der vorliegenden Fassung beschlossen an der 19. ordentlichen Delegiertenversammlung der Schweiz*. Vereinigung für Erwachsenenbildung, am 20. Juni 1970 in Männedorf, in der vorliegenden Fassung beschlossen. Zurich: SVEB.

SVEB – Schweizerische Vereinigung für die Erwachsenenbildung (1972). *Koordination von allgemeiner und beruflicher Weiterbildung? Bericht einer Umfrage*. Zurich: SVEB.

SVEB – Schweizerische Vereinigung für Erwachsenenbildung (1969). *Über den Erfolg in der Erwachsenenbildung: Empirische Basisstudie zum Problem der Erfassung des Bildungserfolges*. Zurich: SVEB.

SVEB – Schweizerischen Vereinigung für Erwachsenenbildung (1976). *Erwachsenenbildung in der Schweiz*. Frauenfeld: Huber.

SVEB – Schweizerischen Vereinigung für Erwachsenenbildung (1983). *Vorschläge für Gesetze zur Förderung der Erwachsenenbildung* (2nd edn.). Zurich: SVEB.

SVEB – Schweizerischer Verband für Weiterbildung (2016). *Jahresbericht*. Zurich: SVEB. https://alice.ch/de/sveb/organe/dv-dokumente/.

SVEB – Schweizerischer Verband für Weiterbildung (2017). *Jahresbericht*. Zurich: SVEB. https://alice.ch/de/sveb/organe/dv-dokumente/.

Thelen, K. A., & Steinmo, S. (1992). Historical institutionalism in comparative politics. In S. Steinmo, K. A. Thelen & F. Longstreth (Eds.), *Structuring politics: historical institutionalism in comparative analysis* (pp. 1–32). Cambridge: Cambridge University Press.

Trampusch, C., & Eichenberger, P. (2012). Skills and industrial relations in coordinated market economies—continuing vocational training in Denmark, the Netherlands, Austria and Switzerland. *British Journal of Industrial Relations*, *50*(4), 644–666. https://doi.org/10.1111/j.1467-8543.2011.00864.x.

Weber, K. (2007). Berufliche Weiterbildung in der Schweiz. Struktur und Steuerung. In C. Crotti (Ed.), *Pädagogik und Politik. Historische und aktuelle Perspektiven. Festschrift für Fritz Osterwalder* (pp. 295–316). Berne: Haupt.

Weber, K., & Wittpoth, J. (1999). Discourse, structure and practice of continuing education: a comparison between Switzerland and Germany. *International Review of Education*, *45*(5), 547–560. https://doi.org/10.1023/A:1003891327534.

Wettstein, E. (2005). Modularisierung im Berufsbildungssystem der Schweiz. *Schweizerische Zeitschrift für Bildungswissenschaften*, *27*(2), 157–174.

ZfW (2020) 43:241–257
https://doi.org/10.1007/s40955-020-00158-z

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

Comparing adult education systems: Canada and Aotearoa New Zealand

Judith Walker

Received: 11 February 2020 / Accepted: 7 May 2020 / Published online: 28 May 2020

Abstract This article examines recent policy initiatives in adult education and training in Canada and Aotearoa New Zealand in relation to political and educational reforms enacted over the previous decades. The paper attempts to deepen our understanding of adult education systems—or lack thereof—in each place, and of neoliberalism, and responses to it.

Keywords Canada · New Zealand · Inclusive liberalism · Neoliberalism

Die Weiterbildungssysteme von Kanada und Aotearoa Neuseeland im Vergleich

Zusammenfassung Dieser Beitrag stellt aktuelle politische Initiativen im Bereich Erwachsenenbildung und Training in Kanada und Aotearoa Neuseeland sowie deren Bezug zu den (politischen) Bildungsreformen der letzten Jahrzehnte vor. Mit diesem Beitrag soll das Verständnis von Erwachsenenbildungssystemen mitsamt ihren Problemen vertieft werden, unabhängig von ihrer Verortung, jedoch in Bezug und Stellungnahme zum Neoliberalismus.

Schlüsselwörter Kanada · Neuseeland · Inklusiver Liberalismus · Neoliberalismus

J. Walker (✉)
University of British Columbia, Vancouver, Canada
E-Mail: jude.walker@ubc.ca

Canada and Aotearoa New Zealand (NZ)[1] are two well-established liberal democracies with high standards of living, high levels of education, and long histories in nonformal adult education. At the beginning of the second decade of this millennium, both countries are investing in the skill development of citizens in the face of growing automation, general job displacement, contractualisation, increasing immigration and cultural diversity, and a need to address the legacy of colonisation. The reforms in the two countries share many similarities with their emphasis on, e.g., the measurement and alignment of skills, education for the labour market, training marginalised Indigenous populations. Yet, there is a dearth of adult education infrastructure in Canada as well as insufficient coordination across the institutions that do exist. A fragmented fiscal federalism (Krelove et al. 1997), the closure of national adult education organisations and termination of initiatives, and a general lack of cross-sectional, substantive reform have meant there is no such thing as a Canadian adult education 'system.' In contrast, New Zealand's centralised policy making, extreme neoliberal reforms of the 1980s and 1990s and policy continuation of them and reaction to them during the following decades, resulted in the creation of structures and institutions that allowed for a highly coordinated, regulated, professionalised, and centralised adult education system.

This paper examines both countries' commitments to skill development undertaken by centre-left governments over the past few years, in consideration of the political-economic reforms of the previous decades which have led us to where we are today.

1 Why focus on Canada and NZ?

Canada and NZ are interesting to compare given their general political, historical, economical, cultural, and educational similarities, and major differences in the formation of adult education 'systems.'

First, NZ and Canada are both settler-colonial nations where the British came in (or the French, in the case of Quebec) and took over rather forcibly from the Indigenous peoples. In recent years, major efforts have started in earnest to reckon with the countries' racist, paternalistic, and colonial histories and legacies (Miller 2017; Sullivan 2016). Canada's Truth and Reconciliation Calls to Action (TRC 2015) focus on the necessary economic, social, political and educational responses and reparations in the aftermath of church/state run residential schools, in operation from the 1830s until 1996, which were embarrassing hotbeds of cultural, sexual, physical and educational abuse with ensuing intergenerational effects. Aotearoa New Zealand, founded in 1840 on the principle of biculturalism through the signing of the Treaty of Waitangi between Māori and the Crown, is held up as an exemplar in the revitalisation of Māori culture and language, growing political power of Māori, and recognition of sovereignty and land title (Sullivan 2016). The Treaty, and commitments to it, inform educational policy at all levels. However, continuing inequality in educa-

[1] Aotearoa is the Māori name for NZ, translated to "land of the long white cloud." It is now common to refer to the country as Aotearoa New Zealand (abbreviated as NZ in this paper).

tional, social, and economic outcomes between Māori and Pākehā[2] (see Lloyd 2018; Sutherland 2019) sheds a painful spotlight on the entrenched issues facing colonial nation-states.

Second, there are demographical similarities, albeit with some important differences. Around 70% of the population is Caucasian, and 15% vs 17% Asian (NZ and Canada respectively). However, 16.5% of NZ's population identified as Māori in the last census with only about 5% of Canadians reporting Indigenous ethnicity. Further, 9% of New Zealanders are of Pacific Island descent (generally referred to as Pasifika) (all statistics taken from Stats Canada 2016; Stats 2019). At the population level, both Māori and Pasifika peoples have lower socioeconomic and educational outcomes (Lloyd 2018; Ministry of Education 2019), as do Indigenous Canadians (Statistics Canada 2016). Canada and NZ also have high immigration rates.[3]

Third, in an analysis of the varieties of capitalism (Esping-Andersen 1996; Soskice and Hall 2001), it is generally accepted that both NZ and Canada are Liberal Market Economies (LMEs) (Soskice and Hall 2001), as opposed to Coordinated Market Economies (CMEs) (such as Germany, Sweden etc.), and liberal welfare states (Esping-Andersen 1996), in contrast to social democratic welfare states (such as Sweden). Compared to many CMEs, (though less so than the US), both countries prize liberal individualism, have weaker unions, have greater competition between firms, tend towards means-tested benefits instead of universal provision (to varying extents), and have higher levels of inequality.[4] Recent research on adult education systems and political economy, has tended towards examining collective skill formation regimes of certain CMES, such as Germany (see, e.g., Busemeyer and Trampusch 2012). Focusing on NZ and Canada helps build our understanding of what kinds of adult education systems can and do emerge in LMEs in consideration of the broader political economic context.

At the same time, there are many differences between the two countries: one is small (NZ: ~268,000 km^2), one is very big (Canada: ~10 million km^2). Larger countries, like Canada, tend towards federalism (e.g., U.S., Australia, Germany, Argentina etc.). In Canada, fiscal federalism means that for the most part the provinces and territories have a large amount of freedom in how they run their social welfare systems, receiving bulk funding from the federal government to do so (Krelove et al. 1997). Canada is the only country in the OECD without a national body of education with adult education organised at a provincial level.

Further, as LMEs or liberal welfare states, the two countries have experienced quite different political economic trajectories over recent decades. Perhaps more than any other economically advanced nation, NZ experienced radical political, economic, and social change starting the 1980s. It moved away from an exceptionally protected

[2] Pākehā is commonly used to refer to New Zealanders of European descent.

[3] It's interesting to note that NZ's net migration rate has been almost double in recent years: 11.4 per 1000 compared to Canada's 6.6/1000. See https://www.stats.govt.nz/news/new-zealand-net-migration-rate-remains-high and https://www.bbc.com/news/50061529.

[4] Both countries' gini coefficients are estimated at around 0.32 compared to Denmark's 0.26. As a point of comparison, the US is at 0.39. See https://data.oecd.org/inequality/income-inequality.htm and http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indicators/Home/Standard%20of%20living/income-inequality.aspx.

welfare system to a radical neoliberal experiment, and later to a more inclusive liberal model (Craig and Porter 2006), which involved reinserting social cohesion, civic participation, and democracy into politics. Its extreme free-market reforms of the 1980s and 1990s became termed "The New Zealand experiment" (Gray 1998). These reforms were partially enabled by the small geography and population of the country (~3 million in the 1980s, ~4.7 million today), as well as due to many other factors, which I explore in more depth elsewhere (Walker 2011). While Canada experienced its fair share of neoliberal reforms, starting with Prime Minister Brian Mulroney in the 1980s and particularly under PM Stephen Harper in the 2000s, its extent of reforms was arguably never as great, nor were policies ever instituted as fast, as in NZ.

2 A note on methodology

Some comparative education scholars have cautioned against methodological nationalism and comparing nation-state to nation-state given the importance of both transnational organisations like the OECD and of globalising forces (see, e.g., Robertson and Dale 2008). I would argue that in more recent years, however, we are being brought back to the importance of nation-states and their responses, especially, to global crises, such as the movement of people, trade, and now the Covid-19 pandemic. While there are always problems with national comparisons—especially here in comparing a small centralised state with a federated one—such comparison of systems and of recent policies provides us with insight into how two different LMEs prioritise and approach adult education and training through policy frameworks. In drawing on some categorisations from the field of comparative education, we can describe my approach here as sociological, rather than epistemological, and concerned with the broader geopolitical context and how national governments respond to it (see Manzon 2018). In keeping with the tradition of comparative education research, too, I am attempting to examine the phenomenon of adult education and training systems in each country in relation to their unique socio-cultural-historical-political contexts (Schriewer 2014). It may be of interest and importance to the reader for me to address the question of positionality. I am a New Zealander who has been living in Canada for 16 years and who has been researching adult education in both countries for almost two decades. These are the two worlds I have mostly inhabited and I seek to make sense of both from insider and outsider perspectives. Overall, this study contributes to the relative dearth of comparative adult education research of policy in the broader field of comparative education.

3 Understanding neo and inclusive liberalism

Neoliberalism has come to refer to a plethora of phenomena. Here we understand it as a historical movement, an ideology, and a set of policy approaches. What we refer to as neoliberalism began as a movement, beginning in the 1970s and 1980s, as the disillusionment with, and subsequent abandoning of, Keynesianism

in the face of stagflation (i.e., concurrent inflation and unemployment, which was counterindicated by the theory. See Murad 1962). This was associated with the growing acceptance of monetarism and supply-side economics (Friedman 1962), which emphasised lowering barriers to production, cutting government spending, and reducing government's normative goal to growing the economy by getting out the way. In reality, governments began to actively intervene to promote a market society (MacEwan, 1999), with policies underpinned by what I am terming an *ideology of distrust,* for example, of:

- **The public sector** for its supposed inefficiencies and inabilities to generate profits, resulting in increasing privatisation and New Public Management reforms to make the public sector more like a business.
- **The non-profit, volunteer sector** for its purported lack of quality, resulting in professionalisation and privatisation
- **Unions** for interfering in the market and preventing competition, resulting in de-unionisation.
- **Institutions, and the individuals in them**, to be honest, capable, hardworking, and productive, resulting in increased auditing, demands for accountability, quality control, performance indicators, and assessment tools.
- **Qualitative indicators** of quality, resulting in increasing metricisation and quantification.
- **Education for non-labour market purposes,** given the primacy of the market, resulting in an ignoring of community adult education

Craig and Porter (2006) used the term "inclusive liberalism" to describe the reforms undertaken in the 1990s and early 2000s by the World Bank, NZ, and certain other countries, which were a response to the misery wrought from structural adjustment programmes and neoliberalism's harsher aspects. Governments, such as NZ's, sought to partially re-embed the economy, in a limited resubordination of the economy to civil society (Polanyi 1957), while focusing on the inclusion of disadvantaged others. Under inclusive liberalism, there is a special focus on seeking to include certain populations (such as Indigenous peoples) in the market who clearly have not benefitted under neoliberal global capitalism. There are many similarities with Giddens' (1999) Third Way program which carves a middle path between social democratic welfare capitalism and extreme neoliberalism. Importantly, in Gidden's model, skills and training are endowed with a special role in addressing central social welfare policy concerns and are generally funded accordingly. However, inclusive liberalism or the Third Way can be understood more as a shift in degree not in kind to neoliberalism (Craig and Porter 2006; Gibb and Walker 2011). Certain ideologies and practices remain. It is my contention that both NZ and Canada recently and currently reflect certain inclusive liberal sensibilities. However, Canada never underwent the extent of the more pure neoliberal reforms of NZ.

4 Getting the skills we need: Canadian and NZ adult education systems in 2020

Both NZ and Canada have introduced recent policy initiatives to help support adult education and address some of the challenges the countries face, especially with regards to skills shortages and technological disruptions to the labour market. In 2019, both countries announced major skills initiatives: Canada, the *Future Skills Program,* and NZ, the creation of the *New Zealand Institute for Skills and Technology (NZIST).* Yet, while the problems plaguing the two countries share many similarities, the adult education 'systems' bear little resemblance to one another. In what follows, I present a general overview of adult education in each place and highlight some of the more recent policy directions.

4.1 Aotearoa New Zealand

In NZ, education is highly centralised and regulated. All post-compulsory education, from adult and community education to universities, falls under the jurisdiction of the Tertiary Education Commission (TEC). In fact, adult, community, and vocational education comprise a significant part of TEC's mandate and concerns. Governing all education is the New Zealand Qualifications Authority (NZQA) which oversees accreditation and quality control, and enables organisations and educational providers to confer certain credentials and apply for particular pools of funding. The NZQA conducts assessment; liaises with overseas certifying bodies; oversees entrance to university; grants approval of courses; represents institutional authority; and provides accreditation of new courses. Other government departments important to adult education include the Ministry of Education (though much less so), and the Ministry of Business, Administration, and Employment, which is a catch all department that oversees New Zealand Immigration, Employment New Zealand (formerly the Department of Labour), and Housing, Science, Innovation, Urban development, Māori economic development and a host of other functions (see also Walker 2011).

Recent adult education policy initiatives have focused on the vocational and skills sectors and on creating greater unification. The world's first "Wellbeing budget" (NZ Treasury 2019) in 2019 allotted around $200 million for vocational and trade training programmes. The largest piece of policy news has been the proposed development of NZIST, which will ultimately become NZ's largest provider of tertiary education, first bringing together the country's 16 polytechnics and institutes, and then supporting online, workplace and other vocational education in a unified system (TEC 2020). Other reforms underway are the creation of work development councils in the place of Industry Training Organisations (ITOs) and of Centres of vocational excellence. The focus, above all, is on initiatives that allow the country to meet its Treaty obligations and commitments to Māori through education.[5]

The government has also been apportioning greater funds towards workplace literacy and numeracy, the training of adult educators, adult and community education in schools, among other initiatives (TEC 2019a, b). There has been development of

[5] This is apparent in examining all recent TEC initiative found at https://www.tec.govt.nz/.

the ACE (Adult and Community Education) sector through an emphasis on Adult Literacy, Numeracy, and Cultural Capability (https://ako.ac.nz/alnacc/), and a commitment to embedding literacy in all forms of education (Walker 2011). Assessment of learning has been a crucial part of this, with the development in recent years of a Literacy and Numeracy Adult Assessment tool, containing thousands of questions (which are often culturally specific to NZ), used to measure progress at the cohort level. As the TEC makes clear, usage of the assessment tool is "... a funding condition for [Tertiary Education Organisations] TEOs receiving foundation-level education funding from us." (TEC 2016).

Although the inclusion of immigrants is a policy concern of the government, it is interesting that NZ (unlike Canada) not only does not offer free English classes to new immigrants, but also stipulates that immigrant applicants "must pay [the NZ government] for ESOL tuition as part of the application", if their English scores are deemed insufficient. This translates to anywhere from $1700 NZD to $7000 NZD depending on one's score on an approved English language test. TEC organises the tuition and those accepted as residents have up to five years to complete the classes (NZ Immigration, nd).

The government currently offers one year of free tuition to anyone pursuing post-secondary education and training (including for those who have previously accrued under a year of tertiary education), with plans to provide three free years of tertiary education by 2024 (Labour NZ 2020). Further, the level of proclaimed of consultation in policy creation is quite striking: the TEC asked for input (to be submitted by October 2019) from across the country on the "long-term vision, objectives and actions for the education system", requesting specific feedback on the draft priorities for the National Education and Learning Priorities (NELP) and the Tertiary Education Strategy (TES) (TEC 2019b). At the time of writing this paper, the government was also in the midst of a massive consultation process to decide upon a final name for the Institute of Skills and Technology (NZ Ministry of Education, 2020).

4.2 Canada

At the federal level, Employment Skills and Development Canada (ESDC) takes responsibility for funding many adult-education related programming through its Office of Literacy and Essential Skills (OLES); Citizenship and Immigration Canada (CIC) also funds many language and settlement services for immigrants and refugees. Organisations offering adult basic education and language programming generally receive both federal and provincial funds, often in the form of time-limited grants. The federal tri-agency research funding body, especially through its Social Sciences and Humanities Research Council (SSHRC), helps steer academic research in adult education in deciding which projects receive financial support. Mapping the terrain of adult education policy in Canada is incredibly challenging, and sharing of programmatic and policy information among provinces, while facilitated through the Council of Ministers in Education (CMEC), is still difficult (see also Elfert and Walker 2020).

Like NZ, Canada has also focused its attention on vocational training and skills development. Established in 2016, the government's Advisory Council on Economic Growth (2017), proposed the formation of what became the Future Skills program, and recommended in 2017 "an additional $15 billion in annual investments in adult skills development" (p. 1) which would include the establishment of a federally-governed Canada Lifelong Learning Fund. The Future Skills program was established in 2019, comprising a Future Skills Centre and Future Skills Council. The Centre (FSC-CCF) is an independent research centre, collectively run by a university, and two major think tanks, will "develop, test, and measure new approaches to skill development and assessment," (Government of Canada 2019) apportioning 50% of its funding to "disadvantaged and under-represented groups." By the beginning of 2020, the Skills Centre had funded six inaugural research projects and recently closed a call for proposals for researching Support for Mid-Career Workers (see https://fsc-ccf.ca/innovation-projects/). The Future Skills Council, comprised of a diverse representation of "technical and subject matter experts from the public, private and not-for-profit sectors," (Government of Canada) advises the Minister of Employment, Workforce Development and Labour "on national and regional skills development and training priorities" in response to the changing economy (Government of Canada 2019).

Other new policies related to skills include the new Workforce Development Agreements (WDA) with all the provincial and territorial governments, which will provide a total of $5.2 billion over six years (from 2017–2023) to develop and deliver "programs and services that help Canadians get training, develop their skills, and gain work experience" (cited in Walker, forthcoming), and Skills Boost to offer targeted funding for the unemployed who want to "return to school and upgrade their skills."[6] The country also undertook a review of "all the programs that relate to skills in order to maximize effectiveness" (cited in Walker, forthcoming), which comprise 106 programs across 30 departments and agencies, resulting in greater commitments made to improve gender and diversity in skills programs.

Other recent federal budget commitments include the establishment and financial support of a Sustainability Development Goals (SDG) unit through Statistics Canada to monitor and report activities (Government of Canada 2018a). Though it appears that the government commitment is more to measuring and reporting rather than to funding actual adult education programming and to (re)building a robust infrastructure.

A new policy directed to the education of immigrants includes the allotment of $400 million over five years to support the *Action Plan for Official Languages 2018–2023,* which focuses on raising language and literacy levels of visible minority newcomer women, and supporting community organisations build their capacity to pursue government contracts or maximize available funding opportunities (Government of Canada 2018b). Initiatives aimed at reducing the educational gap between Indigenous and non-Indigenous Canadians include over $1.5 million to the Native Education College for the Essential Skills for Aboriginal Business project (Hayes 2018a), and further investment into The Indigenous Skills and Employment Training

[6] https://www.canada.ca/en/employment-social-development/campaigns/skills-boost.html.

Program to support better paying jobs, actively considering barriers faced by women and further aligning training with community needs (Hayes 2018b).

The government continues to institute the Testing of Workplace Essential Skills (similar to assessment tools in NZ), a framework which drew on an essential skills framework that was first proposed in the 1970s (Shohet and Coutant 2019). In 2018, Futureworx (2019) was funded by OLES to "explore the need for and how best to develop a pan-Canadian soft skills framework." In the same year, CMEC endorsed six pan-Canadian global competencies to be fostered across all 13 provinces and territories.

We see many similarities in Canada's and New Zealand's concern for supporting adult education: a focus on skills building, concern for closing the gaps between Indigenous and non-Indigenous peoples, measurement of competencies, a continuing focus on adult literacy. However, NZ is a centralised, highly regulated adult education system whereas Canada has a plethora of policies at both provincial and federal levels; and though there is a desire for greater collaboration/coordination, there is nothing that really comes close to an adult education system.

5 Looking backwards to understand the present

To make better sense of the present, and perhaps even to think into the future, we need to examine recent political economic history of both places in the creation (and, at times destruction), of adult education systems and institutions.

5.1 Canada: A brief history in relation to adult education

In the 1970s and early 80s, Canada was generally a welfare state and under the leadership of the (first) Liberal Trudeau government, in power from 1968 until 1984 (excepting 1979). This time oversaw the declaration of Canada as a multicultural country (through the development of official multicultural policy in 1971), and the proclamation of the Canadian Charter of Rights and Freedoms (aka the Canadian constitution, in 1982). Canada started to embrace free-trade in the 1980s and 1990s, with the signing of CUFTA and then NAFTA. While neoliberal ideologies and New Public Management philosophies started to creep into public policy over the 1990s, it was only under the previous centre-right Conservative government (from 2006–2015) that the country began to experience more forceful and targeted cuts to social spending and deregulation. Canada remained much more of a welfare state over the 1980s and 1990s with a Conservative, then Liberal, government that, to varying extents, championed and supported adult education (Elfert and Walker 2020).

Policies had already been developed in the 1960s to support vocational training, and short-term retraining for unemployed and underemployed workers. Over the 1970s a database was developed at the (then) Department of Manpower and Immigration on Generic Skills for Occupations, that would then go on to form Canada's framework for essential skills, which included academic reasoning, interpersonal, and manipulation skills (Shohet and Coutant 2019). The Movement of Canadian

Literacy was formed which subsequently developed a coalition of 10 literacy organisations throughout the country. It was in 1987 that centre-right Progressive Conservative Prime Minister Brian Mulroney (in power from 1984–1993) committed to the creation of the National Literacy Secretariat (NLS), which then formed part of his re-election platform. The NLS was entrusted with working with various sectors and organisations nationwide to "ensure Canadians had access to the required literacy skills" (Hayes 2013, p. 4). Thanks to the NLS and other efforts, four additional national adult literacy organisations were formed, and by 1991 there were six such organisations across the country, supporting provision, promotion, and research on adult education. Not only was Canada influenced by the results of the OECD's first International Adult Literacy Survey (IALS) in the mid-1990s, but was one of the instrument's main architects which drew on previous surveys of Canadian literacy and on discussions on generic skills that had been taking place since the 1970s (Elfert and Walker 2020). Under the next Liberal government (in power from 1993–2005), the literacy organisations and NLS continued to operate (not without struggles); the Canadian Council on Learning (CCL) was created in 2002 to work with all sectors and organisations of Canadian society to help create "the skills and learning architecture that Canada needs;" and, in 2003, the government committed to working collaboratively to build a pan-Canadian strategy in adult literacy (Elfert and Walker 2020).

Within three months of taking power, the Conservative Harper government (from 2006–2015) folded the NLS into the then Human Resources and Social Development Canada (now ESDC), and by 2007 shut down the NLS. In 2010, the CCL was also defunded, and, due to major cuts in 2014, by 2015 all but two of the six major national literacy organizations had closed their doors (Elfert and Walker 2020). We see new initiatives, as the ones explored above, since the election of the Liberal government yet no real infrastructure. The essential skills framework continues to be hugely influential in training projects, and thinking into the skills needed by Canadian society (Shohet and Coutant 2019).

5.2 NZ: A brief history in relation to adult education

In the 1970s, NZ was largely a closed society with preferential immigration schemes for British immigrants and a highly regulated economy (Cheyne et al. 2005). It was also one of the world leaders in welfare reform (as was Canada, in its pension plan and medicare system, for example). By the 1980s, the country was experiencing numerous economic and social problems. It had a relatively undiversified economy, isolationist and protectionist trade policies, unsustainable levels of agricultural subsidies, and (according to some sources) cripplingly powerful unions (Cheyne, O'Brien, & Belgrave). In the early 1980s, faced with these challenges and in the aftermath of the oil crisis, centre-right National party Prime Minister Robert Muldoon borrowed millions of dollars to build large-scale industrial projects under his "Think Big" initiatives aimed at reducing New Zealand's reliance on imports. These investments were widely unpopular and expensive, and arguably did little to aid the economy.

Faced with this troubled political and financial situation, the incoming centre-left Labour government, elected in 1984, sought to stimulate the economy under the guidance of Finance Minister Roger Douglas. His economic policies became known as "Rogernomics," involving radical deregulation, restructuring, decentralisation, privatisation and deunionisation. The "New Zealand experiment" (Gray 1998) was spearheaded by the traditionally leftist Labour government during the mid-to-late 1980s and strengthened and continued under a new-right National party throughout the 1990s. While implementing a policy of market liberalism, the Labour government of the 1980s paid some attention to social equity and concern for the principles of the Treaty of Waitangi; this negotiation over competing ideologies was generally quashed during the 1990s under the more right-wing National party (Walker 2011). The fifth Labour government came to power in 1999, under the leadership of Helen Clark, determined to undo the damage associated with the major policy reforms of the previous era, in a Third Way or Inclusive Liberal approach (Craig and Porter 2006; Giddens 1999).

There was little focus on adult education by the National government in the 1990s, save a few documents in the late 1990s which expressed some concern for lifelong learning and referenced OECD policy concerns and discourses (perhaps as an initial response to IALS results) (Roberts 2000). It is important to examine, however, the changes made to education more broadly through the establishment of the NZQA, which was conferred by the Education Amendment Act of 1990 with the ability to invigilate over most matters educational. While its initial mandate mainly concerned the educational assessment of compulsory schooling, by the late 1990s polytechnics and institutes were brought under its umbrella as the institution was called to offer further quality validation services and more "rigorous assessment", to exercise greater quality control, and to demand further institutional accountability. It also began to establish policies and criteria related to quality assurance to providers of adult and community education (ACE) (Walker 2011). Private Training Establishments were established throughout the decade, thanks to deregulation, growing to almost a thousand by the end of the decade; they too were provided with the ability to apply for registration under the NZQA (Walker 2011). As Roberts (1997) noted, the NZQA's rational "scientific" quality allowed it to assume the status of "official knowledge" on educational standards, thus enabling the organisation to radically transform education. It helped bring about a more centralised, cohesive, and seamless education system across all levels.

The following decade saw a further consolidation of power for the NZQA which happened in tandem with the creation of a new ministry, the TEC, established as a result of the Tertiary Education Advisory Commission (TEAC) and consequent Tertiary Reform Bill (2002). The commission and bill set forth a vision of developing tertiary education in New Zealand, and streamlining and incorporating it under one umbrella. Adult education started to receive a lot more focus in the beginning of the 21st Century with the election of the Labour government. An Adult Literacy Strategy (2001) was launched, which connected to NZQA standards; and, the field became further professionalised, with the creation of required certification for adult literacy and vocational training instructors. The NZQA was first directly connected to the Tertiary Education Strategy in 2003, which gave the qualifications authority

jurisdiction over quality in all tertiary institutions. Adult and lifelong education was enveloped into the TEC and it is from TEC that many of the main strategies and reforms affecting adult literacy emerged. Now all tertiary education (whether university or basic literacy) provision must meet most of the same policy priorities, abide by the same accountability regimes, and operate on similar funding formulae as other actors in the sector.

Both the NZQA and the Tertiary Education Commission represent the ultimate in centralisation, coordination, and regulation by including everything to do with non-compulsory schooling under one banner. As Zepke (2009) noted, instead of reversing the trends of the previous decades of quality assurance and accountability, there was, and continues to be, a pronounced increase in the focus on continuous improvement in quality.

6 Discussion & conclusions: the two adult education 'systems'

While exceptions exist at provincial levels (especially Quebec), Canada has no real adult education system and no cohesive policy infrastructure. The two main influencers in adult education are arguably think-tanks (as Stone 1996, observed more generally), particularly the Conference Board of Canada which helps to run the newly created Future Skills Centre. There is still an acknowledgment of the importance of a pan-Canadian policy response to adult education, yet "there continues to be 13 jurisdictions shaping their own approach to the field, with few shared tools or methods." (St-Clair 2016, p. 238). As I have argued elsewhere (Elfert and Walker 2020), the federal system and lack of communication and coordination across provinces is partially to blame here. This prevented the type of centralisation and regulation that took place in NZ. Further, and equally importantly, adult education was never as holistically championed nor infused into the ministries and institutions. There was no comparable neoliberal experiment which could either be capitalised on or responded to; both Conservative and Liberal governments of the 1980s and 1990s invested in adult education. Support for adult education and literacy has waxed and waned, with no real continuity of support—notwithstanding more recent investments by the current Liberal government after the general neglect of the field under the previous Conservative leadership.

In contrast, New Zealand underwent radical changes to its political economy. Under the neoliberal reforms of the 1980s and 1990s, government regulations weakened and the private sector grew. At the same time, governance and regulation increased as power was reconcentrated in the state. Skills training, and adult education more generally, sat in tension with the neoliberal ideology of viewing non-compulsory education as a private good that should, thus, be privately funded. Under Third Way and inclusive liberal ideology, however, skills and adult education became a primary social policy and both a palatable intervention into correcting market anomalies as well as response to the negative effects of global capitalism and technological disruption. What is more, in NZ, the educational structures and systems created throughout the 1980s and 1990s were not only ***not*** undone but furthered in a growing emphasis on skills and workplace adult education, with adult and community

education taken also into the fold of the two monolithic entities of the NZQA and TEC.

We also see a neoliberal and continuing inclusive liberal ideology in both places: a concern with a measurement of skills, focus on education for the market place, certain accountability requirements, and attempts to integrate Indigenous peoples into the labour market and to address inequities in participation.

6.1 Pandemic reflections: NZ's ability to effect rapid, coordinated, and far-reaching reforms

I am editing this paper on the eve that Aotearoa New Zealand has locked down the country for at least a month in the face of the global Covid-19 pandemic. At the first signs of community transmission, the country provided less than 48-hours notice in ordering everyone to work from home and cease movement within the country (after having closed the external borders days ago), leaving open only pharmacies and supermarkets and enforcing strict rules. In my home in Vancouver, with hundreds more confirmed and unconfirmed cases, kids are still attending day care, restaurants are still delivering food, domestic travel continues, and social isolation measures are not particularly enforced. Prince Edward Island, in contrast, has shut down daycares and even liquor stores; essential services that remain open in Ontario are different from those in Alberta. There is no one coordinated policy (as of yet) beyond the management of Canada's borders. The ability to act fast and enforce has been part of NZ's political history, and can be seen time and time again when it comes to social, economic, and educational policy. Canada as a large fragmented federal state has tended to act much more slowly and with much less coordination. In Canada, the way the country was formed, with power devolved largely to the provinces and territories, means there are 13 different actors who decide upon how the educational institutions are run and the priorities for adult training and education.

While these are unprecedented times, I can't help but reflect on the fact that NZ is responding, policy-wise, to this pandemic in a way that reflects its history and national character, which is evidenced too in its adult education policy. The country's 4-level Covid-19 alert system clearly articulates the health and social measures to be taken from the "Prepare" stage (Level 1), through "Reduce" (Level 2), "Restrict" (Level 3), and, finally, "Eliminate" (Level 4, where the country is currently at).[7] Similarly, New Zealanders have become very used to clearly developed and communicated levels of training and education, as articulated in and through the NZQA.[8] As we have explored, with increasing accountability came increasing measurement and categorisation. Further, NZ is known as an incubator of social policy ideas across the world (such as, for example, Outcomes-Based Education, see, e.g., Martens & Starke, 2008); even now, within 24-hours of the lockdown, many Australians are looking East for a model to emulate (see., e.g., Alcorn 2020). There is a unity in the country that does not exist in places like Canada: there is one Indigenous people (Maori) who, while existing across different *iwi*, still speak one

[7] See https://covid19.govt.nz/government-actions/covid-19-alert-system/.

[8] See e.g., https://www.nzqa.govt.nz/studying-in-new-zealand/understand-nz-quals/.

common language. This compares with over 50 First Nations in Canada with over 50 languages (sometimes vastly different), and numerous different cultural practices and histories (Government of Canada 2017). Equally important here are NZ's geographic isolation as an island nation where it takes over 24 h to fly to Europe, its national pride of fairness and pragmatism, and the persistence of a tall poppy syndrome where no-one is to receive special treatment or blow their own trumpet (see., e.g., Wilson 2019). Whether getting the country on board with a highly coordinated, centralised, standardised response to education and training or with a highly coordinated, centralised, standardised response to the pandemic, government success has been remarkable.

7 Concluding Remarks

Adult education systems across OECD countries vary vastly, not only between CMEs and LMEs, but also within them, which may or may not affect participation and outcomes. It is worth nothing that New Zealand was singled out in the latest GRALE report as having made major gains in employer-supported and other participation in adult education over the past years; it is also named as one of a few countries which has managed to admirably include vulnerable populations in adult learning and education (UIL 2019, p. 160). While Canada also has relatively high levels of participation and educational outcomes, it struggles in ways NZ does not given the long-arm of the NZQA. For example, in Canada foreign credential recognition is still a real challenge, as is cross-provincial labour mobility (Annen 2019). Further, by centralising and professionalising the field of adult education, whether in workplaces or community, NZ brought respect to the field (Walker 2011). Centralising and streamlining everything under the TEC provides coherence, consistency, and order to all non-compulsory education in New Zealand. At the same time, freedom, creativity, and possibilities for a more democratic and critical adult education may be lost.

The past has made the present. Inclusive liberal governments like Canada's or NZ's over the first two decades of the 2000s, have built on, tweaked, extended, repurposed, refined policies and structures built before them. Canada's political structure, geography, history, and a host of other factors, meant that the institutions and structures of adult education were either never created or built on sand. Furthermore, proclamations of neoliberalism's death have been uttered with increasing frequency and intensity since the global economic crisis (see, e.g., Jacques 2016). Nonetheless, while the planned laissez-faire utopian project (Polanyi 1957) may be over, neoliberalism's spectre remains.

References

Advisory Council on Economic Growth. (2017). Learning nation: Equipping Canada's workforce with skills for the future. Government of Canada. https://www.budget.gc.ca/aceg-ccce/pdf/learning-nation-eng.pdf. Accessed 5. January 2020.

Alcorn, G. (2020). 'Clarity and compassion:' what Australia can learn from New Zealand's coronavirus response. The Guardian. https://www.theguardian.com/world/2020/mar/25/clarity-and-compassion-what-australia-can-learn-from-new-zealands-coronavirus-response. Accessed 5. January 2020.

Annen, S. (2019). Measuring labour market success: a comparison between immigrants and native-born Canadians using PIAAC. *Journal of Vocational Education & Training*, *71*(2), 218–238.

Busemeyer, M., & Trampusch, C. (2012). *The political economy of collective skill formation*. Oxford: Oxford University Press.

Cheyne, C., O'Brien, M., & Belgrave, M. (2005). *Social policy in Aotearoa: A critical introduction*. Melbourne: Oxford University Press.

Craig, D., & Porter, D. (2006). *Development beyond neoliberalism? Governance, poverty reduction and political economy*. New York: Routledge.

Elfert, M., & Walker, J. (2020). The rise and fall of adult literacy: Policy lessons from Canada. *European Journal for Research on the Education and Learning of Adults*, *11*(1), 109–125.

Esping-Andersen, G. (1996). *Welfare states in transition: National adaptations in global economies*. Thousand Oaks: SAGE.

Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.

Futureworx (2019). Building a pan-Canadian softskills framework. https://futureworx.ca/wp-content/uploads/2019/01/Soft-Skills-Framework-Report.pdf. Accessed 5. January 2020.

Gibb, T., & Walker, J. (2011). Education for a high skills society? The landscape of federal employment, training and lifelong learning policy in Canada. *Journal of Education Policy*, *26*(3), 381–398.

Giddens, A. (1999). *The third way: The renewal of social democracy*. Malden,: Polity Press.

Government of Canada (2017). Indigenous peoples and communities. https://www.rcaanc-cirnac.gc.ca/eng/1100100013785/1529102490303. Accessed 5. January 2020.

Government of Canada (2018a). The 2030 agenda for sustainable development. https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/priorities-priorites/agenda-programme.aspx?lang=eng. Accessed 5. January 2020.

Government of Canada (2018b). Investing in our future: 2018–2023 action plan for official languages. https://www.canada.ca/content/dam/pch/documents/services/official-languages-bilingualism/official-languages-action-plan/action-plan.pdf. Accessed 5. January 2020.

Government of Canada (2019). Future skills. https://www.canada.ca/en/employment-social-development/programs/future-skills.html. Accessed 5. January 2020.

Gray, J. (1998). *False dawn: The delusions of global capitalism*. London: Granta Books.

Hayes, B. (2013). Literacy: Shifting priorities: Federal literacy policy since 2006. Northern Public Affairs. http://www.northernpublicaffairs.ca/index/magazine/volume-2-issue-2-december-2013/literacy-shifting-priorities-federal-literacy-policy-since-2006/. Accessed 5. January 2020.

Hayes, B. (2018a). OLES funds project for Indigenous people [Blog post]. https://brigidhayes.wordpress.com/2018/09/23/oles-funds-project-in-vancouver-for-indigenous-people/. Accessed 5. January 2020.

Hayes, B. (2018b). Budget 2018—My thoughts and comments [Blog post]. https://brigidhayes.wordpress.com/2018/03/19/budget-2018-my-thoughts-and-comments/. Accessed 5. January 2020.

Jacques, M. (2016). The death of neoliberalism and the crisis in western politics. The Guardian. https://www.theguardian.com/commentisfree/2016/aug/21/death-of-neoliberalism-crisis-in-western-politics. Accessed 5. January 2020.

Krelove, R., Stotsky, J., & Vehorn, C. (1997). Canada. In T. Ter-Minassian (Ed.), *Fiscal federalism in theory and practice*. Washington: IMF.

Labour, N.Z. (2020). Making tertiary education and training affordable for all. https://www.labour.org.nz/tertiaryeducation. Accessed 5. January 2020.

Lloyd, T. (2018). He oranga mo Aotearoa. In *State of the state* Vol. 2018. Wellington: Deloitte.

MacEwan, A. (1999). *Neoliberalism or democracy?: Economic strategy, markets and alternatives for the 21st century*. London, New York: Zed.

Manzon, M. (2018). Origins and traditions in comparative education: challenging some assumptions. *Comparative Education*, *54*(1), 1–9.

Martens, K., & Starke, M. (2008). Small country, big business? New Zealand as education exporter. *Comparative Education*, *44*(1), 3–19.

Miller, J. (2017). *Residential school and reconciliation: Canada confronts its history*. Toronto: University of Toronto Press.
Ministry of Education (2019). School leavers with NCEA level 2 or above. https://www.educationcounts.govt.nz/statistics/indicators/main/education-and-learning-outcomes/school_leavers_with_ncea_level_2_or_above. Accessed 5. January 2020.
Murad, A. (1962). *What Keynes means*. New York: Bookman.
NZ Immigration (n.d.). Learning English after you come to New Zealand. https://www.immigration.govt.nz/new-zealand-visas/apply-for-a-visa/tools-and-information/english-language/learning-english-in-new-zealand. Accessed 5. January 2020.
NZ Ministry of Education (2020). Re-imagining vocational learning: Preferred name for new national Institute to be discussed. https://minedu.cwp.govt.nz/news/preferred-name-for-new-national-institute-to-be-discussed. Accessed 5. January 2020.
NZ Treasury (2019). The wellbeing budget. https://treasury.govt.nz/sites/default/files/2019-05/b19-wellbeing-budget.pdf. Accessed 5. January 2020.
Polanyi, K. (1957). *The great transformation* (1st edn.). Boston: Beacon Press.
Robertson, S., & Dale, R. (2008). Researching education in a globalising era: Beyond methodological nationalism, methodological statism, methodological educationism, and spatial fetishism. In J. Resnik (Ed.), *The production of educational knowledge in the global era* (pp. 17–32). Leiden: Brill.
Roberts, P. (1997). A critique of the NZQA policy reforms. In M. Olssen & K.M. Uil (Eds.), *4th global report on adult learning and education*. Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000372274.
Roberts, P. (2000). Knowledge, information and literacy. *International Review of Education*, *46*(5), 433–453.
Schriewer, J. (2014). Neither orthodoxy nor randomness: Differing logics of conducting comparative and international studies in education. *Comparative Education*, *50*(1), 84–101.
Shohet, L., & Coutant, I. (2019). Influences: Lessons from policy and practices in literacy as essential skills in Canada: 1990–2019. Cupe. https://brigidhayes.files.wordpress.com/2020/01/cupe-influences-lessons-about-literacy-and-essential-skills-2019.pdf. Accessed 5. January 2020.
Soskice, D., & Hall, P. (2001). *Varieties of capitalism*. Oxford: Oxford University Press.
St. Clair, R. (2016). Plus ça change—The failure of PIAAC to drive evidence-based policy in Canada. *Zeitschrift für Weiterbildungsforschung*, *39*(2), 225–239.
Statistics Canada (2016). Census profile: 2016 Census. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Geo2=&Code2=&SearchText=Canada&SearchType=Begins&SearchPR=01&B1=All&TABID=1&type=0#fnb95-ref. Accessed 5. January 2020.
Stats, N.Z. (2019). Selected ethnicity and Māori descent. Census 2018. https://www.stats.govt.nz/information-releases/selected-ethnicity-and-M%C4%81ori-descent-topics-by-geographic-area-2018-census-nz-stat-tables. Accessed 5. January 2020.
Stone, D. (1996). *Capturing the political imagination: think-tanks and the policy process*. New York: Frank Cass.
Sullivan, A. (2016). The politics of reconciliation in New Zealand. *Political Science*, *68*(2), 124–142.
Sutherland, D. (2019). Literacy proficiency among students in Aotearoa-New Zealand: Why the gap between Māori and Pākehā? In C. Cocq & K. Sullivan (Eds.), *Perspectives on Indigenous writings and literacies* (pp. 67–87). Leiden: Brill.
TEC (2016). Literacy and numeracy for adults assessment tool. https://www.tec.govt.nz/focus/our-focus/adult-literacy-numeracy/assessment-tool/. Accessed 5. January 2020.
TEC (2019a). Budget 2019 and tertiary education. https://www.tec.govt.nz/news-and-consultations/budget-2019-and-tertiary-education/. Accessed 5. January 2020.
TEC (2019b). New Zealanders asked to shape tertiary education priorities. https://www.tec.govt.nz/news-and-consultations/new-zealanders-asked-to-shape-tertiary-education-priorities/. Accessed 5. January 2020.
TEC (2020). New Zealand Institute of Skills and Technology. https://www.tec.govt.nz/rove/new-zealand-institute-of-skills-and-technology/. Accessed 5. January 2020.
TRC (2015). Truth and Reconciliation Commission of Canada: Calls to action. http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf. Accessed 5. January 2020.
UIL (2019). 4th global report on adult learning and education. https://uil.unesco.org/system/files/grale_4_final.pdf. Accessed 5. January 2020.
Walker, J. (forthcoming). Canadian adult education policy at the cusp of the 2020s. In S. Brigham, K. Jubas & R. McGray (Eds.), *Contexts of adult education policy in Canada*. Toronto: Thomson.

Walker, J. (2011). *The contexts of adult literacy policy in New Zealand/Aotearoa*. PhD Dissertation. Vancouver, Canada: University of British Columbia

Wilson, M. (2019). The psychological roots of tall poppy syndrome. New Zealand Listener/Noted. https://www.noted.co.nz/health/health-psychology/tall-poppy-syndrome-psychological-roots. Accessed 5. January 2020.

Zepke, N. (2009). A future for adult lifelong education in Aotearoa New Zealand: Neoliberal or cosmopolitan? *International Journal of Lifelong Education*, *28*(6), 751–761.

ZfW (2020) 43:259–273
https://doi.org/10.1007/s40955-020-00163-2

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

Researching the political economy of adult learning systems. Theoretical amendments and empirical findings

Michael Schemmann · Dörthe Herbrechter · Martina Engels

Received: 14 February 2020 / Accepted: 23 June 2020 / Published online: 9 July 2020

Abstract The article relates to different approaches which emphasize a multi-level perspective as well as the institutional conditions that shape adult education. With reference to both the political economy approach and the governance perspective, it is outlined how these more general approaches can be theoretically amended by neo-institutional ideas especially when considering the institutional conditions that shape adult education at an organizational level. Based on a re-analysis of interview data, the findings provide first empirical indications of how institutional conditions of adult education organizations (e.g. the actors involved and their institutionalized relationships of interdependency) can be further specified when neo-institutional ideas are taken into account.

Keywords Institutional conditions of adult education · Neo-institutionalism · Constellation of actors · Forms of coordination of action

Prof. Dr. M. Schemmann
Universität zu Köln, Cologne, Germany
E-Mail: Michael.Schemmann@uni-koeln.de

Dr. D. Herbrechter (✉)
Deutsches Institut für Erwachsenenbildung—Leibniz-Zentrum für Lebenslanges Lernen e. V. (DIE), Bonn, Germany
E-Mail: herbrechter@die-bonn.de

M. Engels
Universität zu Köln, Cologne, Germany
E-Mail: Martina.Engels@uni-koeln.de

Analyse der politischen Ökonomie des Erwachsenen- und Weiterbildungssystems. Theoretische Ergänzungen und empirische Befunde

Zusammenfassung Der Beitrag rückt Desjardins's Political Economy Approach ebenso wie zentrale Annahmen der Governance-Perspektive für die Erwachsenen- und Weiterbildung in den Mittelpunkt. Beiden Ansätzen ist gemein, dass sie eine Mehrebenenperspektive zugrunde legen und hierbei vor allem die institutionellen Rahmenbedingungen hervorheben, die das Weiterbildungssystem prägen. Da die Ebene der Weiterbildungsorganisationen und ihre institutionelle Umwelt sowohl innerhalb des Political Economy Approach als auch im Rahmen der Governance-Perspektive kaum systematisch adressiert werden, diskutiert der Beitrag in einem ersten Schritt das Anregungspotential neo-institutionalistischer Überlegungen. Anhand einer Re-Analyse von Interviewdaten werden anschließend empirische Befunde dargelegt, die erste empirische Hinweise darauf geben, wie institutionelle Rahmenbedingungen von Weiterbildungsorganisationen unter Berücksichtigung neo-institutionalistischer Analysekategorien empirisch näher spezifiziert werden können.

Schlüsselwörter Institutionelle Rahmenbedingungen des Erwachsenen- und Weiterbildungssystems · Neo-Institutionalismus · Akteurskonstellation · Formen der Handlungskoordination

1 Introduction

The year 2016 marked the 200th anniversary of the beginning of comparative education: it was in 1816 and 1817 that Jullien de Paris published a questionnaire which is considered as the foundation of comparative education as a discipline. Field, Künzel and Schemmann took the anniversary as an occasion to reflect on the development of international comparative adult education (Field et al. 2016; see also Field et al. 2019). Taking account of globalization tendencies and the erosion of the nation state they asked the provocative question: "Is the chapter of comparative adult education research now closing?" (Field et al. 2016, p. 128). This question and the ensuing reflection generated a vivid debate (Schemmann 2017; Fejes and Nylander 2019), which featured a variety of aspects and points of view. One answer, even though not directly in response to the original question, was given by the publication of the book "Political Economy of Adult Learning Systems" (Desjardins 2017). By developing a distinct theoretical approach and applying it to the analysis of adult learning systems in eight countries, Desjardins answered the question with a clear "no". His study of the political economy of adult learning systems made an important contribution to the debate by highlighting to what degree adult education is embedded in contexts of economic and social institutions.

However, when analyzing the theoretical approach of political economy, it becomes obvious that the organizational level is hardly taken into account. This then is the starting point of the present paper, which focusses on two aspects: On the one hand, it intends to make a contribution to the theoretical notion of political

economy of adult education systems by analyzing the institutional environment of organizations working in adult education. Hence, we introduce neo-institutionalism as a complementary theoretical approach that serves to open up perspectives for empirical analysis and operationalization. Furthermore, the paper applies this newly developed approach and by way of example, carries out an empirical analysis of public adult education organizations in order to prove the added value of this theoretical amendment.

The paper starts off with a presentation of the theoretical framework, i.e. the notion of political economy of adult learning systems. When focusing on the organizational level, we will discuss the theoretical perspectives of educational governance and neo-institutionalism. The third section will outline the methodical design of the study from which the data is taken and re-analyzed. The research question for the re-analysis is also developed here. The research findings will be presented in Sect. 4. The paper will conclude by discussing the contribution these findings bring to the debate on political economy of adult education systems and by highlighting further research perspectives.

2 Exploring and extending the theoretical framework

2.1 Approach of political economy of adult learning systems

A political economy of adult learning systems is rooted in the idea that adult learning systems are embedded in the characteristic context of economic and social institutions. This regime of social and economic institutions is not to be understood in a static way: "The level, distribution and diversity of adult learning in a given country is the product of ongoing sociopolitical negotiations in interaction with the prevailing structural and public policy frameworks that surround adult learning" (Desjardins 2017, p. 21). The nation-specific institutions have a profound impact on existing adult learning systems. Whereas Harney's system theory based approach understands adult education as a blank template that acquires both distinct structure and function when connecting to systems like the employment system, the vocational training system or the general and liberal education system (Harney 1997), the political economy approach sees interactions, or "institutional complementarities", between institutions in the sense that "the presence (or efficiency) of one institution increases the returns from the other" (Hall and Sokijize 2001). Desjardins highlights (1.) the education system, (2.) the world of work and (3.) the broader economic, social and cultural system as relevant systems.

The *education system* is considered core since it is closely linked to the adult learning system: types of formal adult education, second-chance education, and vocational training programs are directly connected to the initial education system (Desjardins 2017, p. 22). What is more, the education system also has a direct impact on adult learning since "[...] adults in better jobs are more likely to attract further investment from their employer in their opportunity to learn over their lifespan" (Desjardins 2017, p. 22).

Adult learning is also perceived as closely linked to the *world of work,* with the labor market and the employment system as important points of reference. Desjardins refers to the involvement of the private sector as both provider and consumer of adult learning as well as the state with active labor market strategies and labor market programs (Desjardins 2017, pp. 22–23).

Finally, the adult learning system is also seen to be embedded in the *broader economic, social and cultural system*. "The wider structural relations in society between state-market, state-civil society and market-civil society and their underlying institutions shape the prevailing structural conditions of authority and power, choice and opportunity as well as the distribution of resources, and in turn interact with, and impact, the nature and functioning of ALS [Adult Learning Systems]" (Desjardins 2017, p. 23). Thus, adult learning systems relate to social policies but also to broader state measures of social welfare, benefits, taxation, and redistribution.

Applying this approach of political economy of adult learning systems, Desjardins developed a framework for analysis and subsequently analyzed key differences and similarities between adult learning systems of eight countries. The analytical framework included aspects relating to governance, financing and service structures. Additionally, the study took participation rates based on PIAAC data into account (Desjardins 2017). This refers to a smaller strand of research which analyzes the impact of institutional settings on adult education systems in order to explain differences in participation. The basis for this research was provided in the "bounded agency model" developed by Rubenson and Desjardins (2009). That model proceeds from the assumption that welfare state regimes affect the individual's chance to take part in adult education: it is claimed that by fostering structural conditions that are relevant to participation, and by designing targeted policy measures, both structurally and individually based barriers can be overcome.

All in all, Desjardins' study provides a profound, internationally comparative analysis of policies and structures that foster adult learning, based on a differentiated database. At the same time, at least two aspects are worth highlighting when taking a critical look at Desjardins' study and his approach of political economy of adult learning systems. First, this approach mainly focuses on structural elements and aspects which are external to the organizations, and thus neglects to account for the contribution of adult education professionals in providing adult learning and shaping the adult learning systems. Secondly, the approach hardly takes the level of the organization itself into account. We will below work particularly on this second shortcoming and discuss multi-level perspectives on adult education that include the organizational level. What is more, we refer to neo-institutional ideas as a promising and complementary theory to introduce to the political economy approach.

2.2 Organizational level as an additional theoretical element of political economy of adult learning systems

There is a general consensus in debates of adult education that an exploration of adult education cannot be reduced to one level or dimension but needs to be viewed from a multi-level perspective in order to grasp its complexity (e.g. Schemmann 2015). We will subsequently refer to multi-level approaches from both a didactical

and a governance perspective before exploring neo-institutionalism as an approach from organizational theory.

The multi-level perspective was introduced from a didactical point of view by Siebert (2000). Following on from the work of Flechsig and Haller (1975), Siebert developed a concept of didactical action which differentiates five levels. At the first level, he highlighted educational policy as having didactical implications for adult education. As examples, he referred to dedicated financial support for certain adult education programs, or regulations for the certification of adult education organizations. Siebert identified the organizational level as the next one, acknowledging didactical implications arising from cooperation or competition between organizations, as well as the structure and the overall goal of the organization (Siebert 2000). Next, departmental planning of the program, e.g. as regards consecutive or sequenced courses, has an impact on the didactical dimension. Last but one, the level of seminar planning has didactical implications since it makes a difference if initial tests or final tests are introduced or what kind of learning material or media are chosen. Finally, and most obviously, the micro-didactical planning of the teaching situation has implications since the social situation, the teaching methods used or the opening situation need to be considered (Siebert 2000).

Schrader, in turn, developed a multi-level model of adult education focusing on governance rather than didactical aspects (Schrader 2010). Schrader noted that there is little discussion about governance of adult education in Germany, most notably an absence of models on governance which take account of the diversity of actors, structures and processes involved. Consequently, he developed the "Framework Model of Multilevel Governance in Adult and Further Education" (Schrader 2010, p. 46).

As can be seen in Fig. 1, Schrader differentiates five levels, placing the level of teaching and learning processes at the center of the model. This level is "[...] understood here as the level of provision, utilization, and effect of learning opportunities" (Schrader 2010, p. 48). At a second level, Schrader refers to organizations as collective actors. Their function is to guarantee time-related, factual and social conditions

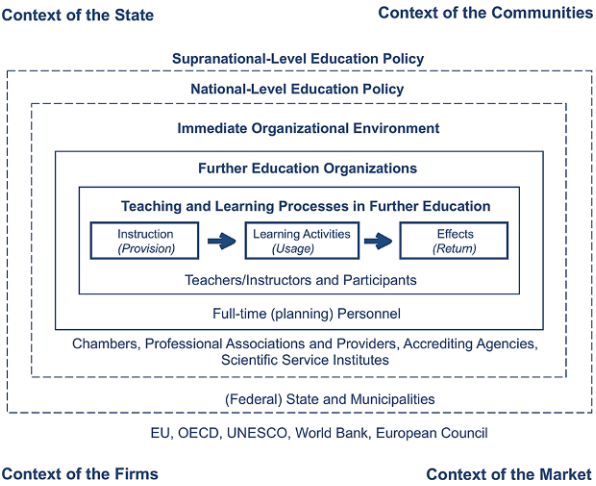

Fig. 1 Framework Model of Multilevel Governance in Adult and Further Education. (Schrader 2010, p. 45)

for teaching and learning processes, delivered by individual employees engaged in management, planning and administration (Schrader 2010, p. 50). A third level is defined as the immediate environment of adult and further education organizations, which includes various actors such as chambers, associations of providers, accreditation agencies or quality management agencies as well as statistical offices and scientific institutes. The fourth level is dedicated to state actors and state action. In the case of Germany, this involves the central state, the federal states (Länder) as well as the municipalities. These actors have the authority to both regulate adult education and to allocate financial resources. Finally, Schrader also takes international, supra- and transnational actors into account. Thus, the fifth level comprises the EU, OECD, UNESCO or the World Bank, who provide policies, e.g. on lifelong learning, or statistical monitoring reports and, as in the case of the EU, have enormous financial resources to fund programs and projects.

Another approach specifically focusing on governance, known in the German discourse as "Educational Governance" (Altrichter et al. 2007), was developed in school education and higher education research first before being applied to adult education as well (Schemmann 2015). Since then, a considerable body of work has been produced on the subject (see most recently Langer and Brüsemeister 2019). The aim is to understand "[...] how regulation and performance of school systems is achieved, sustained and transformed under the perspective of coordination of action between various social actors in complex multilevel systems" (Altrichter 2010, p. 148).

The quote above emphasizes that coordination of action is one important aspect affecting interdependencies of both collective and individual actors. What is more, this perspective is also interested in mixed or hybrid types of coordination, which suggests that different forms of coordination of action do not only co-exist but also interact and influence each other. From this perspective, there is not one single actor of relevance but a multitude of actors, which therefore makes the constellation of actors the focus of analysis. Furthermore, the educational governance perspective also assumes that stakeholders' actions are based on institutions or an institutional system of rules. The function of this institutional basis is certainty in decisions (Altrichter 2015). Finally, the educational governance perspective considers complex social systems like the school or the adult education system also as multilevel phenomena (Altrichter 2010, p. 150).

When relating the educational governance perspective and the political economy approach, it becomes obvious that both perspectives make a reference to the environment of the adult learning systems and the involved organizations. However, within the political economy approach the reference remains rather general as regards the differentiation of the environment in distinct system-realms. Within the educational governance approach, it remains general regarding the interdependency of various actors of the environment. Thus, we introduce the neo-institutional concept of environment for further specification of the term.

Neo-institutionalism offers a way of specifying the institutional foundations of the environment which is of relevance for the adult education organizations. Focusing on the rule-related, binding and regular elements of the environment, the approach thereby specifies the spheres of environment for adult learning systems identified

by Desjardins and the interdependencies between actors from the educational governance perspective.

From the neo-institutional point of view, organizations mirror their environment (Meyer and Rowan 1977). To ensure their sustainability in general, in terms of their internal structuring (e.g. Herbrechter 2018) as well as their external representation in particular (e.g. Hartz 2011), adult education organizations orientate towards institutional terms of reference and institutional expectations of their environment (for the educational science perspective on neo-institutional ideas, see also Herbrechter and Schrader 2018; Klingovsky 2016; Koch and Schemmann 2009; Kuper 2001; Kuper and Tiehl 2018; Schaefers 2002, 2009; Schemmann 2016; Tippelt and Lindemann 2018).

The concept of environment within neo-institutionalism was further elaborated by DiMaggio und Powell as "organizational field": "By organizational field, we mean those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio and Powell 1983, p. 148). Thus, an organizational field is made up of by a group of organizations that are closely interdependent. These interdependent relations can take various forms, e.g. direct or indirect, hierarchical or non-hierarchical, and can exist between functionally different or similar organizations; they also convey expectations of appropriate and rational structuring of the organization (DiMaggio and Powell 1983). Even if they are part of the same overall social context, organizational fields can differ from one another in terms of how to design and structure modern organizations appropriately. In Scott's understanding (1994), organizational fields primarily vary according to: (1) the jurisdiction of belief systems (i.e. what is mutually recognized as the guiding basis of action), (2) the nature of governance systems (i.e. which forms of governance are considered to be effective), and (3) the degree of structuring within the field (i.e. density of interaction as well as awareness of the existence of other organizations) (see also Walgenbach 2014, p. 301; Greenwood et al. 2013, p. 3). Furthermore, DiMaggio and Powell make clear that the structure of an organizational field has to be defined on an empirical basis (DiMaggio and Powell 1983, p. 148).

All in all, neo-institutionalism complements the political economy approach by firstly emphasizing the organizational level and secondly, by specifying the various spheres of environment surrounding adult learning systems. The concept of organizational field as well as definition criteria help to empirically analyze the environment of the organizations as parts of the adult learning systems and offers an option for operationalization of research. What is more, the approach allows for an empirical analysis of which actors in what specific environment are of importance to which organization.

Below, we intend to apply this perspective as an example by re-analyzing data collected in the context of a study on the changes in governance of public adult education organizations. In addition, we further develop the research question of the study entitled "Governance structures in public adult education organizations (GLOW)", for which the data was gathered originally, in order to allow for contextualization.

3 Empirical design

The paper draws on the empirical data of a study which was carried out with support of the German Research Association (SCHE 585/2-1; DO 746/3-1). Its opening premise was the fact that several authors referred to a new governance regime within publicly funded adult education, taking account of changing actors as well as new instruments of governance and new levels that are of importance (Schrader 2008). However, a look at the current state-of-the-art research reveals predominantly descriptive compilations of the empirical changes—on both system and organizational levels. Empirical analyses are rare, except an analysis of the effects of quality management (Hartz 2011), an analysis of organizational development in view of extended network structures (Feld 2011), or an analysis of program planning against the background of new economic needs within an organization (Dollhausen 2008; Nuissl and Dollhausen 2011).

There are no studies to date which take a detailed look at this new governance regime. Even though there are empirical indications of changes, there is very little analysis around specific characteristics, relevance and effects of new governance mechanisms on the organizational level. What is more, models to explain the governance of adult education organizations are missing altogether.

The GLOW study picks up on this gap and focuses on the following research questions:

- How can the new governance regime of public adult education organizations be characterized?
- Which forms of coordination are of relevance?
- What are the consequences for decision-making and the legitimacy of decisions made by program planners in the organization?
- What are the consequences for the output of the organization?

As indicated in Fig. 2, GLOW aims to use case studies to answer the questions above and to explore how a new governance regime can be conceptualized. In terms of theory, the study leans on the perspective of educational governance (Kussau and Brüsemeister 2007; Altrichter 2015) combined with neo-institutional elements and reference to the theory of conventions (Boltanski and Thévenot 2007).

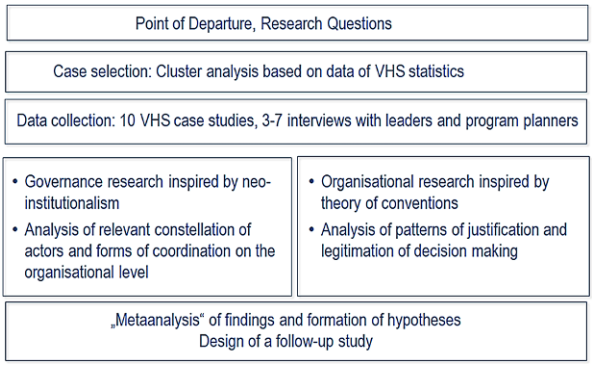

Fig. 2 Research Design of the Study GLOW

In order to identify cases for the study, a two-step-cluster analysis was carried out using the data of the VHS-Statistik (Statistics on Adult Education Centers) from 2005 and 2015 (Engels 2018). All in all, six clusters were identified out of which ten cases were drawn. For the organizations involved, three to seven episodic interviews were carried out with heads of the organizations and program planners. Episodic interviews are characterized by both open impulses for narration as well as semi-standardized questions (Flick 2019). Overall, 41 interviews were collected. The interviews were coded by two independent coders (Cohens Kappa $\kappa = 0.68$) and analyzed by method of content analysis (Mayring 2015).

As we have argued before, introducing neo-institutionalism into the theoretical approach of political economy of adult learning systems helps identify the actors within the systems (or the actors of organizational fields within systems) and the constellation of actors. In order to apply this theoretical perspective empirically, we re-analyzed the GLOW data for the purpose of this paper, focusing our analytical attention towards actors in the environment of publicly funded adult education organizations. For the re-analysis of the collected interview data we focused especially on the following research question: Which actors do leaders and program planners of public adult education organizations relate to as important in their environment, and how do they describe the interdependency relationships with these actors? Following the method of qualitative content analysis as defined by Mayring (2015), we analyze interviews with leaders and program planners as the key persons for the analysis of relevant actor constellations (Kieser and Walgenbach 2010, p. 167). Within their everyday working routines, they engage in frequent social networks exchanges and interact regularly with different environmental actors who are of relevance for the organization.

4 Findings

We will subsequently report the findings resulting from the re-analysis of data collected in the context of a study on the changes in governance of public adult education organizations. As mentioned above, our intention is to identify relevant actors in the environment of public adult education organizations and to analyze their relationship with these actors. For the report of our findings, we assigned the actors identified to the three relevant systems outlined by Desjardins, i.e. the broader economic, social and cultural system, the world of work, and the educational system. As regards organizations that are similar or alike, we will only point out this category when we find organizations in the environment that are indeed alike. As the sample of the GLOW study consists of publicly funded organizations, we assume that powerful actors of the broader public social system (e.g. political actors) are of special relevance. From a theoretical point of view, we expect, in terms of results, that all outlined forms of interdependence relationships (see Sect. 2.2) can be empirically found apart from direct or indirect hierarchical relationships between functionally similar adult education organizations (since they are theoretically possible but not empirically probable).

As regards the systems involved, we have to point out that most actors identified as important for the public adult education organizations could actually be assigned to the broader economic, social and cultural system. State actors like the *municipal councils, mayors* as well as the *district government* were seen as extremely important. The relationship towards them can be described as *hierarchical and direct*. A crucial point of reference for shaping the relationship with these public actors is the law.

> And EVERYTHING we do is ALWAYS—and it must not be in a different way, is always defined by law, which is our basis. (Interview Neustadt, Mr. Kronberg)[1]
> [...] this morning I had a Jour fixe with our Lord Mayor and we discussed all relevant issues, especially budget questions, financing but also important topics for our program. (Interview Feldberg, Mr. Müller)

The second quotation also shows the topics which are under the influence of the municipalities. In addition to budget issues, questions about permanent and non-permanent staff are mentioned in other interviews as well as topics for the program.

At the federal level the *Federal Office for Migration and Refugees* (Bundesamt für Migration und Flüchtlinge, BAMF) is pointed out as an important actor. This certainly reflects the development of migration and numbers of refugees in Germany over the last few years and the fact that public adult education organizations contribute quite a bit to efforts of integration. This relationship can also be characterized as *hierarchical and direct*.

> If the BAMF says we will only have permanently employed teaching staff in the future, then we will employ permanent staff, no matter what my treasurer here in the city says. Or we won't offer integration courses any more. (Interview Arlingen, Mr. Marques)

The *European Union* has to be mentioned in this context as well. Both the European Social Fund as well as Erasmus+ are mentioned by interviewees. The relationship can be characterized as *hierarchical and direct*. In general, these actors are important for the financial sustainability of the organizations concerned:

> The third-party-funding sector is by far the strongest in our organization. [...] It means we have one third subsidies from the state, one third project funds and one third program funding contributions from participants. But the program contributions, I do not know how much it really is now, very marginal though. [...] And that is why the project funds, which is my area actually, is so important. (Interview Eigelsheim, Ms. Gimsen)

Other important actors are *professional associations* such as the Federal Association of Public Adult Education Organizations (Deutscher Volkshochschulverband, DVV) or the State Associations of Public Adult Education Organizations (Landesverbände der Volkshochschulen, LVV). They often provide teaching material and

[1] Michael Schemmann is responsible for the translations of the interview passages.

take the lead in the representation of interests. The relationship can be described as *non-hierarchical and direct*:

> Well, and in the broadest sense the state associations have expectations, and the federal association is totally abstract to me, I do not feel obliged to them. The state association in Munich is relevant for us. (Interview Arlingen, Mr. Marques)
> The federal association has comprehensive curricula and also guidance materials for trainers as well as guidance for the processes, definitions of content, of what works and of what does not work. (Interview Feldberg, Ms. Gramberg)

Working groups or *local study groups* also feature in this context. Finally, quality management organizations are mentioned as well since these organizations have a great impact on the internal structures of the adult education organizations. The relationship can be characterized as *hierarchical and direct*.

It does not come as a surprise that actors of the "world of work" are not mentioned prominently by the interviewees. Public adult education organizations are mainly committed to programs of general and liberal adult education. However, some organizations also offer programs in vocational adult education and training. Thus, the *employment office* is mentioned as one central actor in this regard and the relationship is described as *hierarchical and direct*. What is more, actors like *chambers of commerce* feature in the interviews. Here the relationship is characterized as *direct* if they are involved in projects, or *indirect* if they are involved in a campaign by the lord mayor's office, for example. In both cases the relationship is *non-hierarchical*.

Finally, actors from the education system are referred to as well, schools, however, only very rarely. If at all, it is *vocational colleges* that the adult education organizations have cooperated with. As such the relationship is *non-hierarchical* and *direct*. The interviewees referred to *other adult education organizations* more often, though. They were seen as competitors in a competition for both trainers and participants.

> But the training of trainers' courses are ours, since we know that we do not pay horrendously, it is a chance for us in the competition with the other organizations, to convince people to work for us. (Interview Fahnbach, Ms. Kaufmann)
> [...] the language integration course because they come to us anyway, if they do not have literacy problems. Then they will go to other organizations. [...] But who sends participants to other organizations? We notice that there is competition for participants. (Interview Falkenstein, Mr. Schulz)

The relationship to functionally similar organizations can be characterized as *non-hierarchical* and *indirect*. Relationships to other functionally similar organizations which are *non-hierarchical* and *direct* include cases of cooperation between two organizations. Such cooperation refers to both publicly funded adult education organizations and other adult education organizations.

> With the colleagues here, we meet if we have topics to discuss. For instance, in February we met to prepare a public discussion with the candidates for the

election. It was about education policy. These things we do together. (Interview Feldberg, Mr. Müller)
And then there are the other leaders of the organizations here in the region. We have a lot of cooperation, a lot of coordination as well and we have a regional panel, the round table of adult education [...]. (Interview Feldberg, Mr. Müller)

5 Discussion of findings and conclusion

In this paper we introduced neo-institutionalism into the theoretical approach of political economy of adult learning systems. This approach has allowed us to take the organizational level into account as well as to specify the environment of adult education organizations by focusing on the actors of the systems Desjardins distinguishes as well as on the constellation of relevant environmental actors.

Applying this theoretical perspective, we have re-analyzed data from the GLOW study which aimed at identifying new governance regimes in publicly funded adult education organizations. The research question for the study asked leaders and program planners of public adult education organizations which actors they relate to as important in their environment, and how they describe the interdependent relationship with these actors.

In line with our theoretical background we assumed that interdependent relations can take various forms, e.g. direct or indirect, hierarchical or non-hierarchical, and can exist between functionally different or similar organizations. The findings show that adult education organizations relate to both functionally different as well as similar organizations in their environment. If interdependency relationships are described between *functionally similar organizations*, they are non-hierarchical but never hierarchical (as we have assumed). They can be realized in cooperation as direct or in competition as indirect. In this case of publicly funded adult education organizations, hierarchical relations only extend to *functionally different organizations* in the environment, which usually belong to the broader economic, social and cultural system. Relations to functionally different organizations can be characterized both as hierarchical and non-hierarchical, with forms of coordinated action usually limited to direct interaction in hierarchical settings. From a theoretical background, we did not expect the few references to indirect forms of coordination of actions with relevant environmental actors. This last finding also needs to be explained with reference to the interview set-up in the GLOW study. It might indicate a methodical limitation since indirect relations are based on reciprocal observation, which is difficult to access in interviews.

However, we have made clear that this analysis was meant to explore—for the first time—the amendment to the original theoretical perspective. The results of the re-analysis provide first indications that the institutional conditions that shape adult learning systems can be specified with the help of neo-institutionalist ideas, particularly with regard to the adult education organizations involved and their institutionalized interdependent relationships with other (organized) environmental actors.

For farther-reaching insights, a more differentiated data basis is needed. As such, commercial organizations have to be added to the sample as well as non-profit organizations since those are embedded in different contexts and thus faced with different institutional expectations (and environmental actors). What is more, following on from the explorative phase, a standardized survey is to be carried out to broaden the claim of validity of the analysis. And finally, the analysis can be extended into an internationally comparative study.

References

Altrichter, H. (2010). Theory and Evidence on Governance. Conceptual and Empirical Strategies of Research on Governance in Education. *European Educational Research Journal*, *9*(2), 147–158.

Altrichter, H. (2015). Governance – Steuerung und Handlungskoordination bei der Transformation von Bildungssystemen. In H. J. Abs, T. Brüsemeister, M. Schemmann & J. Wissinger (Eds.), *Governance im Bildungssystem. Analysen zur Mehrebenenperspektive, Steuerung und Koordination* (pp. 21–63). Wiesbaden: Springer VS.

Altrichter, H., Brüsemeister, T., & Wissinger, J. (Eds.). (2007). *Educational governance. Handlungskoordination und Steuerung im Bildungssystem*. Wiesbaden: Springer VS.

Boltanski, L., & Thévenot, L. (2007). *Über die Rechtfertigung. Eine Soziologie der kritischen Urteilskraft*. Hamburg: Hamburger Ed.

Desjardins, R. (2017). *Political Economy of Adult Learning Systems. Comparative Studies of Strategies, Policies and Constraints*. London: Bloomsbury.

DiMaggio, P. J., & Powell, W. W. (1983). "The Iron Cage Revisited": Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, *48*(2), 147–160.

Dollhausen, K. (2008). *Planungskulturen in der Weiterbildung. Angebotsplanungen zwischen wirtschaftlichen Erfordernissen und pädagogischem Anspruch*. Bielefeld: W. Bertelsmann.

Engels, M. (2018). Zwischen Rechenschaftslegung und Wahrheitsfindung. *Zeitschrift für Weiterbildungsforschung*, *41*(1), 27–40. https://doi.org/10.1007/s40955-018-0104-x.

Fejes, A., & Nylander, E. (Eds.). (2019). *Mapping out the Research Field of Adult Education and Learning*. New York: Springer.

Feld, T. C. (2011). *Netzwerke und Organisationsentwicklung in der Weiterbildung*. Bielefeld: W. Bertelsmann.

Field, J., Künzel, K., & Schemmann, M. (2016). International Comparative Adult Education Research. Reflections of Theory, Methodology and Future Developments. *Internationales Jahrbuch der Erwachsenenbildung*, *39*, 109–133.

Field, J., Künzel, K., & Schemmann, M. (2019). Revisiting the Debate on International Comparative Adult Education Research. Theoretical and Methodological Reflections. In A. Fejes & E. Nylander (Eds.), *Mapping out the Research Field of Adult Educations and Learning* (pp. 181–202). New York: Springer.

Flechsig, K.-H., & Haller, H.-D. (1975). *Einführung in didaktisches Handeln. Ein Lernbuch für Einzel- und Gruppenarbeit*. Stuttgart: Klett.

Flick, U. (2019). *Qualitative Sozialforschung. Eine Einführung*. Reinbek bei Hamburg: Rowohlt.

Greenwood, R., Oliver, C., Sahlin, K., & Suddaby, R. (2013). Introduction. In R. Greenwood, C. Oliver, K. Sahlin & R. Suddaby (Eds.), *The Sage Handbook of Organizational Institutionalism* (pp. 1–46). London: SAGE.

Hall, P., & Sokijize, D. (Eds.). (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.

Harney, K. (1997). Sinn der Weiterbildung. In D. Lenzen & N. Luhmann (Eds.), *Bildung und Weiterbildung im Erziehungssystem. Lebenslauf und Humanontogenese als Medium und Form* (pp. 94–114). Frankfurt a. M: Suhrkamp.

Hartz, S. (2011). *Qualität in Organisationen der Weiterbildung. Eine Studie zur Akzeptanz und Wirkung von LQW*. Wiesbaden: Springer VS.

Herbrechter, D. (2018). *Organisation und Führung in institutionellen Kontexten der Weiterbildung*. Bielefeld: wbv.

Herbrechter, D., & Schrader, J. (2018). Organisationstheoretische Ansätze in der Erwachsenenbildung. In R. Tippelt & A. v. Hippel (Eds.), *Handbuch Erwachsenenbildung/Weiterbildung* (Vol. 6, pp. 295–318). Wiesbaden: Springer VS.

Kieser, A., & Walgenbach, P. (2010). *Organisation* (6th edn.). Stuttgart: Schäffer-Poeschel.

Klingovsky, U. (2016). Von der Institution zur Organisation. In M. S. Maier (Ed.), *Organisation und Bildung. Theoretische und empirische Zugänge* (pp. 95–115). Wiesbaden: Springer VS.

Koch, S., & Schemmann, M. (Eds.). (2009). *Neo-Institutionalismus in der Erziehungswissenschaft: Grundlegende Texte und empirische Studien*. Wiesbaden: Springer VS.

Kuper, H. (2001). Organisationen im Erziehungssystem. Vorschläge zu einer systemtheoretischen Revision des erziehungswissenschaftlichen Diskurses über Organisation. *Zeitschrift für Erziehungswissenschaft*, *4*(1), 83–106.

Kuper, H., & Thiel, F. (2018). Erziehungswissenschaftliche Institutionen- und Organisationsforschung. In R. Tippelt & B. Schmidt-Hertha (Eds.), *Handbuch Bildungsforschung* 4th edn. (Vol. 1, pp. 587–606). Wiesbaden: Springer VS.

Kussau, J., & Brüsemeister, T. (2007). Educational Governance: Zur Analyse der Handlungskoordination im Mehrebenensystem der Schule. In H. Altrichter, T. Brüsemeister & J. Wissinger (Eds.), *Educational governance. Handlungskoordination und Steuerung im Bildungssystem* (pp. 15–54). Wiesbaden: VS.

Langer, R., & Brüsemeister, T. (Eds.). (2019). *Handbuch Educational Governance Theorien*. Wiesbaden: Springer VS.

Mayring, P. (2015). *Qualitative Inhaltsanalyse. Grundlagen und Techniken*. Vol. 12. Weinheim: Beltz.

Meyer, J., & Rowan, B. (1977). Institutional Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, *83*(2), 340–363.

Nuissl von Rein, E., & Dollhausen, K. (2011). Kulturen der Programmplanung. *Zeitschrift für Pädagogik*, *57*(1), 114–129.

Rubenson, K., & Desjadins, R. (2009). The Impact of Welfare State Regimes on Barriers to Participation in Adult Education a Bounded Agency Model. *Adult Education Quarterly*, *59*(3), 187–207.

Schaefers, C. (2002). Der soziologische Neo-Institutionalismus. Eine organisationstheoretische Analyse- und Forschungsperspektive auf schulische Organisationen. *Zeitschrift für Pädagogik*, *48*(6), 835–855.

Schaefers, C. (2009). Schule und Organisationstheorie – Forschungserkenntnisse und -fragen aus der Perspektive des soziologischen Neo-Institutionalismus. In S. Koch & M. Schemmann (Eds.), *Neo-Institutionalismus in der Erziehungswissenschaft: Grundlegende Texte und empirische Studien* (pp. 308–325). Wiesbaden: Springer VS.

Schemmann, M. (2015). Steuerung. In J. Dinkelaker & A. von Hippel Aiga (Eds.), *Erwachsenenbildung in Grundbegriffen* (pp. 255–262). Stuttgart: Kohlhammer.

Schemmann, M. (2016). Institutionentheoretische Grundlagen der Organisationspädagogik. In M. Göhlich, A. Schröer & S. M. Weber (Eds.), *Handbuch Organisationspädagogik*. Wiesbaden: Springer VS. https://doi.org/10.1007/978-3-658-07746-4_19-1.

Schemmann, M. (Ed.). (2017). *Internationales Jahrbuch der Erwachsenenbildung*. International Comparative Adult Education Research, Vol. 40.

Schrader, J. (2008). Die Entstehung eines neuen Steuerungsregimes in der Weiterbildung. In S. Hartz & J. Schrader (Eds.), *Steuerung und Organisation in der Weiterbildung* (pp. 387–413). Bad Heilbrunn: Klinkhardt.

Schrader, J. (2010). Governance in Adult and Further Education. Unified Germany as a Case Study. *European Education*, *41*(4), 41–66.

Scott, W. R. (1994). Conceptualizing Organizational Fields. Linking Organizations and Societal Systems. In H.-U. Derlien, U. Gerhardt & F. W. Scharpf (Eds.), *Systemrationalität und Partialinteresse* (pp. 203–222). Baden Baden: Nomos.

Siebert, H. (2000). *Didaktisches Handeln in der Erwachsenenbildung. Didaktik aus konstruktivistischer Sicht* (3rd edn.). Neuwied: Luchterhand.

Tippelt, R., & Lindemann, B. (2018). Institutionenforschung in der Erwachsenenbildung/Weiterbildung. In R. Tippelt & A. v. Hippel (Eds.), *Handbuch Erwachsenenbildung/Weiterbildung* 6th edn. (Vol. 1, pp. 521–542). Wiesbaden: Springer VS.

Walgenbach, P. (2014). Neoinstitutionalistische Ansätze in der Organisationstheorie. In A. Kieser & M. Ebers (Eds.), *Organisationstheorien* (Vol. 7, pp. 295–345). Stuttgart: Kohlhammer.

ZfW (2020) 43:275–289
https://doi.org/10.1007/s40955-020-00161-4

veröffentlicht in Zusammenarbeit mit DIE

ORIGINALBEITRAG

International large-scale assessments, the Global Alliance to Monitor Learning (GAML) and adult education systems

Shalini Singh

Received: 7 February 2020 / Accepted: 3 June 2020 / Published online: 24 June 2020

Abstract International Large-scale Assessments (ILSAs) have become the quality checklist for education systems globally, especially since the adoption of the Sustainable Development Goals (SDGs) in 2015. ILSAs not only claim to measure the quality of education systems but also compare them against one another. With the increasing complexity of adult education systems, information provided by ILSAs may influence stakeholders and influence the flow of resources. This article elaborates on the question: How have ILSAs shaped adult education systems globally? The methodology includes a comparison of four ILSAs and an analysis of their linkages with the Global Alliance to Monitor Learning (GAML), SDGs and global policy changes in the adult education systems based on the method of document analysis. The article views the changes in adult education systems as a part of global policy shift led by the OECD where ILSAs have been some of the effective catalysts.

Keywords International Large-Scale Assessments · Global Alliance to Monitor Learning · Adult Education Systems · Sustainability · Policies

Dr. S. Singh (✉)
International Institute of Adult & Lifelong Education, New Delhi, India
E-Mail: contactingshalinisingh@gmail.com

Internationale Large-Scale-Assessments, die *Global Alliance to Monitor Learning (GAML)* und die Weiterbildungssysteme

Zusammenfassung Internationale Large-Scale-Assessments (ILSA) sind zu einem Maßstab für Weiterbildungssysteme geworden, insbesondere seit Verabschiedung der Nachhaltigkeitsziele im Jahr 2015. Mit ILSA werden nicht nur Qualitätsprüfungen, sondern auch Ländervergleiche ermöglicht. Mit der zunehmenden Komplexität der Weiterbildungssysteme können die Informationen, die aus ILSA abgeleitet werden, Rückwirkungen auf die zentralen Akteure und Verfahren haben. Dieser Beitrag fragt daher nach den Auswirkungen der ILSA auf die Weiterbildungssysteme weltweit. Methodisch werden hierfür vier ILSA, die Nachhaltigkeitsziele sowie die Global Alliance to Monitor Learning (GAML) zueinander ins Verhältnis gesetzt.

Schlüsselwörter International Large-Scale Assessments · Global Alliance to Monitor Learning · Weiterbildungssystem · Nachhaltigkeit · Policies

1 Introduction

International Large-scale Assessments (ILSAs) have become the quality checklist for education systems globally, especially since the adoption of the Sustainable Development Goals (SDGs) in 2015. With streamlining, converging education policies in favour of sustainable economic growth, ILSAs are becoming a major criterion for measuring the sustainability of education systems. A critique often highlighted in the existing research considers ILSAs as a part of a *neo-liberal agenda* which has pushed education systems (including Adult Education) towards crossroads. Yet despite resistance from various stakeholders, ILSAs have gained ground across countries as a predominant tool for the measurement of learning outcomes.

ILSAs not only claim to measure the quality of education systems but also compare them against one another. They hence have the potential to stimulate various stakeholders engaged directly or indirectly with education systems, due to the fact that ILSAs may indeed identify weak and strong aspects linked to specific stakeholders.

With the increasing complexity of adult education systems, information provided by ILSAs may influence stakeholders and thereby influence the flow of resources. Irrespective of whether states participate or choose to abstain from participating, ILSAs influence state policies directly or indirectly. ILSAs might open windows of opportunity for introducing changes in education systems and may play a crucial role in deciding their future pathways. This paper discusses the role of ILSAs in shaping education systems in general and adult education systems in particular, with a global perspective.

The research paper explores the question: How have ILSAs shaped adult education systems globally? In terms of methodology, the research is based on document reviews comparing four ILSAs and analysing their respective linkages with the Global Alliance to Monitor Learning (GAML), SDGs and global policy changes in the adult education systems. The four selected ILSAs include the Programme for the

International Assessment of Adult Competencies (PIAAC), used by the OECD, the Skills Towards Employability and Productivity (STEP) Survey of the World Bank Group (WBG), School-to-Work Transition Survey (STWS) used by the ILO, and the Literacy Assessment and Monitoring Program (LAMP) of the UNESCO Institute of Statistics (UIS). The conceptual framework chosen for comparison and analysis is the "Box Model" developed by Ehlers (2019).

The paper argues that ILSAs have facilitated major changes in adult education systems, enabled alignment of such changes with the global policy framework favouring sustainable economic growth, and helped expand the space for international organisations and transnational policies. Furthermore, ILSAs have contributed to weakening the authority of nation states over education systems in general, and of civil society over adult education systems in particular. While their influence has given more freedom to the learner, it has curtailed the freedom of adult education systems.

The paper views the changes in adult education systems as part of a global policy shift led by the OECD, with ILSAs having served as some effective catalysts.

2 State of the art

Adult Education systems have undergone at least three major changes in the period since World War II.

First, socio-cultural priorities of adult education systems aiming at nation-building or/and social change have been replaced with economic priorities (Ehlers 2013). Reflecting the human capital approach and economic competition, education policies nowadays predominantly consider education an *investment* rather than a *cost* (Ehlers 2013).

Second, a *transnational policy* (which implies the policy of education for adults resulting from the integration of labour market policies and education policies and not the philosophical idea of lifelong learning which implies learning from cradle to grave and across different disciplines) on lifelong learning emerged in Europe between 1966 and 1996 (Ehlers 2019). Originating from national policies in Norway, lifelong learning policies developed into a transnational policy backed by various stakeholders, including people in key decision-making positions, international organisations like the Nordic Council of Ministers, as well as market actors like Nokia and the European Roundtable of Industrialists (Ehlers 2019). This development also brought about a marked change from top-down teaching to bottom-up learning approaches in adult education systems (Ehlers 2019). A sector-specific concept of education was replaced by an approach that aimed to integrate all sectors, including adult education, into one education system, which was to be further integrated with the labour market (Ehlers 2019). Objectives changed in favour of reducing skills gaps and ensuring optimum utilisation of resources spent on education (Ehlers 2019).

Third, employability developed as a global norm for the international policy on education (specifically adult education) between 1994 and 2016 (Singh and Ehlers 2020). This shift notably followed the OECD recommendations for major eco-

nomic reforms towards member countries which were struggling with unemployment (Singh and Ehlers 2020). Employability became a norm for OECD countries between 1994 and 2006 (Singh and Ehlers 2020). In the wake of the economic crisis post-2008, and at the initiative of the OECD and G20 countries, that same norm was pushed by the ILO to non-OECD, low- and middle-income countries, with the support of the WBG and the UN agencies (Singh and Ehlers 2020). Finally, from 2016 onwards, employability was recognised as *the sustainable* aspect of education by the OECD, the ILO, the WGB, as well as the UN agencies (Singh and Ehlers 2020).

These developments have been part of the OECD-led change and the shift in the global policy framework for development in favour of *sustainable economic growth* (Singh 2020). Even though sustainable economic growth had been on the OECD agenda since its inception (1961), its successful push onto the international policy agenda occurred only in 2015 (Singh 2020). The key question here is: To what extent and in what way have ILSAs influenced these changes?

Despite access to education having expanded between 1990 and 2015 through the Education For All (EFA) policy and a strive towards the achievement of the Millennium Development Goals, quality concerns in terms of learning outcomes have been grave (Rogers and Demas 2013). Global competitiveness forces countries even more to assess the avialbility and quality of skills (Schleicher 2008). ILSAs can thus serve as useful policy tools, so to say *thermometers,* that measure the quality of education systems and estimate the availability of skills (Lockheed and Wagemaker 2013). However, they can also be used as means for putting pressure (“*whips”)* to induce policy changes in education systems (Lockheed and Wagemaker 2013). Standardisation and similarity in design and approach of ILSAs make their data internationally comparable and thus more insightful in understanding education systems, as compared to the data provided by national assessments (limited in scope by their contextual relevance) (Cresswell et al. 2015). ILSAs may therefore provide useful insights beyond findings which national systems might otherwise generate, and consequently, widen the scope for the improvement of education systems (Cresswell et al. 2015).

The use of evidence in policy formulation is, however, a matter of hot debate. Some researchers (often called “constructivists” who are perceived as belonging to the “Reject school of thought”) outrightly reject the role of evidence in developing policies, arguing that they are meant for defining political standpoints and that excessive dependence on data might lead to conditions where policies go beyond human control (Newman 2017). Others (also designated “rationalists” and aligned to the “Reinforce, Reform or Reinvent schools of thought”) explore the extent to which evidence might influence policies in different ways (Newman 2017; French 2019). The lack of transparency of the policy development process, as well as the use of evidence throughout, make it difficult to identify the concrete role of evidence. Therefore, policies based on an analysis of evidence might be best characterised as *evidence-informed* rather than evidence-based (Parkhust 2017).

The debate regarding the use of evidence is not limited to its influence on policies but rather extends to its nature, the way it influences policies and related consequences. Research shows that evidence-informed policies might become exclusion-

ary (i.e. exclude stakeholders who fail to produce relevant evidence and ensure its deliberation), or might get influenced by power differences, complicated political bargains, faulty analysis, contextual constraints, or even methodological factors like information gaps, secrecy, data protection and faulty assumptions (Banks 2009; Cairney 2016; Saltelli and Giampietro 2017; Singh 2017; Muller 2018; French 2019). For instance, the evidence-informed EFA policy (based on return on investment in education) had serious methodological flaws, which only became evident years later (Heyneman 2012). Research also shows that arguments around an inappropriate use of evidence cannot be ruled out—e.g. the possibility that evidence is of only limited authority, has credibility issues, reflects vested interests, tends to be used for the simplification of knowledge and promote unfair competition among non-equals, or to deliberately influence public opinion, make unscientific claims, and generally comes with ample possibilities for manipulation, inaccuracy and selectiveness (Pawson 2006; Kreiner 2011; Lawn and Grek 2012; Grek 2013; Hegarty 2014; Nordin and Sundberg 2014; Johansson 2016; Singh 2017; Gustafsson 2018; Keslair 2018; Rutkowski and Rutkowski 2018). Despite this, alternatives to ILSAs seem scarce and their data too important to be ignored (Johanson 2016; Singh 2017; Gustafsson 2018; Rutkowski and Rutkowski 2018). Claims regarding constant improvement in their methodologies, media attention followed by political upheaval, and research regarding their scientific use (Johanson 2016; Singh 2017; Gustafsson 2018; Rutkowski and Rutkowski 2018) make ILSAs quite convincing for all kinds of stakeholders.

3 Conceptual framework

The conceptual framework used in this paper is Ehlers' Box Model (2006, 2019)—a model which highlights the relevance of sources in research, and provides insights about the production and use of evidence by different stakeholders. The four different types of stakeholders engaged with policy, research, profession and practice of adult learning have different stakes and thereby different rationalities, and hence, any sources they produce should be clearly differentiated (Fig. 1).

An application of the Ehlers' Box Model for the purpose of this paper suggests that evidence produced by international organisations (policy stakeholders) through

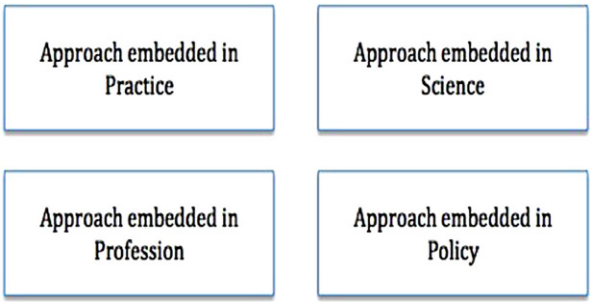

Fig. 1 Conceptual Framework: Ehlers' Box Model (2006, 2019). *Source*: Ehlers (2019, p. 21)

ILSAs has a political rationality of "compromise and power". This means that outcomes of ILSAs should *not* be treated as research results or scientific evidence (Singh 2017). They should be analysed instead as policy instruments, rather than psychometric tools for measurement of learning outcomes. In the same vein, their outcomes should be considered politically motivated rather than objective data, and their objectives should be perceived as politically guided aims rather than quests for objective knowledge.

4 Comparative analysis of ILSAs and their linkages with GAML and SDGs

The OECD, the WBG, the UIS and the ILO all claim to provide useful data and global policy recommendations necessary to improve education systems (UIS 2016; ILO n.d.; OECD n.d.; The WBG n.d.). In relation to adult education systems, their ILSAs are particularly important because these organisations provide global policy recommendations, globally comparable policy evaluation statistics, and are thereby likely to influence resource allocation.

The OECD, using PIAAC, claims to provide data regarding the development of basic cognitive and generic work skills of the adult population relevant for employability for over 40 countries (OECD 2019, n.d.). Based on OECD's model but with an idealistic approach (considering education as a right) towards adult education, LAMP banks upon inclusiveness of populations from linguistically, culturally and ethnically diverse contexts, especially from the non-OECD (primarily low and middle income) countries, by devising and translating tests that specifically reflect diversity (UNESCO and UIS 2009, n.d.). LAMP relies on states (in fact, governments) for infrastructure, resources, timing and inclusion (UNESCO and UIS 2009, n.d.). As a consequence, the formulation as well as implementation of LAMP is a costly affair and requires capacity-building of participant countries for mobilizing resources and conducting ILSAs independent of aid (UNSCO and UIS 2009). The WBG's STEP primarily assesses employability among populations and maps specific factors related to urban centres and the formal economy (i.e. regulated by government laws) in low- and middle-income countries (OECD 2013; Pierre et al. 2014; The WBG n.d.). The quality standards of LAMP and STEP are lower as compared to PIAAC or other OECD surveys for adults on which they are based (OECD 2013), probably due to contextual considerations which indicate huge differences among adult education systems of OECD and non-OECD member countries. In fact, STEP has serious methodological drawbacks since a large amount of the population in low- and middle-income countries dwells outside urban centres and works in the informal sector (i.e. not regulated much by government laws); this sector could be huge and accounts for as much as around 93% in countries like India (Government of India 2020). The STWS by ILO aims at identifying effective policy choices which may facilitate a smooth transition of individuals from education to work (Schleicher 2008; Elder 2009; The WBG 2011). Unlike the educational perspectives underlying PIAAC, LAMP and STEP, the policy perspective underlying ILO's STWS is employment-oriented (ILO n.d.). Similar to UIS, the ILO follows a rights-based ap-

Table 1 Comparison of Selected ILSAs

ILSA		PIAAC	STEP	STWS	LAMP
Measuring entities		OECD	WBG	Governments, ILO	Governments, UIS
Objectives		1. Comparative skill profiling of the target adult population(s)			
		2. Comparative profiling of skills landscape (required skills)			
Primary focus		Labour market and society	Labour market	School-to-work transition	Society and economy
Components of Measurement	*Skills profiling*	Cognitive/non- cognitive/workplace relevant and information processing skills and their application essential for participation in modern societies	Cognitive/non-cognitive/job-relevant skills essential for productive economy	None	Basic and component skills for complete participation in learning societies
	Labour-market profiling	Skill needs of the labour market and variables influencing them			None
	Skills gap	Gap between the skills available with the target population and skills needed in present and future			
	Quality of education systems	Adequacy of the existing education systems in providing measured skills			
	Contextual linkages	Linkage between measured skills and socio-economic factors, psychological factors, adequacy of education and training systems, pedagogical approaches		Challenges against school-to-work transition	Social impact of literacy skills and consequent economic outcomes
Target groups		1. Working age population (15/16–64/65 years)		1. Young adults (15–29 years)	1. Adults (15+ years) 2. Young adults (16–29 years)
		2. Employers			
Target countries		Most countries are high-income while some are upper-middle income and only one (Indonesia) is lower middle-income	Low and middle-income countries		
Projected outcomes		1. Improving the quality of education systems to ensure that they provide the required skills and build up the capacity among target population(s) to use them			
		2. Identification and inclusion of marginalised population(s) in the mainstream education process			
		3. Policy advise for bridging skills gap			
		4. Smooth transition from education-to-work			
		5. Identification of linkages amid socio-economic factors/impact and skills			
		6. Identification of linkages among employability, economic growth and development defined in terms of sustainability (especially post-2015) in the long-run			

Source: Created by Author based on references used in the text

proach but in favour of *decent* employment characterised by stability in jobs and/or job satisfaction (ILO n.d.).

Table 1 shows that international organisations conduct ILSAs to collect skill-related data of working age population. While PIAAC, STEP and STWS focus directly on employability, the needs and characteristics of the labour market and the adequacy of education systems to support both, LAMP explores socio-economic linkages regarding the same. Both LAMP and STWS follow a rights-based approach while PIAAC and STEP apply a service approach (education as a service to be sold for gaining employability). The inclusive approach of LAMP is guided by the OECD's and the WBG's objective of engaging all possible resources (in this case, human resources) to ensure optimum sustainable economic growth (The WBG 2011; OECD et al. 2016), since it explores the linkages between inclusion and sustainable economic growth (UNESCO & UIS 2009, n.d.). Surveys of employers by PIAAC, STEP and STWS specifically show that ILSAs consider the engagement of the market as a positive input, even though it might undermine state control.

ILSAs that appear to measure similar elements do not compete but rather complement one another. PIAAC focuses on high- and upper-middle income countries, specifically its member countries, while STEP, STWS and LAMP concentrate on low- and middle-income countries. STEP generates data regarding skills of the entire working age population, STWS focuses specifically on young adults, whereas LAMP collects data about all adults. STWS intends to collect information from the informal sector, remote areas and about vulnerable populations (in principle) that STEP does not include, probably due to questions of feasibility. Thus, these ILSAs focus on different target groups and aspects of adult education systems and complement one another to create a comprehensive picture about adult education systems and adult populations that engage with them. ILSAs do not only serve to collect and generate data but also encourage countries to develop policy evaluation capabilities to save resources and ensure sustainability in the long run (UNSCO and UIS 2009, n.d.; LMTF 2013; UNESCO 2012; The WBG 2011 in Cresswell et al. 2015). ILSAs thus provide comparative evidence regarding the functioning and adequacy of education systems and highlight the scope for their improvement (LMTF 2013; UNESCO 2012; The WBG 2011 in Cresswell et al. 2015). International organisations conducting ILSAs formulate policy recommendations for states and alter their own policies based on results they generate. Since ILSAs are done cyclically, they may serve to maintain pressure on countries to keep aligning their education systems progressively with international standards. That being the case, it seems relevant to ask here: what do the international standards for learning outcomes aim at? How are they created, who creates them, in whose interests are they developed, and what do they lead to?

5 Linkages amid ILSAs, GAML and SDG4

GAML is a global alliance of a wide variety of education stakeholders, formed in 2016, and led by the UIS (UIS 2016). Through standardised indicators and measurement tools, it claims to ensure transparent and optimum use of resources for

improved learning outcomes; promote capacity build-up and thereby sustainability of national assessment systems for reducing aid dependency and develop relevant local expertise; advise on accountability of stakeholders; ensure effective interpretation and integration of ILSA data with national policies to measure and accelerate progress towards the achievement of SDG 4 (for education); control and channel development aid accordingly and thereby align education systems along the SDGs (Montoya 2015; UNESCO and UIS 2017a, 2017b, 2017c, n.d.).

GAML indicators for adult education systems include indicators such as: participation rate of youth and adults in *education and training* by gender; measurement of technical and vocational skills for employment, jobs and entrepreneurship; literacy standards by gender and vulnerable populations; participation in tertiary education; education spending per person; and relevant skills for employment, "decent" work and employability (UNESCO and UIS 2017c). However, since the SDG4 targets represent an integrated education system, GAML harmonises sector-specific ILSA data and evaluates the contributions of each sector in the achievement of a common SDG4 (UNESCO and UIS 2017c).

GAML criticises education systems for wasting resources, following unsustainable practices, providing sub-standard education and being short-termed (UNESCO and UIS 2017a) if they fail to align with its standards. It asserts fairness and inclusiveness of its approach and indicators designed to address contextual bias (UNESCO and UIS n.d.). Apart from economic indicators aiming at employability and labour market, GAML includes social indicators (which cannot be directly measured in economic terms) such as sustainability and sustainable education, human rights education, education about sexuality, about HIV and about citizenship (UNESCO and UIS 2017c).

GAML's methodology seems commendable but not completely free from anomalies. For instance, relevant skills for employment, decent work and employability are measured only through Information and Communication Technology (ICT) skills; literacy benchmarks are contextual rather than standardised, and identification of vulnerable populations is left to nation states represented by governments (who are in many cases themselves responsible for the vulnerability of such populations) (UNESCO and UIS 2017c). GAML relies primarily on ILSA data, even though some data, not available through ILSAs, is procured from governments or government-authorised agencies (UNESCO and UIS 2017c). Thus, even though certain assessments remain non-standardised, the data is presented as comparable and standardised (UNESCO and UIS 2017c). Reporting against all GAML indicators is also not obligatory for states, which implies that states can choose to refrain from providing information about indicators that might feel uncomfortable for reasons best known to them (UIS 2016).

GAML sets internationally comparable quality standards for education systems defined in terms of SDG 4. Since ILSAs, to a very large extent, provide this data for GAML, ILSA inputs are decisive for determining the quality and thereby resources for adult education systems.

6 Discussion

ILSAs have facilitated major changes in adult education systems.

The first change marks a shift in priorities and approach of education systems from idealistic (socio-cultural) to materialistic (economic). ILSAs measure employability and explore its socio-economic linkages with key indicators for economic growth. Through ILSA, the collective socio-cultural concerns around nation-building and/or social change have been effectively integrated with individualistic concerns for inclusion of all (as human resources for optimum growth) and sustainability (with economic self-sustainability at the core and calculation of externalities defined in terms of environment and social factors as other relevant factors). Both inclusion and sustainable development are economically oriented (Singh and Ehlers 2020; Singh 2020).

The second change has been marked by the development of a transnational lifelong learning policy. ILSAs complement one another and provide information from the perspectives of different stakeholders, applying a bottom-up approach. Despite receiving sector-specific data from ILSAs, GAML works to harmonise such outcomes through indicators woven together to assess progress against SDG4. Based on this, GAML also identifies weak and strong aspects in education systems that may promote or hinder the integration of sectors within the education systems and the integration of education and labour market policies. The correlation amid resources spent in specific sectors and the returns received either in terms of employability (in case of PIAAC, STEP and STWS) or in terms of conditions influencing economic growth determine the quality of sectors in education systems, decisive for their share in resource allocation. Sectors which do not yield effective economic outcomes struggle for resources. As the sectors align themselves against the sustainability framework, follow international standards and harmonise with other sectors within education systems (for instance, adult education systems harmonising with secondary education or higher education) and with labour markets, their possibilities for a larger share of resources increase and vice-versa. ILSAs therefore promote an approach towards education as an investment and help quantify its returns.

The third change is characterised by the development of employability as a global norm (Singh and Ehlers 2020). Aspects of education under SDGs can be categorised as materialistic (economic) and idealistic (humanistic). Since ILSAs prioritise the measurement of materialistic aspects, idealistic aspects are automatically de-prioritised or ignored in the agenda of many states and stakeholders with limited resources, for reasons of political (un)willingness or other handicaps. When ILSA data is lacking, non-standardised data might be provided by states projected as standardised and comparable. This offers a kind of *license* to states for excluding vulnerable populations, manipulating or overlooking data, or simply not providing key information for a variety of reasons.

Similar outcomes can also result due to methodological flaws in ILSAs which are insensitive to idealistic concerns. For instance, information provided by STEP does not represent the concrete reality of vast populations living in rural areas, working in the informal sector or struggling through socio-economic exclusion in remote areas. Trends in ILSAs prioritising the measurement of materialistic aspects might

therefore be dangerous and could negatively influence sustainable economic growth in the long run.

Why are materialistic outcomes prioritised over idealistic outcomes in ILSAs, GAML and even SDGs? Fig. 2 shows the positioning of ILSAs in relation to the global policy framework.

As shown in Fig. 2, ILSAs are embedded in the *sustainable economic growth policy framework* led by the OECD, facilitated by the WBG and the UN agencies. The seventeen SDGs adopted in 2015 represent different policy areas integrated under the *sustainable economic growth policy framework,* with education represented by SDG 4. Along with other contextual variables, SDG4 objectives and evaluations of previous policies may influence national policy agendas, especially in what are termed as "aid-dependent" (based on global policy framework) countries. In line with this agenda, any policy evaluation using indicators (developed by GAML) measures the quality of education systems. The indicators may measure inputs, processes, outcomes and/or correlations among them.

Based on the data about outcomes, ILSAs provide information regarding the robustness of education systems, including inter-linkages among constituent parts, required to achieve sustainable economic growth in the long run. ILSAs can therefore serve as an integrated part of the global policy framework for international development.

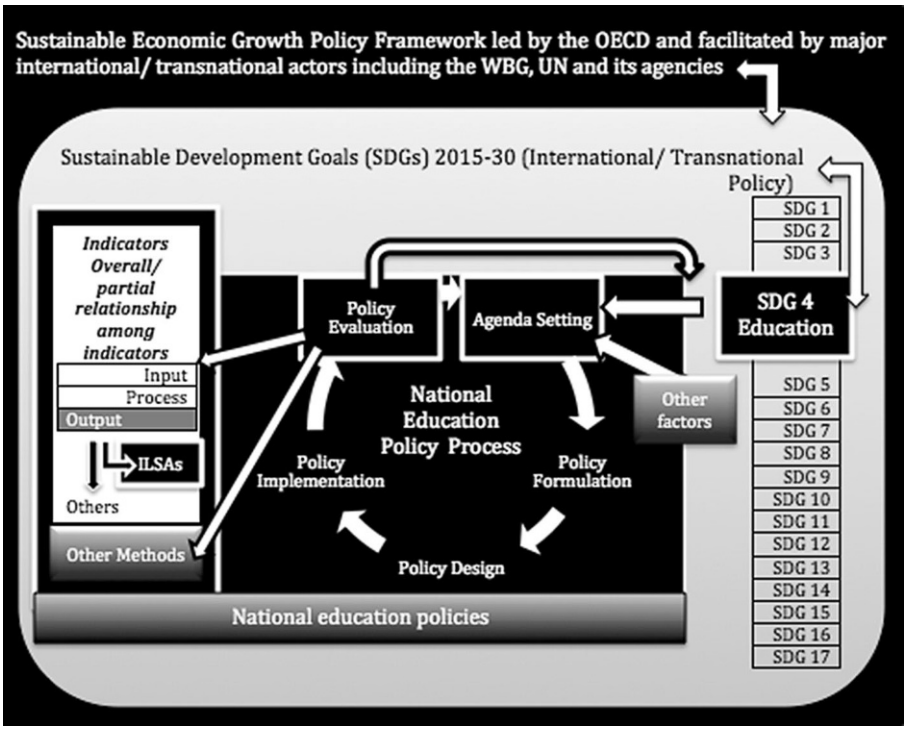

Fig. 2 Positioning of ILSAs in the global policy framework. *Source*: Author's Illustration

The concrete (but not necessarily credible) ILSA data might influence national and global policies, form the basis for policy interventions, open windows of opportunity to induce policy changes, or provide strong arguments in favour of certain policies and stakeholders.

ILSAs have expanded the space for international organizations, sometimes against the interest or willingness of nation states. The role of international organizations is not limited to providing incentives or pressure ("thermometers" and "whips"). They deliver data which inform global policy knowledge bases and facilitate deeper understanding of education systems. Their data is used globally to engage a wide variety of stakeholders with education and labour markets, and to resolve concrete problems like mitigating skills gaps or providing education for livelihoods. In the worst case, they provide room for exclusion too. Internationally comparable data generated through ILSAs is beyond the management of nationstates and provides leverage for international organizations equipped with adequate expertise, knowledge base and other relevant resources.

ILSAs are thus powerful tools for facilitating change. Notwithstanding questions around their credibility, alternatives to ILSAs are scarce.

7 Conclusion

Adult education systems are experiencing radical changes in the face of globally available ILSAs, with their respective performances evaluated and compared against one another. In the past century, education for adults often consisted of idealistic, non-profit initiatives by the civil society, which were relatively independent from state regulations and were usually not included in mainstream national education systems and/or labour market systems.

Today, however, most adult education systems are funded on the basis of their performance and ILSAs play a vital role in generating such data. Irrespective of how education is organised (formally, non-formally or informally), who are the providers, who comprise the target groups and what objectives are met or forgone, performance of adult education systems is measured along the criteria of what is learnt and can be sold in the labour market. The monopoly of the teacher and regulatory systems over the learner has fallen apart; instead, internationally comparable data has brought the learner (as a customer) to the centre of these systems, thereby instituting a perspective that can be considered more "bottom-up."

States (accountable for spending public resources) and employers (driven by profit) contribute a larger share of resources for adult education systems rather than civil society today. Thus, materialistic data from ILSAs about *returns on investment* and concerns of employers seem relevant for resource allocation.

This has rather put the efficacy of adult education systems as autonomous sectors under question. SDG4 and GAML both indicate that even though adult education sectors might serve as relevant abstractions for research, in reality they are losing significance. Integration of adult education systems with lifelong learning has no doubt curtailed the autonomy of adult education and reduced them to dependent subsystems ruled by the economic logic of state and market. The continuous focus of

global policies on sustainable economic growth implies that adult education systems are bound to follow the materialistic norm of employability in order to survive in a competing world.

References

Banks, G. (2009). Evidence-based policy-making: What is it? How do we get it? In *ANZSOG/ANU Public Lecture Series*. Canberra, 4 Feb 2009.

Cairney, P. (2016). *The politics of evidence-based policy making*. Houndmills, Basingstoke: Palgrave Macmillan.

Cresswell, J., Schwantner, U., & Waters, C. (2015). *A Review of International Large-Scale Assessments in Education: Assessing Component Skills and Collecting Contextual Data, PISA*. Paris, Washington: OECD Publishing, The World Bank.

Ehlers, S. (Ed.). (2006). *Milestones towards lifelong learning systems*. Denmark: Danish University of Education Press.

Ehlers, S. (2013). Globalisering, vidensøkonomi og konkurrenceevne. Om restruktureringen af det danske uddannelsessystem. *Uddannelseshistorie*, *47*, 21–35.

Ehlers, S. (2019). The rise of a learning regime in Europe. Transnational policy terms mapped and discussed. In T. Fristrup (Ed.), *Socially Engaged Practices in Museums and Archives*. Fornvårdaren, (Vol. 38, pp. 17–68). Östersund: Jamtli.

Elder, S. (2009). *ILO school-to-work transition survey: a methodological guide*. Sampling methodology, Module 3, Youth Employment Programme. Geneva: ILO.

French, R. (2019). Is it time to give up on evidence-based policy? Four answers. *Policy & Politics*, *47*(1), 151–168.

Government of India (2020). Key Highlights of Economic Survey 2019–20. https://mail.google.com/mail/u/0/?tab=wm&ogbl#inbox/FMfcgxwHMjnQKJMxkQDmRrSbdVmCMsvg?projector=1&messagePartId=0.1. Accessed 7 Apr 2020.

Grek, S. (2013). Expert moves: international comparative testing and the rise of expertocracy. *Journal of Education Policy*, *28*(5), 695–709.

Gustafsson, J.-E. (2018). International large-scale assessments: current status and ways forward. *Scandinavian Journal of Educational Research*, *62*(3), 328–332.

Hegarty, S. (2014). From opinion to evidence in education: Torsten Husén's contribution. In A. Nordin & D. Sundberg (Eds.), *Transnational policy flows in European education: the making and governing of knowledge in the education policy field*. Oxford: Symposium Books.

Heyneman, S. P. (2012). When models become monopolies: the making of education policy at the world bank. In C. S. Collins & A. W. Wiseman (Eds.), *Education strategy in the developing world: revising the world bank's education policy*. International Perspectives on Education and Society Series, (Vol. 16, pp. 43–62). Bingley: Emerald.

ILO—International Labour Organisation (n. d.). School-to-Work Transition Survey (STWS). https://www.ilo.org/employment/areas/youth-employment/work-for-youth/WCMS_191853/lang--en/index.htm. Accessed 7 Apr 2020.

Johansson, S. (2016). International large-scale assessment: what uses, what consequences? *Educational Research*, *58*(2), 139–148.

Keslair, F. (2018). *Interviewers, test-taking conditions and the quality of the PIAAC assessment*. OECD Education Working Paper No. 191. Directorate for Education and Skills. EDU/WKP (2018) 27, JT03440723, 30 November 2018. https://read.oecd-ilibrary.org/education/interviewers-test-taking-conditions-and-the-quality-of-the-piaac-assessment_5babb087-en#page1. Accessed 4 Apr 2020.

Kreiner, S. (2011). *Is the foundation under PISA solid? A critical look at the scaling model underlying international comparisons of student attainment*. Working Paper. International Household Survey Network. http://ls.ncm.gu.se/media/ncm/dokument/pisa_kreiner_.pdf. Accessed 2 Apr 2020.

Lawn, M., & Grek, S. (2012). *Europeanizing education: governing a new policy space*. Oxford: Symposium Books.

LMTF—Learning Metrics Task Force (2013). *Toward universal learning: recommendations from the metrics task force*. Montreal and Washington, D.C.: UNESCO Institute for Statistics & Center for Education at the Brookings Institution.

Lockheed, M. E., & Wagemaker, H. (2013). International large-scale assessments: thermometers, whips or useful policy tools? *Research in Comparative and International Education*, *8*(3), 296–306.

Montoya, S. (2015). A Global Alliance to Monitor Learning (GAL). World Education Blog, GEM Report, UNESCO. https://gemreportunesco.wordpress.com/2015/12/04/a-global-alliance-to-monitor-learning-gal/. Accessed 5 Apr 2020.

Muller, J. (2018). *The tyranny of metrics*. Oxford: Princeton University Press.

Newman, J. (2017). Deconstructing the debate over evidence-based policy. *Critical Policy Studies*, *11*(2), 211–226.

Nordin, A., & Sundberg, D. (2014). *Transnational policy flows in European education: the making and governing of knowledge in the education policy field*. Oxford: Symposium Books.

OECD (n. d.). About PIAAC. OECD skills surveys. https://www.oecd.org/skills/piaac/. Accessed 7 Apr 2020.

OECD (2019). *Beyond proficiency: using log files to understand respondent behaviour in the survey of adult skills*. OECD Skills Studies. Paris: OECD Publishing.

OECD, WBG, & ILO (2016). Enhancing employability. Report prepared for the G20 Employment Working Group with inputs from the International Monetary Fund. https://www.oecd.org/employment/emp/Enhancing-Employability-G20-Report-2016.pdf. Accessed 5 Apr 2020.

OECD—Organisation for Economic Co-operation and Development (2013). Relationship of the survey of adult skills (PIAAC) to other international skills surveys. https://www.oecd-ilibrary.org/docserver/9789264204027-8-en.pdf The Survey of Adult Skills: Reader's Companion. Accessed 6 Apr 2020.

Parkhurst, J. (2017). *The politics of evidence: from evidence-based policy to the good governance of evidence.* London: Routledge.

Pawson, R. (2006). *Evidence-based policy: a realist perspective*. London: SAGE.

Pierre, G., Puerta, M. L. S., Valerio, A., & Rajadel, T. (2014). STEP skills measurement surveys. Innovative tools for assessing skills. http://documents.worldbank.org/curated/en/516741468178736065/pdf/897290NWP0P132085290B00PUBLIC001421.pdf Discussion Paper No. 1421. Social Protection & Labor, WBG. Accessed 7 Apr 2020.

Rogers, H., & Demas, A. (2013). The what, why, and how of the systems approach for better education results (SABER). http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/Background/SABER_Overview_Paper.pdf Overview, Conference Edition, The World Bank. Accessed 5 Apr 2020.

Rutkowski, L., & Rutkowski, D. (2018). Improving the comparability and local usefulness of international assessments: a look back and a way forward. *Scandinavian Journal of Educational Research*, *62*(3), 354–367.

Saltelli, A., & Giampietro, M. (2017). What is wrong with evidence-based policy, and how can it be improved? *Futures*, *91*, 62–71.

Schleicher, A. (2008). PIAAC: a new strategy for assessing adult competencies. *International Review of Education*, *54*(5/6), 627–650.

Singh, S. (2017). Transnational comparative studies as sources for research: how effective? How relevant? *International Journal of Multidisciplinary Educational Research*, *6*(8:1), 113–133.

Singh, S., & Ehlers, S. (2020). Employability as a global norm: comparing transnational employability policies of OECD, ILO, World Bank Group and UNESCO. In R. Egetenmeyer (Ed.), *International comparative studies in adult and continuing education*. Florence: Florence University Press. under publication.

Singh, S. (2020). From global north-south divide to sustainability: shifting policy frameworks for international development and education. *International and Multidisciplinary Journal of Social Sciences, 9*(1), 76–102.

The WBG (2011). *Learning for all: investing in people's knowledge and skills to promote development*. Washington, D.C.: The World Bank.

The WBG—World Bank Group (n. d.). STEP. Skills toward employment and productivity: global initiative to generate internationally comparable data on skills of adult populations. http://documents.

worldbank.org/curated/en/516741468178736065/122290272_201511338025153/additional/897290NWP0P132085290B00PUBLIC001421.pdf. Accessed 7 Apr 2020.

UIS—UNESCO Institute of Statistics (2016). *Laying the foundation to measure sustainable development goal 4*. Sustainable development data digest. Montreal: UIS.

UNESCO, & UIS (2009). *The next generation of literacy statistics: implementing the literacy assessment and monitoring programme (LAMP)*. Technical Paper No. 1. Montreal: UIS. http://uis.unesco.org/sites/default/files/documents/the-next-generation-of-literacy-statistics-implementing-the-literacy-assessment-and-monitoring-programme-lamp-en_0.pdf

UNESCO, & UIS (2017a). The global alliance to monitor learning (GAML): result framework. http://gaml.uis.unesco.org/wp-content/uploads/sites/2/2018/10/gaml-result-framework-2017-en.pdf. Accessed 6 Apr 2020.

UNESCO, & UIS (2017b). The global alliance to monitor learning (GAML): governance and organization. http://gaml.uis.unesco.org/wp-content/uploads/sites/2/2018/10/gaml-governance-organization-2017-en.pdf. Accessed 7 Apr 2020.

UNESCO, & UIS (2017c). Metadata for the global and thematic indicators for the follow-up and review of SDG4 and education 2030. http://gaml.uis.unesco.org/wp-content/uploads/sites/2/2018/10/metadata-global-thematic-indicators-sdg4-education2030-2017-en_1.pdf. Accessed 7 Apr 2020.

UNESCO, & UIS (n. d.). Global alliance to monitor learning (GAML): concept paper. http://gaml.uis.unesco.org/wp-content/uploads/sites/2/2018/10/gaml-concept_paper-2017-en2_0.pdf. Accessed 7 Apr 2020.

UNESCO—United Nations Educational, Scientific and Cultural Organisation (2012). The Shanghai Consensus: Recommendations of the Third International Congress on Technical and Vocational Education and Training. 14–16 May 2012, Shanghai. http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf. Accessed 4 Apr 2020.

ZfW (2020) 43:291–312
https://doi.org/10.1007/s40955-020-00154-3

veröffentlicht in Zusammenarbeit mit DIE

FORUM

Von der Umkehr des Matthäus-Effekts – Stundenintensive Weiterbildung bei geringen numeralen Kompetenzen

Luise Krejcik · Anke Grotlüschen

Eingegangen: 12. Dezember 2019 / Angenommen: 5. März 2020 / Online publiziert: 27. März 2020

Zusammenfassung Das Matthäus-Prinzip wurde für die Weiterbildungsbeteiligung nachgewiesen, nicht aber für das Weiterbildungsvolumen im Kontext von Numeralität. Aufgrund der Verwobenheit mit sozialen Kontexten ist Numeralität unabhängig vom Bildungsabschluss ein relevanter Prädikator für das Weiterbildungsverhalten. Mittels eines internationalen Vergleichs, basierend auf PIAAC-Daten, verweist der Beitrag auf eine Umkehr des Matthäus-Effekts für Weiterbildungsvolumina. Im OECD-Durchschnitt und in der Mehrzahl der nordischen Länder nehmen weiterbildungsaktive Erwachsene mit geringer Numeralität mehr Weiterbildungsstunden wahr als jene mit hohen numeralen Kompetenzen. Die Ergebnisse deuten auf die Relevanz wohlfahrtsstaatlicher Kontexte für die (Um)Verteilung von Weiterbildungszeit.

Schlüsselwörter Numerale Kompetenzen · Matthäus-Effekt · Numeralität · Weiterbildungsvolumen · Weiterbildungsbeteiligung · PIAAC · International vergleichende Erwachsenenbildungsforschung

L. Krejcik (✉) · Prof. Dr. A. Grotlüschen
Fachbereich Berufliche Bildung & Lebenslanges Lernen, Universität Hamburg, Hamburg, Deutschland
E-Mail: luise.krejcik@uni-hamburg.de

Prof. Dr. A. Grotlüschen
E-Mail: anke.grotlueschen@uni-hamburg.de

Reversing the Matthew Principle – Adult Education in the context of low numeracy

Abstract The Matthew Principle was demonstrated for participation in further education, but not for the volume of further education in the context of numeracy. Due to its interdependence with social contexts, numeracy is a relevant predictor of further training behaviour irrespective of educational attainment. By using an international comparison based on PIAAC data, the article points to a reversal of the Matthew effect for further education volumes. In the OECD average and in the majority of the Nordic countries, adults with low numeral competence who are active in further education perceive more hours of further education than those with high numeral competence. The results point to the relevance of welfare state contexts for the (re)distribution of further education time.

Keywords Numeral competences · Matthew effect · Numeracy · Volume of further education · Further training participation · PIAAC · International comparative adult education research

1 Einleitung

Mit der Metapher des Matthäus-Effekts „Wer hat, dem wird gegeben“ wird in der Weiterbildungsforschung der enge Zusammenhang von (niedrigem) Bildungsabschluss und (geringem) Weiterbildungsverhalten beschrieben. Die an die soziale Herkunft geknüpften kumulativen Bildungseffekte und damit einhergehende soziale Strukturiertheit von Weiterbildungsbeteiligung wurde empirisch überdeutlich belegt (Eckert 2010, S. 270). Für den deutschen Kontext sind insbesondere die Analysen des *Berichtssystem Weiterbildung* (1979 bis 2007) und dessen internationaler Nachfolgestudie *Adult Education Survey* (AES) zu nennen (Bilger et al. 2017). Dabei zeigen sich über die Zeit weitestgehend stabile Beziehungen zwischen formaler Bildung und Weiterbildungsbeteiligung. Grotlüschen et al. (2016) konnten auch einen Zusammenhang von Grundkompetenzen (Literalität und Numeralität) und der Weiterbildungsbeteiligung von Erwachsenen aufzeigen.

Dabei wird das Weiterbildungsvolumen – die Gesamtdauer der besuchten Weiterbildungen in Stunden – bislang wenig berücksichtigt. Da eine hohe Partizipationsrate keinesfalls zwingend mit einem hohen Weiterbildungsvolumen je Teilnehmenden einhergeht (Desjardins et al. 2006, S. 36 ff.), besteht hier Forschungsbedarf. Eine differenzierte Betrachtung des Weiterbildungsvolumens ist auch deshalb relevant, weil die Ausübungsdauer einer Weiterbildung den daraus resultierenden Bildungs- und Kompetenzgewinn wesentlich beeinflussen kann. Stephen Reders längsschnittliche Befunde von US-amerikanischen Erwachsenen zeigen, dass Weiterbildungen kurzfristig literale Praktiken beeinflussen, dagegen ist ihr Einfluss auf die Kompetenzentwicklung ein eher langfristiger Prozess (Reder 2005). Zudem sind ausreichende und geplante Zeitfenster wichtige subjektive Voraussetzungen für Lernende, um sich auf Lerninhalte einlassen zu können (Schmidt-Lauff 2018, S. 332).

Im Hinblick auf Numeralität fehlt es jedoch an Diskussionen und Befunden, welche über die Betrachtung der Weiterbildungsquote hinausgehen. Der vorliegende Beitrag versucht, diese Lücke zu schließen. Er untersucht, ob der in der Weiterbildungsforschung häufig rezipierte Matthäus-Effekt im Kontext von Numeralität unter Berücksichtigung des Weiterbildungsvolumens zutrifft. Es wird insbesondere der Frage nachgegangen, inwiefern Erwachsene mit numeralen Fähigkeiten auf einem niedrigen Kompetenzniveau weniger Zeit in Weiterbildungen verbringen als Erwachsene mit hohen numeralen Kompetenzen. Ferner wird gefragt, ob Numeralität ein relevanter Indikator für die Weiterbildungschancen von Erwachsenen ist. In der Untersuchung werden non-formale Weiterbildungen berücksichtigt – organisierte Bildungsaktivitäten, die innerhalb und außerhalb des Erwerbsarbeitskontextes stehen und von Institutionen *außerhalb des formalen Bildungssystems* angeboten werden (Rau 2016, S. 99 f.). Die Forschungsfrage wird deskriptiv und mittels Schätzanalysen überprüft. Der internationale Vergleich auf Basis von PIAAC ermöglicht eine länderübergreifende Analyse des Zusammenhangs von Numeralität und Weiterbildungsvolumen. Numeralitätsniveaus und Wohlfahrtssysteme variieren zwischen den untersuchten OECD-Ländern, ein internationaler Vergleich kann Aufschluss über die Rolle nationaler Kontexte für die Verteilung von Weiterbildungsvolumina geben.

2 Forschungsstand

2.1 Relevanz und Begriffsverständnis von Numeralität

Die Kompetenzforschung hat den Einfluss von Numeralität auf die Teilhabechancen in vielen Lebensbereichen längst erkannt (Rammstedt 2013, S. 127 ff.). Numeralität ist für die Partizipation am Arbeitsmarkt bedeutsam und spielt insbesondere für kaufmännische, gewerbliche, technische oder mathematisch-naturwissenschaftliche Berufsfelder eine große Rolle (ebd., S. 144 ff.). Ferner erhöht geringe Numeralität das Risiko von Arbeitslosigkeit und geringem Einkommen (Banks et al. 2010; Disney und Gathergood 2013, S. 19 ff.); sie verstärkt die Gefahr der Verschuldung und kostenintensiverer Kreditaufnahmen auch nach Berücksichtigung soziodemografischer Merkmale (French und McKillop 2015, S. 6; Lusardi und Scheresberg 2013).

Die Relevanz von Numeralität wird in Deutschland spätestens seit der Ausrufung der „Nationalen Dekade für Alphabetisierung und Grundbildung“ im Jahr 2015 vom Bundesministerium für Bildung und Forschung und der Kultusministerkonferenz anerkannt. Im Jahr 2016 formulierten die Vereinten Nationen in der Agenda für nachhaltige Entwicklung bis 2030 (Sustainable Development Goals) die Erhöhung von Numeralität in der Weltbevölkerung als explizites Ziel: „ensure that all youth and a substantial proportion of adults [...] achieve literacy and numeracy (UNESCO 2016, S. 8).“ Dennoch sind numerale Kompetenzen und ihre Auswirkungen auf die Teilhabe am Lebenslangen Lernen bislang wenig beforscht.

Das Begriffsverständnis von „Numeralität“ (englisch *Numeracy*) variiert im internationalen Kontext sowie zwischen den Fachrichtungen. Die Forschungsstränge New Literacy Studies, Ethnomathematics und Situative Learning Approaches be-

tonen die Bedeutung von Numeralität als sozialer Praxis (Yasukawa 2018). Dabei werden die soziokulturellen, historischen und politischen Kontexte, in denen numerale Praktiken stattfinden, in den Fokus genommen (ebd.).

In der vorliegenden quantitativen Analyse wird hingegen auf das kompetenzbezogene Numeralitätsverständnis von PIAAC (Programme for the International Assessment of Adult Competence) der Organisation für Wirtschaftliche Zusammenarbeit und Entwicklung (OECD) zurückgegriffen und Numeralität definiert als „die Fähigkeit, sich mathematische Informationen und Ideen zugänglich zu machen, diese anzuwenden, zu interpretieren und zu kommunizieren, um so mit mathematischen Anforderungen in unterschiedlichen Alltagssituationen Erwachsener umzugehen" (Zabal et al. 2013, S. 47). Numeralität umfasst folglich u. a. den Umgang mit mathematischen und quantitativen Prozessen, Informationen oder Darstellungen oder die kritische Interpretationsfähigkeit statistischer oder mathematischer Nachrichten (PIAAC Numeracy Expert Group 2009, S. 9).

2.2 Zusammenhang von numeralen Kompetenzen und Weiterbildungsverhalten

Aktuelle Forschungsbefunde zeigen diverse Zusammenhänge von Kompetenzniveaus und Weiterbildungsverhalten. Einerseits müssen Erwachsene mit geringen numeralen Kompetenzen mit Stigmatisierungen rechnen, was zu Zurückhaltung in der Teilnahme an Lernaktivitäten führen kann (Windisch 2016, S. 286). Nicht für Numeralität, aber für Literalität zeigt die LEO-Studie 2018, dass Befürchtungen, Anforderungen nicht gerecht zu werden, ein überdurchschnittlich häufig genannter Grund für die Nichtteilnahme an Weiterbildungen für Erwachsene mit geringen Kompetenzen sind (Dutz und Bilger 2020). Windisch (2016, S. 283–286) verweist auf unerkannte oder nicht als dringlich erachtete Lernbedarfe bei Erwachsenen mit geringer Numeralität. Dies weist auf den „Referenzgruppeneffekt" (in der internationalen Forschung diskutiert als *big-fish-little-pond-effect*) hin, wonach die eigenen Fähigkeiten relativ zum Lernumfeld eingeschätzt werden (Trautwein und Lüdtke 2010). Andererseits belegen die Analysen auf Basis der britischen Birth Cohort Study (BCS70), dass Erwachsene mit numeralen Schwierigkeiten überdurchschnittliche Bestrebungen haben, ihre numeralen Kompetenzen zu verbessern (Carpentieri et al. 2009, S. 53 f.).

Darüber hinaus erklärt die enge Korrelation von Numeralität mit soziodemografischen Merkmalen, insbesondere mit niedriger formaler Bildung, einen Teil des Zusammenhangs von geringer Numeralität und geringem Weiterbildungsverhalten (ebd., S. 28 f.). Dennoch lassen sich numerale Kompetenzen von Erwachsenen nur zum Teil durch Schulbildung erklären. Als gleichwertig erachtete Schulabschlüsse und Mathenoten gehen sowohl national als auch international mit unterschiedlichen numeralen Kompetenzniveaus einher; zudem zeigen sich auch im Erwachsenenalter numerale Kompetenzveränderungen durch formale, non-formale oder informelle Bildungsprozesse (Ausbildung, Hochschulstudium, Weiterbildung). Weiterhin geht geringe Numeralität häufig mit geringer Literalität einher; dennoch überschneiden sie sich nur zum Teil (Grotlüschen et al. 2016, S. 23).

Ferner hängt Numeralität mit arbeitsmarktbezogenen Faktoren zusammen: Gering numeralisierte Erwachsene sind häufiger in niedrig qualifizierten Berufsfeldern beschäftigt und häufiger erwerbslos als Erwachsene mit hohen numeralen Kompetenzen (Carpentieri et al. 2009, S. 41 ff.; Rammstedt 2013, S. 134). Berufliche und auf den Erwerbsstatus bezogene Kontexte fördern und ermöglichen die Weiterbildungsteilnahme unterschiedlich stark (Wittpoth 2018, S. 1162 f.). Unter dem Begriff „low-skilled-trap“ wird die Abwärtsspirale von geringem (numeralen) Kompetenzniveau, erhöhtem Risiko von Arbeitslosigkeit oder Positionen im Niedriglohnbereich, geringeren Entwicklungsmöglichkeiten und der damit einhergehenden Gefahr des Kompetenzverlustes oder -stagnation beschrieben (Windisch 2016, S. 283). Dies wiederum wirkt sich auch auf die Art und Dauer der Weiterbildungsteilnahme aus.

2.3 Geringe Numeralität und Weiterbildungsvolumen im deutschen Kontext

Die Auswertungen der Kompetenzstudie PIAAC belegen den Matthäus-Effekt im Hinblick auf geringe Numeralität und geringe Weiterbildungsbeteiligung auch nach Kontrolle soziodemografischer Variablen (Grotlüschen et al. 2016, S. 96). Hinsichtlich der kompetenzbezogenen Verteilung des Weiterbildungsvolumens deutet sich dagegen ein entgegengesetzter Zusammenhang für Deutschland an, dieser wird jedoch nicht weiter diskutiert. Zumindest für Literalität bestätigt die LEO-Studie 2018, dass Erwachsene mit geringeren Kompetenzniveaus – trotz der unterdurchschnittlich häufigen Teilnahme – insgesamt mehr Zeit in Weiterbildungen verbringen als jene mit hohen Kompetenzen (Dutz und Bilger 2020).

Erklärungsansätze für die Effektumkehrung beim Weiterbildungsvolumen im deutschen Kontext bieten die Analysen zur berufsbezogenen Weiterbildung von Bläsche et al. (2017). Betriebliche, individuell berufsbezogene Weiterbildungen, Weiterbildungen der Bundesagentur für Arbeit oder die im Zuwanderungsgesetz geregelten Integrationskurse unterscheiden sich wesentlich hinsichtlich der Stundenintensität als auch der Adressatengruppen. Betriebliche Weiterbildungen machen zwar mit 70 % den mit Abstand größten Weiterbildungsbereich aus, sie umfassen jedoch meist nur wenige Stunden (ebd., S. 12 f.).

Während die kürzeren betrieblichen Weiterbildungen und Bildungsurlaube häufiger von Hochqualifizierten und Führungskräften mit hohem Einkommen wahrgenommen werden (Anbuhl 2015), partizipieren gering Qualifizierte und Erwerbslose häufiger an den Maßnahmen der Bundesagentur für Arbeit. Letztere sind insbesondere stundenintensive Maßnahmen aus den Sozialgesetzbüchern II und III (Bläsche et al. 2017, S. 14). Zugewanderte partizipieren vor allem an den umfangreichen Integrationskursen (Grotlüschen und Haberzeth 2018, S. 553). Da geringe Numeralität überdurchschnittlich häufig mit Erwerbslosigkeit und geringem beruflichen Status einhergeht (Grotlüschen et al. 2016, S. 22–30), kann davon ausgegangen werden, dass die Befunde hinsichtlich des Weiterbildungsvolumens für Deutschland ähnlich ausfallen wie die Ergebnisse der LEO-Studie 2018 hinsichtlich der überdurchschnittlichen Weiterbildungszeit von Erwachsenen im unteren Kompetenzbereich. Die vermutete Umkehr des Matthäus-Effekts im Kontext von Numeralität wäre folglich mit stundenintensiven Weiterbildungsangeboten, die speziell gering qualifizierte Gruppen ansprechen, zu begründen.

2.4 Länderspezifische Weiterbildungsvolumina und Kompetenzen

Weiterbildungen, die Numeralität gezielt fördern, sind in vielen Ländern Teil der Grundbildungspolitik (Knauber und Ioannidou 2016, S. 132). Knauber und Ioannidou (2016) stellen in ihren international vergleichenden Analysen zu Grundbildungspolitiken erhebliche Differenzen hinsichtlich des Verständnisses, der beteiligten Akteure und der inhaltlichen Ausgestaltung von Grundbildungspolitik zwischen den untersuchten Ländern (England, Österreich, Niederlande, Türkei) fest. Auch Umfang und Adressatengruppen von staatlich finanzierten Weiterbildungen sowie die Angebotsstrukturen für Personengruppen mit geringen Kompetenzen sind länderspezifisch sowie Ergebnis politischer Entscheidungen. Daher ist es nicht überraschend, dass international vergleichende Weiterbildungsstudien länderspezifische Differenzen hinsichtlich Weiterbildungsbeteiligung sowie in der kompetenzbezogenen Verteilung von Weiterbildungsstunden feststellen (Desjardins et al. 2006; Desjardins 2017, S. 185–187; Grotlüschen et al. 2016, S. 97–106; Markowitsch et al. 2013, S. 284). In Ländern mit hohen Partizipationsraten ist häufig ein hohes Weiterbildungsvolumen pro Teilnehmenden (Dänemark, Finnland, Niederlande, Norwegen) zu finden, andere Länder weisen niedrige Partizipationsraten bei gleichzeitig hohem Volumen der einzelnen Teilnehmenden auf (Irland, Slowenien) (Desjardins et al. 2006, S. 27–28). Hinsichtlich der formalen Bildung und der Weiterbildungsrate zeigen sich ähnliche Teilnahmemuster entsprechend des Matthäus-Effekts, jedoch variiert das Ausmaß der sozialen Selektivität von Weiterbildungssystemen enorm (Kaufmann et al. 2014, S. 39). Nähere Ausführungen mit Blick auf Numeralität fehlen allerdings bislang.

Die Ergebnisse der zahlreichen international vergleichenden Weiterbildungsstudien verweisen hinsichtlich des Umfangs und der Selektivität von Weiterbildungen auf Indikatoren auf der Makro- und Mesoebene (sogenannte *Institutional Packages*). Beispielsweise wirken sich ein hohes Bruttoinlandsprodukt pro Kopf (Markowitsch et al. 2013) und eine niedrige Arbeitslosenquote (Groenez et al. 2007) positiv auf das (betriebliche) Weiterbildungsvolumen aus. Die soziale Selektivität des Zugangs zu Weiterbildungen wird durch eine hohe Gewerkschaftsdichte (ebd.), hohe Arbeitsmarktförderung (Roosmaa und Saar 2012), hohe Bildungsausgaben (Dämmrich et al. 2014, S. 42; Martin und Rüber 2016, S. 167) sowie eine geringe soziale Ungleichheit (Lee und Desjardins 2019) verringert. Die häufig als sozialdemokratisch eingeordneten nordischen Länder sind in den genannten Punkten meist stärker aufgestellt (Esping-Andersen 1990). Desjardins weist auf die Rolle von Volkshochschulen und Erwachsenenbildungsverbänden für eine heterogene Weiterbildungsteilnehmerschaft hin, welche in nordischen Ländern überdurchschnittlich stark ausgebaut sind (Desjardins et al. 2006, S. 22 f). Insgesamt variieren die Daten- und Bemessungsgrundlagen international vergleichender Weiterbildungsforschung (Kaufmann et al. 2014, S. 49), sie sind folglich nur begrenzt auf die hier untersuchten OECD-Länder übertragbar.

Aus dem Forschungstand lassen sich folgende Hypothesen ableiten (Tab. 1):

Tab. 1 Hypothesen 1 & 2

Effektumkehr bei Weiterbildungsvolumina – in Stunden:	
Hypothese 1	Erwachsene mit geringem numeralen Kompetenzniveau weisen ein höheres Weiterbildungsvolumen auf als Erwachsene mit hohen numeralen Kompetenzen
Effektumkehr im internationalen Vergleich:	
Hypothese 2	Die Verteilung des Weiterbildungsvolumens von Erwachsenen entlang unterschiedlicher Kompetenzniveaus variiert zwischen den Ländern

3 Quantitative Analyse

3.1 Datengrundlage & Samplebeschreibung

Auf Basis der PIAAC-Runden 1 und 2 (2011 bis 2016) können numerale Kompetenzen von Erwachsenen im erwerbsfähigen Alter (16 bis 65 Jahre) international verglichen werden. Zudem werden in PIAAC die Weiterbildungen differenziert nach der Dauer erfasst (Zabal et al. 2013). Die Stichprobengröße umfasst nach der Missing-Analyse insgesamt 122.682 Fälle und 23 Länder mit mindestens 4050 (Norwegen) und maximal 8563 (Polen) Beobachtungen (vgl. Tab. 2). Die Länder Australien, Estland, Kanada, Österreich, Russland, Zypern und die USA können nicht berücksichtigt werden, da sie mindestens eine der für die vorliegende Analyse relevanten Fragen nicht gestellt haben oder nur ein stark limitierter Zugang zu den Daten besteht.

3.2 Operationalisierung

Für die Untersuchung der Hypothesen wurde eine metrische abhängige Variable *Weiterbildungsvolumen* aus mehreren Fragen zur Weiterbildungsbeteiligung im non-formalen Bereich generiert. Es wurden die Kategorien „betriebliche Schulungen/ Schulungen durch Vorgesetzte oder Kollegen“, „Fernunterricht/E-Learning“, „Seminare/Workshops“, sowie „sonstige Kurse/Privatunterricht“ berücksichtigt. Hier werden nur Personen erfasst, die angaben, mindestens eine Stunde an einem der genannten non-formalen Bereiche in den 12 Monaten vor der Befragung teilgenommen zu haben.

Für die Messung von Numeralität wurde entsprechend der PIAAC-Konzeption eine kategoriale Variable mit vier Ausprägungen (1 = Level 1 und geringer, 2 = Level 2, 3 = Level 3, 4 = Level 4 und höher) auf Basis der in Zabal et al. (2013) beschriebenen Konzeption gebildet. In den Analysen wird *Level 1 und geringer* (geringe Numeralität) mit *Level 4 und höher* (hohe Numeralität) verglichen.

Soziodemografische und arbeitsbezogene Merkmale werden in Form von Kontrollvariablen in den Schätzungen berücksichtigt. Die Variable *Bildungsabschluss* basiert auf der ISCED-Klassifikation (1997) und wurde aufgrund geringer Fallzahlen und in Anlehnung an Rammstedt (2013, S. 98) im höchsten formalen Bildungsabschluss zu den Kategorien (1) niedriger Bildungsabschluss (ISCED 1,2 & geringer), (2) mittlerer Bildungsabschluss (ISCED 3,4), (3) tertiärer Bildungsabschluss (ISCED 5,6) subsummiert. Die *berufliche Tätigkeit* basiert auf der ISCOSKIL4-Variable, welche die Berufshauptgruppen der ISCO-Klassifikation (2008) in vier

Tab. 2 Stichprobenverteilung

Variable	Gesamt Ø	SD	Numerales Level 1 und geringer	Numerales Level 4 und darüber
	(n = 122.682)		n = 27.986 (25 %)	n = 14.001 (10,5 %)
Weiterbildungsstunden	153,31	2,7129	163,61	138,23
Weiterbildung (1 = ja)	0,39	0,0025	0,21	0,63
NumTestScore	266,26	0,2903	185,48	346,87
Numerales Kompetenzlevel				
Level 1 & geringer	25,00	0,2584		
Level 2	33,52	0,3478		
Level 3	31,03	0,2749		
Level 4 & 5 (Ref.-Kategorie)	10,45	0,1569		
Beschäftigt (1 = beschäftigt)	0,82	0,0012	0,53	0,84
Alter	41,52	0,0249	43,96	38,98
Geschlecht (1 = männlich)	0,50	0,0007	0,44	0,65
Migrationshintergrund (1 = Ja)	0,14	0,0016	0,18	0,11
Formaler Bildungsabschluss				
Niedrig (ISCED 1/2 & geringer)	0,27	0,0014	0,58	0,03
Mittel (ISCED 3/4)	0,43	0,0018	0,33	0,32
Tertiär (ISCED 5/6)	0,30	0,0013	0,09	0,66
Berufliche Tätigkeit				
Seit 5 Jahren nicht tätig	0,18	0,0016	0,31	0,07
Helfer- und Anlerntätigkeiten	0,08	0,0013	0,14	0,02
Fachlich ausgerichtete Tätigkeiten	0,19	0,0020	0,22	0,10
Komplexe Spezialtätigkeiten	0,26	0,0020	0,22	0,21
Hoch komplexe Tätigkeiten	0,29	0,0019	0,10	0,60
Anzahl der Bücher				
Max 25 Bücher	0,42	0,0027	0,69	0,14
26–100 Bücher	0,31	0,0023	0,21	0,32
101–200 Bücher	0,13	0,0018	0,06	0,21
201–500 Bücher, oder mehr	0,15	0,0015	0,04	0,34

Länder (n): Belgien (4597), Chile (4792), Dänemark (6725), Finnland (5057), Frankreich (6284), Deutschland (4838), Griechenland (4701), Großbritannien (8119), Irland (5716), Israel (4664), Italien (4352), Japan (4536), Korea (6194), Luxemburg (4821), Niederlande (4699), Norwegen (4050), Polen (8563), Slowakei (5214), Slowenien (4845), Spanien (5556), Schweden (4067), Tschechien (5319), Türkei 4973

Anforderungsstufen zusammenfasst: (1) Helfer- und Anlerntätigkeiten (2) fachlich ausgerichtete Tätigkeiten (3) komplexe Spezialtätigkeiten und (4) hoch komplexe Tätigkeiten (Führungs-, Manager- und akademische Tätigkeiten) (eigene Bezeichnung in Anlehnung an die Bundesagentur für Arbeit (2011, S. 22 ff.)). Die Variable *Migrationshintergrund* wurde gemäß dem statistischen Bundesamt aus dem Geburtsland und dem Immigrationsstatus der Eltern operationalisiert. Demnach wurden Erwachsene mit Migrationshintergrund erfasst, wenn „sie selbst oder mindestens

eines ihrer Elternteile nicht mit deutscher Staatsbürgerschaft geboren sind“ (Statistisches Bundesamt 2018). Außerdem wurden die Anzahl der Bücher im Haushalt, das Geschlecht, sowie das Alter und der Beschäftigungsstatus (1 = beschäftigt, 0 = unbeschäftigt/erwerbsunfähig) in die Analyse einbezogen.

3.3 Modellspezifikationen

Um den prognostizierten positiven Zusammenhang von Weiterbildungsvolumen mit Numeralität zu überprüfen, wurde sich einfacher und multipler linearer Regressionsmodelle (Ordinary Least Squares, OLS) bedient, da ein linearer Zusammenhang zwischen den unabhängigen Variablen und der abhängigen Variable unterstellt wird und die abhängige Variable Weiterbildungsvolumen metrisch skaliert ist. Die Analysen wurden mit STATA und dem Replication Estimation Modul (Repest) von Francesco Avvisati und François Keslair durchgeführt. Das Repest-Modul erlaubt die Berechnung korrekter Schätzer und Standardfehler unter Berücksichtigung der plausiblen Werte (plausible Values) und des komplexen Stichprobendesigns.

4 Ergebnisse

4.1 Deskriptive Ergebnisse

Es geben 39 % (gerundete Werte) der Erwachsenen aus der Stichprobe an ($n = 52.711$), an einer oder mehreren non-formalen Weiterbildungen teilgenommen zu haben und zwar im Durchschnitt 153 h im Jahr. Bei Betrachtung der numeralen Kompetenzen fällt auf, dass 11 % der Erwachsenen der Stichprobe ein numerales Kompetenzlevel 4 oder 5 aufweisen, 25 % erreichen lediglich ein numerales Kompetenzlevel 1 oder geringer. Im Durchschnitt erreichen die Erwachsenen der untersuchten Länder 266 Punkte (Kompetenzstufe 2).

Im Hinblick auf die Weiterbildungsbeteiligung ist es auf Basis des eindeutigen Forschungsstandes wenig überraschend, dass sich die Beteiligung an non-formaler Weiterbildung zwischen der obersten und der untersten Kompetenzgruppe wesentlich unterscheidet: Während die Beteiligungsquote bei Erwachsenen mit geringer Numeralität lediglich 21 % beträgt, liegt sie bei Erwachsenen mit dem höchsten Numeralitätsniveau mit 63 % um mehr als das Dreifache höher. Ein entgegengesetztes Bild zeigt sich bei der Weiterbildungsdauer der Teilnehmenden. Erwachsene mit geringer Numeralität (164 h) liegen deutlich über dem Länder-Durchschnitt (153 h) und dem der Erwachsenen mit Kompetenzlevel 4 und darüber (138 h).

4.2 Regressionsergebnisse

Da davon auszugehen ist, dass diese Verteilung je nach nationalen Rahmenbedingungen variiert, wird die Weiterbildungsdauer im Folgenden differenziert nach Kompetenzniveau pro Land dargestellt.

Die in Abb. 1 dargestellten linearen Regressionskoeffizienten sind als durchschnittliche Differenzen im Weiterbildungsvolumen von Erwachsenen mit geringer

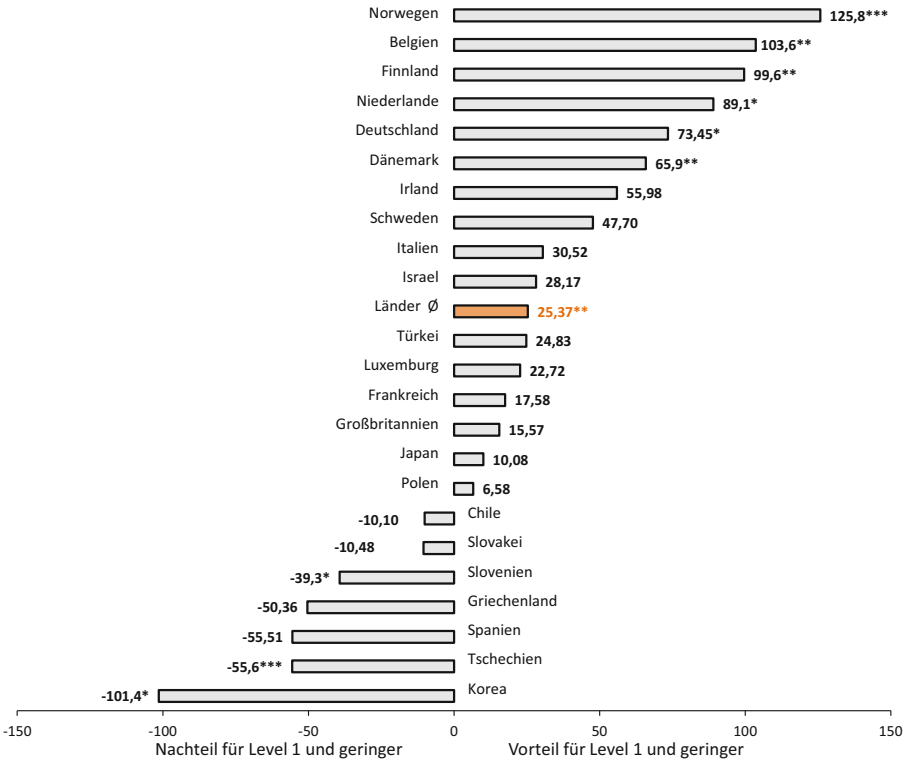

Abb. 1 Differenzen im Weiterbildungsvolumen (in Stunden) zwischen Erwachsenen mit numeralen Kompetenzen im Level 1 und geringer und Erwachsenen mit numeralen Kompetenzen im Level 4 und darüber. OLS-Modell, ohne Kontrollvariable

Numeralität gegenüber Erwachsenen mit hoher Numeralität (Referenzgruppe) je Land zu interpretieren. In den OLS-Modellen stellt das Weiterbildungsvolumen (in Stunden) die abhängige Variable dar, Kontrollvariablen wurden nicht aufgenommen. Liegen die Balken im positiven Wertebereich (rechts), weisen Erwachsene mit geringer Numeralität durchschnittlich mehr Weiterbildungsstunden auf als Erwachsene mit hoher Numeralität.

Die Befunde zeigen für Deutschland, dass Erwachsene mit geringer Numeralität im Durchschnitt 73,5 Stunden mehr Zeit in Weiterbildungen verbringen als Erwachsene mit hoher Numeralität. Hinsichtlich der Verteilung von Weiterbildungszeit zu Gunsten der Gruppe mit geringen numeralen Kompetenzen steht Deutschland damit auf dem fünften Platz. Auch der Länder-Durchschnitt fällt signifikant positiv aus: Erwachsene mit hoher Numeralität nehmen durchschnittlich 25,4 Stunden mehr Weiterbildungszeit als die Vergleichsgruppe.

Hinsichtlich des Ländervergleichs zeigt sich der vermutete positive Zusammenhang zwischen geringer Numeralität und Weiterbildungsvolumen in 16 der 23 untersuchten Länder. Signifikant ist dieser Zusammenhang in sechs Ländern – neben Deutschland auch in Belgien und den Niederlanden (zwei der drei Benelux-Länder) sowie Finnland, Norwegen und Dänemark (drei von vier nordeuropäischen Län-

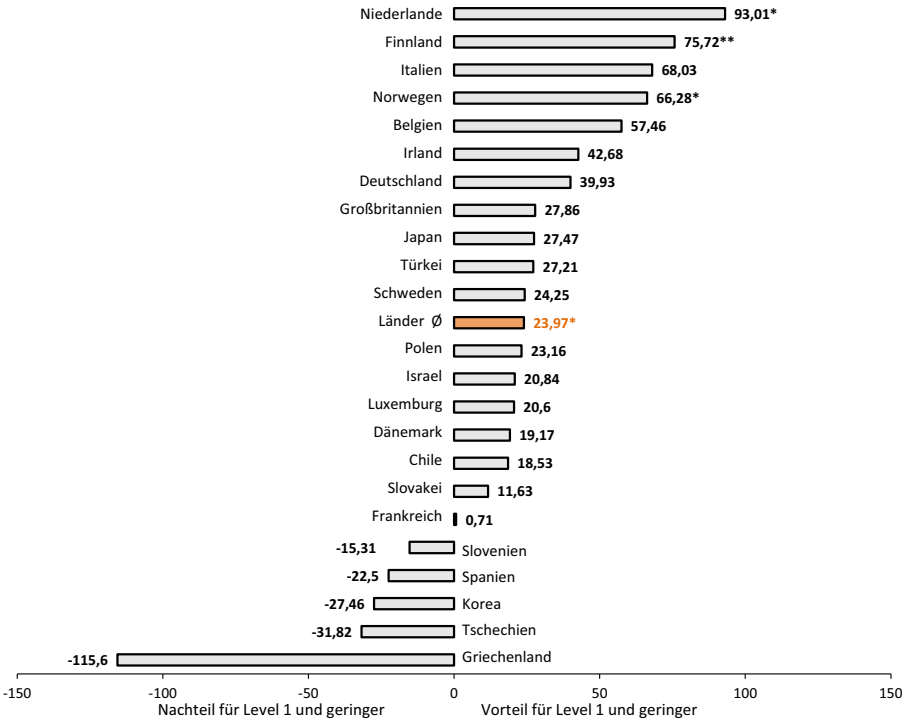

Abb. 2 Differenzen im Weiterbildungsvolumen (in Stunden) zwischen Erwachsenen mit numeralen Kompetenzen im Level 1 und geringer und Erwachsenen mit numeralen Kompetenzen im Level 4 und darüber. OLS-Modell, mit Kontrollvariable

dern). Dagegen sind Erwachsene mit geringer Numeralität in drei von vier Ländern der EU-Osterweiterung (Tschechien, Slowenien, Slowakei) sowie in zwei von vier südeuropäischen Ländern (Griechenland, Spanien) hinsichtlich des Weiterbildungsvolumens benachteiligt.

In Abb. 2 werden die Koeffizienten der multiplen OLS-Regressionsmodelle für Erwachsene mit geringer Numeralität unter Berücksichtigung der soziodemografischen Kontrollvariablen (Tab. 2) dargestellt.

Für Deutschland zeigt sich bei Berücksichtigung der Kontrollvariablen, dass Erwachsene mit geringer Numeralität fast 40 Stunden mehr Zeit in Weiterbildungen verbringen als jene mit hoher Numeralität. Die Stundendifferenz liegt damit in Deutschland immer noch über dem Länderdurchschnitt, verringert sich jedoch um fast die Hälfte zum Modell ohne Kontrollvariablen und wird insignifikant. Im OECD-Durchschnitt bleibt der signifikant positive Zusammenhang zwischen geringer Numeralität und dem Weiterbildungsvolumen bestehen. Mit Blick auf den internationalen Vergleich zeigt sich unter Berücksichtigung der Kontrollvariablen über alle Länder hinweg eine Verminderung des positiven Zusammenhangs zwischen geringer Numeralität und Weiterbildungsvolumen. Die Signifikanzen bleiben in drei Ländern bestehen: Niederlande, Finnland und Norwegen. Interessanterweise verändern sich die Effekte in den Ländern, die deutlich über dem Länder-Durchschnitt

liegen, tendenziell zu Gunsten der Erwachsenen mit hohen Kompetenzen. In den Ländern, in denen geringere Numeralität negativ mit dem Weiterbildungsvolumen zusammenhängt, verändert sich dagegen der Einfluss leicht zum Vorteil für Erwachsene mit geringer Numeralität (mit Ausnahme von Griechenland). In Chile und der Slowakei dreht sich der Effekt um, bleibt aber geringfügig. Überraschend sind die Ergebnisse für Dänemark: Unter Berücksichtigung soziodemografischer Merkmale verringert sich der signifikante Vorteil von Erwachsenen mit geringer Numeralität im Weiterbildungsvolumen um mehr als zwei Drittel (von 65,9 auf 19,2 Stunden) gegenüber jenen mit hoher Numeralität. Dänemark liegt damit als einziges nordeuropäisches Land unterhalb des Länderdurchschnitts.

Insgesamt zeigt der Ländervergleich mit Kontrollvariablen ein ähnliches Muster wie die Befunde ohne Kontrollvariablen: In den nordeuropäischen Ländern, den Benelux-Ländern und Deutschland besuchen Erwachsene mit geringer Numeralität tendenziell länger Weiterbildungen als jene mit hoher Numeralität. Der positive Zusammenhang von geringer Numeralität und hoher Weiterbildungszeit ist jedoch lediglich in drei Ländern signifikant. In den süd- und osteuropäischen Ländern sowie in Korea und Chile ist dieser Zusammenhang geringer oder entgegengesetzt.

Die schrittweise Untersuchung des Zusammenhangs zunächst ohne und anschließend mit Kontrollvariablen verdeutlicht Folgendes: Soziodemografische und arbeitsbezogene Variablen erklären erstens einen Teil des Zusammenhangs von geringen numeralen Kompetenzen und Weiterbildungsvolumen. Zweitens hat geringe Numeralität in den Niederlanden, Norwegen, Finnland sowie im OECD-Durchschnitt einen eigenständigen positiven Effekt auf das Weiterbildungsvolumen. Drittens sind Weiterbildungsstunden in der überwiegenden Mehrheit der untersuchten OECD-Länder zu Gunsten der Teilnehmenden mit geringer Numeralität verteilt, jedoch sind die Unterschiede zwischen gering und hoch numeralisierten Erwachsenen meist nicht signifikant.

5 Diskussion der Ergebnisse

Die vorliegenden Ergebnisse sind im Hinblick auf den aktuellen Forschungsstand differenziert zu betrachten. Der Matthäus-Effekt lässt sich für das Weiterbildungsvolumen im Kontext von Numeralität bei der großen Mehrheit der Länder nicht belegen. Viel mehr deutet sich eine Effektumkehr an: Die Erwachsenen mit geringen numerale Kompetenzen, eben jene, für die Förderung und Kompetenzentwicklung am ehesten wichtig erscheinen, verbringen im Betrachtungszeitraum von einem Jahr mehr Stunden in Weiterbildungen als jene mit hohen Kompetenzen. Signifikant sichtbar wird dieser Zusammenhang insbesondere für die nordischen Länder Norwegen, Finnland sowie für das Benelux-Land Niederlande – auch unter Berücksichtigung sozialdemografischer und berufsbezogener Faktoren. Für diese Länder kann Hypothese 1 bestätigt werden. Allerdings belegen die vorliegenden Analysen auch den von Grotlüschen et al. (2016) gefundenen kumulativen Bildungseffekt hinsichtlich der Weiterbildungsquote. D. h. Erwachsene mit den höchsten numeralen Bildungsbedarfen nehmen insgesamt verhältnismäßig selten an Weiterbildungen

teil. Die Effektumkehr trifft folglich lediglich für gering numeralisierte Erwachsene zu, die tatsächlich an Weiterbildungen teilnehmen.

In der Summe deuten die ländervergleichenden Ergebnisse systematische Differenzen hinsichtlich der Volumina-Verteilung an. Hypothese 2 kann damit bestätigt werden. Folgende Tendenzen konnten aufgezeigt werden: In den nordeuropäischen und Benelux-Ländern ist das Weiterbildungsvolumen eher zu Gunsten der Erwachsenen mit geringer Numeralität verteilt (in drei Ländern signifikant), sie liegen in der Verteilung über dem OECD-Durchschnitt. Dies knüpft an die Befunde von Desjardins et al. (2006) an: Die nordischen Länder weisen hohe Partizipationsraten bei gleichzeitig hoher Stundenzahl pro Teilnehmenden auf. Korea sowie die süd- und osteuropäischen Länder liegen unter dem OECD-Durchschnitt und weisen Verteilungen der Weiterbildungsvolumina zum Nachteil von Erwachsenen mit geringer Numeralität oder lediglich geringfügige, nicht signifikante Vorteile auf.

Der gefundene Zusammenhang von Numeralität und Weiterbildungsverhalten ist teilweise auf die enge Korrelation von numeralen Kompetenzen mit arbeitsbezogenen und soziodemografischen Merkmalen zurückzuführen. Erwachsene mit unterschiedlichen Kompetenzniveaus haben Zugang zu unterschiedlichen Weiterbildungsangeboten.

In Deutschland werden die kürzeren betrieblichen Weiterbildungen und Bildungsurlaube eher von Erwachsenen wahrgenommen, deren berufliche Tätigkeiten ohnehin schon hohe numerale Kompetenzanforderungen stellen und einen hohen Gebrauch an numeralen Praktiken verlangen (Bläsche et al. 2017, S. 10 f.). Dies sind insbesondere Tätigkeiten im Führungs-, Management- und Wissenschaftsbereich (Rammstedt 2013, S. 145 f.). Dagegen greifen für Erwachsene mit geringer Numeralität eher die langfristigen Weiterbildungsangebote der Arbeitsmarkt- und Integrationspolitik oder berufsbildende Weiterbildungen wie Aufstiegsfortbildungen.

Der für Finnland, Norwegen und die Niederlande aufgezeigte eigenständige Numeralitätseffekt kann nachfrageseitig so ausgelegt werden, dass Erwachsene mit geringen Kompetenzen durchaus eine hohe Lernmotivation haben (vgl. Carpentieri et al. 2009, S. 53 f.). Hinsichtlich der Angebotsseite kann interpretiert werden, dass die staatliche Arbeits- und Integrationsförderung ihre Zielgruppen mit langfristigen Angeboten durchaus erreicht, allerdings lediglich innerhalb der weiterbildungsaktiven Population. Hohe Volumina betreffen überwiegend Erwachsene, deren numeraler Kompetenzentwicklungsbedarf am höchsten ist.

Die gefundenen internationalen Differenzen entlang geografischer Regionen knüpfen an die Befunde internationaler Weiterbildungsforschung an. Sie verweisen auf die Rolle wohlfahrtsstaatlicher Politik und den Wohlstand eines Landes. Konkret lässt sich feststellen, dass die Länder, die in den Analysen durchgängig Spitzenreiter in der Verteilung des Weiterbildungsvolumens zu Gunsten derjenigen mit dem höchsten Bedarf sind (Niederlande, Finnland, Norwegen), auch höhere öffentliche Bildungsausgaben und ein höheres Bruttoinlandsprodukt pro Kopf aufweisen als der OECD-Durchschnitt. Die Länder, in denen der Matthäus-Effekt tendenziell auch für das Weiterbildungsvolumen zutrifft (Slowenien, Tschechien, Spanien, Griechenland, Korea) haben dagegen ein unterdurchschnittliches Niveau an öffentlichen Bildungsausgaben und Wohlstand (OECD factbook 2013, 2014). Ähnliche Muster deuten sich für die staatliche Arbeitsmarktförderung und die Höhe

öffentlicher Sozialausgaben an. Die länderbezogenen Verteilungen von Weiterbildungsvolumen verweisen auf die von Knauber und Ioannidou (2016) diskutierten Unterschiede in der Ausgestaltung von Grundbildungspolitik (Grundbildungsverständnis, Zuständigkeiten und Handlungsspielräume). Diese sind maßgebend für das Ziel, den Umfang und die Adressatengruppe staatlicher Weiterbildungsmaßnahmen und stellen Bestandteile wohlfahrtsstaatlicher Systeme dar.

6 Desiderata

Die bisher vorgelegte Analyse verweist auf geografische Regionen und lässt erste Schlüsse über die Rolle wohlfahrtsstaatlicher Systeme und damit verbundener Grundbildungspolitiken im Kontext von Numeralität und Weiterbildungsvolumen zu. Zur vertieften Aufschlüsselung der Ergebnisse müssten nunmehr die Makro- und Mesoebene insbesondere der Arbeitsmarkt- und Integrationspolitik in die Analysen einfließen – etwa mittels Mehr-Ebenen-Modellen und Strukturgleichungsanalysen.

Eine Verknüpfung von vergleichender Bildungsforschung und vergleichender Politikforschung sowie deren systematische Anwendung auf die aktuelle Ausgestaltung politischer Ökonomien von OECD-Ländern kann als ausstehender Forschungsschritt gesehen werden. Die Überblicksarbeiten von Kaufmann et al. (2014) und Knauber (2017) bieten dabei gute Anknüpfungspunkte.

7 Limitationen der Ergebnisse

Die Ergebnisse basieren auf PIAAC-Daten (2011 bis 2016), weshalb jüngste sozialstaatliche Veränderungen, wie etwa Migrationsbewegungen seit 2015 und Reformen in den Weiterbildungs- und Arbeitsförderungsgesetzen, nicht abgebildet werden können. Auf Basis dieser Querschnittsanalyse kann nicht von kausalen Zusammenhängen gesprochen werden, da Zeitdiskontinuitäts- und Endogenitätsprobleme nicht vollständig auszuschließen sind. Teils geringe Fallzahlen im Kompetenzlevel 4 und darüber und damit einhergehende vergrößerte Standardfehler können in einigen Ländern (z. B. in Spanien) zu einer Unterschätzung des Zusammenhangs zwischen Numeralität und Weiterbildungsvolumen geführt haben.

Als relevant eingestufte Kontrollvariablen, wie Einkommen und Weiterbildungsfinanzierung, wurden nicht in die Analyse aufgenommen. In PIAAC liegt nur das individuelle Einkommen, nicht aber das Haushaltseinkommen vor. Zudem weist PIAAC zwar die Unterstützung durch Arbeitgeber, nicht aber die staatliche Finanzierung aus.

Weiterhin liegen in PIAAC keine Informationen darüber vor, ob an einer Weiterbildung teilgenommen wurde, um numerale Praktiken auszubauen oder gezielt eine Weiterbildung gewählt wurde, in der diese Fähigkeiten nicht gebraucht werden. Für die weitere Forschung wäre ein Bezug zu den Inhalten der Weiterbildungen sinnvoll.

8 Implikationen für Politik und Praxis

Die Bedeutung von Numeralität ist abhängig von sozialen Kontexten, sie reicht von kritischer Rezeption von Statistiken bis zum Umgang mit der Altersvorsorge. Für gewerbliche, technische, kaufmännische Berufsfelder aber auch für hochqualifizierte Tätigkeiten im Führungs-, Management- und Wissenschaftsbereich sind numerale Kompetenzen entscheidend. Nicht zuletzt beeinflusst Numeralität aufgrund der Verwobenheit mit sozialen Kontextfaktoren und genuinen Kompetenzeffekten das Bildungsverhalten von Erwachsenen.

Politik und Praxis erleben seit Jahrzehnten eine wiederkehrende, scheinbar erfolglose Suche nach der Überwindung des Matthäus-Effekts. Beispielsweise fragte Hans Tietgens schon 1964, warum nur wenige Industriearbeiter in die Volkshochschulen kommen (Tietgens 1978). Politische und praktische Versuche besserer Ansprache, so der Anschein, bleiben wirkungslos. Das ist schon hinsichtlich der Teilnahmequoten nicht durchgehend der Fall – Ältere und Frauen holen beispielsweise in spezifischen Segmenten auf (Bilger et al. 2017) – aber es trifft speziell und immer wieder die in Bezug auf Grundbildung weniger kompetenten Gruppen. Daraus leitet sich die Frage ab, ob bildungspolitische Programmlinien mit entsprechenden Praxisprojekten überhaupt Erfolgschancen haben.

Bei Betrachtung der Weiterbildungsstunden zeigt sich nunmehr zumindest in einigen Ländern eine Effektumkehr. Ausgebaute Arbeitsmarktförderung und öffentliche (Weiter-)Bildungsausgaben zeigen sich länderübergreifend als relevante politische Größen für die (Um-)Verteilung von Weiterbildungszeit (Dämmrich et al. 2014; Martin und Rüber 2016; Roosmaa und Saar 2012).

Gerade längerfristige Bildungsangebote spielen zudem bei der Entwicklung eines bildungsnahen Habitus eine große Rolle. Es ist insofern denkbar, dass eine langfristige Weiterbildungsteilnahme zu wiederkehrender Teilnahme führt. Dies wurde schon hinsichtlich des relativ kurzen Bildungsurlaubs als „Initialzündung“ (Zeuner 2017, S. 14) diskutiert und in Teilen auch nachgewiesen (ebd.).

Allerdings sind langfristige staatliche Programme teilweise verpflichtend und zielen nicht genuin auf Bildung, sondern auf Beschäftigung und Integration ab. Entsprechende Kritik wird immer wieder geäußert (Bonna 2018; Heinemann 2018).

Anhang

Tab. 3 OLS-Modelle ohne Kontrollvariablen

	Numerales Kompetenzlevel (Ref. = Level 4 & 5)						
Land	Level & geringer		OECD		Belgien		*N*
OECD	25,37**	(–9,719)	19,38*	(–8,457)	14,7	(–9,762)	52.427
Belgien	103,6**	(–2,89)	21,29	(–1,14)	8,485	(–0,5)	1965
Chile	–10,1	(–0,23)	13,81	(–0,27)	53,99	(–1,01)	1994
Tschechien	–55,60***	(–3,31)	–38,71*	(–2,11)	–21,94	(–1,19)	2443
Dänemark	65,90**	(–2,87)	4,203	(–0,27)	–7,314	(–0,50)	3999
Finnland	99,63**	(–2,78)	–11,13	(–0,94)	–0,17	(–0,01)	3070
Frankreich	17,58	(–0,78)	8,802	(–0,47)	4,455	(–0,26)	2105
Deutschland	73,45*	(–1,99)	16,4	(–0,84)	1,639	(–0,1)	2483
Griechenland	–50,36	(–0,63)	62,57	(–0,83)	41,95	(–0,66)	891
Irland	55,98	(–1,61)	8,873	(–0,39)	1,719	(–0,05)	2561
Israel	28,17	(–0,93)	30,78	(–1,1)	7,071	(–0,23)	1829
Italien	30,52	(–0,63)	6,968	(–0,16)	11,51	(–0,24)	1065
Japan	10,08	(–0,19)	6,037	(–0,22)	11,06	(–0,42)	1992
Korea	–101,4*	(–2,22)	–56,43	(–1,15)	–42,49	(–0,99)	3101
Luxemburg	22,72	(–0,78)	15,76	(–0,56)	12,39	(–0,46)	1506
Niederlande	89,10*	(–2,17)	–0,175	(–0,01)	6,275	(–0,35)	2788
Norwegen	125,8***	(–4,27)	23,47	(–1,59)	15,61	(–1,21)	2417
Polen	6,581	(–0,25)	2,261	(–0,09)	26,89	(–1,18)	2971
Slowakei	–10,48	(–0,37)	21,6	(–1,3)	9,056	(–0,69)	1471
Slowenien	–39,30*	(–2,36)	–32,97	(–1,82)	–21,08	(–1,21)	2094
Spanien	–55,51	(–1,06)	–59,4	(–1,29)	–49,95	(–0,93)	2302
Schweden	47,7	(–1,65)	–1,681	(–0,09)	4,577	(–0,26)	2563
Türkei	24,83	(–0,29)	32,09	(–0,34)	46,26	(–0,45)	998
Großbritannien	15,57	(–0,55)	11,95	(–0,42)	1,264	(–0,05)	3819

Tab. 4 OLS-Modelle mit Kontrollvariablen

Variable	OECD	Belgien	Chile	Tschechien	Dänemark	Finnland	Frankreich	Deutschland	Griechenland	Irland	Israel	Italien
Numerales Kompetenzlevel												
Level & geringer	23,97*	57,46	18,53	–31,82	19,17	75,72**	0,713	39,93	–115,6	42,68	20,84	68,03
	(–11,32)	(–1,43)	(–0,38)	(–1,49)	(–0,79)	(–2,88)	(–0,02)	(–1,12)	(–1,67)	(–1,13)	(–0,64)	(–1,3)
Level 2	17,7	1,421	28,24	–24,18	–4,828	6,843	1,721	15,15	–17,55	8,261	27,87	21,38
	(–9,508)	(–0,08)	(–0,54)	(–1,15)	(–0,31)	(–0,5)	(–0,07)	(–0,71)	(–0,27)	(–0,34)	(–0,94)	(–0,51)
Level 3	11,78	1,747	59,6	–15,27	–6,371	9,812	–0,202	5,135	–19,42	–0,306	4,049	13,67
	(–9,864)	(–0,11)	(–1,14)	(–0,77)	(–0,45)	(–0,86)	(–0,01)	(–0,3)	(–0,33)	(–0,01)	(–0,13)	(–0,31)
Level 4 & 5 (Ref.-Kategorie)	0	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Beschäftigt (1 = beschäftigt)	–139,3***	–266,8***	–26,24	–30,63*	–167,6***	–77,20***	–113,7***	–152,0***	–212,9***	–151,1***	–24,82	–85,76*
	(–11,5)	(–6,64)	(–0,70)	(–2,06)	(–7,28)	(–4,27)	(–5,58)	(–4,03)	(–4,48)	(–5,27)	(–0,98)	(–2,11)
Alter	–2,867***	–2,894***	–2,027**	–0,855*	–3,619***	–1,763***	–2,291***	–2,069***	–11,40***	–2,671***	–1,672*	–2,352
	(–0,242)	(–5,03)	(–2,68)	(–2,34)	(–6,74)	(–4,26)	(–4,19)	(–3,54)	(–7,32)	(–3,95)	(–2,57)	(–1,88)
Geschlecht (1 = männlich)	–6,122	–5,162	17,02	–28,57**	–6,335	1,106	–25,81*	2,962	–73,46*	–7,704	–10,42	–13,95
	(–5,374)	(–0,39)	(–0,8)	(–3,11)	(–0,54)	(–0,12)	(–2,15)	(–0,25)	(–2,19)	(–0,48)	(–0,72)	(–0,59)
Migrationshintergrund (1 = Ja)	–0,932	52,14*	–17,35	10,61	68,40***	97,77***	4,774	39,56**	6,558	13,8	–30,97	2,631
	(–6,48)	(–2,36)	(–0,75)	(–0,85)	(–4,18)	(–3,81)	(–0,33)	(–2,86)	(–0,13)	(–0,81)	(–1,81)	–0,07
Formaler Bildungsabschluss												
Tertiärer Bildungsabschluss	35,18***	–11,14	32,26	22,96	9,301	–12,15	8,53	–68,47	–151,4	3,412	13,97	26,17
	(–7,327)	(–0,37)	(–1,02)	(–1,48)	(–0,47)	(–0,49)	(–0,46)	(–1,45)	(–1,84)	(–0,13)	(–0,4)	–0,75
Mittlerer Bildungsabschluss	15,29*	0,55	30,14	11,59	–13,89	–38,33	2,366	–70,54	–96,89	–1,116	23,62	43,62
(Ref. = niedriger Bildungsabschluss)	(–6,703)	(–0,02)	(–1,09)	(–0,93)	(–0,66)	(–1,53)	(–0,15)	(–1,48)	(–1,35)	(–0,05)	(–0,67)	(–1,69)

Tab. 4 (Fortsetzung)

Variable	OECD	Belgien	Chile	Tschechien	Dänemark	Finnland	Frankreich	Deutschland	Griechenland	Irland	Israel	Italien
Berufliche Tätigkeit												
Hoch komplexe Tätigkeiten	–124,0***	159,0*	64	–56,06*	18,78	–111,2	–61,21	–107,5	139,2	21,73	–67,18	–90,66
	(–16,3)	(–2,11)	(–0,71)	(–2,11)	(–0,28)	(–1,46)	(–1,27)	(–1,24)	(–1,04)	(–0,31)	(–0,75)	(–0,91)
Komplexe Spezialtätigkeiten	–108,0***	62,33	–6,885	–37,78	–26,3	–160,7*	–32,52	–153,0*	–53,52	–69,01	–78,27	–168,5*
	(–16,43)	(–1)	(–0,11)	(–1,62)	(–0,43)	(–2,53)	(–0,69)	(–2,09)	(–0,74)	(–1,22)	(–1,34)	(–2,03)
Fachlich ausgerichtete Tätigkeiten	–146,1***	87,84	9,635	–27,21	–13,35	–165,5**	–60,97	–113,4	–26,53	–25,48	–30,11	–93,68
	(–16,61)	(–1,39)	(–0,15)	(–1,12)	(–0,23)	(–2,72)	(–1,38)	(–1,53)	(–0,35)	(–0,48)	(–0,53)	(–1,13)
Helfer- und Anlerntätigkeiten	–114,2***	86,28	21,78	–11,63	–45,95	–143,8*	–62,64	–100,3	83,76	–30,32	–68,38	–89,04
(Ref. = nicht berufstätig)	(–18,41)	(–1,41)	(–0,31)	(–0,50)	(–0,79)	(–2,41)	(–1,39)	(–1,36)	(–1,14)	(–0,55)	(–1,25)	(–1,02)
Anzahl der Bücher												
201–500 Bücher, oder mehr	7,494	24,96	30,55	13,02	10,64	0,819	8,605	–13,69	6,246	10,51	23,73	21,88
	(–6,495)	(–1,34)	(–1,01)	(–1,23)	(–0,72)	(–0,06)	(–0,54)	(–0,65)	(–0,1)	(–0,44)	(–1,02)	(–0,55)
101–200 Bücher	12,35	23,58	–3,674	19,66*	–13,64	26,46	9,735	–21,42	–10,91	5,483	26,41	3,726
(Ref. = max 25 Bücher)	(–8,191)	(–1,35)	(–0,13)	(–2,05)	(–0,79)	(–1,7)	(–0,6)	(–0,97)	(–0,18)	(–0,26)	(–1)	(–0,12)
N	**52.427**	**1965**	**1994**	**2443**	**3999**	**3070**	**2105**	**2483**	**891**	**2561**	**1829**	**1065**

Tab. 5 OLS-Modelle mit Kontrollvariablen (weiterführend)

Variable	Japan	Korea	Luxem-burg	Nieder-lande	Nor-wegen	Polen	Slowakei	Slowe-nien	Spanien	Schweden	Türkei	Groß-britannien
Numerales Kompetenzlevel												
Level & geringer	27,47	–27,46	20,6	93,01*	66,28*	23,16	11,63	–15,31	–22,5	24,25	27,21	27,86
	(–0,46)	(–0,56)	(–0,69)	(–2,34)	(–2,33)	(–0,76)	(–0,43)	(–0,85)	(–0,38)	(–0,82)	(–0,31)	(–1,04)
Level 2	16,64	–20,82	22,73	9,71	19,25	15,8	40,51*	–12,22	–38,31	–8,26	4,118	19,95
	(–0,55)	(–0,44)	(–0,81)	(–0,4)	(–1,21)	(–0,55)	(–2,24)	(–0,65)	(–0,78)	(–0,36)	(–0,04)	(–0,72)
Level 3	14,62	–32,2	9,021	14,67	14,8	31,18	18,14	–9,5	–38,56	3,528	12,64	4,484
	(–0,52)	(–0,80)	(–0,32)	(–0,75)	(–1,15)	(–1,35)	(–1,29)	(–0,52)	(–0,71)	(–0,19)	(–0,13)	(–0,18)
Level 4 & 5 (Ref.-Kategorie)	0	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Beschäftigt (1 = beschäftigt)	–108,8	–246,8***	–91,09**	–42,47	–88,57**	–79,12**	–43,69*	–46,17***	–151,9***	–103,9***	–114,9*	–80,89*
	(–1,88)	(–6,44)	(–3,08)	(–1,36)	(–3,24)	(–3,06)	(–2,34)	(–4,20)	(–5,42)	(–3,75)	(–2,44)	(–2,31)
Alter	–1,868*	–3,094***	–0,976*	–4,767***	–1,692***	–0,693	–1,420***	–0,429	–2,822**	–1,789***	–6,017***	–3,787***
	(–2,45)	(–3,88)	(–2,00)	(–6,96)	(–3,86)	(–1,21)	(–4,00)	(–1,18)	(–3,24)	(–4,10)	(–4,75)	(–6,08)
Geschlecht (1 = männlich)	29,98	–49,55*	–14,64	–18,56	–5,363	–28,24	–23,12*	9,885	–5,887	–13,59	–37,27	–10,93
	(–1,58)	(–2,53)	(–1,11)	(–1,49)	(–0,48)	(–1,72)	(–2,37)	(–1,07)	(–0,30)	(–1,29)	(–1,29)	(–0,77)
Migrationshintergrund (1 = Ja)	95,9	–53,76	46,37	62,63**	44,24**	–53,04**	–1,793	9,583	4,999	28,77*	2,76	–10,4
	(–1,42)	(–0,93)	(–1,06)	(–2,879)	(–2,64)	(–2,66)	(–0,11)	(–1,22)	(–0,18)	(–2,18)	(–0,04)	(–0,63)
Formaler Bildungsabschluss												
Tertiärer Bildungsabschluss	32,26	36,94	–81,55	18,11	–15,5	5,138	49,12**	–23,3	60,23*	–9,28	31,83	38,48
	(–0,96)	(–1)	(–0,79)	(–0,85)	(–0,78)	(–0,16)	(–2,63)	(–1,18)	(–2,57)	(–0,36)	(-0,85)	(–1,77)
Mittlerer Bildungsabschluss	34,43	32,3	–69,49	8,066	–40,68*	16,76	24,9	–27,18	19,47	–21,55	45,35	19,89
(Ref. = niedriger Bildungsabschluss)	(–1,08)	(–0,92)	(–0,70)	(–0,42)	(–2,25)	(–0,66)	(–1,95)	(–1,79)	(–0,82)	(–0,90)	(–1,23)	(–1,05)

Tab. 5 (Fortsetzung)

Variable	Japan	Korea	Luxem-burg	Nieder-lande	Nor-wegen	Polen	Slowakei	Slowe-nien	Spanien	Schweden	Türkei	Groß-britannien
Berufliche Tätigkeit												
Hoch komplexe Tätigkeiten	–179,2*	–94,38	–51,48	–25,42	–133,2	–56,09	–28,36	–41,21	–99,37	–48,24	–197,0*	–155,6
	(–2,23)	(–1,60)	(–0,70)	(–0,42)	(–1,37)	(–1,32)	(–0,75)	(–1,78)	(–1,81)	(–0,61)	(–2,16)	(–1,80)
Komplexe Spezialtätigkeiten	–176,3*	–85,54	–71,31	–76,05	–183,3	–81,43*	–27,74	–34	–142,1**	–55,68	–230,4**	–122,8
	(–2,09)	(–1,63)	(–1,09)	(–1,37)	(–1,85)	(–2,14)	(–0,88)	(–1,86)	(–2,60)	(–0,82)	(–3,03)	(–1,47)
Fachlich ausgerichtete Tätigkeiten	–122	–77,43	–91,11	–43,11	–196,5*	–61,57	2,319	–17,81	–86,58	–66,15	–210,0**	–121,9
	(–1,62)	(–1,52)	(–1,35)	(–0,82)	(–2,06)	(–1,68)	–0,07	(–1,03)	(–1,75)	(–0,98)	(–2,67)	(–1,48)
Helfer- und Anlerntätigkeiten	–173,1*	–63,98	–106,9	–51,63	–198,6*	–13,5	–6	–0,756	–103,0*	–60,24	–204,8**	–120,2
(Ref. = nicht berufstätig)	(–2,17)	(–1,15)	(–1,76)	(–1,11)	(–2,10)	(–0,34)	(–0,20)	(–0,04)	(–1,96)	(–0,90)	(–2,82)	(–1,46)
Anzahl der Bücher												
201–500 Bücher, oder mehr	67,67**	37,4	51,58	5,259	–11,99	3,088	22,67	52,77**	43,97	–2,368	–117,9*	2,332
	(–2,75)	(–1,41)	(–1,74)	(–0,3)	(–0,52)	(–0,09)	(–1,02)	(–2,88)	(–1,36)	(–0,12)	(–2,37)	(–0,13)
101–200 Bücher	36,74	72,03**	14,37	–9,899	–21,15	15,82	0,486	15,95	75,76*	–17,84	46,39	–5,812
(Ref. = max 25 Bücher)	(–1,44)	(–2,78)	(–0,74)	(–0,49)	(–0,85)	(–0,57)	(–0,03)	(–1,32)	(–2,21)	(–0,95)	(–0,72)	(–0,36)
N	**1992**	**3101**	**1506**	**2788**	**2417**	**2971**	**1471**	**2094**	**2302**	**2563**	**998**	**3819**

Literatur

Anbuhl, M. (2015). *Die Zwei-Klassen-Gesellschaft. DGB-Analyse zur sozialen Spaltung in der Weiterbildung*. Berlin: DGB-Bundesvorstand.

Banks, J., O'Dea, C., & Oldfield, Z. (2010). Cognitive function, numeracy and retirement saving trajectories. *The Economic journal*, *120*(548), 381–410.

Bilger, F., Behringer, F., Kuper, H., & Schrader, J. (Hrsg.). (2017). *Weiterbildungsverhalten in Deutschland 2016. Ergebnisse des Adult Education Survey (AES)* (DIE Survey – Daten und Berichte zur Weiterbildung). Bielefeld: wbv. https://doi.org/10.3278/85/0016w

Bläsche, A., Brandherm, R., Eckhardt, C., Käpplinger, B., Knuth, M., Kruppe, T., Kuhnhenne, M., & Schütt, P. (2017). *Qualitätsoffensive strukturierte Weiterbildung in Deutschland*. Forschungsförderung Working Paper Nr. 25. Düsseldorf: Hans Böckler Stiftung.

Bonna, F. (2018). *Berufliche Zukunftsvorstellungen Langzeitarbeitsloser. Eine biographieanalytische Untersuchung*. Erwachsenenbildung und lebensbegleitendes Lernen – Forschung & Praxis, V. 31. Bielefeld: wbv media.

Bundesagentur für Arbeit (2011). *Systematischer und alphabetischer Teil mit Erläuterungen*. Klassifikation der Berufe 2010, Bd. 1.

Carpentieri, J. D., Lister, J., & Frumkin, L. (2009). *Adult numeracy. A review of research*. London: Institute of Education University of London.

Dämmrich, J., Vono de Vilhena, D., & Reichart, E. (2014). Partipicipation in adult learning in Europe: The impact of country-level and individual characteristics. In H.-P. Blossfeld, E. Kilpi-Jakonen, D. Vono de, Vilhena & S. Buchholz (Hrsg.), Adult Learning in Modern Societies. Cheltenham: Edward Elgar Publishing.

Desjardins, R. (2017). *Political economy of adult learning systems. Comparative study of strategies, policies and constraints*. London: Bloomsbury Academic.

Desjardins, R., Rubenson, K., & Milana, M. (2006). *Unequal chances to participate in adult learning: international perspectives*. Paris: UNESCO: International Institute for Educational Planning.

Disney, R., & Gathergood, J. (2013). Financial literacy and consumer credit portfolios. *Journal of Banking & Finance*, *37*(7), 2246–2254. https://doi.org/10.1016/j.jbankfin.2013.01.013.

Dutz, G., & Bilger, F. (2020). Bildungshintergrund und Weiterbildungsverhalten gering literalisierter Erwachsener. In A. Grotlüschen & K. Buddeberg (Hrsg.), *LEO 2018 – Leben mit geringer Literalität*. Bielefeld: wbv media.

Eckert, T. (2010). Methoden und Ergebnisse der quantitativ orientierten Erwachsenenbildungsforschung. In R. Tippelt & A. v. Hippel (Hrsg.), *Handbuch Erwachsenenbildung/Weiterbildung* (S. 263–279). Wiesbaden: VS.

Esping-Andersen, G. (1990). *The three worlds of capitalism*. New Jersey: Princton University Press.

French, D., & McKillop, D. (2015). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, 48, 1–11. https://doi.org/10.1016/j.irfa.2016.08.004

Groenez, S., Desmedt, E., & Nicaise, I. (2007). *Participation in lifelong learning in the EU-15: the role of macro-level determinants*. Gent: Paper for the ECER Conference.

Grotlüschen, A., & Haberzeth, E. (2018). Weiterbildungsrecht. In R. Tippelt & A. v. Hippel (Hrsg.), *Handbuch Erwachsenenbildung/Weiterbildung*. Springer Reference Sozialwissenschaften. (S. 543–563). Wiesbaden: Springer VS.

Grotlüschen, A., Mallows, D., Reder, S., & Sabatini, J. (2016). *Adults with low adults with low proficiency in literacy or numeracy*. OECD Education Working Papers. Paris: OECD.

Heinemann, A. M. B. (2018). Alles unter Kontrolle? *Zeitschrift für Weiterbildungsforschung*, *41*(1), 79–92. https://doi.org/10.1007/s40955-018-0106-8.

Kaufmann, K., Reichart, E., & Schömann, K. (2014). Der Beitrag von Wohlfahrtsstaatsregimen und Varianten kapitalistischer Wirtschaftssysteme zur. Erklärung von Weiterbildungsteilnahmestrukturen bei Ländervergleichen. In P. Gonon (Hrsg.), *International-vergleichende Forschung zur Erwachsenenbildung*. Report. Zeitschrift für Weiterbildungsforschung, 37. Jahrgang, Heft 2/2014. (S. 39–54). Bielefeld: W. Bertelsmann.

Knauber, C. (2017). International-vergleichende Forschung zur Bildungspolitik: Literatur-Review theoretischer Ansätze und Perspektiven der vergleichenden Politikwissenschaft. *Zeitschrift für Weiterbildungsforschung*, *40*(2), 171–198.

Knauber, C., & Ioannidou, A. (2016). Politiken der Grundbildung im internationalen Vergleich – Von der Politikformulierung zur Implementierung. *Zeitschrift für Weiterbildungsforschung– Report*, *39*(2), 131–148. https://doi.org/10.1007/s40955-016-0071-z.

Lee, J., & Desjardins, R. (2019). Inequality in adult learning and education participation: the effects of social origins and social inequality. *International Journal of Lifelong Education*, *38*(3), 339–359. https://doi.org/10.1080/02601370.2019.1618402.

Lusardi, A., & de Bassa Scheresberg, C. (2013). *Financial Literacy and High-Cost Borrowing in the United States*. Cambridge: National Bureau of Economic Research.

Markowitsch, J., Käpplinger, B., & Hefler, G. (2013). Firm-provided training in Europe and the limits of national skills strategies. *European Journal of Education*, *48*(2), 281–291. https://doi.org/10.1111/ejed.12030.

Martin, A., & Rüber, I. E. (2016). Die Weiterbildungsbeteiligung von Geringqualifizierten im internationalen Vergleich – Eine Mehrebenenanalyse. *Zeitschrift für Weiterbildungsforschung*, *39*(2), 149–169. https://doi.org/10.1007/s40955-016-0060-2.

OECD (2013). *factbook. Economic, environmental and social statistics*. Paris: OECD.

OECD (2014). *factbook. Economic, environmental and social statistics*. Paris: OECD.

PIAAC Numeracy Expert Group (2009). *PIAAC numeracy: a conceptual framework*. OECD Education Working Papers. Paris: OECD.

Rammstedt, B. (Hrsg.). (2013). *Grundlegende Kompetenzen Erwachsener im internationalen Vergleich. Ergebnisse von PIAAC 2012*. Münster: Waxmann.

Rau, A. (2016). *Nichtformale und informelle Lerngelegenheiten im Zusammenspiel mit familiären Sozialisationsmerkmalen und leistungsrelevanten Einstellungen*. Hamburg: Universität Hamburg.

Reder, S. (2005). Literacy and the life-course. *reflect*. *The Magazine Of NRDC*, (ISSUE 2), 16–17.

Roosmaa, E.-L., & Saar, E. (2012). Participation in non-formal learning in EU-15 and EU-8 countries: demand and supply side factors. *International Journal of Lifelong Education*, *31*(4), 477–501. https://doi.org/10.1080/02601370.2012.689376.

Schmidt-Lauff, S. (2018). Zeittheoretische Implikationen in der Erwachsenenbildung. In R. Tippelt & A. v. Hippel (Hrsg.), *Handbuch Erwachsenenbildung/Weiterbildung* (S. 319–338). Wiesbaden: Springer.

Statistisches Bundesamt (2018). *Bevölkerung und Erwerbstätigkeit. Bevölkerung mit Migrationshintergrund – Ergebnisse des Mikrozensus 2017*. Fachreihe 1, Bd. 2.2. Wiesbaden: Statistisches Bundesamt.

Tietgens, H. (1978). Warum kommen wenig Industrie-Arbeiter in die Volkshochschule? (1964). In W. Schulenberg (Hrsg.), *Erwachsenenbildung*. (S. 98–174). Darmstadt: Wissenschaftliche Buchgesellschaft.

Trautwein, U., & Lüdtke, O. (2010). Referenzgruppeneffekte. In W. Bos (Hrsg.), *Schulische Lerngelegenheiten und Kompetenzentwicklung. Festschrift für Jürgen Baumert* (S. 11–30). Münster: Waxmann.

UNESCO (2016). *Education 2030. Incheon declaration and framework for action for the implementation of sustainable development goal 4.*

Windisch, H. C. (2016). How to motivate adults with low literacy and numeracy skills to engage and persist in learning: a literature review of policy interventions. *International Review of Education*, *62*(3), 279–297. https://doi.org/10.1007/s11159-016-9553-x.

Wittpoth, J. (2018). Beteiligungsregulation in der Weiterbildung. In R. Tippelt & A. v. Hippel (Hrsg.), *Handbuch Erwachsenenbildung/Weiterbildung* (S. 1149–1172). Wiesbaden: Springer.

Yasukawa, K. (2018). The workplace as a site for learning critial numeracy practice. In K. Yasukawa, A. Rogers, K. Jackson & B. Street (Hrsg.), *Numeracy as Social Practise. Global and Local Perspectives* (S. 225–240). New York: Routledge.

Zabal, A., Martin, S., Klaukien, A., Rammstedt, B., Baumert, J., & Klieme, E. (2013). Grundlegende Kompetenzen der erwachsenen Bevölkerung in Deutschland im internationalen Vergleich. In B. Rammstedt (Hrsg.), *Grundlegende Kompetenzen Erwachsener im internationalen Vergleich. Ergebnisse von PIAAC 2012* (S. 31–76). Münster: Waxmann.

Zeuner, C. (2017). *Bildungszeit für alle?* Hamburg: Helmut Schmidt Universität.

ZfW (2020) 43:313–329
https://doi.org/10.1007/s40955-020-00165-0

veröffentlicht in Zusammenarbeit mit DIE

FORUM

Messung medienpädagogischer Kompetenz von Lehrenden in der Weiterbildung

Bernhard Schmidt-Hertha · Karin Julia Rott · Ricarda Bolten · Matthias Rohs

Eingegangen: 30. März 2020 / Angenommen: 27. Juni 2020 / Online publiziert: 13. Juli 2020

Zusammenfassung Vor dem Hintergrund einer zunehmenden Digitalisierung wird ein Modell medienpädagogischer Kompetenz für Professionelle in der Weiterbildung vorgestellt. Dieses Modell knüpft an Vorarbeiten aus der Erwachsenenbildungsforschung und Schulforschung an und wurde empirisch geprüft. Das entwickelte Testinstrument wurde an einer Stichprobe von 622 Lehrenden aus der Erwachsenenbildung erprobt und die Ergebnisse bestätigen im Wesentlichen dessen Struktur, die medienpädagogische Kompetenz in vier Teilfacetten unterteilt. Die Daten ermöglichen darüber hinaus erstmals Aussagen über die medienpädagogische Kompetenz unterschiedlicher Teilgruppen von Lehrenden zu machen und verweisen auf diesbezügliche Differenzen in Abhängigkeit von soziodemografischen und erwerbsbiografischen Variablen.

Schlüsselwörter Digitalisierung · Erwachsenenbildung · Kompetenzerfassung · Professionalisierung · Testinstrument

Prof. Dr. B. Schmidt-Hertha (✉)
Ludwig-Maximilians-Universität, München, Deutschland
E-Mail: b.schmidt@edu.lmu.de

Dr. K. J. Rott
Universität Tübingen, Tübingen, Deutschland
E-Mail: karin-julia.rott@uni-tuebingen.de

Dipl.-Päd. R. Bolten
Universität Bremen, Bremen, Deutschland
E-Mail: bolten@uni-bremen.de

Prof. Dr. M. Rohs
Universität Kaiserslautern, Kaiserslautern, Deutschland
E-Mail: Matthias.Rohs@sowi.uni-kl.de

Assessing media pedagogical competence of adult education teachers

Abstract Against the backdrop of an increasing digitalisation in the field of adult education, the paper presents a model for media pedagogical competence of professionals in this area. This model is built on preliminary works in adult education research and existing models from schools. Corresponding with this model a competence test has been developed and proved with a sample of 622 adult education teachers. Results substantially confirm the structure of the model, which subdivide media pedagogical competence into four facets. Further, data enable for the first-time statements related to the media pedagogical competence of different subgroups of adult education teachers and point to differences between these groups according to sociodemographic and employment-biographical variables.

Keywords Adult Education · Digitalization · Professionalization · Skill measurement · Test instrument

1 Einleitung

Informations- und Kommunikationstechnologien haben einen großen Einfluss auf unser Leben genommen und zu erheblichen, teils disruptiven Veränderungen auf individueller, institutioneller und gesellschaftlicher Ebene geführt. Dabei liegen die Herausforderungen nicht nur auf der funktionalen Ebene des Umgangs und der Nutzung digitaler Technologien. Auch die kritische Analyse der Folgen digitaler Transformation, die grundsätzliche Strukturen gesellschaftlicher Kohäsion betreffen, ist mindestens ebenso bedeutsam. So zeigen die Ergebnisse der PIAAC-Untersuchung, dass die Fähigkeiten im Bereich technologiebasiertes Problemlösen von Erwachsenen in Abhängigkeit von Alter und Bildungsniveau stark variieren (vgl. OECD 2015, S. 44 f.). Die Europäische Kommission spricht in diesem Zusammenhang von „neue[n] Formen des Analphabetismus“ (Kommission der Europäischen Gemeinschaften 2006, S. 5) und betont die Schlüsselrolle der Erwachsenenbildung bei der Bekämpfung sozialer Ausgrenzung. Gleichzeitig wird die Weiterbildung aus bildungspolitischer Perspektive als wesentlicher Akteur einer gelingenden digitalen Transformation der Wirtschaft gesehen, indem geeignete Fachkräfte für den kontinuierlichen Veränderungsprozess lebensbegleitend qualifiziert werden. Dabei sollen auch die technologischen Potentiale digitaler Medien zur Unterstützung von Lehr-/Lernprozessen Anwendung finden.

Grundlegende Voraussetzung dafür ist die medienpädagogische Kompetenz der Erwachsenenbildnerinnen und Erwachsenenbildner, insbesondere der Lehrenden. Über die Ausprägung dieser Kompetenz gibt es bisher allerdings keine evidenzbasierten Aussagen. Der vorliegende Beitrag beschreibt nach der Darstellung des Forschungsstands die Entwicklung eines medienpädagogischen Kompetenztests für Lehrende in der Erwachsenenbildung sowie eine auf dieser Basis durchgeführte Befragung.

Im Zentrum steht die Frage nach der Erfassung medienpädagogischer Kompetenz von Lehrenden in der Erwachsenenbildung. Zu diesem Zweck werden zunächst

verschiedene auf europäischer Ebene entwickelte Kompetenzmodelle für in der Erwachsenenbildung Tätige in den Blick genommen und aufgezeigt, inwieweit dort bereits medienpädagogische Anforderungen berücksichtigt werden (2). Anknüpfend an diese normativen Orientierungsrahmen stellt sich die Frage nach Instrumenten zur Erfassung medienpädagogischer Kompetenz, wie sie bislang vor allem aus dem schulischen Bereich vorliegen (3). Schließlich wird anhand eines eigenen Modells medienpädagogischer Kompetenz in Weiterbildungskontexten gezeigt, dass aus dem schulischen Bereich stammende Instrumente nicht unmittelbar auf den Weiterbildungsbereich übertragen werden können. Im Anschluss wird ein entsprechendes Testinstrument für Lehrende in der Erwachsenenbildung (4) und Ergebnisse aus dessen empirischer Erprobung vorgestellt (5).

2 Medienpädagogische Professionalisierung in der Weiterbildung

Schon Ende der 1980er Jahre wurde deutlich, dass die (lern-)technologischen Entwicklungen neue Anforderungen an die Medienkompetenz der Lehrenden in der Erwachsenenbildung stellen: „Einerseits legt die technische Entwicklung innovative Schritte bei der Integration neuer Medien, wie z. B. der Computertechnologie gerade in der Erwachsenenbildung nahe, andererseits mehren sich die Hinweise auf eine unprofessionelle, oftmals anfängerhafte mediale Stützung der Lernprozesse in vielen Bereichen der Weiterbildung“ (Ziep 1989, S. 44). Auch heute noch wird die „mangelnde Medienkompetenz im Umgang mit digitalen Bildungstechnologien“ als Grund dafür genannt, warum digitale Medien bisher noch nicht zum Standard in der Weiterbildung gehören (Schmid et al. 2018, S. 32).

Aufgrund des hohen Anteils von Quereinsteigerinnen und Quereinsteigern ohne einschlägiges pädagogisches Studium (vgl. Martin und Langemeyer 2014, S. 55) kommt der Weiterbildung der Weiterbildenden ein hoher Stellenwert zu. Es lässt sich allerdings feststellen, dass „40 Prozent der Lehrenden (...) noch nie an einschlägigen [medienbezogenen, A.d.V.] Fort- und Weiterbildungsangeboten teilgenommen“ haben (Schmid et al. 2018, S. 36). Es ist daher davon auszugehen, dass eine entsprechende Auseinandersetzung mit medienpädagogischen Fragestellungen nicht bzw. informell und selbstgesteuert stattfindet (vgl. Rohs und Bolten 2017).

Es gab und gibt viele Versuche, die breiten Anforderungen an die Lehrenden in der Erwachsenenbildung in entsprechenden Kompetenzmodellen zu formulieren. Ein Vergleich dieser Modelle hat gezeigt, dass diese besonders im Bereich der medienbezogenen Anforderungen große Unterschiede aufweisen (vgl. Rohs et al. 2017a). Exemplarisch lässt sich dies an drei europäischen Projekten verdeutlichen, die medienpädagogische Kompetenzanforderungen zumindest in Teilen berücksichtigen.

In dem Modell der Forschergruppe „Research voor Beleid“ (vgl. Buiskool et al. 2010) sind medienbezogene Kompetenzen Bestandteil allgemeiner erwachsenenpädagogischer Kompetenzen, die für alle Lehrenden relevant sind. Darüber hinaus werden sie als Kompetenzfacette eines sich ausdifferenzierenden Berufsfeldes beschrieben, die für spezifische Tätigkeitsfelder in vertiefter Form vorhanden sein müssen.

In dem Projekt „Qualified to Teach“ (QF2Teach) wurden Kernkompetenzen von „learning facilitators“ formuliert (Bernhardsson und Lattke 2011, S. 19). Die Liste beinhaltet die Nutzung von digitalen Medien, die Produktion und Nutzung von Lernsoftware, die Zusammenarbeit mit Technikerinnen und Technikern sowie erweiterte Möglichkeiten der Nutzung von Technik und des Internets für Lehr-/Lernprozesse (ebd., S. 20).

Eine weitere europäische Initiative ist das Projekt „European Framework for the Digital Competence of Educators“ (DigiCompEdu). Das Kompetenzmodell besteht aus 22 Kompetenzfacetten in sechs Kompetenzbereichen. Dazu gehört u. a. die Auswahl, Erstellung und Veröffentlichung von digitalen Ressourcen, das Lehren und Lernen mit digitalen Medien und die Förderung der digitalen Kompetenz der Lernenden. Die Kompetenzen werden dabei auf sechs Niveaustufen abgebildet (von Einsteigerinnen und Einsteigern bis Expertinnen und Experten). Das Modell adressiert Lehrende in allen Bildungsbereichen. Es gibt jedoch aus dem Modell entwickelte Tests, die differenziert für Lehrende in allgemeinen und berufsbildenden Schulen, in Hochschulen und der Erwachsenenbildung konzipiert wurden (Europäische Kommission 2018).

Trotz vereinzelter Modelle, welche medienbezogene Anforderungen fokussieren oder als Kompetenzfacetten beschreiben, sind diese in der Regel nur als Erweiterungen bestehender Anforderungen oder Querschnittsbereiche formuliert. Damit sind sie nur sehr oberflächlich illustriert und oft auf didaktische Fragen eingeengt (vgl. Rohs et al. 2017a). Ein spezifisches medienpädagogisches Kompetenzmodell für die Erwachsenenbildung existiert bisher nicht, wäre aber für eine umfassende und differenzierte Beschreibung der Anforderungen notwendig.

3 Modellierung medienpädagogischer Kompetenz in der Weiterbildung

Erfassen lassen sich die erwachsenenpädagogischen Kompetenzen mittels einer Reihe qualitativer Verfahren zur Selbst- und Fremdbeurteilung. Diese basieren auf der Evaluierung unterschiedlicher Quellen, wie z. B. Interviews, Beobachtungen, Berichte oder Dokumente der Lehrenden. Prinzipiell kann hiermit auch medienpädagogische Kompetenz erfasst werden (vgl. Collins und Pratt 2011; Lencer und Strauch 2016).

Neben diesen Arten der qualitativen Erfassung können Kompetenzen auch über standardisierte Verfahren erfasst werden – idealerweise mittels standardisierten Testinstrumenten (vgl. Eid und Schmidt 2014). Deren Entwicklung ist allerdings sehr aufwendig und komplex, weshalb häufig auf die Erfassung durch Selbstbeurteilungen zurückgegriffen wird. Mittels Testverfahren wurden die Kompetenzen erwachsenenpädagogischer Fachkräfte quantitativ gemessen, um das pädagogisch-psychologische Wissen zu erfassen (vgl. Marx et al. 2017).

Die Erfassung und Messung medienpädagogischer Kompetenzen hat in der empirischen Bildungsforschung bisher wenig Beachtung gefunden (vgl. Schaumburg und Hacke 2010). Ansätze für Lehrende gibt es in Deutschland beispielsweise von Billes-Gerhart (2009), Blömeke (2000) und Zylka (2011) sowie international u. a. von Taddeo et al. (vgl. 2016). Allerdings fokussieren diese Ansätze allesamt den

schulischen Bereich. Bisher beschränkt sich die Erfassung von Kompetenzen in diesem Feld überwiegend auf Wissenstests und Skalen zur Selbsteinschätzung, was für eine Messung von Kompetenzen zu kurz greift. Denn Kompetenzen „schließen Fertigkeiten, Wissen und Qualifikationen ein, lassen sich aber nicht darauf reduzieren" (Erpenbeck und Rosenstiel 2007, S. XII).

Kompetenzmodelle als Grundlage für die Erfassung von Medienkompetenz (z. B. Baacke 1996; Groeben 2002) und medienpädagogischer Kompetenz (z. B. Blömeke 2000; Gysbers 2008; Tulodziecki 2012; Herzig et al. 2015; Mayrberger 2012) liegen in verschiedenen Ansätzen vor. Eines der grundlegendsten und meist zitierten ist das bereits in den 1970er Jahren entwickelte Modell von Baacke (1996), der Medienkompetenz in die vier Facetten Medienkunde, Mediennutzung, Mediengestaltung und Medienkritik unterteilt. Dieses Modell diente einer Vielzahl von weiteren Modellen als Grundlage für die Weiterentwicklung von Medienkompetenzmodellen sowie als Basis für Testinstrumente zur Erfassung von Medienkompetenz (vgl. z. B. Treumann et al. 2002). Medienkompetenz wird meist als allgemeine Grundlage oder Kompetenzfacette medienpädagogischer Kompetenz angesehen, wie bspw. bei Blömeke (vgl. 2000) in einem der ersten Versuche, medienpädagogische Kompetenz erfassbar zu machen. Das zugrunde gelegte medienpädagogische Kompetenzmodell für Lehrerinnen und Lehrer umfasst neben der eigenen Medienkompetenz (in einem Baackeschen Verständnis) die Bereiche mediendidaktische Kompetenz, medienerzieherische Kompetenz, situationsbezogene Kompetenz im Medienzusammenhang sowie Schulentwicklungskompetenz im Medienzusammenhang.

Im englischsprachigen Raum wird im Zusammenhang mit medienpädagogischer Kompetenz von Lehrkräften meist das „Technological-Pedagogical-Content Knowledge-Modell" (TPACK) (Mishra und Koehler 2006) rezipiert, das allerdings unterschiedliche Wissensbereiche und keine Kompetenzfacetten beschreibt. Dennoch lohnt sich eine Betrachtung dieses Modells, da die verschiedenen Wissensbereiche nicht ausschließlich einzeln betrachtet, sondern miteinander in Beziehung gesetzt werden. Das TPACK-Modell unterteilt die Anforderungen, die sich an Lehrerinnen und Lehrer im schulischen Bereich stellen, in (1) Technologisches Wissen (**t**echnological knowledge), (2) Pädagogisches Wissen (**p**edagogical knowledge) und (3) Fachwissen (**c**ontent **k**nowledge), wobei es jeweils Überschneidungsbereiche gibt. Pädagogisches Fachwissen (pedagogical content knowledge) kann als fachdidaktisches Wissen interpretiert werden. Im Bereich des pädagogisch-technologischen Wissens (technological pedagogical knowledge) findet sich das Wissen über technologische Lehr-Lernmöglichkeiten wieder. Der Bereich des technologischen Fachwissens (technological content knowledge) differenziert sich entsprechend der jeweiligen Fachinhalte. Im Schnittpunkt der drei Wissensbereiche (technological pedagogical content knowledge) lässt sich medienpädagogisches Wissen verorten (vgl. Mishra und Koehler 2006, S. 1025).

Die betrachteten Modelle wurden, neben der Analyse allgemeiner Anforderungsbeschreibungen für Lehrende in der Erwachsenenbildung, als theoretische Grundlage für die Entwicklung eines medienpädagogischen Kompetenzmodells für die Erwachsenenbildung genutzt, ohne dabei die Spezifität der Erwachsenenbildung zu

vernachlässigen. Im Rahmen des Projekts MEKWEP[1] wurden zunächst die genannten und weitere Modelle medienpädagogischer Kompetenz gesichtet und mit in der Literatur dokumentierten medienpädagogischen Anforderungen an Lehrende in der Erwachsenenbildung verglichen. Durch zwei Fokusgruppen mit Lehrenden sowie Experteninterviews mit Verantwortlichen aus der Erwachsenenbildung wurden im Feld praxisnah die medienpädagogischen Anforderungen erfasst (Bolten und Rott 2018). Die Analyse der hier genannten Modelle in Bezug zur qualitativen Erhebung des Projektes zeigte, dass gerade die Spezifika des Feldes der Erwachsenenbildung in einem Modell medienpädagogischer Kompetenz für Lehrende in der Erwachsenenbildung bedeutend sind. Deswegen wurde aus diesen theoretischen Grundlagen, wobei vor allem die genannten Modelle als grundlegend zu nennen sind, und den Erhebungen ein medienpädagogisches Kompetenzmodell für Lehrende in der Erwachsenenbildung entwickelt. Gemeinsam mit Expertinnen und Experten aus dem Feld der Erwachsenenbildung, der Medienpädagogik und der Kompetenzmessung wurde das in Abb. 1 dargestellte Modell weiterentwickelt (vgl. Rohs et al. 2017b; Schmidt-Hertha et al. 2017):

In dem Modell (Abb. 1) werden die medienbezogenen Kompetenzfacetten an folgenden Anforderungsbereichen der Erwachsenenbildung ausgerichtet: Feldkompetenz, Fachkompetenz, fachdidaktische Kompetenz, pädagogisch-didaktische Kompetenz sowie Einstellungen und Selbststeuerung. Als grundlegend für die Entwicklung einer medienpädagogischen Handlungskompetenz wird eine allgemeine Medienkompetenz (Baacke 1996) verstanden.

Die *medienbezogene Feldkompetenz*, die in dieser Form bisher nicht in medienpädagogischen Kompetenzmodellen zu finden ist, wurde in das Modell aufgenommen, da diese für die in der Erwachsenenbildung Tätigen eine besondere Bedeutung

Abb. 1 Modell medienpädagogischer Handlungskompetenz für Lehrende in der Erwachsenenbildung. (Schmidt-Hertha et al. 2017)

[1] MEKWEP (Medienpädagogische Kompetenz des beruflichen Weiterbildungspersonals zur Unterstützung des Einsatzes digitaler Medien in formalen, non-formalen und informellen Lernsettings) wurde gefördert vom BMBF (Förderkennzeichen: 21IAWB051A/B).

hat. Diese Facette beinhaltet medienbezogenes Wissen über die Arbeits- und Lebenswelt der Teilnehmenden sowie über die Organisation, für die die Lehrenden tätig sind, da dieses in der Erwachsenenbildung sehr unterschiedlich ausfallen kann. In der medienbezogenen Feldkompetenz ist ebenfalls das Wissen über das Mediennutzungsverhalten und die Medienkompetenz der Teilnehmenden angesiedelt – ebenso das Wissen über deren Einstellungen zu und den Umgang mit Medien im spezifischen Anwendungs- und Unterrichtskontext.

Das Modell greift ähnlich wie das TPACK-Modell, das jedoch keine medienpädagogische Feldkompetenz umfasst, den Bereich der *medienbezogenen Fachkompetenz* auf, da sich gerade die im Fach eingesetzten Technologien und digitalen Medien stark unterscheiden können.

In der Kompetenzfacette *medienbezogene Einstellungen und Selbststeuerung* sind alle Einstellungen und Aspekte der Selbststeuerung zusammengefasst, die für den Einsatz (digitaler) Medien eine Rolle spielen. Hier sind es zum einen die Einstellungen und Werthaltungen der Lehrenden, die den Umgang mit Lehr-/Lernmedien im beruflichen Kontext prägen (vgl. Bolten 2018), und zum anderen auch Einstellungen zu den Entwicklungen der Digitalisierung in deren Arbeitswelt.

Die *mediendidaktische Kompetenz* umfasst Wissens- und Fähigkeitsfacetten für einen pädagogisch sinnvollen didaktischen Einsatz von (digitalen) Medien. Dabei wird sowohl der Einsatz von Medien in der Lehre als auch in der Vor- und Nachbereitung mitgedacht. Dieser Einsatz kann aber nur eine optimale Nutzung der Potenziale digitaler Medien generieren, wenn auch die anderen beschriebenen Facetten im Kontext des Medieneinsatzes berücksichtigt werden.

4 Methode

4.1 Untersuchungsanlage

Zur empirischen Prüfung des beschriebenen Modells medienpädagogischer Kompetenz von Lehrenden in der Erwachsenenbildung wurde ein Testinstrument entwickelt, das drei der vier im Modell beschriebenen Facetten erfasst. Nicht berücksichtigt wurde die medienbezogene Fachkompetenz, die für jeden Inhaltsbereich eigens zu operationalisieren wäre.

Testaufgaben und Items zur Erfassung von Einstellungen wurden formuliert, indem bestehende Tests zur Messung von Medienkompetenz (vgl. z. B. Treumann et al. 2002) sowie systematische Beschreibungen grundlegender Anforderungen an in der Erwachsenenbildung Tätige aus den oben genannten Kompetenzmodellen herangezogen wurden. Diese wurden durch Erkenntnisse aus Interviews und Workshops mit Expertinnen und Experten aus Wissenschaft und Erwachsenenbildungspraxis ergänzt. Die so identifizierten Anforderungen wurden in konkrete Aufgabenstellungen transformiert, wodurch es möglich wurde, Kompetenzanforderungen zu jeder Facette des Modells in Items abzubilden (vgl. *Schmidt-Hertha* et al. 2017; Bolten und Rott 2018).

Dabei orientierten sich die Aufgaben im Teilbereich *mediendidaktische Kompetenz* einerseits an der pädagogischen Handlungskette (Planung, Diagnose, Um-

setzung, Evaluation) und anderseits an drei zentralen erwachsenenpädagogischen Handlungsbereichen (Beratung, Präsenzlehre sowie Lernunterstützung und Gestaltung von (digitalen) Lernräumen). In der Kombination ergab sich so ein Schema mit vier mal drei Feldern, für die jeweils zwei bis drei Aufgaben (insgesamt 26 Items) entwickelt wurden. Die Konstruktvalidität der Aufgaben wurde über deren intensive Diskussion im Projektteam sowie einen Workshop mit Expertinnen und Experten gesichert.

Für die Bereiche *medienbezogene Feldkompetenz* und *medienbezogene Einstellungen und Selbststeuerung* wurden Selbsteinschätzungsskalen eingesetzt. Das Instrument zur Erfassung *medienbezogener Feldkompetenz* besteht aus 22 Items mit einer sechsstufigen Antwortskala. Inhaltlich stand hier die Relevanz im Zentrum, die die Befragten dem Wissen über die Mediennutzungsgewohnheiten ihrer Zielgruppe und deren medialem Umfeld zuschreiben.

Mit 31 Items wurde der Bereich *medienbezogene Einstellungen und Selbststeuerung* erfasst, der die für die Kommunikation mit Lernenden außerhalb der Lehrveranstaltungen genutzten Kanäle und insbesondere die Einstellungen der Lehrenden zu digitalen Medien beinhaltet. Dazu gehört auch deren Bereitschaft, digitale Medien in Lehr-Lern-Kontexten sowie zur Vor- und Nachbereitung von Lehrveranstaltungen zu nutzen und diese Nutzung zu reflektieren.

Den Items zu den drei Bereichen medienpädagogischer Kompetenz vorgeschaltet war ein Teil mit Fragen zu soziodemografischen Daten und der beruflichen Situation der befragten Erwachsenenbildnerinnen und Erwachsenenbildner. Dabei wurde in Anlehnung an den WB-Personalmonitor (vgl. Martin et al. 2016) u. a. nach Arbeitsbedingungen und thematischen Schwerpunkten gefragt, aber auch nach der Mediennutzung der Befragten in professionellen Kontexten und deren eigener Weiterbildungsaktivitäten in Bezug auf den Einsatz digitaler Medien in Lehr-Lern-Settings.

4.2 Stichprobe

Im Frühjahr 2017 wurde das erstellte Erhebungsinstrument erstmals eingesetzt und über E-Mail-Verteiler von kooperierenden Weiterbildungsverbänden an Lehrende in der Erwachsenenbildung verteilt. So haben 1524 erwachsenenpädagogische Fachkräfte begonnen den Fragebogen zu bearbeiten, wovon 622 Lehrende (40,8 % der Stichprobe) den Fragebogen vollständig ausfüllten.

Die Lehrenden, von denen alle Daten vorliegen, sind zu 64 % weiblich und durchschnittlich 50,4 Jahre alt (sd = 11,8), wobei das Alter zwischen 20 und 82 Jahren variiert und die größte Gruppe an Lehrenden (44 %, $n = 239$) zwischen 50 und 59 Jahren alt ist. Bei der Gegenüberstellung mit der Gesamtpopulation der erwachsenenpädagogischen Fachkräfte in Deutschland zeigen sich bezüglich des Alters kaum Unterschiede (Ø 50,5 Jahre, sd = 11,6), allerdings sind Frauen in der vorliegenden Stichprobe überrepräsentiert (vgl. Martin et al. 2016, S. 63 f.). Dass ein hoher Prozentsatz der Lehrenden überwiegend an Volkshochschulen unterrichtet, kann das Geschlechterverhältnis teilweise erklären, da signifikant mehr Frauen als Männer an Volkshochschulen unterrichten (ebd.). Dennoch bildet die Stichprobe Lehrende aller Arten von erwachsenenpädagogischen Institutionen ab. Die Lehrenden der Er-

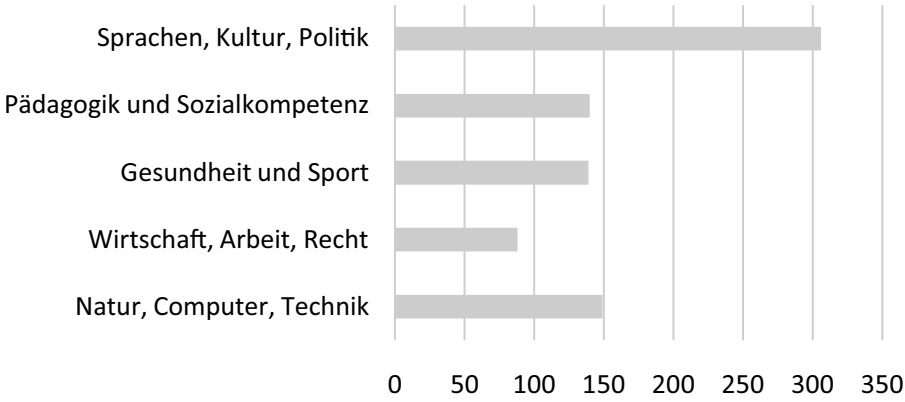

Abb. 2 Anzahl der Nennung der Themenbereiche, in denen die Lehrenden unterrichten ($n = 622$). (Quelle: eigene Darstellung)

hebung decken mit den Inhalten ihrer Weiterbildungsveranstaltungen verschiedene Themenbereiche ab, wobei jede dritte Lehrkraft in mindestens zwei verschiedenen Themenbereichen unterrichtet (vgl. Abb. 2).

43,1 % der Lehrenden arbeiten hauptberuflich in der Erwachsenenbildung, die Übrigen nebenberuflich. Damit liegt der Anteil der nebenberuflich Tätigen in unserem Sample unter dem in der Gesamtpopulation, der auf ca. 70 % geschätzt wird (vgl. Martin et al. 2016, S. 70). Durch den Feldzugang über eine Online-Befragung kann davon ausgegangen werden, dass nur Lehrende der Erwachsenen- und Weiterbildung an der Umfrage teilgenommen haben, die tendenziell medienaffiner sind als die untersuchte Population der in der Erwachsenenbildung Lehrenden. Dennoch hat fast die Hälfte der Befragten (45 %) in den letzten fünf Jahren nicht (oder noch nie) selbst an einer Weiterbildung zu digitalen Medien teilgenommen, was in etwa dem in anderen Studien ermittelten Anteil entspricht (vgl. Schmid et al. 2018, S. 36).

5 Ergebnisse

5.1 Qualität des Testinstruments

Für die mediendidaktische Kompetenz wurden 25 Single- und Multiple-Choice-Fragen eingesetzt, deren Bewertungskriterien theoretisch definiert sind und mittels mathematischer Schemata objektiv bewertet werden können. Darüber hinaus gab es auch eine offene Frage, für die detaillierte Kodierregeln festgelegt und mithilfe von zwei unabhängigen Personen validiert wurden (Krippendorffs $\alpha = 0{,}71$). Die anderen Teile des Fragebogens wurden nicht als Leistungstests konstruiert, sodass für diese Teile weder richtige noch falsche Antworten zu identifizieren sind. Dennoch können aus den einzelnen Facetten reliable Skalen gebildet werden (medienbezogene Feldkompetenz: Cronbach's $\alpha = 0{,}91$, $n = 626$ mit 20 Items; medienbezogene Einstellungen und Selbststeuerung: Cronbach's $\alpha = 0{,}88$, $n = 622$ mit 28 Items).

Im Leistungstest zur mediendidaktischen Kompetenz von Erwachsenenbildnerinnen und Erwachsenenbildnern beträgt die interne Konsistenz $\alpha = 0{,}69$. Obwohl dieser Wert nicht als sehr gut zu bezeichnen ist, liegt er immer noch nahe an den Reliabilitätswerten gängiger Persönlichkeitstests (vgl. Körner et al. 2002). Darüber hinaus besteht dieser Teil des Erhebungsinstruments aus inhaltlich heterogenen Testitems, was dazu führt, dass die tatsächliche Reliabilität bei Konsistenzanalysen unterschätzt wird (vgl. Schermelleh-Engel und Werner 2012, S. 137). Mediendidaktische Kompetenz ist allerdings nur ein Teil der medienpädagogischen Kompetenz. Betrachtet man alle Items der medienpädagogischen Kompetenz, so hat das Konstrukt eine sehr gute interne Konsistenz (Cronbach's $\alpha = 0{,}86$).

Eines der wichtigsten Qualitätskriterien pädagogisch-psychologischer Tests ist die Validität (vgl. Messick 1987). Um ein differenziertes Bild dieses Gütekriteriums zu erhalten, werden in der Regel verschiedene Aspekte der Validität berücksichtigt (vgl. Döring und Bortz 2016, S. 99 ff.). Die breite Streuung der Itemschwierigkeit im Bereich von $32 \leq P \leq 83$ deutet auf eine hohe Konstruktvalidität hin. Für die Gewährleistung der Inhaltsvalidität wurden die Inhalte zunächst theoretisch fundiert erarbeitet und anschließend diskursiv in verschiedenen Gruppen mit Lehrenden in der Erwachsenenbildung sowie Expertinnen und Experten des Feldes validiert. Die Testinhalte wurden so konzipiert, dass die Untersuchungsbedingungen so ähnlich wie möglich zu Alltagssituationen von Lehrenden in der Erwachsenenbildung sind, um eine hohe ökologische Validität zu gewährleisten (vgl. Hartig et al. 2012, S. 106).

5.2 Dimensionen medienpädagogischer Kompetenz

Um die vermutete Dimensionierung des Konstrukts *medienpädagogische Kompetenz* im Kontext Erwachsenenbildung empirisch zu prüfen, wurde eine explorative Faktorenanalyse durchgeführt. Die Ergebnisse verweisen auf verschiedene, theoretisch plausible Dimensionen des Konstrukts. Als Extraktionsmethode wurde eine Hauptkomponentenanalyse gewählt, die u. a. den Vorteil hat, dass sie relativ robust gegenüber Verletzungen der Voraussetzungen Normalverteilung und Intervallskalierung ist. Die Daten aus der vorliegenden Erhebung waren nicht für alle Testteile normalverteilt und die in verschiedenen Teilen des Tests eingesetzten sechsstufigen Ratingskalen können im strengen Sinn nicht als intervallskaliert betrachtet werden, wenngleich dies in der einschlägigen Literatur uneinheitlich diskutiert wird (vgl. Benninghaus 2005, S. 23 ff.). Um die Ergebnisse der Faktorenanalyse besser interpretieren zu können, wurde die Varimax-Rotation angewandt. Das Kaiser-Meyer-Olkin-Kriterium verweist mit einem Wert von 0,846 darauf, dass die Faktorenanalyse den Daten angemessen ist (vgl. Hair et al. 2010). Die in der Analyse verbleibenden 33 Items haben eine hohe interne Konsistenz (Cronbachs $\alpha = 0{,}832$). Die Zahl der zu extrahierenden Faktoren wurde über das Kaiser-Guttman-Kriterium, den Scree-Test und die theoretische Plausibilität der verschiedenen Faktorlösungen bestimmt (vgl. auch Cramer 2003). Innerhalb der nach diesen Kriterien präferierten 6-Faktoren-Lösung erfolgte die Zurechnung eines Items zu einem Faktor immer dann, wenn es auf diesem mindestens mit 0,40 lädt und gleichzeitig auf keinem anderen Faktor mit mehr als 0,30 lädt. Als Ausnahme von dieser Regel wurden auch Items zugeordnet, die auf einem Faktor über 0,40 und mindestens 0,20 stärker laden als auf anderen

Tab. 1 Rotierte Komponentenmatrix

Faktorbezeichnung	Variablenname	1	2	3	4	5	6
1 Umgang mit medienbezogenen Bedarfen der Teilnehmenden	FkB2_10	0,795	–	–	–	–	–
	FkB2_3	0,740	–	–	–	–	–
	FkB2_11	0,734	–	–	–	–	–
	FkB2_5	0,733	–	–	–	–	–
	FkB2_6	0,725	–	–	–	–	–
	FkB2_9	0,711	–	–	–	–	–
	FkB2_1	0,698	–	–	–	–	–
	FkB3_1	0,629	0,304	–	–	–	–
	FkB2_7	0,613	–	–	–	–	–
2 Medienbezogene Teilnehmendenorientierung	FkB1_6	–	0,746	–	–	–	–
	FkB1_1	–	0,714	–	–	–	–
	FkB1_5	–	0,694	–	–	–	–
	FkB1_3	–	0,690	–	–	–	–
	FkB1_7	–	0,656	–	–	–	–
3 Mediendidaktische Kompetenz	aGLU24_end	–	–	0,708	–	–	–
	aLP6_end	–	–	0,603	–	–	–
	aLU22_end	–	–	0,599	–	–	–
	aGLP14_end	–	–	0,594	–	–	–
	aBE32_end	–	–	0,575	–	–	–
	aLE12_end	–	–	0,574	–	–	–
	aLU25_end	–	–	0,462	–	–	–
	aLD15_end	–	–	0,435	–	–	–
4 Wissen über die mediale Lebenswelt der Teilnehmenden	FkB4_4	–	–	–	0,768	–	–
	FkB4_1	–	–	–	0,757	–	–
	FkB4_3	–	–	–	0,742	–	–
	FkB4_2	–	–	–	0,712	–	–
5 Ablehnung digitaler Medien in Lehr-Lern-Kontexten	EGLa_EGLa4	–	–	–	–	0,784	–
	EAendL_EinE1	–	–	–	–	0,743	–
	EAendL_EinE2	–	–	–	–	0,731	–
	EGLa_EGLa3	–	–	–	–	0,687	–0,318
6 Angebotsvorbereitung mit digitalen Medien	EGLa_EGLa1	–	–	–	–	–	0,863
	EGLa_EGLa2	–	–	–	–	–	0,850
	EGLb_EGLb2	–	–	–	–	–	0,721

Extraktionsverfahren: Hauptkomponentenanalyse
Rotationsmethode: Varimax mit Kaiser-Normalisierung

Faktoren (hier Item FkB3_1). Im Ergebnis können jedem Faktor mindestens drei Items zugerechnet werden (siehe Tab. 1).

Die genannten Extraktionskriterien führen zu einer sechs-faktoriellen Lösung, die 55,7 % der gesamten Varianz aufklären. Die identifizierten Faktoren lassen sich beschreiben als (1) *Umgang mit medienbezogenen Bedarfen der Teilnehmenden* (9 Items, Cronbachs $\alpha = 0{,}90$), (2) *medienbezogene Teilnehmendenorientierung* (5 Items, Cronbachs $\alpha = 0{,}81$), (3) *mediendidaktische Kompetenz* (8 Items, Cronbachs $\alpha = 0{,}69$), (4) *Wissen über die mediale Lebenswelt der Teilnehmenden*

(4 Items, Cronbachs $\alpha = 0{,}79$), (5) *Ablehnung digitaler Medien in Lehr-Lern-Kontexten* (4 Items, Cronbachs $\alpha = 0{,}79$) und (6) *Angebotsvorbereitung mit digitalen Medien* (3 Items, Cronbachs $\alpha = 0{,}84$). Mit Blick auf das dem Test zugrundeliegende theoretische Modell (Abb. 1) lassen sich die Faktoren 1, 2 und 4 der *medienbezogenen Feldkompetenz* zuordnen, während die Faktoren 5 und 6 die Facette *medienbezogene Einstellungen und Selbststeuerung* abdecken. Faktor 3 bildet entsprechend dem Modell die *mediendidaktische Kompetenz* ab. Somit lassen sich mit dieser explorativen Faktorenanalyse die drei Kompetenzfacetten des Modells gut rekonstruieren.

5.3 Gruppenunterschiede hinsichtlich medienpädagogischer Kompetenz

Innerhalb der Stichprobe sind hinsichtlich der Facetten medienpädagogischer Kompetenz in Abhängigkeit von deren Berufsbiografie, beruflicher Lage und soziodemografischen Variablen Differenzen zwischen verschiedenen Subgruppen zu erwarten. Zum einen wäre zu erwarten, dass Personen mit höheren beruflichen Abschlüssen mit höherer Wahrscheinlichkeit über bessere medienpädagogische Kenntnisse verfügen, wenngleich der Erwerb medienbezogener Kompetenzen u. a. stark von der inhaltlichen Ausrichtung der jeweiligen Ausbildung geprägt ist (vgl. z. B. Schmidt-Hertha und Rott 2014). Da Lehrende in der Erwachsenenbildung meist nicht über eine einschlägige formale pädagogische Qualifizierung verfügen (vgl. Martin et al. 2016) und sich offensichtlich wenig an einschlägigen Fortbildungen beteiligen (siehe 4.2), ist davon auszugehen, dass auch medienpädagogische Kompetenzen sich vor allem im Rahmen erwachsenenpädagogischen Handelns aufbauen bzw. begleitend zu diesem angeeignet werden. Entsprechend wird ein Einfluss der Dauer und Intensität der Tätigkeit in der Weiterbildung auf medienpädagogische Kompetenz angenommen. Insbesondere aber wäre ein entsprechend besseres Testergebnis zu erwarten, wenn die Befragten in den vergangenen Jahren an einer einschlägigen Weiterbildung im Bereich digitale Medien teilgenommen haben. Die Anforderungen, die sich an Lehrende hinsichtlich der medialen Ausgestaltung von Weiterbildungsangeboten richten, unterscheiden sich in verschiedenen Weiterbildungskontexten. Entsprechend wären Unterschiede zwischen unterschiedlichen Weiterbildungssegmenten oder „Reproduktionskontexten“ (Schrader 2010) zu erwarten. Da die vorliegende Stichprobe diesbezüglich keine ausreichende Streuung aufweist, konnte im Folgenden allerdings nur zwischen primär an Volkshochschulen Lehrenden und primär in anderen Kontexten (freie Träger, private Träger, betriebliche Weiterbildung, weiterführende Schulen) Lehrenden unterschieden werden. Nachdem Mediennutzung bzw. Medienkompetenz einerseits geschlechts- und generationenspezifische Muster aufweist (vgl. Koch und Frees 2017) und andererseits von kulturellen Rahmungen geprägt ist (vgl. Vennemann et al. 2014), wurden auch die Variablen Geschlecht, Alter und Migrationshintergrund berücksichtigt.

Der Einfluss der genannten unabhängigen Variablen wurde mittels Regressionsanalysen für jeden einzelnen der sechs Faktoren überprüft. Wie in Tab. 2 ersichtlich, erweist sich für den ersten Faktor (*Umgang mit medienbezogenen Bedarfen der Teilnehmenden*) nur die Teilnahme an einschlägigen Qualifizierungsangeboten als relevanter Prädiktor, was sich auch für die *medienbezogene Teilnehmendenorientierung* bestätigt. Für diesen zweiten Faktor finden sich darüber hinaus auch noch signifi-

Tab. 2 Lineare Regressionsanalysen zu den sechs Faktoren medienpädagogischer Kompetenz

	Faktor 1	Faktor 2	Faktor 3	Faktor 4	Faktor 5	Faktor 6
In WB tätig seit	–0,006	0,030	–0,085	**0,160****	–0,028	–0,059
Haupterwerb in Weiterbildung	0,055	–0,036	**–0,101***	0,058	–0,054	–0,009
Alter	–0,091	–0,061	**–0,149****	**0,152****	0,030	–0,047
Geschlecht (männlich)	–0,011	0,034	–0,043	0,017	**0,133****	–0,017
In Deutschland geboren	–0,066	–0,013	**–0,282*****	0,007	0,065	0,011
Einschlägige Weiterbildung in letzten 5 Jahren	**–0,132****	**–0,093***	0,020	–0,077	**0,177*****	0,021
VHS als Hauptauftraggeber	–0,023	**0,100***	–0,017	**0,111***	–0,082	0,077
Uni-Abschluss	–0,090	–0,082	**0,189*****	–0,066	0,008	–0,041
FH-Abschluss	0,021	–0,057	0,026	–0,042	–0,048	0,047
Fach-, Meister-, Technikerschule, Berufs- oder Fachakademie	–0,007	–0,047	0,072	–0,052	0,018	–0,060
Beruflich-schulische Ausbildung	–0,028	–0,036	–0,026	–0,018	–0,011	0,035
Beruflich-betriebl. Ausbildung	–0,003	–0,046	0,036	–0,010	0,008	0,069
R-Quadrat	*0,041*	*0,030*	*0,118*	*0,051*	*0,076*	*0,021*

*$p < 0{,}05$; **$p < 0{,}01$; ***$p < 0{,}001$

kante Differenzen zwischen Lehrenden, die primär an Volkshochschulen tätig sind, und anderen. Der für alle sechs Faktoren geringe Anteil erklärter Varianz ist für die *mediendidaktische Kompetenz* (Faktor 3) mit 11 % noch am größten. Hier finden sich signifikante Zusammenhänge mit Alter, Migrationshintergrund und Beschäftigungsstatus sowie bedeutsame Unterschiede zwischen Lehrenden mit und ohne Hochschulabschluss. Das Alter ist auch ein signifikanter Prädiktor für das *Wissen über die mediale Lebenswelt der Teilnehmenden* (Faktor 4), das auch von der Länge der Berufserfahrung sowie dem primären Lehrkontext (Volkshochschule vs. andere) abzuhängen scheint. Die *Ablehnung digitaler Medien in Lehr-Lern-Kontexten* (Faktor 5) ist der einzige Faktor, in dem sich relevante Unterschiede zwischen männlichen und weiblichen Lehrenden finden, wobei Erwachsenenbildnerinnen gegenüber digitalen Medien skeptischer zu sein scheinen als Erwachsenenbildner. Gleichzeitig spielt hier wiederum die Beteiligung an einschlägigen Weiterbildungsangeboten für in der Erwachsenenbildung Lehrende eine Rolle. Für den Faktor *Angebotsvorbereitung mit digitalen Medien* (Faktor 6) lassen sich hingegen keine signifikanten Gruppenunterschiede nachweisen. Die interpersonelle Streuung in diesem Teilaspekt medienpädagogischer Kompetenz scheint primär durch andere Faktoren beeinflusst als durch die hier berücksichtigten.

6 Diskussion und Ausblick

Das auf Basis vorliegender Forschungsarbeiten sowie Gesprächen mit Expertinnen und Experten entwickelte Modell medienpädagogischer Kompetenz von Lehrenden in der Erwachsenenbildung hielt auch einer empirischen Prüfung stand. Dabei legen die Daten zwar eine weitere Ausdifferenzierung von zwei Kompetenzfacetten nahe, bestätigen aber weitgehend die im Modell angenommene Struktur. Zum einen bestä-

tigen die gefunden Unterschiede zwischen Teilgruppen des Samples schließlich den Mehrwert der identifizierten Faktorenstruktur zur Erklärung von Differenzen hinsichtlich der medienpädagogischen Kompetenz von Erwachsenenbildnerinnen und Erwachsenenbildnern. Zum anderen verweisen sie auf plausible Prädiktoren für verschiedene Facetten medienpädagogischer Kompetenz.

Dass Weiterbildende mit zunehmender Berufserfahrung sich zunehmend vertraut mit den Medienwelten ihrer Teilnehmenden zeigen, scheint plausibel, obwohl auch Differenzen in der mediendidaktischen Kompetenz zu erwarten gewesen wären. Davon ausgehend, dass mediendidaktische Kompetenz im Feld der Erwachsenenbildung vorrangig informell erworben wird, überrascht es, dass diese Teilkompetenz offensichtlich nicht mit der Dauer der Berufsausübung korreliert. Zu vermuten wäre hier, dass die medienbezogenen Erfahrungen bisher noch zu gering sind. Weiterer Untersuchungen bedarf es sicherlich hinsichtlich der Altersdifferenzen, die sich unter Kontrolle der anderen Variablen ebenfalls auf die Kenntnis der Medienwelt der Teilnehmenden begrenzen. Hier wären den einschlägigen Studien zur Medienkompetenz folgend in anderen Teilbereichen deutliche Unterschiede zu erwarten gewesen, die sich offensichtlich aber nicht auf die professionelle Mediennutzung erstrecken oder durch andere, hier nicht erfasste Variablen überlagert werden (vgl. auch Rott und Schmidt-Hertha 2019).

Das schlechtere Abschneiden von Personen mit Migrationshintergrund im Test zur mediendidaktischen Kompetenz lässt sich vermutlich auch durch Schwierigkeiten mit den fachsprachlich anspruchsvoll formulierten Aufgaben erklären. Überraschend ist, dass ein Universitätsabschluss zwar die mediendidaktische Kompetenz positiv zu beeinflussen scheint, sonst aber über alle Faktoren hinweg der Bildungshintergrund der Befragten keine bedeutende Rolle spielt. Unerwartet sind auch die Effekte von Teilnahmen an einschlägigen Weiterbildungen. Diese scheinen ausschließlich den Bereich der medienbezogenen Feldkompetenz nachhaltig zu beeinflussen. Zwar wird das eigene Wissen über die Mediennutzung der Teilnehmenden höher eingeschätzt, gleichzeitig wird jedoch diesem Wissen weniger Bedeutung für die Gestaltung des eigenen Lehrhandelns beigemessen. Die gemessenen Effekte sind hier eher klein, dennoch könnte dies zum Anlass genommen werden, einschlägige Weiterbildungsangebote für in der Erwachsenenbildung Tätigen genauer zu betrachten.

Eine deutliche Begrenzung der empirischen Modellprüfung liegt in der nicht erfassten Teilfacette *medienbezogene Fachkompetenz*, die für jeden Inhaltsbereich eigenständig zu operationalisieren wäre. Zur weiteren empirischen Prüfung des Gesamtmodells wären also Untersuchungen erforderlich, die sich auf ein spezifisches inhaltliches Segment der Weiterbildungslandschaft konzentrieren. Mit dem vorliegenden Test wäre hierfür schon eine wesentliche Grundlage gelegt.

In der Gesamtbetrachtung kann das entwickelte Instrument, das inzwischen auch als frei verfügbarer Selbsttest angeboten wird, als ein Baustein zur Erfassung erwachsenenpädagogischer Kompetenzen verstanden werden. Damit kann es einen Beitrag leisten, häufig informell erworbene und für erwachsenenpädagogisches Handeln relevante medienpädagogische Kompetenzen sichtbar zu machen und in ein Gesamtportfolio von Fähigkeiten und Fertigkeiten einzubinden – wie es zum Beispiel im GRETA-Modell (Lencer und Strauch 2016) strukturiert wird. Mittelfristiges Ziel könnte es sein, in der Erwachsenenbildung Tätigen die Möglichkeit zu geben, auf

Basis wissenschaftlich abgesicherter Testverfahren das eigene Kompetenzprofil zu erfassen und gezielt weiterzuentwickeln.

Literatur

Baacke, D. (1996). Medienkompetenz – Begrifflichkeit und sozialer Wandel. In A. von Rein (Hrsg.), *Medienkompetenz als Schlüsselbegriff* (S. 112–124). Bad Heilbrunn: Klinkhardt.

Benninghaus, H. (2005). *Sozialwissenschaftliche Datenanalyse* (7. Aufl.). München, Wien: Oldenbourg.

Bernhardsson, N., & Lattke, S. (2011). Core competencies of adult learning facilitators in Europe. http://asemlllhub.org/fileadmin/www.dpu.dk/ASEM/events/RN3/QF2TEACH_Transnational_Report_final_1_.pdf. Zugegriffen: 9. Dez. 2019.

Billes-Gerhart, E. (2009). *Medienkompetenz von Lehramtsstudierenden: Eine empirische Beobachtung, Analyse und Interpretation der Orientierungs- und Bewertungsschemata von angehenden Lehrkräften*. Göttingen: Cuvillier.

Blömeke, S. (2000). *Medienpädagogische Kompetenz: Theoretische und empirische Fundierung eines zentralen Elements der Lehrerausbildung*. München: KoPäd.

Bolten, R. (2018). Der mediale Habitus als System von Grenzen medienpädagogischen Handelns von Lehrenden in der Erwachsenenbildung. *MedienPädagogik*, *32*, 96–107. https://doi.org/10.21240/mpaed/32/2018.10.22.X.

Bolten, R., & Rott, K.J. (2018). Medienpädagogische Kompetenz: Anforderungen an Lehrende in der Erwachsenenbildung – Perspektiven der Praxis. *MedienPädagogik*, *30*, 137–153. https://doi.org/10.21240/mpaed/30/2018.03.05.X.competencies.

Buiskool, B.J., Broek, S.D., van Lakerveld, A., Zarifis, G.K., & Osborne, M. (2010). Key competence for adult learning professionals: Contribution to the development of a reference framework of key competences for adult learning professionals. http://conference.pascalobservatory.org/sites/default/files/keycomp_0.pdf. Zugegriffen: 10. Dez. 2019.

Collins, J.B., & Pratt, D.D. (2011). The teaching perspectives inventory at 10 years and 100,000 respondents: reliability and validity of a teacher self-report inventor. *Adult Education Quarterly*, *61*(4), 358–375.

Cramer, D. (2003). *Advanced quantitative data analysis*. London: McGraw-Hill.

Döring, N., & Bortz, J. (2016). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften*. Berlin, Heidelberg: Springer.

Eid, M., & Schmidt, K. (2014). *Testtheorie und Testkonstruktion*. Göttingen: Hogrefe.

Erpenbeck, J., & v. Rosenstiel, L. (2007). Vorbemerkung zur 2. Auflage. In J. Erpenbeck & L. v. Rosenstiel (Hrsg.), *Handbuch Kompetenzmessung* (S. XI–XIV). Stuttgart: Schäffer-Poeschel.

Europäische Kommission (2018). Europäischer Rahmen für die Digitale Kompetenz von Lehrenden (DigCompEdu). https://ec.europa.eu/jrc/sites/jrcsh/files/digcompedu_leaflet_de-2018-09-21pdf.pdf. Zugegriffen: 9. Dez. 2019.

Groeben, N. (2002). Dimensionen der Medienkompetenz: Deskriptive und normative Aspekte. In N. Groeben & B. Hurrelmann (Hrsg.), *Medienkompetenz. Voraussetzungen, Dimensionen, Funktionen* (S. 160–197). Weinheim: Juventa.

Gysbers, A. (2008). *Lehrer – Medien – Kompetenz: Eine empirische Untersuchung zur medienpädagogischen Kompetenz und Performanz niedersächsischer Lehrkräfte*. Berlin: Vistas.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis. A global perspective*. Upper Saddle River, New Jersey: Pearson Prentice Hall.

Hartig, J., Frey, A., & Jude, N. (2012). Validität. In H. Moosbrugger & A. Kelava (Hrsg.), *Testtheorie und Fragebogenkonstruktion* (2. Aufl. S. 143–171). Berlin, Heidelberg: Springer.

Herzig, B., Martin, A., Schaper, N., & Ossenschmidt, D. (2015). Modellierung und Messung medienpädagogischer Kompetenz – Grundlagen und erste Ergebnisse. In B. Koch-Priewe, A. Köker, J. Seifried & E. Wuttke (Hrsg.), *Kompetenzerwerb an Hochschulen: Modellierung und Messung. Zur Professionalisierung angehender Lehrerinnen und Lehrer sowie frühpädagogischer Fachkräfte* (S. 153–176). Bad Heilbrunn: Klinkhardt.

Koch, W., & Frees, B. (2017). ARD/ZDF-Onlinestudie 2017: Neun von zehn Deutschen online. Ergebnisse der ARD/ZDF-Onlinestudie 2017. *Media Perspektiven*, *9*, 434–446.

Kommission der Europäischen Gemeinschaften (2006). Erwachsenenbildung: Man lernt nie aus. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0614:FIN:DE:PDF. Zugegriffen: 9. Dez. 2019.

Körner, A., Geyer, M., & Brähler, E. (2002). Das NEO-Fünf-Faktoren-Inventar (NEO-FFI). Validierung anhand einer deutschen Bevölkerungsstichprobe. *Diagnostica*, *48*, 19–27.

Kraus, K., Schmid, M., & Thyroff, J. (2015). *Validierung als Weg in die Erwachsenenbildung. Eine empirische Analyse von Kompetenzdarstellungen*. Basel, Solothurn: FHNW.

Lencer, S., & Strauch, A. (2016). Das GRETA-Kompetenzmodell für Lehrende in der Erwachsenen- und Weiterbildung. www.die-bonn.de/doks/2016-erwachsenenbildung-02.pdf. Zugegriffen: 17. Febr. 2019.

Martin, A., & Langemeyer, I. (2014). Demografie, sozioökonomischer Status und Stand der Professionalisierung – das Personal in der Weiterbildung im Vergleich. In Deutsches Institut für Erwachsenenbildung (Hrsg.), *Trends der Weiterbildung. DIE-Trendanalyse 2014* (S. 43–67). Bielefeld: wbv.

Martin, A., Lencer, S., Schrader, J., Koscheck, S., Ohly, H., Dobischat, R., Elias, A., & Rosendahl, A. (2016). *Das Personal in der Weiterbildung. Arbeits- und Beschäftigungsbedingungen, Qualifikationen, Einstellungen zu Arbeit und Beruf*. Bielefeld: wbv.

Marx, C., Goeze, A., Voss, T., Hoehne, V., Klotz, V.K., & Schrader, J. (2017). Pädagogisch-psychologisches Wissen von Lehrkräften aus Schule und Erwachsenenbildung: Entwicklung und Erprobung eines Testinstruments. *Zeitschrift für Erziehungswissenschaft*, *20*(S1), 165–200. https://doi.org/10.1007/s11618-017-0733-7.

Mayrberger, K. (2012). Medienpädagogische Kompetenz im Wandel – Vorschlag zur Gestaltung des Übergangs in der Lehrerbildung am Beispiel mediendidaktischer Kompetenz. In R. Schulz-Zander, B. Eickelmann, H. Moser, H. Niesyto & P. Grell (Hrsg.), *Jahrbuch Medienpädagogik 9* (S. 389–412). Wiesbaden: Springer VS.

Messick, S. (1987). *Validity*. Princeton, New Jersey: Educational Testing Service.

Mishra, P., & Koehler, M.J. (2006). Technological pedagogical content knowledge: a framework for teacher knowledge. *Teachers College Record*, *108*(6), 1017–1054.

OECD (2015). *Adults, computers and problem solving: what's the problem?* https://doi.org/10.1787/9789264236844-en.

Rohs, M., & Bolten, R. (2017). Medienpädagogische Professionalisierung von Erwachsenenbildner*innen. Eine biographische Annäherung. https://kluedo.ub.uni-kl.de/frontdoor/deliver/index/docId/4547/file/_Beitraege_zur_EB_4_Medienkompetenz.pdf. Zugegriffen: 12. Jan. 2019. Beiträge zur Erwachsenenbildung (Heft 4).

Rohs, M., Bolten, R., & Kohl, J. (2017a). Medienpädagogische Kompetenzen in Kompetenzbeschreibungen für Erwachsenenbildner * innen. https://kluedo.ub.uni-kl.de/files/4690/_Beitraege_zur_EB_5_final.pdf. Zugegriffen: 3. Febr. 2019. Beiträge zur Erwachsenenbildung (Heft 5).

Rohs, M., Rott, K., Schmidt-Hertha, B., & Bolten, R. (2017b). Medienpädagogische Kompetenzen von ErwachsenenbildnerInnen. *Magazin Erwachsenenbildung.at*, *30*, http://www.erwachsenenbildung.at/magazin/17-30/meb17-30.pdf. Zugegriffen: 06.07.2020.

Rott, K.J., & Schmidt-Hertha, B. (2019). Medienpädagogische Kompetenz von erwachsenenpädagogischen Fachkräften – Eine Frage des Alters? In E. Haberzeth & I. Sgier (Hrsg.), *Digitalisierung und Lernen. Gestaltungsperspektiven für das professionelle Handeln in der Erwachsenenbildung und Weiterbildung* (S. 137–154). Bern: hep.

Schaumburg, H., & Hacke, S. (2010). Medienkompetenz und ihre Messung aus Sicht der empirischen Bildungsforschung. In B. Herzig, D.M. Meister, H. Moser & H. Niesyto (Hrsg.), *Jahrbuch Medienpädagogik 8. Medienkompetenz und Web 2.0* (S. 147–161). Wiesbaden: Springer.

Schermelleh-Engel, K., & Werner, C. S. (2012). Methoden der Reliabilitätsbestimmung. In H. Moosbrugger & A. Kelava (Hrsg.), *Testtheorie und Fragebogenkonstruktion* (S. 119–171). Berlin, Heidelberg: Springer.

Schmid, U., Goertz, L., & Behrens, J. (2018). *Monitor Digitale Bildung. Die Weiterbildung im digitalen Zeitalter*. Gütersloh: Bertelsmann Stiftung.

Schmidt-Hertha, B., & Rott, K. J. (2014). Developing media competence and work-related informational behavior in academic studies. *EduRe Journal*, *1*(1), 90–108.

Schmidt-Hertha, B., Rohs, M., Rott, K. J., & Bolten, R. (2017). Fit für die digitale (Lern-)Welt?: Medienpädagogische Kompetenzanforderungen an Erwachsenenbildner/innen. *DIE-Zeitschrift*, *24*(3), 35–37.

Schrader, J. (2010). Reproduktionskontexte der Weiterbildung. *Zeitschrift für Pädagogik*, *56*(2), 267–284.

Taddeo, G., Cigognini, M. E., Parigi, L., & Blamire, R. (2016). Certification of teachers' competence. Current approaches and future opportunities. http://mentep.eun.org/documents/2390578/2452293/MENTEP_D6+1.pdf/e9982840-f226-4b68-bebd-4fefeb67004e. Zugegriffen: 9. Dez. 2019.

Treumann, K. P., Baacke, D., Haacke, K., Hugger, K.-U., & Vollbrecht, R. (2002). *Medienkompetenz im digitalen Zeitalter. Wie die neuen Medien das Leben und Lernen Erwachsener verändern*. Wiesbaden: Springer.

Tulodziecki, G. (2012). Medienpädagogische Kompetenz und Standards in der Lehrerbildung. In R. Schulz-Zander, B. Eickelmann, H. Moser, H. Niesyto & P. Grell (Hrsg.), *Jahrbuch Medienpädagogik* (Bd. 9, S. 271–297). Wiesbaden: Springer. https://doi.org/10.1007/978-3-531-94219-3.

Vennemann, M., Gerick, J., & Eickelmann, B. (2014). Computer und Internet im Spiegel migrationsspezifischer Disparitäten. In B. Eickelmann, R. Lorenz, M. Vennemann, J. Gerick & W. Bos (Hrsg.), *Grundschule in der digitalen Gesellschaft. Befunde aus den Schulleistungsstudien IGLU und TIMSS 2011* (S. 141–156). Münster: Waxmann.

Ziep, K.-D. (1989). Professionalisierung und Medien in der Weiterbildung. In K. W. Döring & K.-D. Ziep (Hrsg.), *Mediendidaktik in der Weiterbildung* (S. 41–70). Weinheim: Deutscher Studienverlag.

Zylka, J. (2011). *Medienkompetenzen und Instrumente zu ihrer Messung. Entwicklung eines Wissenstests zu informationstechnischem Wissen von Lehrkräften, Lehramtsanwärtern und Lehramtsstudierenden*. Münster/München/Berlin u. a: Waxmann.

ZfW (2020) 43:331–337
https://doi.org/10.1007/s40955-020-00160-5

veröffentlicht in Zusammenarbeit mit DIE

Neue Bücher aus der Weiterbildungsforschung

Karin Gugitscher · Sigrid Nolda · Ekkehard Nuissl

Online publiziert: 8. Juni 2020

Rezensionen zu

Miguel Zulaica y Mugica (2019). *Die Sozialität der Bildung. Eine Studie zum Verhältnis von Anerkennungs- und Institutionentheorie*. Bielefeld: Transcript. 284 Seiten, 59,99 €, ISBN 978-3-8376-4674-0

Franziska Endreß (2019). *Bilder des Alterns und der Lebensalter im Bildraum Erwachsenenbildung. Eine vergleichende Analyse unter Berücksichtigung angrenzender Bildräume*. Wiesbaden: Springer VS. 508 Seiten, 64,99 €, ISBN 978-3-658-24987-8

Anke Grotlüschen & Klaus Buddeberg (Hrsg.) (2020). *LEO 2018 – Leben mit geringer Literarität*. Bielefeld: wbv Publikationen. 400 Seiten, 49,90 €, ISBN 978-3-7639-6071-2

K. Gugitscher (✉)
Österreichisches Institut für Berufsbildungsforschung, Wien, Österreich
E-Mail: karin.gugitscher@oeibf.at

S. Nolda (✉)
Technische Universität Dortmund, Dortmund, Deutschland
E-Mail: sigrid.nolda@uni-dortmund.de

E. Nuissl (✉)
Universität Kaiserslautern, Kaiserslautern, Deutschland
E-Mail: nuissl@die-bonn.de

1 Karin Gugitscher: Miguel Zulaica y Mugica (2019). Die Sozialität der Bildung. Eine Studie zum Verhältnis von Anerkennungs- und Institutionentheorie. Bielefeld: Transcript.

Bildung wird häufig durch individualistische Kategorien wie Selbstbildung und Selbstermächtigung beschrieben. Demgegenüber verweisen moderne Anerkennungstheorien auf die Sozialität des Menschen und legen nahe, dass persönliche Entwicklung und Bildung an Sozialität gebundenen sind. Diese Überlegungen bilden den Ausgangspunkt der Studie von Miguel Zulaica y Mugica. Er greift damit eine für die Pädagogik und Bildungswissenschaft grundlegende Frage auf, nämlich jene nach dem sozialen Gehalt von Bildung.

Theoretischer Bezugspunkt seiner Studie ist der Bildungsbegriff, den Hegel in seiner Rechtsphilosophie vertritt. Darin ist die Sozialität als genuines Begriffsmoment von Bildung ausgewiesen, so die These Zulaica y Mugicas. Sie verdeutlicht sich in der Spannung zwischen der individuellen Selbstbestimmung als Möglichkeit, von Kooperationsaufforderungen zurückzutreten und diese an individuelle Entscheidungen zurückzubinden, und der Identifikation mit dem sittlichen Wir als Bedingung für eine Orientierung am Allgemeinen. Durch eine systematische Bearbeitung der Problemstellungen von Hegels Bildungstheorie will Zulaica y Mugica das Verhältnis von Bildung und Sozialität hinterfragen und differenzieren. Dabei knüpft er auch an bildungstheoretische Diskussionen und sozialphilosophische Anerkennungstheorien an. Gesellschaftlichkeit thematisiert er institutionentheoretisch, da Institutionen das Bewusstsein über Handlungen in einem sozialen Bedeutungsraum verorten.

Nachdem im einleitenden Kapitel die zentralen Bezugspunkte der Hegelschen Bildungstheorie für die weiterführenden Überlegungen dargelegt werden, analysiert der Autor im zweiten Kapitel in einer argumentationslogischen Betrachtung dreier differenter Studien von Neuhouser, Siep und Honneth das Spannungsverhältnis von Anerkennung und Institutionen, die sich insbesondere über die Frage der Anerkennbarkeit ausdrückt.

Im dritten Kapitel verschiebt Zulaica y Mugica die Perspektive von der strukturellen Ebene der Institutionen auf das individuelle Selbst- und Weltverhältnis. Er analysiert differente sozialphilosophische Konzeptionen hinsichtlich ihres Sozialitätsverständnisses, um diese anschließend mit Hegels Bildungsbegriff bildungstheoretisch zu kontextualisieren. Während er in Honneths Institutionentheorie eine kooperative Sozialität rekonstruiert, die in der Teilhabe an der reflexiven Kooperation befreiend sein soll, zeigt er mit Butler die Ambivalenz von Sozialität als ein in sich verschlungenes und fragiles Verhältnis von Unterwerfung, Überordnung und unterbrechender Widerständigkeit. In der neopragmatistischen Perspektive von Pippin und Jaeggi rekonstruiert er eine Sozialität, die im Scheitern der habitualisierten Praxis eine kritische Selbstreflexion initiiert.

Das abschließende vierte Kapitel dient Zulaica y Mugica dazu, die entwickelte Perspektive in Abgrenzung zu den bildungstheoretischen Ansätzen von Marotzki, Stojanov und Schäfer zu klären. Er kommt in einem kritischen Rekurs auf Hegel zu dem Schluss, dass ein ambivalenter Begriff der Bildung diese aus der individuellen Transformationslogik löst, die institutionelle Perspektive stärkt und eine gesellschaftstheoretische Einbettung von Bildungsbegriffen ermöglicht. Dabei muss

Bildung nicht zwingend in einer kritischen Haltung oder in Kritik aufgehen und ist auch als eine Einübung gesellschaftlicher Praktiken und eine Gewöhnung an institutionalisierte Normen und Anforderungen zu verstehen, die ein objektives Selbst- und Weltverständnis sowie eine Reflexion, die im sozialen Raum verankert ist, eröffnet.

Versucht man nun, den Ansatz dieser grundlagentheoretischen und nicht leicht zugänglichen Dissertation auf bildungspraktische Fragen umzulegen, eröffnen sich damit Möglichkeiten, beispielsweise den Bildungsgehalt von Verfahren und Praktiken der Erwachsenenbildung zur Anerkennung von Kompetenzen, die in nonformalen und informellen Lernsettings erworben wurden, zu betrachten. Möglichkeiten der Bildung lägen dann bei der Validierung von Kompetenzen sowohl in der Aneignung dafür notwendiger Wissensbestände und (reflexiver, narrativer etc.) Fähigkeiten als auch in der Gewöhnung an institutionalisierte Normen und Ansprüche sowie der Reflexion institutioneller Kontexte, die eine nachhaltige Kompetenzgenese ermöglichen oder einer solchen entgegenstehen. Es ginge also auch um eine proaktive Förderung der Auseinandersetzung mit Widersprüchen innerhalb der Institutionen und sozialen Systeme der Kompetenzgenese und -validierung. Allerdings bleibt bei einem so offenen Bildungsbegriff, wie ihn Zulaica y Mugica entwirft, und der auch in einer Reflexivität ermöglichenden Gewöhnung an soziale Normen abseits von Transformation oder Kritik aufgeht, die grundlegende Frage nach der Differenzierung von Bildung, Sozialisation und Lernen weiterhin offen.

2 Sigrid Nolda: Franziska Endreß (2019). Bilder des Alterns und der Lebensalter im Bildraum Erwachsenenbildung. Eine vergleichende Analyse unter Berücksichtigung angrenzender Bildräume. Wiesbaden: Springer VS.

Dissertationen sollen die Befähigung der Autorinnen und Autoren belegen, selbstständig eine Fragestellung nachprüfbar, auf der Basis des Forschungsstandes und unter systematischer Bewältigung begründet ausgewählter bzw. erhobener Datenmengen bearbeiten zu können und damit zum Fortschritt der Disziplin beizutragen. Das ist im Fall der vorliegenden Arbeit zweifellos gelungen. Sie stellt einen wichtigen Beitrag zur Fundierung bildwissenschaftlicher Forschung in der Erwachsenenbildungswissenschaft dar, indem sie die einschlägigen theoretischen Arbeiten zuverlässig referiert, auf dieser Basis den gewählten Ansatz der dokumentarischen Methode (im Sinne von Ralf Bohnsack bzw. Burkhard Schäffer) begründet und mit Hilfe eines nachvollziehbar erhobenen Datenvolumens den Bildraum Erwachsenenbildung als Konglomerat von Abbildern, Denkbildern und Erfahrungsbildern ausmisst.

Grundlage der vom Projekt „Weiterbildungsbeteiligung und Altersbilder der Babyboomer“ geprägten empirischen Studie bilden Bilddokumente, die unter den Suchbegriffen Erwachsenenbildung, Weiterbildung und Lebenslanges Lernen zum Erhebungszeitpunkt 2009 und in einer kleinen Nacherhebung 2016 im Internet verfügbar waren, aber natürlich teilweise schon früher entstanden sind. Dabei richtete sich das Interesse auf die dort vorgefundene bildliche Darstellung des Alterns und der Lebensalter, die bisher eher an exemplarischen Einzelfällen untersucht worden ist.

Auf der Basis inhaltlicher und formeller Analyseschritte gelingt es der Autorin, anhand der knapp 200 digitalen Bilder zentrale Bildmuster der Erwachsenenbildung zu benennen und diese mit zahlreichen historischen und zeitgenössischen Bildern zum Altern, zur Bildung und zum Lernen vor allem von Erwachsenen aus anderen Zusammenhängen zu kontrastieren. Die sehr ausführliche Darstellung des theoretischen Hintergrunds und des Forschungsstandes sowie die Menge an behandeltem Bildmaterial (zum großen Teil in Schwarz-Weiß-Zeichnungen transponierte Fotografien) haben ein umfangreiches Buch entstehen lassen, das auch als Skript für ein ein- oder besser mehrsemestriges Seminar dienen könnte.

Die Ergebnisse der Untersuchung sind nach Darstellungen alltäglicher Situationen der Erwachsenenbildung (Medien, Protagonisten, Raumsituation), aber auch nach metaphorischen Bildmotiven (Weg, Wegweiser, Horizont u. a.) und symbolischen Bildern zu den Begriffen Erwachsenenbildung, Weiterbildung, Lebenslanges Lernen und ihren Akteuren gegliedert. Die jeweils behandelten Bilddokumente sind (bei unterschiedlicher Detailschärfe) gut erkennbar gestaltet, aber nicht in jedem Fall leicht zu finden – das parallel erschienene E-Book erleichtert die Suche und ermöglicht zudem eine Vergrößerung der Bilder.

Die Entscheidung für die Behandlung großer Datenmengen muss gegenüber Einzelfallanalysen den Vorteil der Reliabilität mit dem Nachteil der demgegenüber oberflächlicheren, den Kontext nur bedingt berücksichtigenden und weniger originellen Interpretation bezahlen. Was theoretisch gefordert wird, nämlich eine Berücksichtigung des Eigensinns von Bildern im Sinne von Max Imdahls Ikonik, kommt dabei nicht immer zum Tragen. Es spricht für die Autorin, dass sie sich dieser Problematik durchaus bewusst ist, es aber trotzdem unternommen hat, eine sorgfältige Untersuchung durchzuführen, die es erlaubt, nachvollziehbar einen komplexen zeitgenössischen Bildraum zu beschreiben, der kollektive Erfahrungen und Vorstellungen von Akteuren in diesem Bereich systematisch ordnet und anhand ausgewählter Dokumente im Wortsinn sichtbar macht. Dass dieser Bildraum einerseits erstaunliche Stabilitäten aufweist, sich aber auch weiterhin mit realen Veränderungen wandelt, wird am offensichtlichsten beim Bereich Medien. So wirkt auch das in anderen Publikationen des Projekts unter dem Titel „Senior“ bzw. „Der Quotenalte“ verwendete, inzwischen im Netz nicht mehr verfügbare Bild einer intergenerationellen Lehr-Lernsituation vor einem Computer angesichts eines veränderten *digital gap* mittlerweile fast veraltet.

Solchen und anderen Veränderungen sowie Unterschieden hinsichtlich der einzelnen Bereiche der Erwachsenenbildung auch im internationalen Vergleich nachzugehen erscheint sinnvoll. Die Studie bietet dazu theoretische und methodische Grundlagen und könnte zur Etablierung einer bildwissenschaftlich informierten Erwachsenenbildungsforschung beitragen. Zu empfehlen wäre bei der weiteren Verfolgung bildwissenschaftlicher Ansätze eine stärkere – wechselseitige – Verbindung zur textorientierten Diskurs- und zur Videoforschung.

3 Ekkehard Nuissl: Anke Grotlüschen & Klaus Buddeberg (Hrsg.) (2020). LEO 2018 – Leben mit geringer Literarität. Bielefeld: wbv Publikationen.

Bei Filmen ist man meist in Sorge, ob der zweite, einem erfolgreichen ersten folgend, das Niveau halten kann. Und nur zu oft ist diese Sorge nur zu berechtigt. Bei Büchern ist das seltener, allenfalls bei Bestsellern, aber die gibt es als Massenprodukte im wissenschaftlichen Bereich ohnehin kaum. Bei der hier angezeigten Folgestudie, LEO II, wird das Niveau der ersten nicht nur gehalten, sondern übertroffen.

Das beginnt schon mit dem Titelzusatz „Leben mit geringer Literalität". Der Abschied vom jahrzehntelang verwendeten Topos des „funktionalen Analphabetismus" überrascht zunächst, wird aber reflektiert begründet: „Die heutige Studie spricht vom *Leben mit geringer Literalität"*. Dahinter steht die Erkenntnis, dass Erwachsene durchaus auch bei eingeschränkter Schriftsprachkompetenz ein wirtschaftliches Auskommen finden, familiär eingebunden sind und ihr Leben eigenständig gestalten. Die neuen Fragen richten sich insofern eher darauf, „*wie* sich das Leben unter der Bedingung geringer Literalität gestaltet" (S. 6). Auch der Begriff der „geringen Literalität", so räumen die Autorinnen ein, sei ein Defizitbegriff, aber geeigneter als der „funktionale Analphabetismus", weil er im Sinne des strategischen Existenzialismus besser geeignet sei hinsichtlich der einzigen Legitimität für Defizitbegriffe, den „Nachteilsausgleich". In der Präsentation der Forschungsergebnisse wird auch die Grundlage für einen solchen Nachteilsausgleich gelegt: es werden wesentliche Elemente des Alltagslebens, „der Vierspänner der Grundbildungsdomänen" (S. 17), diskutiert, Fragen zur Digitalität, zur politischen Teilhabe, zu Finanzen und Gesundheit; und selbstredend kommen auch Arbeit und Familie in den Blick.

Etwa 7000 Personen werden befragt, die Ergebnisse seien daher repräsentativ für Menschen mit geringer Literalität im Alter von 18 bis 64 Jahren. Zur Beantwortung der Frage des „Wie" berichten die Befragten mit Selbstauskünften „über die Häufigkeit entsprechender *Praktiken"*. Hier zeigt sich überwiegend, dass trotz eingeschränkter Literalität eine recht beeindruckende Lese- und Schreibleistung erbracht wird. Die Fragen, die auf kritische Einschätzung alltäglicher Angelegenheiten zielen, reichen anschließend über das Funktionieren hinaus. Hier geht es um *kritisch-hinterfragende Grundkompetenzen*. Erfragt wird, ob alltägliche Zusammenhänge *beurteilt* werden können, beispielsweise die Glaubwürdigkeit einer Nachricht im Internet. In richtiger Selbsteinschätzung formulieren die Autorinnen: „LEO 2018 ist damit auf internationalem Gebiet – unbescheiden gesagt – bahnbrechend. Eine andere Literalitätsstudie mit vergleichbar umfassender Hintergrundbefragung liegt derzeit nicht vor" (S. 8). Im Verlauf des Textes werden immer wieder die eigenen Vorgehensweisen und Ergebnisse auch mit internationalen ähnlichen Studien abgeglichen, insbesondere aus Großbritannien und Frankreich. In der Tat sind der Zugriff auf die Lebenspraxis der Menschen mit geringer Literalität und die dazu entwickelte und angewandte Methode ein auch forschungssystematisch in die Zukunft weisender Verdienst der Untersuchung.

Naheliegend ist zunächst die Frage, ob denn in den Bereichen, in denen LEO I im Jahr 2010 Daten lieferte, zehn Jahre später nun Veränderungen festgestellt wurden. Die wichtigste Zahl war damals die Anzahl der Menschen auf den Literalitätsstufen

1 bis 3 und 4. In der Tat ist deren Anteil zurückgegangen: 12,1 % der Bevölkerung (in absoluten Zahlen: 6,5 Mio. Menschen) gehören heute zu dieser Gruppe. 2010 waren es noch 7,5 Mio. Nimmt man noch die Personen hinzu, die dem Levels 4 (fehlerhaftes Schreiben) zugeordnet werden, so hat fast ein Drittel der Bevölkerung Probleme mit dem Lesen und Schreiben. Detaillierte Ergebnisse bestätigen sich: *cum grano salis* sind Männer, Ältere, Personen mit niedrigem Schulabschluss und jene, die in einer anderssprachigen Familie aufwuchsen, stärker vertreten.

Interessant ist, wie die Autorinnen die zunächst naheliegende Frage beantworten, wie denn der Rückgang der Menschen im unteren Literalitätsniveau erklärt werden kann. Nach der wichtigen (!) Vorbemerkung, es handele sich um eine Beschreibung, keine Kausalitätsanalyse, erörtern sie drei mögliche Einflussfaktoren: die Bildungsaktivitäten, die Zusammensetzung der Bevölkerung, die politischen Entscheidungen.

In einer sehr detaillierten Analyse stellen sie zunächst fest, dass die Teilnahme an Alphabetisierungskursen keine Rolle spielt, die Kurse des BAMF zur Integration und Alphabetisierung bedeutender sind, das Potenzial der betrieblichen Grundbildung als wichtig einzuschätzen ist und die Aktivitäten zur arbeitsmarktorientierten Grundbildung nach Sozialgesetzbuch II und III eine gewisse Rolle spielen *könnten* (alles basierend auf Angebots- und Teilnahmedaten).

Hinsichtlich der Bevölkerungsstruktur analysieren die Autorinnen anhand der Faktoren Herkunftssprache, Schulabschluss, Erwerbsstruktur und Alter die vorliegenden Daten. Eine wichtige Rolle spielt dabei, dass ein Wechsel in den untersuchten Geburtsjahrgängen vorliegt. In LEO I schlugen die Geburtsjahrgänge 1946 bis 1952 mit 17 % statistisch zu Buche, sie wurden in LEO II aber nicht mehr erfasst. Erfasst wurden hingegen die jüngeren Geburtsjahrgänge 1993 bis 2000, die nur einen Anteil von 10,9 % geringer Literalität aufweisen. Mittels einer künstlichen Annahme zur Bevölkerungsstruktur von LEO I stellen die Autorinnen fest, dass der Unterschied des Gesamtanteils im Wesentlichen auf den „Kompositionseffekt“ zurückzuführen ist – in der plausiblen Annahmerechnung ergibt sich eine nahezu identische Gesamtmenge.

Die politischen Entscheidungen als Faktoren werden von den Autorinnen als einflussreich vermutet, was sich allerdings nicht anhand von Daten belegen lässt. Immerhin, dies wird wiederholt betont, hat in Deutschland der politische Wille im „Alphabetisierungsjahrzehnt“ zahlreiche Impulse in ökonomischer, politischer, sozialer und bildungsmäßiger Hinsicht gebracht, nicht zuletzt auch die vorgelegte Untersuchung.

Mit großem Gewinn lesen sich die spezifischen Befunde der Untersuchung, die im Verlaufe des Buches dargelegt werden. Dazu gehören die sehr elaboriert dargelegten Entscheidungen hinsichtlich Ansatz und Methode der Forschung, die innovative und vorwärtsweisende Elemente enthalten. Die Kapitel zu Migration und Mehrsprachigkeit, Lebenssituation, Arbeit, Digitalität, Finanzen und Gesundheit zeichnen sich durch akribisch recherchierte, nachvollziehbare Erkenntnisse vor allem in Bezug auf die Praktiken aus – etwa die benutzten Verkehrsmittel, den Kauf von Fahrkarten, die Übernahme ehrenamtlicher Aufgaben, die Nutzung des PC, das Regeln von Überweisungen, das Lesen von Beipackzetteln von Medikamenten, das Lesen von Zeitungen, die Beteiligung an Wahlen, das Ausfüllen von Formularen. Hier ist nicht

der Platz, die Ergebnisse im Einzelnen widerzugeben, nur so viel: Es gibt viele Anknüpfungspunkte zur Reflexion über die eigene Praxis!

Hinsichtlich der Weiterbildung sind die Ergebnisse der Untersuchung ernüchternd. Bei der Verbesserung der literalen Kompetenzen spielen die gezielten Angebote offenbar nur eine geringe Rolle. Mit 28 % sind gut halb so viele Menschen mit geringer Literalität in der Weiterbildung als im Schnitt der Bevölkerung, aber offenbar weniger in zielgruppenspezifischen Kursen. Hier mag es, was die Weiterbildungspraxis angeht, einiges zu reflektieren geben. Was die Forschung (zur Weiterbildung) angeht, gibt die Studie zahlreiche Anregungen zur Klärung weiterer Forschungsfragen. Alle Probleme, Fragen und Aufgaben der Weiterbildung finden sich verdichtet in der „Alphabetisierung“ (um hier noch einmal den alten Begriff zu gebrauchen), gewissermaßen Weiterbildung *in a nutshell*. LEO II ist zweifellos ein Schritt vorwärts und ein Meilenstein in der Dekade für Alphabetisierung und Grundbildung.

Zeitschrift für Weiterbildungsforschung

V.i.S.d.P. T. Jung

Website der Zeitschrift

www.springer.com/40955
Elektronische Ausgabe:
link.springer.com/journal/40955

Erscheinungsweise

Die *Zeitschrift für Weiterbildungsforschung* erscheint dreimal jährlich. Band 43 (3 Hefte) wird 2020 erscheinen.

ISSN: 2364-0022 elektronisch

Auskünfte erteilt der Kundenservice:
Springer Nature Customer Service Center GmbH
Tiergartenstr. 15, 69121 Heidelberg, Germany
Tel.: +49-6221-345-4303
customerservice@springernature.com

Verlagsstandort

Springer Fachmedien Wiesbaden GmbH, Abraham-Lincoln-Straße 46, 65189 Wiesbaden, Germany

Abstracts publiziert in / Indexiert in

Google Scholar, DOAJ, EBSCO Discovery Service, EBSCO Education Source, EBSCO TOC Premier, OCLC WorldCat Discovery Service, ProQuest-ExLibris Primo, ProQuest-ExLibris Summon