

SUMMARY OF THE “EDUCATORS AND EDUCATORS PROFESSIONAL DEVELOPMENT FOR NEW LEARNING” LITERATURE STUDY

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INTRODUCTION

“Creating New Learning” (CNL) is a multi-annual, multi-thematic initiative which is central to the ETF’s support to the “Innovative Teaching and Learning” and the implementation of its 2027 Strategy “ETF Vision for the Future“. In 2020, CNL conducted a desk research focusing on the academic literature review around five thematic focus areas underpinning innovation in teaching and learning:

- Educators and educators’ qualifications
- Learning environments
- Personalised and differentiated learning
- Digital and Online Learning
- Curricula and key competences

The CNL review of evidence-based, academic research publications concluded with a cross-thematic analysis that helped the ETF to identify two most promising – according to the initial results of this research - areas of support to new learning in the partner countries. These areas of innovation are:

Flexible and personalised learning pathways to support lifelong learning,

and

Authentic and engaging learning environments.

This analysis sets the basis for shaping up the CNL’s engagement in support of the development of innovative practices starting from January 2021.

This report will present a summary of the “Teachers and teacher professional development for new learning” literature review study. The full study is available on the [ETF Open Space](#) social platform.

ETF will further define its vision and strengthen its expertise in supporting innovative teaching and learning starting from 2021 - the 1st implementation year of the „Creating New Learning“ initiative – by building the body of knowledge in examining and supporting innovative practices in the ETF partner countries. CNL will apply a participatory research approach to draw the lessons on how innovation could be nurtured and strengthened in different country contexts.

EDUCATORS AND EDUCATORS PROFESSIONAL DEVELOPMENT FOR NEW LEARNING¹

Changing Roles and Behaviours of Educators

VET systems are under pressure. Shifting labour market dynamics and new jobs contribute to new forms of learning, work and interaction. Traditional methods no longer work with the new generation of learners. The literature review revealed six main factors that are shaping current trends:

- digital transformation, including industry 4.0
- new teaching paradigms and approaches, including competence-based education
- migration and other demographic shifts
- climate change
- new forms of entrepreneurship
- increased networking and collaboration

These factors help fuel four trends that affect educators in the VET world:

1. **New roles** - Educators are encouraged to take up new roles: the trend is to avoid using the words teaching and training in favour of terms such as facilitators, coaches, supervisors, mentors, counsellors, orchestrators, alchemists and welders. Especially given the typical profile of VET learners, characterised by lower socio-economic background and lower cognitive abilities, the everyday work of a VET educator has been defined as a mix of pedagogy and social and career development. They must draw on socio-emotional skills such as empathy, self-regulation and emotional intelligence. Studies show that educators feel this pressure to change.
2. **Expanded responsibilities** - Educators are expected to expand their responsibilities, taking on administrative, managerial and quality-assurance tasks. They are supposed to actively cooperate with colleagues and companies, and weigh in more heavily in curriculum design. Educators should be prepared to: equip individuals with broad-based skills and knowledge; prepare diverse learners for the labour market; develop close partnerships with industry; forge links among formal, non-formal and informal learning methods; improve levels of participation of individuals with low skill levels; and tailor their efforts to the specific needs of different firms.
3. **Becoming change agents** - Educators are increasingly considered to be change agents in VET reform processes, instead of the “targets” of such reforms. They are expected to lead the way and contribute to advances in areas such as new classroom design, workshop learning, and training outside the classroom. To fulfil these demands, they must not only adopt new methodologies but also provide occupational guidance to their learners, and stay abreast of innovation and new developments.
4. **Focus on collaboration and cooperation** – There is more emphasis on collaboration and networking with colleagues, experts and external stakeholders such as companies. This implies a

¹ This is a summary of the CNL literature review ‘Teachers and teacher professional development for new learning’ written by Fabio Nascimbeni. The review is based on 222 relevant scientific papers and reports. For more details regarding the articles or books used to conduct this literature review, please refer directly to the original report.

major cultural shift in how educators see themselves and their roles. When people share expertise, everyone can focus on their own strengths. Team teaching can be an effective way to integrate theory and practice. Educators are also expected to be more flexible and to adapt to the individual characteristics of learners and allow them greater freedom to choose when and where to learn.

In order to address these new demands, educators must re-evaluate their self-identities. They must rethink and reshape their old roles in light of the new image of an educator in society. This is complicated because many educators are not comfortable with innovation and collaboration. Many lack sufficient grounding in areas such as ICT, diversity, and counselling. Educators should be given support and training to help address these new challenges and demands.

21st century educators

In the 21st century, educators need to add several new skills to their old set. These include:

- the ability to implement new teaching approaches that are learner-centric, IC-based, and collaborative and open;
- fluency in four new areas: digital competence, intercultural competence, ecological awareness, and entrepreneurship;
- a new professional attitude based on engagement, lifelong learning and networking.

Traditionally considered *experts* tasked with transmitting knowledge to learners, educators are increasingly asked to adopt learner-centred, ICT-intensive, collaborative and open methodologies that take into consideration individual characteristics and lifewide learning. While it might be overly ambitious to expect everyone to make significant progress in all areas, that should be the ultimate goal.

Learner-centred pedagogy is responsive to the interests and needs of contemporary learners and can encourage them to take more initiative and become more autonomous. Tools include group work, project work and enquiry-based learning. Connected to learner-centred pedagogy, vocational pedagogy entails taking a personal approach to students or trainees based on the skills and knowledge they need. It stresses individual agency and the independence of educators. Related to vocational pedagogy, authentic learning attempts to situate activities in the context of future use - enabling learners to develop real-world practical knowledge.

ICT-enhanced open collaboration combines e-education with collaborative learning. It involves five key competences: (1) personal data management - the capacity to understand online platforms and the business models based on collecting our data, as well as how to adjust one's behaviour based on legal and technological developments; (2) the capacity to work in open settings in an increasingly participatory society; (3) the capacity to engage through ICT to prepare learners as stakeholders in a knowledge-sharing society; (4) critical media literacy; and (5) the capacity to deal with digital ethical issues. These skills are expected to evolve over time.

The emerging concept of lifewide learning asks educators to inspire, guide and challenge learners to look beyond the present, and to encourage reflection, understanding, critical thinking, development of competencies, self-confidence, self-esteem and respect for others.

Contemporary educators must be digital, intercultural, green, and entrepreneurial. They will need to understand the implications of these factors for their learners and their careers, and make adjustments

accordingly. They will need to be lifelong learners themselves, and inspire their learners to follow suit. They will need to learn how to adapt to new technologies and other changes in society.

VET educators should embrace lifelong learning, including a willingness to learn about emerging concepts and new pedagogical methods – and to integrate them into their teaching.

The review mapped 19 national and supra-national educators' competences frameworks (ECF) and professional standards. Most reflect a holistic approach that combines professional knowledge and beliefs, motivation and self-regulation. They generally encourage innovative teaching approaches, new professional development attitudes, lifelong learning for educators, and networking. Yet most ECFs fail to address the new areas of competence listed in the section above.

Career paths and career development for educators

The literature revealed low barriers to enter the profession and sub-standard initial training programmes for educators in many countries. It also highlighted the lack of connections between VET educator training programmes and practical workplace schemes. Prevailing academic models for VET seem to be poorly coordinated with the acquisition of skills in the workplace.

Many countries are trying to improve, and some progress has been made – for example, via coordinating bodies for pre-service training or masters programmes. Hybrid teacher/trainer programmes see educators splitting their time between employment in a company and as VET instructors. This concept opens new career opportunities that are related to closer collaboration among VET educators, with more emphasis on mentors and career counsellors to help learners. Other programmes address low motivation among educators, encouraging them to focus on professional development.

The top-performing national systems all have policies to make sure that the best possible educators are recruited and are offered an inviting career path. The following characteristics are common to these systems:

- They have a very limited number of educator training programs, just one in the case of Singapore; they are run by top research universities.
- Entry into the educator profession is very competitive (with, for example, a one of 10 acceptance ratio in Finland) so that only the most qualified candidates are admitted; some countries allow only the best high school graduates to apply.
- Selection requirements are multiple and include interviews, exams and demonstrative lessons.
- Initial training tends to emphasize the content that educators will be expected to teach, the capacity to apply teaching techniques to help learners with problems, and the capacity to improve one's teaching abilities, including piloting new approaches, evaluating the impact on learners and making corrections.
- At least a year of training is provided for practical on-the-job experience, under the guidance of qualified mentors, sometimes in specific schools that collaborate with the preparation programs.

Educators are a key component of structural reforms in many countries. A recent ETF report identified efforts to improve the quality of educators in places such as Tajikistan, Ukraine, Serbia, Lebanon, and Tunisia. Retention is a priority in Azerbaijan and Moldova, and wage increases are on the agenda in Georgia, Albania, Kosovo, and Lebanon.

Educators professional development (EPD)

The literature shows that high-quality professional development programs for educators tend to improve the quality of instruction and learner outcomes. Yet few educators participate in such programmes. Top down compulsory programmes often turn out to be ineffective, partly due to a reliance on conventional teaching methods and scanty attention to practical issues.

Successful programs tend to share a handful of characteristics:

- relevance to the labour market
- partnerships with employers and other stakeholders in the design
- the inclusion of both subject-related knowledge and transversal skills
- context-rich learning
- team-based
- possibly, blended with informal learning

The job of educators is increasingly complex. Sophisticated and innovative programmes are needed to help them keep up. The literature highlighted four kinds of forward-looking schemes:

- digitally-enhanced and mobile programmes;
- professional communities of practices;
- personal learning networks;
- innovative design-based approaches, including new ways to engage stakeholders.

Digitally-intensive EPD strategies are gaining ground because they are more effective than traditional approaches, and they can help teachers to develop digital skills. One promising trend is the use of mobile-devices that can support learning anywhere, thereby helping to break down the walls between the classroom and the workplace.

Professional communities of practice (CoP) work through the interplay of individuals and groups of educators both online and offline. CoP includes peer-observation, observational visits, mentoring and coaching. Participants use CoP to discuss problems, strategies, and solutions. Behavioural change becomes an ongoing, collective responsibility rather than an individual one. CoP also enhances mentoring.

Personal learning networks (PLN) are emerging in response to the growing evidence that traditional top-down approaches such as expert-led workshops are often ineffective. PLN relies on a combination of interactions among people, resources and digital tools. Whereas CoP emphasizes the community, the focal point of PLN is an instructor at the centre of a network of colleagues and experts. It is supported by activities such as microblogging and social networking.

Innovative design-based approaches allow educators to participate in the creation process to help ensure that programmes help them obtain the competencies they need. Social partners and employers increasingly help design EPD activities, chiming in with their needs and concerns.

These schemes overlap to a large extent, especially in terms of using ICT and collaboration. They appear to be converging toward a model called “educators as connected professionals.” This combines the pedagogical, personal, and public arenas of learning – along with the concept of *teacher as learner* and PLN, with help from social technologies. The model stresses connections, interactivity and autonomy, and could pave the way to further innovation.

LEARNING ENVIRONMENTS FOR ADULTS²

Key concepts

Learning environment

A learning environment (LENV) is an organisational form that embraces learning arrangements catering to a group of learners in context and over time. It may be primarily located in a particular institution, but it is not necessarily school-based or connected to a physical space. In the case of adult learning and education (ALE), it could be a work environment, museum exhibition venue or various types of digital platforms. Learning spaces can be flexible. They are sometimes referred to as an ecosystem of learning. Differing from traditional school-based education, LENV focuses on cooperation between learners, underlines the role of educators as facilitators, and adds educational resources. It takes greater account of the individual characteristics and the abilities of learners.

LENV research often highlights socio-technological changes that are redefining the kinds of skills needed by citizens. These include digitalisation, deindustrialisation, individual characteristics and flexibility. Innovation in LENV is usually understood as the simultaneous incorporation of principles that make learning more accessible, useful, meaningful and enjoyable: (1) centrality of learning and engagement; (2) collaborative approach towards learning; (3) focus on learner motivations and emotions; (4) sensitivity to individual differences; (5) individualised approach to learning without overload; (6) assessments that are consistent with learning aims and with an emphasis on formative feedback; and (7) horizontal connectedness across activities and subjects, both inside and outside a place of learning.

Adult learning and education: Non-formal education & informal learning

ALE is often classified into formal learning, non-formal education and informal learning.

Non-formal education encompasses learning activities that take place outside the formal educational system. It involves structured activities that usually do not result in official certification. This can include activities such as courses, seminars, conferences, distance learning and private lessons, pre-planned training and learning at the workplace. Non-formal education includes both job-oriented (vocational) and non-job-oriented education and training activities.

Informal learning takes place during daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning support. In most cases, it is unintentional from the learner's perspective and includes learning outside traditional educational settings. It may involve unplanned interactions with a coach, expert, colleague or family member. Informal learning does not usually lead to certification but may be validated through schemes that recognise prior learning.

Job-oriented vs. non-job-oriented

From an analytical standpoint, the report distinguished between two main subdomains within ALE: job-oriented and non-job-oriented types of ALE. This conceptualisation is crucial because nearly 75% of

² This is a summary of the CNL literature review 'Learning environments for adult learning and education' written by Jan Kalenda. The review is based on 132 relevant scientific papers and reports. For more details regarding the articles or books used to conduct this literature review, please refer directly to the original report.

contemporary ALE is related to the workplace and is currently positioned as a way to serve economic needs.

Adult learning and education in ETF partner countries

ETF partner countries usually have a lower level of participation in ALE than in the northwest or continental Europe and their institutional support for non-formal education and informal learning is weaker. These countries also often experience greater inequality in education and more barriers to enter the education and training system. Despite continuous growth since 2004, most countries still have participation rates below the EU average. Innovative solutions are essential to address these issues.

With the COVID-19 pandemic and the consequences of the pandemic there will be even more emphasis on the need to provide more and better adult learning and education.

Trends from the literature

The literature consulted as part of the literature review shows that:

- Research in this field is new and multi-disciplinary, but also often conducted in isolation. Knowledge is fragmented.
- Most studies of LENV for adults focus on formal education and especially on higher education institutions and courses.
- Due to the above, younger adults (age 18-24/30) are over represented as compared to older people. This also implies that they may have a higher level of attained education than average.
- Case studies dominate, representing at least half of the sample of literature, followed by theoretical papers and review articles.
- Many studies defend innovation, but offer limited empirical evidence. Scientific rigour is often lacking.
- Many scholars address LENV innovation as the addition of a single new element into the existing system.
- A high proportion of articles focus on digital online learning (DOL), which is frequently considered the primary type of innovation. This prevalence is more accentuated in older literature, 2010-2015) than that since.
- Research has often emphasized technology; the emphasis has been on practical, action-based enquiries that pay more attention to new tools than to evidence of effectiveness.
- Theoretical orientation – Centred on the constructivist theory of learning, with a strong focus on individual learners.
- Articles often suffer from the lack of evidence about impact and effectiveness. This leads to problems in the design of programmes for different groups and goals.
- Research blind spots:
 - Overrepresentation of younger adults with a higher level of cultural capital combined with the underrepresentation of older adults with only primary education or low-literacy and DOL skills.
 - Most studies use small samples.
 - The difficulty of translating from one context to another. Two examples: applying experiences from formal education to non-formal and informal settings and from one sociocultural environment to another.
 - Ideological blindness related to technology, or the idea that all innovation has to come from technology.

Micro-level factors influencing LENV for ALE

The key factors influencing the creation of effective LENV for adults at the micro-level are related to the question of how the individual characteristics of adults are taken into account. Various studies conclude that an educational needs analysis should cover a wide range of areas in which LENV can be tailored to specific individuals, groups and, where appropriate, entire organizations.

The review divided these characteristics into two categories:

1. the values and meanings attributed to ALE by individuals (sociocultural orientation in relation to ALE).
2. skill levels and learning styles of adults (cognitive and metacognitive predisposition to ALE).

The values and meanings an individual contribute to ALE are fundamentally marked by a person's previous experience with education. Subsequently, they are also reflected in the formation of attitudes, motivation, and expectations regarding the form and quality of LENV and the benefits of further education.

To map the value and meaning orientation of individuals to ALE, various tools can be used. They focus on the identification of:

- previous learning experience (educational biography)
- attitudes toward education
- motivation regarding ALE
- expectations of learners regarding LENV

Skills include the preconditions for adults to learn actively and successfully in non-formal education and informal learning. In this context, the necessary skills are not job-specific associated with a profession, but rather related to the ability of an adult to learn and manage their learning as well as the basic elements of digital functional literacy.

In order to set up LENV on the basis of skills and learning style, various studies focus on the identification of:

- levels of skills in the self-regulation of learning (SRL) and self-direction of learning (SDL)
- DOL self-efficacy and digital skills
- learning styles
- the self-concept of learning for adults

Along with the identification of educational needs, the current scholarly discourse emphasizes motivation. Continuous encouragement leads to higher participation of adults in lifelong learning, higher levels of achievement, and greater willingness to participate in ALE again in the future.

Meso-level factors influencing LENV for ALE

Looking at the organisation of LENV as meso-level more organisational characteristics are emphasised, such as content of learning, timing, involvement of educators, patterns of cooperation and learning resources. A high quality LENV should function as an accelerator of learning.

The review emphasises a number of characteristics of engaging LENVs that stimulate participation of adults in non-formal and informal learning:

- personalisation of LENV;
- collaborative learning;
- experiential learning;
- DOL forms and tools;
- instruction, learning support and assessment;
- the new content of learning;
- innovations in job-oriented non-formal education.
- Informal learning in work settings: Expansive learning environment and tools for its formation

Personalization allows the learning environment to be tailored to individuals and groups. Collaborative and experiential approaches help make adult education more relevant and expand the repertoire of skills that individuals can acquire, thereby making the learning process more appealing.

The use of DOL in ALE has attracted attention from scholars exploring innovation in LENV. The upside includes additional educational resources and content and greater freedom for learning in terms of time and space. Barriers include the negative attitudes of some adults toward DOL for self-learning or non-formal education. DOL skills are unevenly distributed, inequality in DOL skills persist to exist. Learning based on new technologies benefits especially those with higher levels of education and who use technology on the job. DOL can also place greater demands on the self-regulation of adults and may thereby reduce their motivation.

Different forms of instruction can be used in LENV for ALE, but in general the role of the educator shifted more towards facilitators and coaches. These educators need to be aware of the crucial role of emotions in achievement and therefore enable regular experiences of success for the learners. The important role of formative feedback is emphasised in this context.

An important new trend in the last decade, is the emergence of new content in ALE. This includes the emphasis on self-regulated and self-directed learning skills, teamwork, social skills, Information and Communications Technology (ITC) skills, and the ability to concentrate and be present (known as mindfulness). Adults need these generic skills to learn independently and effectively and adapt to the changing work and social environments of the 21st century.

When some of the above features are included in LENV, its quality increases. They accelerate adult learning and contribute to its long-term sustainability.

In the dynamic field of job-oriented learning, several fundamental mechanisms are emerging. Organizations with a “culture of a learning” can facilitate mutual learning linked to their strategic goals, strengthen the institutional culture, and encourage adaptability. Informal learning can be a full-fledged and preferred form of job-oriented training. These trends are complemented by the principles of agile learning, micro-learning and new configurations of educational spaces designed to increase the flexibility, speed and efficiency of learning in the working environment.

Macro-level factors influencing LENV for ALE

Quality LENV at the institutional level is characterized by a reliance on state regulation and assistance to create suitable conditions for lifelong learning. States that strive to build effective ALE systems achieve higher levels of adult participation in non-formal education and training and have less inequality.

The report identified two approaches to improving institutions. The model of “building a culture of lifelong learning” attempts to come to holistic and social understanding of the phenomenon and create the preconditions for greater relevance and higher participation at all levels of society. A more “state-centric model” focuses much more on policy measures to increase both the supply of and demand for ALE.

Two additional trends can be seen at the macro level. One involves the creation of qualification systems supporting the recognition of prior learning. Thus, taking into account various forms of ALE (formal, non-formal and informal) which should also lead to more coordination among the three approaches. In addition, there has been significant innovation in monitoring and the measurement of ALE participation and its degree of fairness.

To become more inclusive, the institutional environment must also facilitate participation in domains that are peripheral to the labour market and economy. ‘The index of fairness’ is a tool that shows not only the participation in ALE, but also the representation of different groups. This tool can be used to identify underrepresented groups and to create targeted ALE interventions.