



Evidence-based VET and Adult  
Learning Policy  
*a Policy Delphi*

EVSW



# Evidence-based VET and Adult Learning Policy - a Policy Delphi

## Introduction

The past two decades have brought a proliferation of policy-relevant data and research on Vocational Education and Training (VET) and Adult Learning (AL)<sup>1</sup>. This evidence has helped policy-makers at EU and Member State level to develop, assess and adapt VET and AL policy. International surveys, such as the OECD Programme for International Student Assessment (PISA), the OECD Survey of Adult Skills (PIAAC), the European Adult Education Survey (AES) and the Continuing Vocational Training Survey (CVTS) have opened up new possibilities for cross-country comparison of the performance of VET and AL systems. The clear delineation of medium-level VET in the ISCED classification has supported this development. An increased use of policy evaluations has started to improve policy-makers' understanding of what works, for whom and why.

As the new European Commission has put forward an ambitious European Skills Agenda (EC, 2020<sub>[1]</sub>) and proposal for a Union VET policy supporting sustainable competitiveness, social fairness and resilience (EC, 2020<sub>[2]</sub>), it is time to take stock and reflect on the state and use of evidence in this policy area. What evidence has been collected over the past decades? In what areas do evidence gaps continue to exist? What are the key barriers inhibiting the use of the existing evidence in policy-making? How can the use of evidence in VET and AL policy-making be extended and deepened?

This paper summarises the results of a consultation with 17 experts in the area of VET and AL research in February and March 2020. It aims to provide the basis for a medium-term vision on how to improve the available evidence base, as well as to increase the capacity to use evidence in policy-making. The consultation took place in the form of a Policy Delphi, a systematic method "that uses iterative stages of data collection to reveal positions on an issue within a panel of people with relevant knowledge" (de Loë et al., 2016<sub>[3]</sub>). It also builds on insights from the workshop "Evidence-based and future-oriented policy-making for VET and AL", which took place in October 2019 in the context of the European Vocational Skills Week in Helsinki.

1 Vocational Education and Training is defined broadly as "education and training which aims to equip people with knowledge, know-how, skills and/or competences requires in a particular occupation or more broadly the labour market." (Cedefop, 2014<sub>[46]</sub>). Adult Learning is defined as formal, non-formal and informal learning of adults who have completed their initial education and entered working life (OECD, 2020<sub>[47]</sub>). There is a degree of overlap between Vocational Education and Training and Adult Learning, notably Vocational Education and Training for adults that is not considered part of their initial education.

## The state of evidence

Policy-relevant VET and AL research encompasses a wide range of disciplines, topic areas, research questions and methodologies. Judging the overall state of research evidence therefore constitutes a challenge. In broad terms, the research conducted covers:

- **drivers of policy-change**, such as changing skill needs or inequalities in access;
- **resources and inputs**, be this the VET and AL workforce (in education providers and organisations) or the financing of the system;
- **activities**, for instance the content of curricula or modes of learning;
- **outputs**, such as the number of participants and organisations offering training opportunities;
- **outcomes and impacts**, for example the wage returns to participation in VET and AL.

Over the past two decades, the external **factors that are driving change** in VET and AL policy have been much analysed. It is now indisputable that globalisation, technological change and population ageing are having a profound effect on the skills that are needed in the labour market, and by extension on skill development systems and policies (OECD, 2019<sup>[2]</sup>; Gonzalez Vazquez et al., 2019<sup>[3]</sup>; Frey and Osborne, 2017<sup>[4]</sup>; Goos, 2018<sup>[5]</sup>). New research, such as the OECD Skills for Jobs database (OECD, 2017<sup>[6]</sup>) and Cedefop's Skills Forecast (Cedefop, 2012<sup>[7]</sup>), has provided evidence on current and projected skill demand and supply from a cross-country perspective. Many countries have improved their national evidence base on skill demand and supply by putting in place dedicated skill assessment and anticipation exercises (Cedefop, 2019<sup>[8]</sup>; OECD, 2016<sup>[9]</sup>). Yet, the evidence-base on skill demand from varying employer perspectives, or indeed research bringing together the supply and demand side of lifelong learning, continues to be patchy. At the same time, **limitations of current policies** have been revealed through research, for example, the need to tackle a lack of inclusiveness and the need for greater alignment with the skill needs of the adult learning system (OECD, 2019<sup>[10]</sup>). This has highlighted areas where policy change is required.

The evidence on **financial inputs** is somewhat more developed for VET than for AL systems. Comparative data on private and public investment on VET, but excluding VET at tertiary level, is collected yearly through the joint UOE (UNESCO Institute of Statistics/OECD/Eurostat) questionnaires on education statistics. There is no equivalent international data source for AL, given the heterogeneous nature of national systems, and the latest cross-country data in this area is either a decade old (FIBS/DIE, 2013<sup>[11]</sup>), limited in scope (UNESCO, 2016<sup>[12]</sup>; UNESCO, 2019<sup>[13]</sup>), or based on approximate back-of-the-envelope calculations (Sekmokas et al., 2020<sup>[12]</sup>). Information on financial inputs is available for some sub-sectors of the AL system, such as spending on Active Labour Market Policy recorded in the OECD Active Labour Market Programme database (OECD, 2019<sup>[12]</sup>), data on company investment in employee training collected through the EIB Investment Survey (EIB, 2019<sup>[13]</sup>) and the Continuing Vocational Training Survey (CVTS) (Eurostat, n.d.<sup>[14]</sup>). National exercises that estimate the financial inputs to VET and AL exist in many countries, for example in Finland, where the Innovation Fund SITRA has recently assessed the total costs of different sub-systems of the lifelong learning system (Aho and Ranki, 2018<sup>[15]</sup>). Research going beyond descriptives typically revolves around the costs and benefits of training, as well as the question of who should pay for participation in VET and AL (Hoeckel, 2008<sup>[16]</sup>). The answer to this question is dependent on the institutional set-up in each country.

The body of research on the **human resources** involved in VET and AL policy has developed over the past two decades, but continues to have substantial gaps. Cross-country data collection efforts have focused on the number of VET teachers, but other data on human resources are largely absent. Most research in this area focuses on the profile and competences of teachers and trainers, as well as their initial training, induction and continuous professional development (Cedefop, 2013<sup>[20]</sup>; European Commission/EACEA/Eurydice, 2018<sup>[21]</sup>; Broek et al., 2017<sup>[22]</sup>). Much of the research on the effectiveness of teacher policies has focused on all or general education teachers, rather than specifically on teachers and trainers in VET and AL (OECD, 2018<sup>[19]</sup>). The body of evidence on human resources in VET is larger than that in AL, again due to the greater heterogeneity of the latter system. In particular, (in-company) trainers are under-researched compared to teachers in both VET and AL.

Research on **activities** in VET and AL mainly covers the form and content of education and training, as well as the intensity, location and mode of learning. Given the large diversity of learning experiences in VET and AL, including formal, non-formal and informal learning, the evidence-base is fragmented. At the most general level, evidence exists about how VET and AL systems are organised and the types of learning opportunities offered (Desjardins, 2017<sup>[20]</sup>; European Commission/EACEA/Eurydice, 2015<sup>[21]</sup>), although cross-country comparability remains a challenge. Comparisons of the content of training, for example, remain largely general and relate to issues such as the fields of study or the extent of work-based learning<sup>2</sup>. More comprehensive accounts of activities are available at a national level. At a more detailed level, the evidence-base revolves around the advantages and disadvantages of different modes of learning (e.g. work-based versus school-based learning); some efforts to measure the alignment of the content of learning opportunities with individual and labour market needs; as well as the duration of specific education and training programmes (OECD, 2018<sup>[22]</sup>).

The past two decades have seen an unprecedented increase in evidence collected on the throughput and **output** of VET and AL programmes. There are many international and national efforts to collect data on the number and profile of participants in VET and adult learning. International surveys, such as AES, CVTS and PIAAC have furthered the understanding of who participates in adult learning – relating both to individuals and to organisations – and how participation compares across countries and for different groups. Similarly, data collected through the joint UOE questionnaire provide a detailed picture on the share and characteristics of VET graduates across countries. Many countries have also improved their own evidence base, for example, through regular indicator-based reporting (Autorengruppe Bildungsberichterstattung, 2018<sup>[23]</sup>). There is an increasing body of evidence on individual motivation to take-up training and the motivation of organisations to offer training opportunities, although this area remains under-researched especially from a cross-country perspective (Boeren et al., 2012<sup>[24]</sup>).

Research on the **outcomes and impacts** of VET and AL for individuals, organisations and the wider economy provides valuable arguments for investment in this policy-area. For individuals, a substantial body of evidence exists on labour market and social outcomes of training (Cedefop, 2011<sup>[25]</sup>; Fialho, Quintini and Vandeweyer, 2019<sup>[26]</sup>), while research on the impact on productivity and economic growth is more limited (Dohmen and Yelubayeva, 2019<sup>[29]</sup>; Konings and Vanormelingen, 2015<sup>[30]</sup>). As the evidence-base has advanced in recent decades, important gaps remain, in particular due to the difficulty of controlling for confounding factors. Research on the causal impact of training participation is still rare and meta-analysis are limited to some areas of the skill development system, such as Active Labour Market Policies (Card, Kluve and Weber, 2018<sup>[28]</sup>; Kluve et al., 2019<sup>[29]</sup>).

## Methodological avenues for future research

The body of research available to inform policy-making has vastly increased over the past two decades, both at the national and cross-national level. This is true in particular for **descriptive evidence** on the changing context of VET and AL policy, as well as the status quo of inputs, activities and outputs of VET and AL systems. However, there remain important research gaps:

- Some argue that more causal evidence, which assesses the impact of specific VET and AL policies on economic and social outcomes of individuals, organisations and societies, is needed to better inform policy-making in the future. On the one hand, this includes local-level causal evidence, in the form of systematically assessing the impact of pilots through randomised control trials or quasi-experimental research. On the other, it encompasses evidence reviews and meta-evaluations that synthesise a multitude of local evaluations to understand what works, for whom and why (EC, 2015<sup>[30]</sup>). This also includes implementation research that – while not explicitly assessing causality – aims to understand what makes VET and AL policies effective (OECD, 2020<sup>[30]</sup>) and which environment supports effective policies. Others argue that

<sup>2</sup> Work-based learning is defined as a set of practices that takes place in a real work environment, including work-related learning, work-integrated learning, workplace learning, work experience, work shadowing, internships and in-service learning (Musset, 2019<sup>[48]</sup>).

such searches for 'universal truths' may be problematic, as it ignores context specificity and aggregation problems, as well as lacks an acknowledgement that any causation mechanism can only be inferred, but not identified.

- More **theory-driven comparative research**, which not only takes into account institutional make-ups but also governance structures, political relations and the political economy of different countries. Some argue that such research should focus in particular on describing and analysing the variety of VET and AL institutions and provision, with the view to better understand the effects of different policies (e.g. qualification frameworks, individual learning accounts) in these contexts. This could include a focus on the changing function of specific institutions (e.g. folk high schools, polytechnics, evening schools) to provide a more nuanced picture than broad-brush analyses of concepts that are often differently understood between countries (e.g. apprenticeships, work-based learning). Others suggest that comparative research should move away from the national level as unit of analysis and shift the focus to the regional or local level, or even 'functional regions'.
- Further, policy-making could benefit from moving from static descriptions of the system – its inputs, activities, outputs and outcomes – to more **forward-looking approaches** such as projections, foresight exercises and scenario building. This implies conducting more research that brings together different parts of the evidence-base, cross-sectional and time-series data, descriptive and causal research to formulate future-looking policy-options for policy-makers. It also involves improving the quantitative evidence-base. This includes producing longer time-series of data on policy-relevant issues and developing longitudinal approaches, for example by attaching longitudinal components to existing cross-sectional surveys (AES, LFS or PIAAC). However, there is some scepticism about the feasibility of implementing longitudinal approaches, in particular for AES and PIAAC, given the large number of years between different waves and relatively small number of respondents per country. Real-time data extracted through data-mining from web-based sources could also be used to shape forward-looking research, although concerns around the bias of this data remain.

It should be acknowledged, however, that there is no single-best method or approach for ensuring a meaningful evidence-base in VET and AL policy. Methodological choices must be grounded in a clear definition of the problem, the type of evidence required, the theoretical foundation and the research context, including the perspectives of the different key stakeholders affected by the research. Several experts argued for the importance of big picture research and coordination efforts between different types of research, at different levels and for different purposes.

### Thematic avenues for future research

Research efforts in the area of AL and VET must be expanded and intensified. Experts in the Policy Delphi identified the following areas as pertinent for further research:

- **Understanding barriers and enabling factors for learning and career development** is crucial for developing policy-interventions that engage more individuals in learning. Such research should investigate these issues at different stages of people's lives and would provide a deeper understanding of issues of inclusiveness and fairness. Large-scale surveys (AES, PIAAC) currently collect limited information on this issue. In-depth (qualitative) research on the complex and compounded obstacles faced by individuals is needed, although some experts cautioned that the evidence-base should not consist solely of research that is anecdotal in nature.
- **The evolving institutional landscape in adult learning:** This would involve a historical analysis of provider types, key-funding agencies and government bodies over time and across countries. It could also investigate the relationship to initial education. Such research would strengthen the understanding of success and failure of institutional change, as well as country-specific contexts.

- **VET and AL educators:** A stronger focus on the 'facilitators of learning' and their changing role would support the understanding of high quality and high-performing adult learning systems. This must include better information on the numbers, educational background, initial and continuing professional development, pay, type of contract, tenure, main job or second job of staff over time and across countries in an internationally comparable way.
- **Funding systems and instruments,** including descriptive information on the amounts of funding dedicated to VET and AL across countries, as well as analytical insights of which funding instruments and/or systems lead to which outcomes, in which circumstances and why. There is currently limited systematic and conclusive research at the this level. Vouchers for individuals that introduce a (quasi-) market of AL provision are a good example in this regard, where there is still very little conclusive evidence and limited understanding on how such markets function in practice and if they have a positive impact on participation.
- **The role of employers and work places as a corner stone in VET and AL provision:** Research should systematically assess their contribution to the education and training of adolescents and adults. It could investigate detailed issues such as: how workplaces create learning conducive environments; management attitudes towards VET and AL; the role of workplaces in defining VET and AL curricula; how teachers and trainers in workplaces are selected and educated; and if and how workplaces balance the provision of training for job-related and general skills. It would be important to understand how the above-mentioned issues differ by employer characteristics (e.g. sectors, company size).
- **Formal, non-formal and informal skill formation at work:** In particular, a better understanding of informal learning at work is needed, which is often not regarded as 'learning' but part of the work process and environment. The attempt to understand informal learning through skills used at work (e.g. in PIAAC) is a start, while management studies have focused on informal learning via measures of the extent of participation, incidents of problem-solving, autonomy, the extent of innovation and discretionary effort. Additional research effort towards informal learning is needed to improve the understanding if and how policy can better support skill formation in organisations.
- **Impact of new forms of work on adult learning opportunities:** Some emerging forms of work, such as digital labour platforms, could imply a significant decline in the opportunities for adult learning if the responsibility for training shifts away from employers to individuals as a result. This may require an expansion of public provision of training for the adult working population.
- **Analysis of learning trajectories over the life-course** to understand how skill are acquired and maintained over the life-course and how cumulative advantages or disadvantages arise from differences in life-long learning paths. Some experts argued that specific attention should be paid to adults with multidimensional needs and in vulnerable situations. The experts in the Delphi exercise highlighted that it would be especially useful to analyse the link between initial education and adult learning, with the view to understanding better whether adult learning reduces inequalities in the skills acquired through initial education or exacerbates them. Others added that the link between general and job-related adult learning should also be analysed. From a cross-country perspective, this could involve the development of typologies of learning over the life-course, to recognise the different needs, motivations and aspirations of people in different sectors and at different stages of their lifecycle.
- The role of **the public employment systems** in funding, commissioning and delivering training. This includes research into how the public employment system 'motivates' jobseekers to learn through conditionality and sanctions.

Several experts made the point that themes for future-research are interconnected, making a prioritisation difficult. It was deemed essential to research the subjects of VET and AL comprehensively and from different angles, also taking into account how different forms of learning interact with each other. Where research priorities must be set, for example for budgetary reasons, these should inform which theme should be investigated first, not excluding that other themes should be investigated at a later point.

## Barriers to evidence use in policy-making

Even as the evidence-base is growing, this does not linearly translate into more evidence-informed policy-making. In fact, research more often affects policy-making in indirect and unsystematic ways (Desjardins and Rubenson, 2009<sup>[32]</sup>). The relationship between evidence and policy-making can therefore be difficult and there are various institutional, communication and evidence-related barriers to the use of evidence in policy-making. These barriers can intersect and so compound the issue.

**Institutional barriers** manifest themselves in a variety of ways. At the most general level, there is a lack of systematic interfaces between the world of research and the world of policy-making (Oliver, Lorenc and Innvær, 2014<sup>[31]</sup>). This limits policy-makers' understanding and awareness of research and evaluation findings on the one hand (Head, 2010<sup>[32]</sup>) and inhibits researchers from gaining an understanding of the policy-arena on the other. Where interfaces do exist, for example in the case of commissioned research, they are shaped by the contractual relationship between policy-makers and researchers. Further barriers arise from the institutional specificities of both worlds, according to which both actors act entirely rationally and in expectation with their peer-group and audiences: Evidence is only one of the inputs to the policy-making process, which is characterised by the interplay of diverse stakeholder interests, bargaining and path dependencies (Head, 2010<sup>[32]</sup>). Similarly, researchers are accountable to their profession, institutions, research subjects and ethical codes, which may be at odds with producing the kind of evidence that would be helpful to policy-makers (Warren and Garthwaite, 2016<sup>[33]</sup>).

**Communication barriers** primarily relate to the lack of a common language and culture of both worlds. Research results are traditionally not communicated in a form that makes them easily accessible to policy-makers, in particular in the context of the increasing information overload facing all actors. While policy-makers require concise and clearly communicated research findings as basis for their decision-making, research strives to portray complexity and nuance. This poses a challenge especially in the case of large and complex problems, where research rarely produces the straightforward answers required by policy-makers (Head, 2010<sup>[32]</sup>). Some have hypothesised that cultural barriers between both spheres go beyond the issue of differences in communication styles and are more fundamental: policy-making and research are thought to operate according to their own distinct logic and codes, which may be difficult to bridge (Boswell and Smith, 2017<sup>[34]</sup>). This includes a diverging understanding of what constitutes evidence, with policy-makers increasingly using the concept of 'hierarchy of evidence' to decide which evidence informs their decision-making (Parkhurst, 2017<sup>[35]</sup>). These hierarchies typically place higher value on insights generated through quantitative research methodologies, such as randomised control trials.

**Evidence-related barriers** link to the fact that in many areas of VET and AL policy, a sound evidence base that could inform policy-making is currently lacking. Additionally, the evidence-base that does exist is often contested, as nature of scientific inquiry, the subjects and methods of research itself can be value-laden (Botterill, 2017<sup>[36]</sup>). In this context, policy-makers have the opportunity to cherry-pick research results and select those that best suit their political agenda and ideology (Warren and Garthwaite, 2016<sup>[33]</sup>). Further, the timing of research constitutes an important barrier to its use, in particular as publication of research results takes time in the current publication paradigm (i.e. referred journals with long time lag between submission and publication). When it comes to contract research, policy-makers often need results within a short timeframe, which prevents the generation of sound research for which more time would be needed. Similarly, the use of independently produced research results in policy-making strongly depends on the timing of publication and its relevance to the policy and political cycle. At the same time, getting access to public (micro) data continues to be an issue for researchers, in particular in the context of the increasing requirements of data protection legislation.

Barriers related to **the heterogeneous nature of the VET and AL system**. While many of the large-scale data collection efforts (AES, CVTS and PIAAC) concern themselves with very broad concepts, policy-makers typically have distinct areas of responsibility. For instance, cross-country surveys collect data in the very broad categories of formal, non-formal and informal learning, whereas policy-makers

are typically interested in very specific sub-segment of VET and AL policy, such as civic education or health education. Similarly, much data is collected at the national level, while much of the responsibility in VET and AL policy lies at the regional or local (municipal) level. With an increasing devolution of policy responsibility in many countries, data and research at national level may not be granular enough to reflect the daily realities of policy-makers.

## Towards a closer link between evidence and policy-making

Both research and policy communities can take action to address barriers to evidence use in policy-making:

### Improve the evidence base

- **Promote rigour and independence of research**, as only strong and scientifically sound research should provide the basis for evidence-informed policy-making. Researchers should set out assumptions of their research clearly and publish results independently of the outcome. Contracted or funded research should credit authorship of researchers to increase transparency. Policy-makers should avoid conflating descriptions of reality and their normative policy goals. It must be noted that rigorous research requires funding not only for applied research, such as policy evaluations, but also for independent research without an immediate link to policy-making.
- **Encourage interdisciplinary and multi-method research** to further the evidence on the larger and more complex questions of VET and AL learning policy. This should be institutionally embedded, for example through more multi-disciplinary research staff positions, study programmes, doctoral programmes or continuous professional development opportunities in the area of AL and VET research. This promotes stronger consensus on the policy-messages arising from the evidence-base across different scientific disciplines. It is also important to encourage cross-country research to further the evidence base. Progress in the field of adult learning and VET requires a long-term institutional base, capable of collecting insights across disciplines and over time.

### Disseminate existing evidence

- **Improve the dissemination of research** by making research results more accessible for all categories of stakeholders across different levels of government (local, regional, national, supra-national). Concrete measures include clearer messaging, short policy-notes, infographics and using less academic language. To enable deeper understanding of the research evidence, policy-makers' access to academic articles and reports should be ensured.
- **Create a dedicated platform** that takes on brokerage function between the worlds of research and policy-making (e.g. in the form of 'What works?' repositories). Such platform would provide a comprehensive overview the evidence-base, including evidence from large-scale surveys, (new) evidence-reviews and meta-studies, as well as a range of complementary qualitative and quantitative research studies. However, the potential biases of knowledge brokers with their own special interests should be taken into account.

### Build skills

- **Develop the skills of policy-makers** to interpret and use research results, including having the ability to identify and question the assumptions underpinning a specific piece of research. This should include familiarity with both qualitative and quantitative research evidence. Further, policy-makers should be encouraged to ask broader and more exploratory research questions. There should be incentives that encourage the use of evidence to inform policy-making.
- **Develop the skills of researchers** to understand and deal with policy-makers and the policy-making process. This includes the development of an understanding that, while policy and politics

are not always driven by empirical evidence but by a political agenda, specific administrators or politicians with an interest in empirical evidence can drive findings into the political process. Further, it requires the development of skills to translate research findings into policy-relevant messages. It must be acknowledged that not all researchers will be interested in engaging with policy-making in this way and having an impact on policy-making.

### Foster collaboration

- **Design new interfaces between research and policy-making**, such as more interactive exchanges between researchers and policy-makers in addition to the existing conference and workshop formats. It was highlighted by some experts that it is critical for policy-makers to engage with a range of researchers, rather than develop one-to-one relationships with specific individuals. Practically, this could include staff exchanges or secondment programmes, summer schools, study visit programmes and networks involving universities, international organisations, consultancies and public authorities. These interfaces must be carefully designed to bring tangible benefits to all parties involved. Any structures of interaction between the worlds of research and policy should be durable and facilitate long-term planning.
- **Conduct more collaborative research** that involves relevant stakeholders in the research, rather than conducting research on them. This should include universities, consultancies, policy-makers, the social partners, AL and VET providers and individuals. Different stakeholders should work together regularly and be involved in the formulation of research questions, as well as at different stages of the research process to increase engagement.

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