



KEY COMPETENCES FOR LIFELONG LEARNING

#EUkeycompetences
#EuropeanEducationArea
#lifelonglearning

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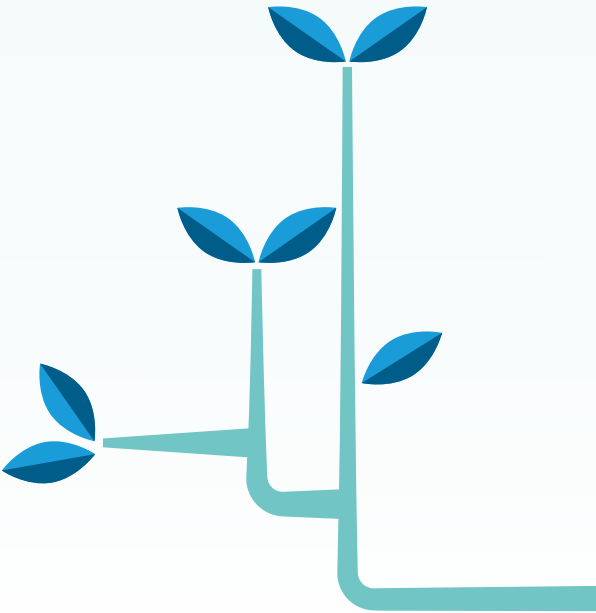
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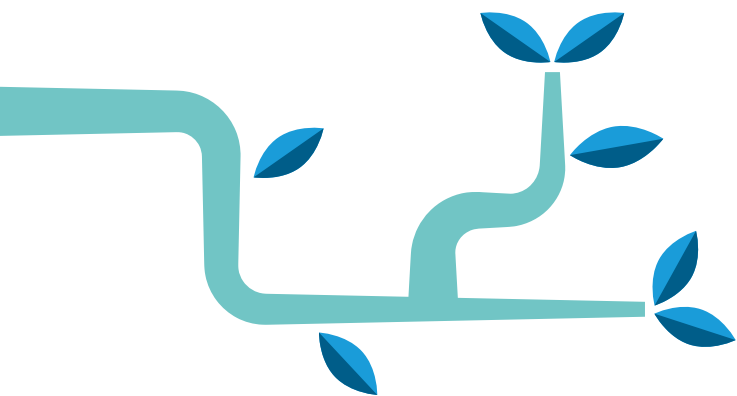
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Foreword

Today, young people need a broad set of competences to find fulfilling jobs and become independent, engaged citizens. Increasing the level of key competences is at the heart of the European Education Area that we are building together with Member States – a space where all young people should receive the best education and training, regardless of their background.

Our knowledge, skills and attitudes are a major factor in boosting the EU's innovation capacity, productivity and competitiveness. Globalisation, structural changes in the labour market and the rapid development of new technologies require us to develop and update skills throughout life. Critical thinking, media literacy and communication skills are some of the requirements to navigate our increasingly complex world. And digital skills, next to literacy, mathematics and science are the basis for lifelong learning. Innovation and entrepreneurship should be encouraged and promoted if we want Europe to compete in the global race.



At the same time, our education and training systems do not deliver for everyone, and we risk leaving people behind. The increasing numbers of underachievers revealed by the last PISA survey indicate that roughly one in five European pupils cannot write, read or do maths properly. These results are alarming; we need to do much more to change this.

The Recommendation on eight key competences for lifelong learning adopted in May 2018 is an important step forward. It updates the 2006 Recommendation, taking into account the requirements of the world we live in today. It also goes further. Only describing the competences we should have is not sufficient. That is why the new Recommendation gives guidance and good practice examples to help us achieve our goals.

Countries need to provide more support to teachers, trainers and educational staff. They need to go beyond the boundaries of subjects, enable cross-discipline learning, cooperate better with businesses and further promote networking and cooperation with stakeholders. To promote entrepreneurship, every pupil should have at least one practical entrepreneurial experience during their school education. In addition, the ambitions of the UN Sustainable Development Goals should be mainstreamed into education, training and learning policies. All these practices can support competence development now and in the future.

I am convinced that this Recommendation will serve as a useful tool for policy makers, education and training providers and learners, helping us to ensure that all children and young people get the opportunities and the education they deserve. I encourage everyone involved in education and training to make the best use of it, and work with us to build a true European Education Area.

Tibor Navracsics,
Commissioner for Education, Culture, Youth and Sport

Background and aims

The Council of the European Union adopted a Recommendation on key competences for lifelong learning in May 2018.* The Recommendation identifies eight key competences essential to citizens for personal fulfilment, a healthy and sustainable lifestyle, employability, active citizenship and social inclusion.

The Recommendation is a reference tool for education and training stakeholders. It sets up a common understanding of competences needed nowadays and in the future. The reference framework presents successful ways to promote competence development through innovative learning approaches, assessment methods or support to educational staff.

All learners should achieve their full potential. To fulfil their different needs, the Recommendation encourages Member States to: provide quality early childhood education and care, improve school education and ensure excellent teaching, further develop initial and continuing vocational education and training, and modernise higher education.



* The Official Journal 2018/C 189/01:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AC%3A2018%3A189%3ATOC>

Key competences

The key competences are a combination of knowledge, skills and attitudes.

- **Knowledge**

Knowledge is composed of the concepts, facts and figures, ideas and theories which are already established, and support the understanding of a certain area or subject.

- **Skills**

Skills are defined as the ability to carry out processes and use the existing knowledge to achieve results.

- **Attitudes**

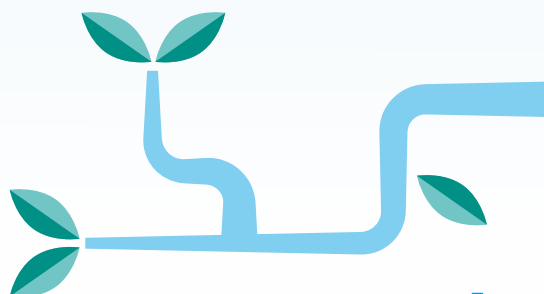
Attitudes describe the disposition and mindset to act or react to ideas, persons or situations.

The key competences are developed throughout life, through formal, non-formal and informal learning in different environments, including family, school, workplace, neighbourhood and other communities.

All key competences are considered equally important and aspects essential to one domain will support competence development in another. For example, skills such as critical thinking, problem solving, team work, communication, creativity, negotiation, analytical and intercultural skills are embedded throughout the key competences.

These are the eight key competences:

- > **Literacy competence**
- > **Multilingual competence**
- > **Mathematical competence and competence in science, technology and engineering**
- > **Digital competence**
- > **Personal, social and learning to learn competence**
- > **Citizenship competence**
- > **Entrepreneurship competence**
- > **Cultural awareness and expression competence**



Literacy competence



Literacy is the ability to identify, understand, express, create and interpret concepts, feelings, facts and opinions in both oral and written forms, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others, in an appropriate and creative way.

Development of literacy forms the basis for further learning and further linguistic interaction. Depending on the context, literacy competence can be developed in the mother tongue, the language of schooling and/or the official language in a country or region.

Essential knowledge, skills and attitudes related to this competence

Knowledge

This competence involves the knowledge of reading and writing and a sound understanding of written information and thus requires an individual to have knowledge of vocabulary, functional grammar and the functions of language. It includes an awareness of the main types of verbal interaction, a range of literary and non-literary texts, and the main features of different styles and registers of language.

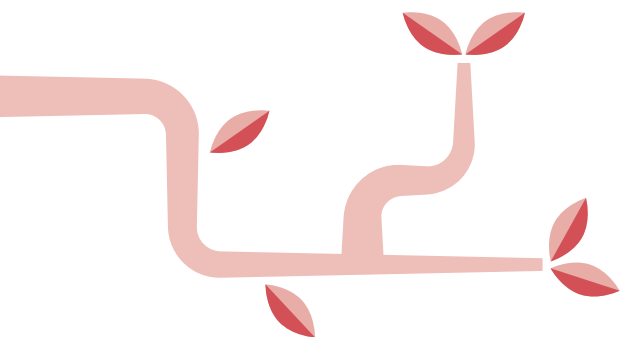
Skills

Individuals should have the skills to communicate both orally and in writing in a variety of situations and to monitor and adapt their own communication to the requirements of the situation.

This competence also includes the abilities to distinguish and use different types of sources, to search for, collect and process information, to use aids, and to formulate and express one's oral and written arguments in a convincing way appropriate to the context. It encompasses critical thinking and ability to assess and work with information.

Attitudes

A positive attitude towards literacy involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and an interest in interaction with others. This implies an awareness of the impact of language on others and a need to understand and use language in a positive and socially responsible manner.



Multilingual competence



This competence defines the ability to use different languages appropriately and effectively for communication. It broadly shares the main skill dimensions of literacy: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts according to one's wants or needs. Languages competences integrate a historical dimension and intercultural competences. It relies on the ability to mediate between different languages and media, as outlined in the Common European Framework of Reference. As appropriate, it can include maintaining and further developing mother tongue competences, as well as the acquisition of a country's official language(s).

Essential knowledge, skills and attitudes related to this competence

Knowledge

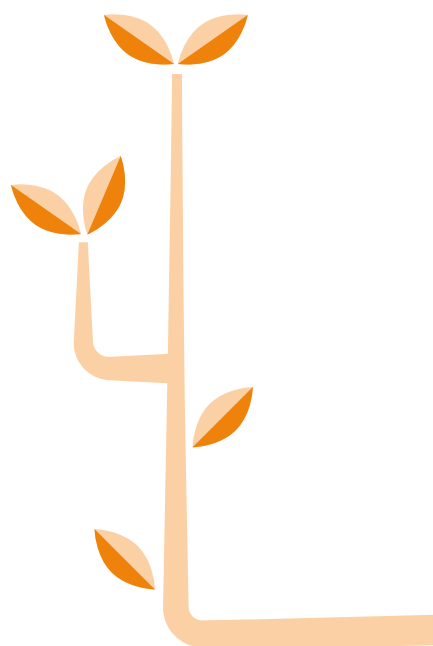
This competence requires knowledge of vocabulary and functional grammar of different languages and an awareness of the main types of verbal interaction and registers of languages. Knowledge of societal conventions, and the cultural aspect and variability of languages is important.

Skills

Essential skills for this competence consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and draft texts, with different levels of proficiency in different languages, according to the individual's needs. Individuals should be able to use tools appropriately and learn languages formally, non-formally and informally throughout life.

Attitudes

A positive attitude involves the appreciation of cultural diversity, an interest and curiosity about different languages and intercultural communication. It also involves respect for each person's individual linguistic profile, including both respect for the mother tongue of persons belonging to minorities and/or with a migrant background and appreciation for a country's official language(s) as a common framework for interaction.



Mathematical competence and...

A Mathematical competence is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought and presentation (formulas, models, constructs, graphs, charts).

Essential knowledge, skills and attitudes related to this competence

Knowledge

Necessary knowledge in mathematics includes a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and an awareness of the questions to which mathematics can offer answers.

Skills

An individual should have the skills to apply basic mathematical principles and processes in everyday contexts at home and work (e.g. financial skills), and to follow and assess chains of arguments. An individual should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, use appropriate aids including statistical data and graphs, and understand the mathematical aspects of digitalisation.

Attitudes

A positive attitude in mathematics is based on the respect for truth and a willingness to look for reasons and to assess their validity.



... competence in science, technology and engineering



B Competence in science refers to the ability and willingness to explain the natural world by making use of the body of knowledge and methodology employed, including observation and experimentation, in order to identify questions and to draw evidence-based conclusions. Competences in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competence in science, technology and engineering involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

Essential knowledge, skills and attitudes related to this competence

Knowledge

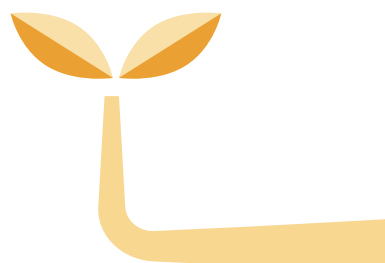
For science, technology and engineering, essential knowledge comprises the basic principles of the natural world, fundamental scientific concepts, theories, principles and methods, technology and technological products and processes, as well as an understanding of the impact of science, technology, engineering and human activity in general on the natural world. These competences should enable individuals to better understand the advances, limitations and risks of scientific theories, applications and technology in societies at large (in relation to decision-making, values, moral questions, culture, etc.).

Skills

Skills include the understanding of science as a process for the investigation through specific methodologies, including observations and controlled experiments, the ability to use logical and rational thought to verify a hypothesis and the readiness to discard one's own convictions when they contradict new experimental findings. It includes the ability to use and handle technological tools and machines as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. Individuals should also be able to recognise the essential features of scientific inquiry and have the ability to communicate the conclusions and reasoning that led to them.

Attitude

Competence includes an attitude of critical appreciation and curiosity, a concern for ethical issues and support for both safety and environmental sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community, and global issues.



Digital competence



Digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.

Essential knowledge, skills and attitudes related to this competence

Knowledge

Individuals should understand how digital technologies can support communication, creativity and innovation, and be aware of their opportunities, limitations, effects and risks. They should understand the general principles, mechanisms and logic underlying evolving digital technologies and know the basic function and use of different devices, software, and networks. Individuals should take a critical approach to the validity, reliability and impact of information and data made available by digital means and be aware of the legal and ethical principles involved in engaging with digital technologies.

Skills

Individuals should be able to use digital technologies to support their active citizenship and social inclusion, collaboration with others, and creativity towards personal, social or commercial goals. Skills include the ability to use, access, filter, evaluate, create, program and share digital content. Individuals should be able to manage and protect information, content, data, and digital identities, as well as recognise and effectively engage with software, devices, artificial intelligence or robots.

Attitudes

Engagement with digital technologies and content requires a reflective and critical, yet curious, open-minded and forward-looking attitude to their evolution. It also requires an ethical, safe and responsible approach to the use of these tools.



Personal, social and learning to learn competence



Personal, social and learning to learn competence is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional well-being, to maintain physical and mental health, and to be able to lead a health-conscious, future-oriented life, empathize and manage conflict in an inclusive and supportive context.

Essential knowledge, skills and attitudes related to this competence

Knowledge

For successful interpersonal relations and social participation it is essential to understand the codes of conduct and rules of communication generally accepted in different societies and environments. Personal, social and learning to learn competence requires also knowledge of the components of a healthy mind, body and lifestyle. It involves knowing one's preferred learning strategies, knowing one's competence development needs and various ways to develop competences and search for the education, training and career opportunities and guidance or support available.

Skills

Skills include the ability to identify one's capacities, focus, deal with complexity, critically reflect and make decisions. This includes the ability to learn and work both collaboratively and autonomously and to organise and persevere with one's learning, evaluate and share it, seek support when appropriate and effectively manage one's career and social interactions. Individuals should be resilient and able to cope with uncertainty and stress. They should be able to communicate constructively in different environments, collaborate in teams and negotiate. This includes showing tolerance, expressing and understanding different viewpoints, as well as the ability to create confidence and feel empathy.

Attitudes

The competence is based on a positive attitude toward one's personal, social and physical well-being and learning throughout one's life. It is based on an attitude of collaboration, assertiveness and integrity. This includes respecting diversity of others and their needs and being prepared both to overcome prejudices and to compromise. Individuals should be able to identify and set goals, motivate themselves, and develop resilience and confidence to pursue and succeed at learning throughout their lives. A problem-solving attitude supports both the learning process and the individual's ability to handle obstacles and change. It includes the desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and develop in a variety of life contexts.



Citizenship competence



Citizenship competence is the ability to act as responsible citizens and to fully participate in civic and social life, based on understanding of social, economic, legal and political concepts and structures, as well as global developments and sustainability.

Essential knowledge, skills and attitudes related to this competence

Knowledge

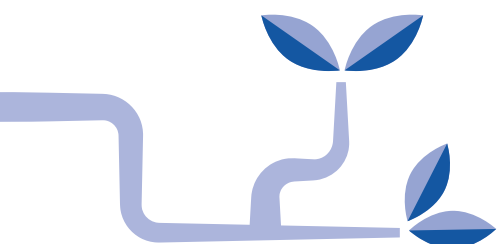
Citizenship competence is based on knowledge of basic concepts and phenomena relating to individuals, groups, work organisations, society, economy and culture. This involves an understanding of the European common values, as expressed in Article 2 of the Treaty on European Union and the Charter of Fundamental Rights of the European Union. It includes knowledge of contemporary events, as well as a critical understanding of the main developments in national, European and world history. In addition, it includes an awareness of the aims, values and policies of social and political movements, as well as of sustainable systems, in particular climate and demographic change at the global level and their underlying causes. Knowledge of European integration as well as an awareness of diversity and cultural identities in Europe and the world is essential. This includes an understanding of the multi-cultural and socioeconomic dimensions of European societies, and how national cultural identity contributes to the European identity.

Skills

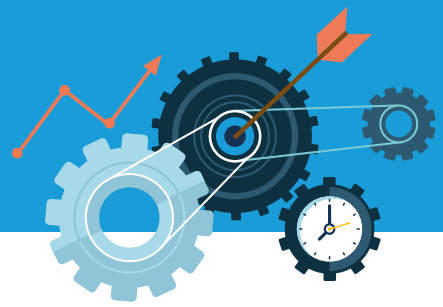
Skills for citizenship competence relate to the ability to engage effectively with others in common or public interest, including the sustainable development of society. This involves critical thinking and integrated problem solving skills, as well as skills to develop arguments and constructive participation in community activities, as well as in decision-making at all levels, from local and national to the European and international level. This also involves the ability to access, have a critical understanding of, and interact with both traditional and new forms of media and understand the role and functions of media in democratic societies.

Attitudes

Respect for human rights as a basis for democracy lays the foundations for a responsible and constructive attitude. Constructive participation involves willingness to participate in democratic decision-making at all levels and civic activities. It includes support for social and cultural diversity, gender equality and social cohesion, sustainable lifestyles, promotion of culture of peace and non-violence, a readiness to respect the privacy of others, and to take responsibility for the environment. Interest in political and socioeconomic developments, humanities and intercultural communication is needed to be prepared both to overcome prejudices and to compromise where necessary and to ensure social justice and fairness.



Entrepreneurship competence



Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or financial value.

Essential knowledge, skills and attitudes related to this competence

Knowledge

Entrepreneurship competence requires knowing that there are different contexts and opportunities for turning ideas into action in personal, social and professional activities, and an understanding of how these arise. Individuals should know and understand approaches to planning and management of projects, which include both processes and resources. They should have an understanding of economics and the social and economic opportunities and challenges facing an employer, organisation or society. They should also be aware of ethical principles and challenges of sustainable development and have self-awareness of their own strengths and weaknesses.

Skills

Entrepreneurial skills are founded on creativity which includes imagination, strategic thinking and problem-solving, and critical and constructive reflection within evolving creative processes and innovation. They include the ability to work both as an individual and collaboratively in teams, to mobilize resources (people and things) and to sustain activity. This includes the ability to make financial decisions relating to cost and value. The ability to effectively communicate and negotiate with others, and to cope with uncertainty, ambiguity and risk as part of making informed decisions is essential.

Attitudes

An entrepreneurial attitude is characterised by a sense of initiative and agency, pro-activity, being forward-looking, courage and perseverance in achieving objectives. It includes a desire to motivate others and value their ideas, empathy and taking care of people and the world, and accepting responsibility taking ethical approaches throughout the process.



Cultural awareness and expression competence



Competence in cultural awareness and expression involves having an understanding of and respect for how ideas and meaning are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts.

Essential knowledge, skills and attitudes related to this competence

Knowledge

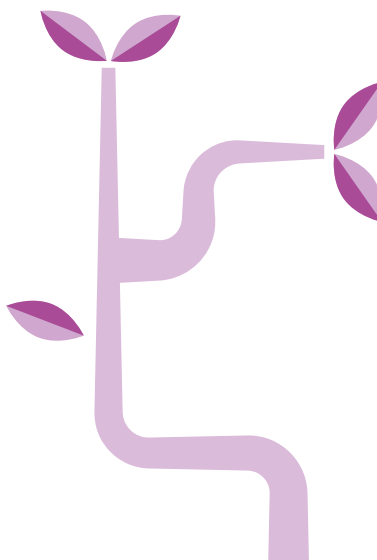
This competence requires knowledge of local, national, regional, European and global cultures and expressions, including their languages, heritage and traditions, and cultural products, and an understanding of how these expressions can influence each other as well as the ideas of the individual. It includes understanding the different ways of communicating ideas between creator, participant and audience within written, printed and digital texts, theatre, film, dance, games, art and design, music, rituals, and architecture, as well as hybrid forms. It requires an understanding of one's own developing identity and cultural heritage within a world of cultural diversity and how arts and other cultural forms can be a way to both view and shape the world.

Skills

Skills include the ability to express and interpret figurative and abstract ideas, experiences and emotions with empathy, and the ability to do so in a range of arts and other cultural forms. Skills also include the ability to identify and realise opportunities for personal, social or commercial value through the arts and other cultural forms and the ability to engage in creative processes, both as an individual and collectively.

Attitudes

It is important to have an open attitude towards, and respect for, diversity of cultural expression together with an ethical and responsible approach to intellectual and cultural ownership. A positive attitude also includes a curiosity about the world, an openness to imagine new possibilities, and a willingness to participate in cultural experiences.



Supporting the development of key competences

High quality and inclusive education, training and lifelong learning provide opportunities for everybody to develop key competences.

Competence oriented education, training and lifelong learning refers to a teaching and learning approach that aims at developing key competences including relevant knowledge, skills and attitudes. It is best explained if compared with knowledge-based teaching and learning, which focuses on the knowledge aspect only.

Good practices that promote key competence development include examples in the following areas:

- > teaching and learning approaches and environments;
- > support to educational staff;
- > assessment and validation of competences.

Teaching and learning approaches and environments

Competence oriented approaches such as project based, arts based, inquiry based, experiential or work based learning, improve learning outcomes and learner engagement. At the same time, they offer opportunities for innovation, collaboration and cross-discipline learning; they put learners at the centre and ask for their active participation. Digital technologies used in project based learning, for example, improve the studying process and support the development of digital competences. When combined with social and emotional learning and health-enhancing physical activities, competence oriented approaches increase the overall learners' motivation, performance and active participation.

Competence development is best supported when taking place in a variety of learning environments. Collaboration among education, training and non-formal learning stakeholders and cooperation with non-educational partners in local communities and employers support it. Cross-sectoral cooperation eases the transition from education to work, and

from work to education, and establishes a firm link between what is being taught and societal change and relevance.

For example, multilingual competence can be developed by close cooperation with different stakeholders abroad combined with the mobility of educational staff and learners. Cooperation with stakeholders in the arts and conducting learning in a museum can prove beneficial for cultural awareness and expression development. Opportunities for entrepreneurial experiences, traineeships in companies or having entrepreneurs visit education and training institutions are beneficial for both young people and adults.

Competence oriented teaching and learning approaches, collaboration with different stakeholders and learning that takes place in various learning environments promote key competence development.

Support to educational staff

Educational staff have a decisive impact on learners' achievements and motivations and consequently learners' competence development. At the same time, teaching and learning approaches typically associated with competence development put even more emphasis on the qualities and competences required of effective educators.

Competence oriented approaches should therefore be embedded in initial training of educational staff and their continuing professional development. Educational staff need to be supported in developing innovative competence-oriented approaches and encouraged to collaborate within and beyond

their educational institutions. This can be done through collaborative peer learning, staff exchanges and mobility, participation in networks and communities of practice. Access to centres of expertise and recent research, appropriate guidance tools and materials combined with flexibility and autonomy in organising learning enhance the quality of teaching. All these approaches promote learners' competence development.

When adequately supported, educational staff will be able to provide the best possible learning experiences and ensure that all learners achieve their learning outcomes.

Assessment and validation of competences

Assessment influences individuals and their progress in learning. It can help in gaining and processing new knowledge and skills. It can also help learners understand their preferred learning styles and become autonomous and confident in learning. Validation of competences or assessment leading to qualifications help the learner communicate their competences when seeking further learning opportunities or employment.

With this in mind, it is crucial to develop assessment approaches and tools which capture how far a learner succeeds in developing certain competences. Key competence descriptions translated into detailed frameworks of learning outcomes, such as Entrepreneurship Competence Framework

and Digital Competence Framework, combined with diagnostic, formative and summative assessment support this process. Digital technologies could contribute in capturing the multiple dimensions of learner progression, as can tools for validation of non-formal and informal learning, such as Europass and Youthpass.

Learning, teaching and assessment are closely intertwined and any policy or strategy which impacts on one of these elements will also affect the others. This means that decisions made in relation to assessment have a major influence on how the key competences are taught, and therefore, on what learners learn.

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