Handbook for Educators in VET and adult education - Acknowledgement of skills

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Visualising Skills and Learning Paths and supporting acknowledgement of competences
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VISUAL PATHS

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Preface

This handbook introduces VET-educators and educators in adult-education to the developed learner–centered approach for visualizing and exchanging learning results from different contexts. The learning results are supporting learning processes and the acknowledgment of skills for validation and assessment.

The handbook describes the frame conditions and the methodology of the developed approach in conjunction with the growing relevance of informal learning in times of the twin transition towards a digital and green society in Europe. It explains why it is so important to start the transition and to make use of the benefits of digital technology to be able to adapt to different learning conditions of youth or changing learning surroundings (e.g. during the Covid 19 pandemy).

The suggested approach involves digital technology in the form of a smartphone –app providing the infrastructure for collecting, documenting, organizing and exchanging learning results based on the needs of the users. In this process digital technology enriches the illustration and visualization of competences and learning results through media-rich documentation, and its inherent connectivity enables efficient and easy exchange and communication of the learning results.

The handbook offers insight into the learner-centered approach based on the developed app.

To make efficiently use of its potential the following steps are suggested:

- Recording learning results using the visual paths smartphone-app
- Documentation of learning situations – based on the needs of the users- the situative STAR-system
- Organization of the learning results in a transferable structure
- Media-rich documentation of learning outcomes with the developed app
- Exchange and communication of learning results with the developed app
- The use of the prepared learning results for the validation and assessment of learning results

The Visual Paths app makes informal learning outcomes visible, accessible and interchangeable.

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The documented learning results can enrich other learning such as the formal learning (described in the Visual Paths induction handbooks for Educators and Learners) or the social learning (described in the Visual Paths handbook "Supporting the development of Soft Skills").

Each section is developed independently and can be applied separately, although their combined use offers additional value and innovation. The application of the developed approach of Visual Paths encourages learners to actively engage with their own learning processes and to see the connections between learning situations.

Introduction to societal and European context

Lifelong learning has been in the focus for decades to prepare citizens and work-force to be able to adapt to expected changes in their work surroundings or other life circumstances. Currently the digitalization of many aspects of life and work is one factor causing big and accelerated changes, now and in the coming years. With the Covid-19 pandemy the need for change and adaptation accelerated and reached a next stage and it became clear that many citizens of all ages are still struggling with the use of digital tools and that many citizens have insufficient digital skills being needed to adapt to the changes at work and in their everyday life in an efficient way. Parallel to the changes caused by the progressing digitalisation the emerging need to transform our societies into a sustainable and carbon-neutral life and work are causing the need for additional and profound changes of existing habits and working routines.

The twin transition of our societies towards a green and digital Europe (European Green–Deal) is targeted at climate-neutrality until 2050. This implies that the coming years and decades will be characterized by fundamental changes: Whole industries -and with it jobs- will be transforming, the way we life and the way we work and how we interact with each other. A high number of new jobs will be created, other types of jobs will disappear.

From this perspective it is essential for citizens to be able to adapt to these changes and to manage the more frequent changes in job and life: The expert skills of one job might become obsolete and might be needed to be updated to more current knowledge and new skills, making it important to be flexible enough to adjust to the new situation. In other words, life-long learning activities are seen as a key to adapt to these changes in order to develop and train also the social and personal skills to manage the transition.

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The high importance of access to lifelong-learning is expressed in the first principle of the **European Pillar of Social Rights** as being a precondition for participating fully in society and managing successful transitions in the labour market.

"Everyone has the right to quality and inclusive education, training and life-long learning in order to maintain and acquire skills that enable them to participate fully in society and manage successfully transitions in the labour market."

https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

European Green Deal

The European green deal is the European growth strategy and a roadmap to achieve climate neutrality by 2050 as the first climate-neutral continent. It defines actions in climate, energy, agriculture, industry, environment and oceans, transport, finance and regional development as well as research and innovation.

It is one of six current priorities in the EU and the development towards climate- neutrality will imply essential change of life, work for the people in Europe.

The digital and green transition is not only changing the topic of jobs, but also influences and changes the way we are working, the structure of work and the way of collaboration with colleagues and clients. This means being able to adapt to changes and being able to manage changing work situations and team constellations will become essential to participate in work-life and will remain important from start to end of a person's career. Beyond work-life the changes will also affect other aspects of life, so that in private contexts the ability to manage change will become more and more essential.

This means the need for lifelong-learning and qualification has never been more current than today. Lifelong-learning will stay in focus in the future as people in their private lives, at work or as active democratic citizens are undergoing constant change for the coming decades.

Being able to adapt to the requirements of the green and digital transition makes citizens more resilient against occurring changes and ready to see and embrace benefits and opportunities of the new ways of living and working. Citizens need to develop expertise in their jobs, but also need

to develop as a person and need to learn to collaborate with others and to adapt to changing environments.

On European level, one key element to address these challenges by making Europe more resilient against changes and the effects of transitions and change is lifelong-learning, and with it the heavy investment in the skills of the people which has been announced with the Skills Agenda 2016 and 2020.

"In this fast-changing world we need to invest in Europe's greatest asset: our people. People need a broad set of skills to fulfill their potential both as active citizens and at work. Skills are vital for prosperity, jobs, growth and sustainable well-being. Our new Skills Agenda aims both to make sure that no-one is left behind, and that Europe nurtures the high-end skills that drive competitiveness and innovation."

Jyrki **Katainen,** Vice-President for Jobs, Growth, Investment and Competitiveness

Skills Agenda 2016

In 2016 the skills agenda ("A New Skills Agenda for Europe: Working together to strengthen human capital, employability and competitiveness") was formulated with the aim to ensure that people develop a broad set of skills from early on in life and to make the most of Europe's human capital, which will ultimately boost employability, competitiveness and growth in Europe.

The agenda described the need to improve the quality of skills and expressed their relevance for the labour market. Increasing skills levels, promoting transversal skills and finding ways to better anticipate the labour market's needs have been described to be essential to improve people's chances in life, and support fair, inclusive and sustainable growth as well as cohesive societies.

The agenda presented 10 actions to support this development, (including the review of the key competences and the skills guarantee) and encouraged the **validation of formal and non-formal learning. (https://ec.europa.eu/commission/presscorner/detail/en/IP_16_2039)**

In 2020 the new skills agenda was added as an response to the occurred challenges of the corona pandemy and to define actions necessary for the recovery of the EU and in the frame of the green and digital transition which has been described in the "European Green Deal".

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Skills Agenda 2020

European skills agenda for sustainable competitiveness, social fairness and resilience

The agenda combines the Skills agenda from 2016 with a new and massively extended budget and ambitious targets for upskilling (improving existing skills) and reskilling (training new skills) in the next 5 years. Main topics are skills for jobs, working together and helping people to develop skills throughout their lives.

Margaritis **Schinas**, Vice-President for Promoting the European Way of Life

"…We already know that skills are what allow people and our economies to thrive. Now, it is time to join hands and unlock a skills revolution, leaving nobody behind."

The aim is to ensure that lifelong learning and the right to training becomes reality for everyone in the EU, independent from the region they are living in.

The EU sees investing in the skills of people as a measure to support the sustainable recovery of the EU after the shocks of the Corona pandemy and sees skills and lifelong learning as essential for citizens to be equipped for the expected changes and transitions which will be part of the green and the digital transition.

Nicolas **Schmit**, Commissioner for Jobs and Social Rights, said: *"The skilling of our workforces is one of our central responses to the recovery, and providing people the chance to build the skillsets they need is key to preparing for the green and digital transitions. It gives everyone the possibility to benefit from new opportunities in a fast-moving labour market."*

The transitions of our societies will bring along with them risks and opportunities. Lifelong learning is seen as an answer to these changes, equipping Europe and its citizens with the skills to make use of the rising opportunities and to master the transitions into the green and digital societies. The transition towards the green and digital society is expected to create 1 million new jobs untill 2030, while other jobs will disappear.

Twelve flagship actions have been defined to reach the targets of the agenda and to increase upskilling and reskilling of citizens and equip them with digital skills. These flagship actions

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contribute to reach the ambitious targets of the agenda which have been defined as clear numbers and percentages of increase:

By 2025 the number of training activities should be raised to 540 million, including 60 million for low-qualified adults and 40 million for unemployed people. The number of adults with basic digital skills should increase to 230 million.

As the Corona pandemy accelerated the need for change and accelerated the trend to skills on the labour markets it increased the need for lifelong-learning which is more current and more important than ever. Lifelong learning will be a central element for a sustainable recovery of the economies and societies in Europe and will be central to master the starting transitions into green and digital Europe.

In 2018 the European Council has identified three challenges for competence-oriented education, training and lifelong-learning: "the use of **a variety of learning approaches and contexts**; **support for teachers and other educational staff**; and **assessment and validation of competence development.**"

COUNCIL RECOMMENDATION of 22 May 2018 on key competences for lifelong learning-

https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC

The project "Visual Paths" is addressing these challenges by providing an innovative approach to make visible and usable informal (and formal) learning achievements as a basis for other learning contexts, make these achievements accessible as a basis for the validation of learning results and for job applications, as well as a supporting learners and educators to exchange on the process of learning in various contexts by help of a digital tool which is supporting the exchange and discussion of learning evidences.

Lifelong learning and Adult education

The concepts of lifelong learning define essential contents, objectives and target groups of learning. The central point in the education policy documents is that all people should learn throughout their lives for employability, personal development and social participation.

The conviction that lifelong learning is necessary for social and economic requirements is largely prevalent. Rapid change and new challenges are cited as reasons why lifelong, lifelong learning is essential. European Union documents repeatedly emphasize that lifelong learning is a key for upcoming challenges in the future. The qualification for people's employability is in the foreground, for example by specifically promoting skills for future fields of employment (agenda for new skills and new employment opportunities). Integration into the labour market is also seen as an essential element for social participation, social inclusion and the prevention of poverty. Less discussed are non-professional learning or social and personal development.

Learning per se is not a need at every stage of life, as the EU study "Lifelong Learning: Citizens' Attitudes in Close-Up" makes clear.

This fact must be taken into account in lifelong learning without resulting in disadvantages. It is important to note that not everyone wants to actively participate in learning processes all the time. However, access to educational activities must be open to all at all times so that people can make choices and use them whenever they want.

The EU emphasizes that the individual should be placed at the center of lifelong learning. This corresponds to the fundamental tendency in adult education towards a stronger subject orientation and individualization. There is an orientation towards life phases, competencies and guidance needs. At the same time, however, this means that people are challenged to take more responsibility for their own life and learning.

A central challenge for our society is how we see and organize learning and education in the context of rapidly changing technological, economic and social developments.
An important development in education is the growing importance of non-formal and informal learning. Today, learning already takes place in many different places and in different environments. In addition to traditional formal learning, today non-formal and informal learning takes place in different contexts. Youth work, for example, is considered one of the main providers of non-formal and informal learning. Such types of learning usually take place voluntarily in life-world situations and often through interactions with peers and through participatory approaches. In addition, non-formal and informal learning takes place at work and in free time. At the same time, we can also observe that the boundaries between formal, non-formal and informal learning are becoming blurred. Digitalization enables this development by offering online courses more flexibly and promoting peer learning among learners from different backgrounds. At the European level, several initiatives have been launched over the last 15 years to promote non-formal and

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informal learning itself, as well as its validation and recognition. The European Qualification Framework, Europass and the validation process scheme for non-formal and informal learning (identification, documentation, assessment, certification) can be mentioned here as important milestones. The "Visual paths" project is part of the next steps to make informal learning visible, measurable and comprehensible.

Life-long-learning and Covid 19

Countries must do more to provide people with lifelong learning to help them navigate the rapidly changing world of work due to globalization and the COVID-19 pandemic. This is shown by the OECD Skills Outlook 2021 of the Organization for Economic Co-operation and Development (OECD).

According to the study, the public sector has a key role in enabling effective lifelong learning. It is essential that part of the resources allocated to the recovery are invested in lifelong learning programs. This should focus on particularly affected groups, especially young people, people not in employment, education or training (NEETs) and those whose jobs are most at risk from change.

The pandemic may also affect the learning behavior of children and young people. The interruptions to regular schooling meant that many children made less progress than expected in developing their skills. In the short term, the pandemic could lead to more school dropouts. In the medium and long term, the current generation of students may develop less positive attitudes toward learning at a time of profound structural changes that require individuals to improve their skills throughout their lives.

To enable more people to continue learning and keep their skills current, countries should focus on three key issues, according to the report:

- **Place learners at the center of learning:** Diverse learning opportunities can improve the quality of education and training. They can also empower individuals to make relevant choices, thus sustaining their motivation to participate in lifelong learning. Policies must be inclusive, affordable, accessible, and adaptable.
- **Skills for a lifetime:** Lifelong learning relies on solid basic skills such as literacy and numeracy, a willingness to learn, and a habit of learning. Policymakers should harness the power of technology

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while also considering the impact that technology can have on existing skills gaps and the creation of new inequalities.

- **Strong coordination for high-quality, inclusive learning:** Policymakers should build strong coordination, knowledge management, and information sharing to bring lifelong learning to the required level. Policies should aim to improve recognition, validation, and accreditation processes to increase the visibility and transferability of skills taught

Validation – Upskilling

Supporting the validation of competences acquired in different contexts will enable individuals to have their competences recognised and obtain full. It can build on the existing arrangements for the validation of non-formal and informal learning as in the European key competences of lifelong learning, which provides a common reference framework to compare levels of qualifications. In addition, assessment may help in structuring learning processes and in guidance, helping people to improve their competences also with regard to changing requirements on the labour market.

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

Digital technologies have an impact on education, training and learning by developing more flexible learning environments adapted to the needs of a highly mobile society.

The development of key competences, their validation and the provision of competence-oriented education, training and learning should be supported by establishing good practices for better support of educational staff in their tasks and improving their education, for updating assessment and validation methods and tools.

IO3 Acknowledgement of Skills aims to support recording the learning process and enable validation of learning also, when it happens outside of the classroom environment. A tool for recording activities and doing assessment exercises. The recorded evidence is used in the process of acknowledgement of existing or gained skills and will form an archive for the learner. It will create a digital tool to support recording evidence of learner's activities for validation of learning

and acknowledgement of skills, which will also build up into a digital archive of learning that can be used in job-seeking to display competences by showing recordings of situations where they are applied. Supporting the validation of competences acquired in different contexts will enable individuals to have their competences recognised and fully acquired.

In addition, assessment may help in structuring learning processes and in guidance, helping people to improve their competences also with regard to changing requirements on the labour market.

The tasks of IO3 are to present an archive for competencies, record the learning process and enable validation of learning. There will be a formal path and an informal path. It's important to have a closer look in which way validation can be used for formal and informal learning. Based on these elements, it is possible to create a structure in IO3 and see how informal learning can be measured. Even if IO3 serves as an archive for learning evidence, it can also be validated.

The Basic Elements of validation

"An important purpose of the recommendation has been to identify the essential features of validation. It defines validation as 'a process of confirmation by an authorized body that an individual has acquired learning outcomes measured against a relevant standard' (Council of the EU, 2012, p. 5)."

The aim is to give young people who use Visual Paths the opportunity to obtain a qualification and or to make their knowledge, skills and competences visible to themselves and others. Validation aims to strengthen the individual's competences.

Validation is about making diverse learning experiences visible. These learning experiences often take place outside of formal education and training. For example at home, at work or in your free time. These experiences can be overlooked. Validation is secondly about giving appropriate value to individuals' learning experiences, regardless of the learning field in which they were obtained. It is about giving these experiences an appropriate status.

With the help of a validation, results of the non-formal and informal learning are made visible. They are valuable for further education or the labour market. For the validation rule, the elements of visibility and value must always be taken into account. Even if in different ways and combinations.

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The four phases of validation

The definition does not limit validation to a specific institutional context. While validation most often takes place in the education and training sector to obtain a formal qualification, there are many other institutions that use validation.

The main point of validating experiences is to increase the visibility and value of learning outside of schools and Vocational training institutions.

The European Inventory on validation of non-formal and informal learning 2012, divided into four individual validation steps: Identification, documentation, assessment and certification.

These steps are helpful in determining the value of the skills. In addition, the question arises, how the skills can be evaluated in IO3 and which tools can be used for it. The skills that are recorded in IO3 should not only be useful in school, but also in further working life.

- **Identification** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Documentation** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Assessment** of an individual's learning outcomes acquired through non-formal and informal learning;
- **Certification** of the results of the assessment of an individual's learning outcomes acquired through non-formal and informal learning in the form of a qualification, or credits leading to a qualification, or in another form, as appropriate.' (Council of the EU, 2012, p. 3, points 2a to 2d).

These phases are combined differently depending on the purpose of the particular validation. If a formal qualification is to be achieved, the credibility of the assessment phase is crucial. In other cases, for example in relation to voluntary work, the focus may be more on identification and documentation and less on formal assessment. However, it is likely that these four steps are included in all validation schemes.

The purpose of the validation and purpose of the IO3 learning archive is to provide and collect evidence of learning experiences that can be useful in the context of further education or in the labor market.

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In a validation process to obtain a formal qualification, the requirements are usually set by official standards of the education and training system. When recording and assigning competencies, for example in companies, internal less formal reference points can be applied. In both cases, steps 1 - 4 are found, but their respective weighting differs significantly.

In the following, steps 1 - 4 of the validation are explained in more detail (and reference is made to how they can be used in IO3 and what role they play.)

1. Identification

Validation necessarily begins with the identification of the acquired Knowledge, skills and competencies; this is the phase in which the Individuals become aware of the results of their previous learning experiences. This phase is important as each person can acquire different learning outcomes in different contexts, at home, at work and through voluntary work. The discovery and awareness of people's individual abilities, already is a valuable result of the validation process.

This non-standardized aspect of recognizing non-formal and informal Learning is a considerable methodological challenge. The methods and approaches used must be "open to the unexpected". Possible knowledge, skills and competencies should not be restricted by conceptions. The identification phase is supported in some countries via standardized IT tools for self-assessment. In many cases, however, it also requires the active involvement of tutors who are able to engage with candidates. As in the Outputs students are able to determine their skills with an online self-reflection sheet based on the curriculum of the different institutions and they are also able to upload different evidence of their skills like photos, videos and so on, which can be evaluated by the tutors.

2. Documentation

Documentation follows the identification phase. Evidence for the acquired learning outcomes are collected in this phase. This can be done by creating a portfolio, which usually includes a resume and documents or samples of work to demonstrate his or her learning achievements. Validation must be open to many different types of evidence, from written documents to work samples to practical demonstration. In Output 3, students have the opportunity to upload different evidence. Be it a written document, a photo or a video showing what skills a student wants to demonstrate.

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This evidence must provide sufficient insight into non-formally and informally acquired learning outcomes: a simple list of job titles or positions is not sufficient. The transferability of evidence is critical and requires some coordination at national and European level. In a situation where there are many different providers working with validation - local, regional, national or European level - it is difficult for users to have their skills and competences recognized and presented outside a provider system. Common formats for the presentation of learning experiences can, as Europass has shown, support this transfer and help to ensure that such learning outcomes are better understood and accepted. The transition to the learning outcomes approach, which is currently taking place in Europe, could lead to more overall transparency and comparability, as this approach promotes a common way of describing knowledge, skills and competencies in different branches, sectors and educational qualifications and vocational training qualifications.

This is where Visual Paths comes in. In IO3, a general form is presented that everyone can use. Starting in systems, students can create an archive with all their skills, which tutors can confirm if they want. Beyond the format, the archive can be used for future job searching or applications to higher education and the archive can be supplemented throughout lifetime with evidence of new skills and competences.

3. Assessment

The assessment phase typically measures learning outcomes with specific benchmarks and standards. This can be written and documented evidence, but also other types of evidence. Assessment is essential to the credibility of a validation of non-formal and informal learning outcomes. In some cases, validation is considered low value, which is because validation is relatively new, to counter such assumptions, the tools and procedures must be presented with the highest level of transparency.

Many instruments and methods that are used to assess non-formal and informal learning are based on or similar to the methods and tools used in the formal education and training system. Because validation is about capturing multiple individual learning experiences, assessment tools must be designed to capture and assess each individual's specific learning and the context in which that learning happened. In this it differs from learning in formal systems, where assessment tools are applied to large groups and less importance is given to the particular needs of subgroups or individuals.

4. Certification

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The final phase of validation concerns the certification - and final assessment - of the identified, documented and assessed learning outcomes. This can take a variety of forms; however, a formal qualification (or partial qualification) is usually given. At the certification stage, a summative assessment is required to certify that the learning outcomes achieved meet a standard. It is critical that this process be administered and managed by a credible authority or organization. The value of the credentials or qualifications acquired depends largely on the legitimacy of the awarding body or authority. Some countries have chosen to offer separate certificates or qualifications for non-formal and informal learning. While this may be appropriate in some contexts, there is a risk of creating A and B certificates, and credentials from validation are seen as inferior.

The point assessment and certification in the validation system is not the focus for output 3. As described in the first part, the validation process can vary the focus on the four steps of the validation. This means that for output 3 it is intended to deal mainly with the identification and documentation of skills and competencies and to develop a tool that makes them visible and applicable for the future. A digital tool and archive to identify and find out learned and aspired skills and competences on the one hand. The possibility of developing, recording and reproducing competencies throughout a lifetime. Due to the individual specificity of the learning outcomes, the use of multiple instruments may be required, for example a combination of written examinations and practical tasks.

It is also very important for Visual Paths that each individual can follow his individual path and way. On the one hand, students have the opportunity to follow a learning path according to the curriculum and on the other hand, they have the opportunity to discover new skills. Due to the different life long learning skills, it is open to everyone to record new competencies and upload them to the archive. This makes it possible to have additional soft skills recognized or to make existing skills more visible and valuable with evidence.

Case Study- Die Kärntner Volkshochschulen

Description of Competence development process "Pflichtschulabschluss Kurs" Die Kärntner Volkshochschulen

The basic competencies associated with a positive compulsory school certificate form an important basis for further learning processes in the linguistic, cultural and social fields as well as for access to higher education. Catching up on the compulsory school certificate is very important as a link to higher educational qualifications and further qualification measures.

The planning of the educational process is competence orientation. The focus is on the learning outcomes of the participants, as well as the independent and self-reliant work of the students. From content orientation, it goes in the direction of action orientation and to a reflected use of knowledge. Competences are primarily acquired through best practice.
Since the compulsory school course is based on a competence-oriented curriculum, the objectives were adapted and divided into target competences - learning outcomes:

Professional Skills:

In the sense of professional skills, the students of the courses should have

- have basic and advanced linguistic skills, understand texts and establish social contexts and be able to express this in written form,
- have basic and advanced mathematical skills and can apply them in practical life and professional contexts,
- have basic language skills in English and can express themselves orally and in writing,
- maintain an awareness of the holistic understanding of health, understand and explain the health and social system in Austria,
- get an overview of different job profiles, define professional goals and develop perspectives
- Be able to perceive, understand and analyze scientific and technical achievements.

Methodological Skills:

In terms of methodological competence, Students should:

- learn to use different media as a source of information (media competence),
- be able to obtain information independently,
- be able to join the dots,
- be able to link and process knowledge,
- be able to use different presentation techniques,
- be able to speak freely in front of a group,
- be able to plan work steps and carry them out independently,

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- have time management skills,
- be able to divide the learning units themselves,
- be able to set and focus on goals.

Digital Skills

In terms of digital skills, students should:

- acquire knowledge about the application of digital tools and computer programs,
- be able to process and store digital data,
- be able to research, sort and process digital sources of information,
- be able to use communication tools,
- be able to use the moodle learning program,
- be able to use the learning platform Kahoot!,
- be able to use information and communication technologies in a responsible way.

Personal and Social Skills

In terms of personal and social skills, students should:

- consciously recognize their strengths and, based on this, develop suitable career prospects or select suitable further education offers,
- have learning motivation and learning competence. Recognizing the importance of lifelong learning for personal and professional development,
- be strengthened in their personality and individual development,
- be able to think analytically and question structures,
- expand their social spectrum of action and be able to participate in social and political participation,
- be able to think in a socially responsible, future-oriented and sustainable way
- have knowledge of social and political concepts and structures as well as economic contexts,
- Show cosmopolitanism and awareness of transculturality, recognize discrimination and reflect critically.

Target group

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The target group of the course for the compulsory school examination includes unemployed young people aged 16 to 25 who have no or a negative compulsory school certificate and can improve their chances on the labour market by acquiring one. In detail, these are

- Persons without a positive compulsory certificate
- Persons with a certificate from a school with special need education – taught according to the general Special needs school curriculum,
- Persons with a migration background whose knowledge of German is sufficient for attending the course.
- Persons of all nations who:
    - have to catch up on all subjects of the 8th grade
    - have to catch up individual subjects of the 8th grade
    - have a foreign school certificate, do not have any certificates or whose certificates are not approved in Austria

Competence development process

This is a new development process in the direction of competence orientation. This is a structured process that runs throughout the entire period of the educational project. It is carried out under the guidance of the Bildungsberatung Kärnten together with the trainers and with the social pedagogues. The aim is to build up competence and make the competence development visible throughout the entire course. As a result, graduates receive an individually developed competence profile as well as the learning diary, in which all development results are documented.

Competence assessment

At the beginning, the competence-oriented terminology is presented in group setting and individual settings:

- definition of competences
- target competences
- Principles of competence-oriented methodology/didactics
- Discussion about learning outcomes
- Naming of individual competencies
- Creation of an individual competence development plan

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Together, the individually existing fields of competence are recorded. This is done in the form of a self-assessment by the participants. In doing so, they deal with their own strengths and weaknesses and recognize existing competencies. In this phase, the participants are supported by the experts of the Bildungsberatung Kärnten, the trainers and the social pedagogues. All participants have a one-on-one conversation with the experts of the Bildungsberatung. At the end of the competence registration day, each individual participant has a preliminary competence grid. This includes methodological competences, digital skills, personal competences and social skills. Together with the team, an individual competence development plan is defined for each participant.

Competence development Check

During the two competence development processes, there is an ongoing structured reflection process of the learning progress of the participants within the trainer team. They document the progress of the participants and exchange information about it in the regular meetings with the social pedagogues and the coordinator. All documentation results are recorded in a so-called learning diary and used for the final evaluation.

Generation of the competence profile

In the final phase of the course, the acquired competences are determined in group- and individual-setting. The methodological, digital, social and personal skills are again described by the participants in accompanied self-evaluation and extended by the external assessments of the trainers. The subject competences such as mathematics and German are collected as part of final exams.
In addition to the final certificate, graduates receive an individual competence profile including a competence grid and the learning diary. Together with the experts of the educational counseling (Bildungs Beratung), the final results of the competence profile are reflected and discussed, the carried out competence development is examined and future educational or career perspectives are discussed.

The VHS Competence development Process in combined Visual Paths acknowledgement of Skills

Together with the educational counseling, the competence assessment process was theoretically thought through in combination with visual paths and the Project. In some ways, the assessment of competences presents some difficulties. Temporal and local flexibility is not required. Due to

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the pandemic, many learning diaries were not written down and the self-assessment questionnaires could not be carried out continuously. Digital support would facilitate and improve the skills assessment process and the outcome of the skills profile. Visual Paths makes it possible to work flexibly and more effectively.

Once a month, students can fill out and upload their learning diary via app. As a supplement, trainers and social pedagogues can add feedback or external perception of the learning success in the current month. With the app, it can be done independently of time and place. The smartphone and the app is the ideal tool to get immediate feedback. Self-reflection on the current learning success can be completed by the students at any time and flexibly answered by the trainers. In a time of fast pace, it is important to adapt to new circumstances.

In a test experiment it was found that the participants reflect more intensively when they can answer the questions in writing in the learning diary. Trainers also indicated that it allowed them to take more time to provide feedback.

Currently, a trainer or social educator interviews each student once a month and answers questions together. Problems arise due to insufficient time resources for each participant and the absence of participants in class.
Also the evaluation of the self-reflection sheet can be evaluated more effectively and display results immediately via app. The self-reflection form of the VHS Kärnten und Bildungsberatung Kärnten is completed by the participants at the beginning of the competence development process, in the middle and at the end. It is used to find out how participants rate themselves in terms of different skills and how their skills develop during the process. The current form of manual evaluation, as well as the printing of paper, is neither efficient nor environmentally friendly. Through the digital form, the trainers and students receive up-to-date feedback and adapt to more environmentally friendly and flexible processes.
The respective skills are discussed. In addition, career interests are developed with the participants to determine whether their existing skills match their career interests or not.In addition, participants can save newly acquired competences and skills in the app in the archive and refer to their skills in the learning diary and self-reflection sheet. The trainers and social pedagogues thus have the opportunity to give feedback and to recognize the abilities of the students.

In the first part of the competence assessment, a workshop with the Bildungsberatung and the students takes place. Different terminologies are discussed and worked out together; this includes various strengths and competencies. Participants are guided to become aware of their own

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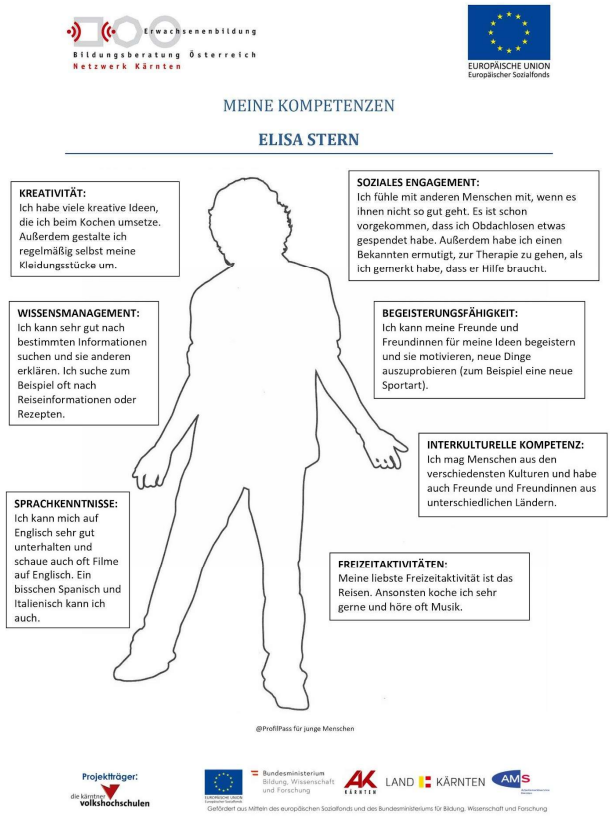
strengths and competencies. Where are their strengths sources, do they apply them in their free time or in a professional context, for this also cards are used on which skills are described and illustrated and the participants choose from different categories. Support through the app: If one of the students cannot participate in the workshop, it is possible to access online categories and skill cards in the app. There, the skills are also described for the participants and explained in simple language.

Step two of the competency assessment is a one-on-one meeting with the educational counselor. There, 6 main competencies of the participants are filtered out, taken into closer consideration and discussed together.The individual sources of strengths and the context in which they have learned the respective skills are discussed.

In addition, career interests are developed with the participants to determine whether their existing skills match their career interests.Students receive after the workshop and the individual interview, two different printed documents:



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In the document "My Competences" six developed competences of the students are presented and described. These six competencies represent their current main strengths, which they have worked out in the workshop and one-on-one meeting. The second document is an overview of the current desired professions.
The Visual Paths App and IO3 can also make the developed skills and the document visible by uploading it to the archive. In addition, students can demonstrate their skills in the archive with various evidence such as videos, photos and documents.
The target group has little use for printed paper formats because, as digital natives, they largely want to access everything digitally. Due to digitization, paper formats do not correspond to the current times and are seen as less valuable by the students. The possibility of uploading soft skills with evidence to the archive gives young people the opportunity to make their skills visible. The problem with some skills, especially soft skills, is to capture them.

The competency assessment process takes about nine months and during this time students are expected to address skills and competencies. Through the archive and a visual representation of performance, the students get a greater motivation to deal with the individual competencies and improve them. By uploading evidence, different levels can be reached, for example: if a skill should be promoted more, evidence will be uploaded and an increase in the competence profile will be visible. A sticker/link reveals how much evidence has been uploaded for a skill/competency and how motivated a student has been to address different skills. This makes the skills measurable for future competence profiles.

Through a graphical representation or the possibility to create an archive of skills, the soft skills not only become visible, but also motivate the participants to improve their strengths. The creativity of the students is stimulated to demonstrate their skills. Filling the skills with different proofs can be compared to Homework and promotes the personal responsibility of the students. Already when a student deals with the topic of personal abilities, self-reflection is stimulated and strengthened.
At the end of the competence assessment process, the students receive a competence profile that is created by the educational counseling (Bildungsberatung). The competence profile is composed of the contents of the learning diaries, the self-reflection sheets, the elaborated documents of the workshop and first interview and the final interview.
By digitizing the different data, the app helps to facilitate the evaluation. Different listings and graphical visualizations are a way to show which skills have continuously developed and how much evidence has been uploaded to the archive.

The last document created on the basis of the competency assessment process is certified by the Educational Guidance. The students receive this in paper format. Again, the digital form of a certificate is more useful and can be better used by the target group. For example, for future job applications.
In summary, it can be said that the theoretical consideration of how the archive is used would immensely improve the process of competence assessment in the Kärntner Volkshochschule and Bildungsberatung. The process would be more effective, more successful and in line with the digital age.

Introducing the Visual Paths approach

Frame Conditions for collecting, documenting, archiving and making accessible learning evidences in the project Visual Paths

This section of the handbook describes the active role of the user to collect, document and evaluate learning evidence from different learning contexts and describes the value of implementing learning experiences from different learning contexts into learning processes. It relates to the needs of the users for documenting and archiving and communicating collected learning experiences.
Furthermore it discusses the requirements and frame conditions for a learner-centered solution which is capable to organize and structure formal and informal learning evidences with the aim to make them visible in different contexts for learning, assessment or validation.
For this purpose it is necessary to find a transferable structure which allows to include learning results deriving from the huge variety of informal learning situations and across all thematic sectors.

Documentation through the learner

Learning is a social process which is taking place in a big variety of contexts, often unorganized and outside the formal educational organizations. (The contribution of informal learning to all learning is said to be 70%.) All learning consists of different forms of learning, so that also formal learning is based on a pre understanding build through earlier informal learning experiences.

Especially the potential of this unorganized informal learning at different locations, in different groups, at different times of the day, is often not exploited, as it usually is not visible for others or not documented to be used or discussed in other learning contexts. Making this unused potential

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visible would mean that a much bigger part of the big scope of learning of an individual would be available. This also means that it can be perceived by others and would make the learner himself more aware of his learning achievements and developed competences. In this way especially progress in social and personal learning could be visualized, discussed and reflected.

Bringing together and using learning from different contexts creates an extra-value and shows the interconnection between different forms of learning.

Collecting learning evidences

Usually only the learning individuals themselves are able to capture and document the variety of their experienced learning situations. Without documentation these learning achievements are not able to be used in other contexts, they remain invisible and unused for others (e.g. educators/tutors/teachers). This is a problem, because a big part of learning remains unseen and unused, and often even undetected by the learner self.

Being able to integrate achievements of informal learning into other learning contexts (as personal and formal learning) would allow a much broader (and much more complete) view on the learning progress of a person, their available skills and experiences. So capturing a variety of learning situations/achievements and making them visible would be helpful for demonstrating the big scope of learning and could contribute to prepare further career steps as a basis for validation of learning achievements or job applications.

In the project Visual paths the informal learning experiences are collected, organized and made visible with the intention to integrate the informal learning and everyday learning into other forms of learning and to make it available for other purposes and contexts such as validation or job-seeking.

Preconditions for collecting and presenting learning-evidences:

An active learner and a supporting infrastructure

To make everyday learning visible, available and usable two main requirements are necessary: an active learner who is frequently collecting learning evidence and a supporting organization structure to archive the learning achievements with the intention to access and present them when they are needed.

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In this process, the learner is primarily responsible for acting: he is selecting what is worth to be captured, he is documenting the achievements and reflecting on how to organize/archive the learning evidence. How to use the documented learning e.g. by presenting it to a teacher or educator in a selected context. This implies that the success of this process is mainly dependent on the activity of the young learners. Basis for this is that the learners must see and understand the benefits of this approach and must find best conditions for the management of the learning achievements.

To use the learning achievements more than documentation is needed: results need to be described and explained or put in context and need to be organized in a way that they can be used at a later occasion (days, weeks, months or even years later). For this purpose it is necessary to offer categories to organize the learning evidence. The documentation format is on the one hand offering substantial results and on the other hand meeting the needs of the learners.

Needs of the users

The tools for the support must be developed with the focus on the needs of the learners to address their expectations and reach a high acceptance (encouraging to collect learning results). This implies also that the way of documentation and categorization must be designed In a useful way . Learners need to have an easy to use tool, which is developed on the basis of their requirements: in terms of technology, in terms of functionality and by offering an easy to use structure for organization and documentation.

Active Involvement of learner – Perceiving learning and reflecting on learning results

Documenting processes of (informal) learning requires that a learner/person has reflected and understood that a situation contains a learning result which would be worth documenting and which needs to be organized in an appropriate format to make use of the evidence in another situation. For example in the context of personal learning when it could help to illustrate developed soft skills.

With this documented information the learner and the tutor can reflect on the value of the collected informal learning evidence and learning situations and e.g. discuss a connection to a curriculum module or the personal development of a learner.

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The more learning situations are documented, the bigger the choice to make use of the informal learning situations as a documentation of available skills, and the bigger the choice to use these experiences in other contexts. This includes also the possibility to use evidence for other purposes as job applications or validation of learning results.

Many learning situations happen unintentionally and undetected, that's why learners themselves need to learn to detect these processes. They happen in different surroundings and they need to learn how to find connections to other learning contexts. In addition to raising the learners' awareness of the value of the learning processes, it is necessary to enable them to collect the results of these processes and make them visible.

Documenting informal learning situations

In order to enable and encourage a learner to collect and document a variety of learning situations, it is necessary to provide a tool which is available to the learner in all possible situations and offers a quick way to capture evidences of learning in the form of texts, photos, videos or audio files and provides a way to organize the evidence directly in the situation (or later) without technical obstacles.
In times of digitalisation smartphones accompany most people from getting up in the morning to going to bed in the evening. This means, they are available to the learners at all times and in all situations and can therefore also be reached by the user in many situations of unintentional informal learning. Together with the ability to easily record photos, videos, text and audio files, smartphones offer the best conditions to document informal learning situations. Since the use of smartphones is commonplace among the target group and does not represent an obstacle for the target group, the use of smartphones as a platform for collecting and communicating learning evidence can increase learner acceptance.

In this way, the smartphone is an excellent technical tool for capturing learning situations and evidence if it is complemented with an appropriate organizational structure and the ability to connect learners and teachers/educators.

The *developed Visual Paths app* offers the structure and management functionality for the learning processes and offers the possibility to make the informal learning evidences visible in other contexts, e.g by connecting to curricular modules of the formal education, or to sending learning evidence to a tutor as a basis for discussion for progress in development of

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personal, social or methodological competences. Bringing together and using learning from different contexts creates added value and reveals the connection between different forms of learning.

The learners decide for themselves what occasions and evidence they want to documentand which context of the learning evidence they need to explain in order to obtain valuable information. This approach captures, describes and categorizes informal learning situations with the possibility of making them visible in the context of formal learning or personal learning to reflect on learned skills or competencies. In this way, learning evidence is not only collected, described and organized for future use, but made visible and available to support other areas of learning, make learners more aware of their own learning and show learners that they are in control of learning situations.

Using the possibilities of digital and smartphone technology to easily connect users (e.g. learners+tutors) offers the possibility to use the evidence of informal learning visible in other contexts such as formal education in terms of contributing to the expert learning - following the modules and curricula- at school or in the context of personal learning , showing developed soft skills e.g. as a basis for discussion with a tutor.

Example: By showing results of their everyday learning, learners can alert the educator of one of their informal activities that contributes to the current learning topics in a module. Or in the field of personal learning, the student can visualize situations that illustrate their development in the field of soft skills (e.g. presentations skills), that may have been previously discussed as a skill to improve. In this way, the documented evidence of informal learning can illustrate the student's development and can be the basis for discussion and reflection with a tutor during formal training.

Evidence of learning from the area of formal learning, will be archived separately and will be sorted according to a different organizational logic. They will be organized according to the structure of the learning context in which they are acquired. These learning evidences are organized in connection with the curriculum or learning modules, which is the context they will be developed for (and thus the context they will be located in).

In the archive of learning evidence the formal and the informal learning evidence are made available, ready to use for other learning contexts, validation or job application. Even though there is a separate organization logic for each type of learning results applied, the formal and the informal learning results both are available to be shared or presented in other contexts.

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Requirements for the documentation format and organization:

For the documentation of the collected learning achievements it is required to find a suitable documentation format which is easy-to-use for the young learners and adapting to their habits. The second key requirement is that the way of documentation is substantial and that the collected information is helpful to be used in other contexts and by other stakeholders, e.g. that the information can support the validation of learning results or the preparation of coming career-steps.

The documented evidence needs to be stored in an organized way and made available at all times using digital tools. There need to be different possibilities of sharing and presenting the information.

Collecting and describing

Being based on the needs of the young learners, the simplicity and user-friendliness of the way of documentation has priority over academic correctness and precision (e.g. skills and competences etc). In this sense a documentation format must be chosen that, on the one hand, provides enough information to give an impression of the learning process and its results as a basis for evaluation/validation by a tutor/educator and on the other hand, has to be compatible with the learners need to write down the result of a practical learning experience in their own words in a comfortable (but meaningful) way. The format should be open and flexible and should not be experienced as an obstacle to the learners, which could prevent them from adding learning results to their archive.

As a consequence, the formal requirements for the documentation should not be kept too high, to avoid discouraging the learners to assess a variety of learning evidence only because they find the chosen format inappropriate or complicated from their point of view to record their experiences and results. A common format should be found to ensure that the different documented learning outcomes are consistent and include meaningful information as well as evidence of the outcomes. Integrating audio-visual media as a central element of documentation contributes to the visualization of learning achievements and helps to describe the situations in an illustrative and transferable way.

Organisation

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Developing a transferable structure which is intended to be used not only within education programmes with a specific thematic focus, but aiming to integrate the whole scope of learning in different contexts. The organization principles need to be open enough to include the wide range of learning results achieved in different learning contexts to contribute to a variety of different competences to be achieved. Also the big scope of occasions and social situations as a source for informal learning display the need for an open and universal way of categorisation, which is able to include the most different and varied learning results. **Also in this aspect the needs of the learners are paramount in a sense that the collected evidence and situations need to be archived in a simple and easy way: It is important that the collected results can be found and accessed quickly by the learner, even after a long period of time, that relevant documentation integrates relevant information.**

So on the one hand the categories need to have an open character, on the other hand they should not be perceived as being "too abstract" for the learners. Ideally the way of organization is **compatible with existing (European) structures** to ensure that the archived learning evidence can be easily integrated and evaluated and there is already a common understanding of the type of categorization.

Benefits of a digital infrastructure

Beyond the documentation and organization of the learning evidence it is needed also to adjust the **functionality and use** of the developed tool to the expectations of the learners.

The use of digital technology adapts to day to day experiences of the target group and offers multiple advantages for the management, availability, exchange and presentation of learning evidence. The digital technology offers constant technical accessibility, the structure offers the frame to find evidences from different learning contexts and to present and share them. The digital connectivity simplifies the exchange of the information and the communication with other stakeholders such as the tutors/educators.

Being uploaded to the digital platform, all documented files are available anytime and anywhere and for sharing and presentation in other learning contexts or e.g. for validation or assessment or job applications.

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For example the documented files, media and data can be downloaded separately or can be selected to be presented on a **"gallery-"webpage** for e.g a job application by sharing a *QR-code or Weblink*.

Also in this aspect, the format of using an app as a medium addressed the needs of the learners, being used to communicate and work with their smartphones on a day-to-day basis and having the smartphone app available throughout the day to record and document learning results when they develop.

The European Key competences

Since this "Visual Paths"- archive is designed to cover the whole range of informal learning opportunities , it must be able to take up and integrate learning results from a very wide field of topics. So the way of organization and categorisation needs to be able to absorb and organize the multitude of informal learning situations, activities and events with a wide range of topics and must provide an orientation/indication on where certain learning outcomes can be found.

The categorisation must be open to organize learning evidence of all kinds. This means the categorization must be chosen in a way that learning from a wide variety of thematic contexts can be easily integrated.

To ensure compatibility with the whole scope of learning experiences, the categories need to relate to general competences needed in many areas of work (and life) rather than referring to specific tasks of a specific profession. This means they must be described as generic "overarching" categories, describing certain fields of competences that contribute to different jobs, tasks or situations and that are transferable from one context to another, helping to provide resilience and flexibility in case of required changes of work- or life-environment .

Due to the open and global character of the way of organization some of the categories will be overlapping and contribute also to other categories. In this sense the global character of categories makes the archive transferable to all thematic areas.

In 2006 the European Commission defined a set of key competences which is seen as "the basic set of knowledge, skills and attitudes which all individuals need for personal fulfillment and development,active citizenship, social inclusion and employment". (Recommendation 2006/962/EC) In 2018 the key competences have been revised and adapted to changing labor market and a diverse and digital society.

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The key competences are seen as universal targets for all European citizens contributing to a successful life in society. They need to be developed from early childhood on during all phases of life in different forms of learning: formal learning, informal learning, non-formal learning.

So the key competences are described in a universal way and cover the entire range of life and work, which includes different forms of learning in different stages of life. In this way this competence set forms the ideal basis and suitable structure for the visual paths app, which is intended to capture the results of different forms of learning, make them visible and available in a multitude of different contexts, in order to contribute to a holistic idea of learning.

The key competences for lifelong learning are:

- Literacy
- Multilingualism
- Numerical, scientific and engineering skills
- Digital and technology-based competences
- Interpersonal skills, and the ability to adopt new competences

  (Personal, Social and learning to learn competence in *Lifecomp*)
- Active citizenship
- Entrepreneurship
- Cultural awareness and expression

In detail:

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

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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.

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. Language 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).

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)

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

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.

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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

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

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

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.

All key competences are equally important, there is no hierarchy among the competences, and many of them are overarching the categories or enriching each other. Transversal competences such as critical thinking or problem solving are inherent in most of the described competences.

The key competences have been introduced with the aim to make use of the whole set of learning experiences in different learning environments with the intention to support learners (=citizens) to develop the necessary competences in changing conditions throughout life and work.

For the project "Visual paths" this offers the perfect frame and structure to capture and organize informal learning experiences and to support personal and social development of the learners by enhancing the communication of these competences.

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Organizing the tool

Aim: Collect, organize and make available evidence of learning from different learning contexts in a media-rich way to encourage the visibility and transfer of learning experiences from different learning contexts into other learning contexts and use them for validation, assessment and job application.

All learning processes are based on informal learning, building on a bank of pre-existing knowledge and experiences from multiple contexts. In this tool the full range of learning from the most diverse contexts (including private and familiar contexts) is made visible and accessible and taken as a basis with the aim that the existing funds of knowledge, skills and attitudes of a learner should be better integrated into other learning contexts.

Often learners themselves are not even aware of their learning, especially when it occurred unplanned or unintentionally or in a private/familiar context. As a consequence many of these learning experiences remain undiscoverd and therefore undocumented, even when afterwards the situation is evaluated as a learning experience.

The developed tool contributes to the collection, structured documentation and organization of learning results, makes them accessible, available and exchangeable and encourages their use in different contexts and simplifies the communication and visualization of these learning outcomes . The tool supports students to be more aware of their personal abilities and to make them more visible. To go through life more attentively with the possibility to discover and record your skills at any time.
With the archived learning situations the learners have the possibility to better show the impact of their everyday learning, independent from the physical or social situation where it has occurred and how the evidence was collected. By actively engaging with the collection of their learning evidence and their documentation the learners become more aware of their learning, reflect on how and where these learning results can be used and in what context they should be made visible (or discussed/assessed) by the help of the tool. They practice recognizing learning when it occurs and practice to see opportunities for connections with other areas of learning.

This tool is developed to make a bigger part of a learner`s existing profile and constantly developing evolving learning profile visible and usable in a structured way, supported by the

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possibilities of digital technology.

The tool includes as well the collected learning evidence from **formal education** (connected to the **curriculum/modules** of a VET education) as **informal learning** and aims to make them visible and available in other learning contexts and for qualification and career development. The intention is to use learning results in different contexts, e.g. by contributing informal learning experiences to the formal learning such as VET-education.

Considering the described frame conditions the project has chosen the following organization of the learning-results archive (App):

- Organization of informal learning organized based on the European key competences
- Organization of formal learning based on existing educational structure (curriculum)
- Way of documentation: Activity based documentation of learning events for informal learning. The documentation of the formal learning follows the way of documentation which is set by the used curriculum of the formal education.
- Use of digital tools to adapt to learners' habits and to enable visibility of (and communication on) learning experiences and results in different learning contexts and by providing different ways for exchange and presentation.
- Making learning evidence accessible in a structured way (=archive) to prepare the use of learning evidence for validation of learning, for applying for jobs and in other learning contexts.

Documenting learning with the STAR-system

Way of collection and documentation:

The STAR model is used for the method of self-analysis of skills. It allows students to reflect on the chosen skills and to document whether they have these skills or not.

For students that think they have gained competences, it is important to clearly name the competence and provide evidence. To give examples of how applying this competence in practice led to a positive outcome.

The Star model technique can also be used to make statements about one's competences in a CV, cover letters or during a job interview. The STAR approach is suitable for use not only when describing successful situations – it can also be applied to situations involving failure, when the outcome was what the individual learnt or realized in that situation. This allows learners to demonstrate openness for learning and commitment to self-development.

STAR			
The STAR Model stands for: Situation, task, action and result			
SITUATION	TASK	ACTION	RESULT
Describe a situation where you have demonstrated or learnt the competence that you are presenting.	What were the tasks you had to complete in that situation; what were the specific challenges you had to address?	What were the actions you took to complete these tasks and how did you deal with those challenges?	What were the results of your actions; what have you learnt from that situation?

The Star model is an activities- situation based documentation, adapting to learners needs.
The main aim of this exercise is to present competences with evidence (concrete examples) that can be used not only in the archive but also in CVs (skills and competences section), in motivation letters, and during job interviews.

In the archive the Star Model is used as Template. The Star Model is used as a format to document skills. Whenever a student wants to upload evidence to prove a certain skill, such as videos or photos, the Star Model is used for documentation and description.
If the Students have acquired an ability in a certain situation, the Star Model gives them a structured way of describing it. In this way, the students also learn to reflect on situations and actions.
In the archive, the Star Model is described and an example of the table is provided as a template to assist students.

An example of an ability description using the Star Model is given below.

EXAMPLE use of STAR-System:

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A student selects a category in which he/she wants to classify the achieved competence. The student gave a successful presentation about a future desired profession and uploaded a photo of the poster designed for this presentation. In the following, the Student describes the situation with the Star-System in the archive. The student selects **presentational skills** and answers the four questions in the STAR-Template.

STAR			
The STAR Model stands for: Situation, task, action and result			
SITUATION	TASK	ACTION	RESULT
Describe a situation where you have demonstrated or learnt the competence that you are presenting. Answer: In the subject of career orientation, I had the task of presenting my desired profession. To do this, I first had to think about what my desired profession is. I chose the profession of carpenter. In front of my class and my teacher, I had to give a presentation for 5 minutes about my	What were the tasks you had to complete in that situation; what were the specific challenges you had to address? Answer: I had to think about what my dream job is and what I want to become. Research what you do in this profession. I give a five-minute presentation. It is important to speak freely and only use keyword cards. A poster must be designed for the presentation.	What were the actions you took to complete these tasks and how did you deal with those challenges? Answer: To find out what my dream job is, I thought about what I like to do. I reflected on my strengths and abilities. I also got tips from my friends and family because they know me best. For the research, it is important to take the right sources. My teacher gave me tips.	What were the results of your actions; what have you learnt from that situation? Answer: I learned some important key points of presenting. This includes the right research, citing sources, how to prepare for a presentation, how to design a poster in an appealing way. I have to make sure that I do not speak too fast and speak loudly and clearly. It is important

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desired profession as a carpenter.		There is a lot of information about my desired profession and I had to choose the most important ones. To do this, I thought about who my target group is and what I would like to present in an interesting way. How to present correctly and which points should be considered. It is important to summarize the information in your own words.	to speak freely and only use cue cards. It is not bad to be nervous if you are prepared well for the presentation. It was a lot of fun for me to deal with a topic that affects my future and I know that I also passed on interesting information to my listeners.

After the student has reflected on all four tasks of the Star System and answered all the questions, the student uploads a photo of the poster he/she made for the presentation as an additional proof for a successful presentation.

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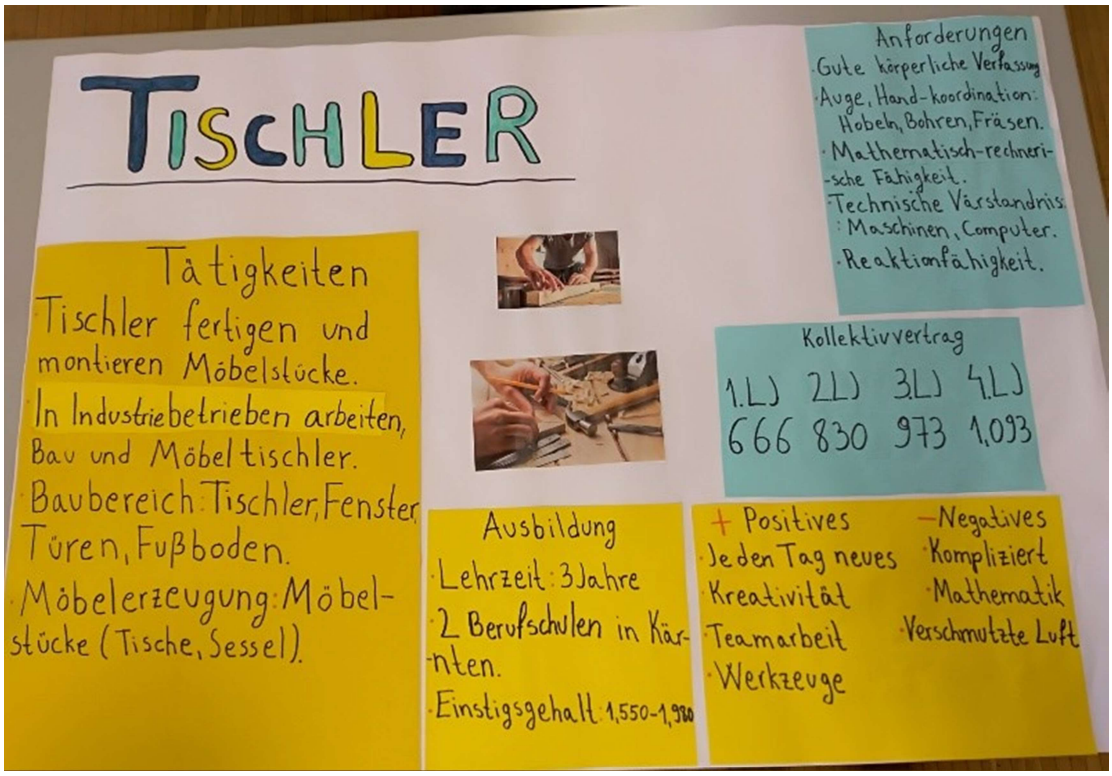
UPLOAD PICTURE HERE:



Organization logic - informal learning

The organization logic of the collection of *informal* learning is chosen to reflect the big diversity of learning situations and topics of informal learning, addressing the needs of the learners (easy-to apply, non-academic) and to adopt an existing european structure which is already known from other contexts and thus available in different partner countries.

This way of organization provides a universal structure that reflects the diversity of informal situations and familiar learning, independent from the thematic area of education or interests of a learner.

The character of this part of the archive is deliberately kept open and its organization structure rather simple, as an easy organization structure contributes to higher acceptance by the target group and promotes the active use of the app. The choice of the key competences as organization structure addresses these needs and answers to the requirement that the archive is adaptable to the use in different countries and beyond the project consortium.

It is important that the learners use this general categorization to make their own first evaluation

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of their learning results and give their informal learning results a first rough classification in order to use the results after some time, e.g. when they need them for validation or application purposes.

In addition to these categories learners can add their own **Filter tags** to the archive e.g. when they are collecting evidence for certain competences which are needed for a task from formal learning or a desired job.

Organization logic - formal learning

The organization of the learning results from the *formal* learning follows the curriculum of the current formal education, e.g. the modules of the VET education.
As these learning results are collected and developed within the curricular structure of the education, the structure of archiving these learning results follows this structure. Since the learners will remember their work results from a VET-education in the context in which they worked out the learning outcomes (modules), they best will be able to find evidence of their working results, when they are provided in the structure of the training.

Additional individually added **Filter Tags** can help the learners to bring these results in connection with other contexts e.g. required competences.

Adding the possibility for the learner to define their own categories, e.g.to relate to some required competencies for a job could help the learners to collect evidence for a specific individual target. If some competences are necessary for a chosen job, they could be "tagged" in the archive with a sticker and evidence for these competences could be collected, with the aim to be able to present evidences for a certain competence after a while. These individual "tags'' or categories would be complementary to the suggested universal categories in the app. They would provide an additional possibility to filter and present evidence for a specific competence.

This could help to close an existing gap in adult-education and VET-education, when available (or to-be developed) competences of a learner are discussed or necessary competences for a certain job are required. Often it is difficult to practically show that these competences are available. If evidence can be shown, competences can be visualized and communicated much better. With the possibility to introduce individual tags/categories, it is possible to collect evidence for a certain job

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or if e.g in formal education a to be developed social skill is identified, evidence can be collected and shared with the tutor to show the development of a competence.

Extra-value

The archived (formal and informal) learning results and situations can be used to display (and tutor) the activity of learners and their development of personal and social skills and not only for evaluating the working results of learners.

As the development of active citizens is one of the core intentions of lifelong-learning, the rich contribution of informal learning activities to the social development of learners should not be neglected. The visual paths app contributes to this by making the documented learning results also visible for the tutoring of learners and the development of soft skills.
In this way also activities from non-formal education surroundings can contribute to visualize the personal and social engagement and development of a learner.
The educators can support this by encouraging the learners to collect evidence for soft-skills also in other surroundings and contexts than the formal-education.
This contributes to a higher of awareness of the learners for their own soft skills also outside the formal-education.
Transversal skills and soft skills are seen as essential competences to handle the expected challenges of more flexible and faster changing living, learning and working environments in the coming years.

Communicating extra-value by help of digital technology

The digital technology, the development of the archive in the form of an app contributes to the process by offering the possibility for effective and easy sharing of the results, improved communication and the use of audio-visual media. The technology offers the possibility of a media-rich documentation which is enabling a much more illustrative way of documentation by help of photos, videos and audio-files. This offers the possibility for the learners to give a vivid and illustrative description and documentation of the learning situations with the possibility to create evidence of these situations and their learning results. The use of audiovisual media enables them for example to make a video directly at their workplaces, giving an immediate impression on what they have worked on, with which kind of tools they have really worked and presenting the work-results in that situation. These media can be used to be implemented in the learning diaries of their

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education to give a vivid impression to the educators on what they have worked on, but they also can be used in other contexts too, to use the archived evidences for validation or job applications, or of course for enriching other learning contexts with their available learning experiences and competences.

This smartphone-based media-rich way of documenting new learning results adapts to the everyday experiences of the target group of young learners, who are digital natives being used to communicate with messenger apps and using social media on a daily basis.
The young learners are experienced in the use of smartphones and navigating app-based solutions. So a quick adoption of the developed app and a high acceptance of this technical solution through the target group is expected.

In this way the learners have the possibility to visualize and illustrate their learning in a very effective way. They can present "themselves and their stories" with a more complete scope of their knowledge, skills and competences derived from all kinds of experiences.
The educators on the other side have the chance to see a much more complete picture of a learner and his activities, even when they have been implemented in non-formal surroundings. These activities can form an important part of a learners identity and profile which might not be visible in the formal education-surrounding and which might represent developed social and personal learning.

The digital technology contributes to the effective use of the learning results beyond the contexts they have developed in, thus helping to exploit the full scope of learning by using and communicating the benefits of different learning situations. The digital possibilities to access, share and present learning results contribute to an improved communication of the skills and competences of the learners. As the digital structure is maintained after the completion of the formal education and the learning results are available, they remain available for the preparation for coming career steps, validation and assessment.

The use of the smartphone adapts to the expectations of the young learners and their daily use of the technology. The situation-based form of documentation reflects the character of the diverse informal learning activities and how they are perceived by the learners. The open character of the categorisation of the informal learning activities combines the needs of the learners for an open and easy-to-use structure with the possibility for a common universal structure which is able to integrate the broad range of informal learning situations.

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With this structure it is possible to organize learning results from different contexts and to prepare them for other learning contexts or validation, assessment and job application.

It enables learners to present and exchange the prepared documents independent from their learning context and is able to create extra-value through the common perception of different forms of learning.

For the learners it offers the possibility for easy documentation of learning results from different contexts and their organization in categories to be able to find and use them even after a longer period of time.
By including audio-visual media into the documentation the learners have the possibility to visualize and illustrate their learning in a very effective way. They can present "themselves and their stories" with a more complete scope of their knowledge, skills and competences derived from all kinds of experiences and can communicate and exchange this profile effectively via the digital technology

The educators on the other side have the chance to see a much more complete picture of a learner and his activities, even when they have been implemented in non-formal surroundings. These activities can form an important part of a learners identity and profile which might not be visible in the formal education-surrounding and which might represent developed social and personal learning. The educators can encourage the learners to collect and share learning experiences from non-formal learning surroundings to integrate this learning into discussion of formal learning matters or personal development of a learner.

So the suggested platform is making learning results from different forms of learning visible, accessible and exchangeable and encourages to use their synergies created through common perception and discussion.

Summary

The Visual paths project sees learning as a result from different learning contexts. Even though a big part of all learning is based on informal learning its results often stay invisible and unused. The combined use of different forms and contexts of learning enriches learning processes and creates extra-value. In the project Visual Paths digital technology is used to make visible this extra-value and to support its communication and exchange.

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The project provides an innovative approach to make informal (and formal) learning outcomes visible and usable as a basis for other learning contexts, to make them accessible as a basis for validation of learning outcomes and for applications as well as for supporting learners and educators to share the learning process in different contexts by using a digital tool that supports the exchange and discussion of evidence of learning.

Formal learning can be supported and enriched by informal learning, when the results are visible together and can be connected.

If personal learning and the development of soft skills can be encouraged and guided in the formal-learning environment and the learners are able to broaden their engagement and personal development through documented learning from other contexts such as family, sports and hobbies then there is a much broader view of the scope of skills and competences of the learners possible. This can make the practical application and importance of soft skills clearer to the learner.
Soft skills are gaining more and more attention in a more flexible and changing education, work-life and society. They help the learner to adapt to necessary changes and to collaborate with others even in changing work environments and in all other aspects of life.
They are contributing to develop the necessary skills for the oncoming developments (digital and green transition) and to develop as an active and democratic citizen.
The basis for developing these skills is learning from different contexts and in different surroundings. Bringing together these learning contexts and making learning visible in other contexts contributes to use the full potential of a learner and to see also the pre-existing competences which might have been unseen otherwise. With the presented approach the project **Visual Paths** establishes this combined view of different learning contexts and encourages its discussion and exchange.
Together with the necessary infrastructure (digital platform) the active role of the user (collecting, documenting and evaluating learning results) is the main element in this process:

The possibility of uploading soft skills with evidence to the archive gives young people the opportunity to make their skills visible. The problem with some skills, especially soft skills, is to capture them. Through a graphical representation or the possibility to create an archive of skills, the soft skills not only become visible, but also motivate the participants to improve their strengths. The creativity of the students is stimulated to demonstrate their skills. Filling the skills with different proofs can be compared to Homework and promotes the personal responsibility of the students.

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Already when a student deals with the topic of personal abilities, self-reflection is stimulated and strengthened.

Acknowledgement of Skills aims to support recording the learning process and enable validation of learning also, when it happens outside of the classroom environment. A tool for recording activities and doing assessment exercises. The recorded evidence is used in the process of acknowledgement of existing or gained skills and will form an archive for the learner. It creates a digital tool to support recording evidence of learner's activities for validation of learning and acknowledgement of skills, which will also build up into a digital archive of learning that can be used in job-seeking to display competences by showing recordings of situations where they are applied. Supporting the validation of competences acquired in different contexts allows individuals to have their competences recognised and fully acquired.

Validation is about making diverse learning experiences visible. These learning experiences often take place outside of formal education and training. With the help of a validation, results of the non-formal and informal learning are made visible. The purpose of validation and the purpose of the learning archive is to produce and collect evidence of learning experiences which can be useful in the context of further education or in the labor market.

So the documentation and the organization of learning evidences in the suggested structure is offering advantages for the learner and the educator by having available a number of learning evidences in a structured way, which can be made available in an easy way for assessment and validation in different contexts. Through the chosen structure the learning results can be found even after a longer period of time, and by adopting to the existing structure of European key-competences the archived evidence can easily be transferred to other contexts. The technology allows 24/7 access independent from time and location and allows the presentation of archived learning in different formats and simplifies the exchange of learning evidence.

So the learning results are not only organized and accessible, the technology of the app allows and encourages **to communicate and exchange** about the learning results and make these learning results visible in other contexts.

In this way the learning experiences from informal learning - which are often not visible and not considered in other learning contexts- can be made available and integrated in other learning contexts and their learning results can be better evaluated and used for validation and assessment purposes. In other words a bigger part of the high share of informal learning in all learning

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processes can be addressed by displaying a bigger part of the learner`s - existing but often invisible- knowledge, skills and competences.

These learning outcomes enrich, through active use, a person's formal, personal and social learning. Situations from multiple informal learning contexts can be used to represent a learner`s availability or development of soft skills, maybe even better than the limited number of learning situations in formal learning contexts.
By adding these "external" experiences to the communication about a learner`s soft skills development, a much more complete picture of these skills can be painted and the extra-value of the informal learning experiences can be used.
The common use of the structured and documented personal and social skills and the displayed skills from formal learning environments enrich each other and develop synergies. For example, if to-be-developed soft skills are defined during the counseling of a learner, the archived evidence collected from other learning contexts could be used to demonstrate a learner`s engagement and positive development.

Also for the formal learning surroundings the collected learning evidence from informal learning can contribute to enrich the learning processes. The collected learning evidence from the formal learning environment (curriculum) is collected in the archive to be available and to enrich validation, qualification and job application processes by enlarging the base of available learning evidence.
The advantage is that the more learning approaches and contexts are seen and discussed together, the bigger the synergies and the added value for the learner.
Consequently this applies also to the outputs of the project: each of them addressing separate aspects and perspectives of learning on their own, but used in combination they offer an innovative extra-value which is enriching the learning process.

In 2018 the European council has described three challenges for the competence-based learning in life-long context: "In support of competence-oriented education, training and learning in lifelong learning context, three challenges have been identified: the use of **a variety of learning approaches and contexts**; **support for teachers and other educational staff**; and **assessment and validation of competence development**."

Recommendation from 2018
COUNCIL RECOMMENDATION of 22 May 2018 on key competences for lifelong learning

https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC

The developed Visual Paths app is addressing these challenges in the following ways: The approach of the app to include different learning contexts, to prepare, make visible and share documentation of (informal and formal) learning for assessment and validation and personal development, and to offer the possibility to intensify the communication and exchange of learning results between learner and educator to make use of the extra-value arising from the use of a variety of learning contexts.

It offers the possibility to make use of the potential of different learning contexts by making their outcomes visible and offer the possibility to bring them together and create an extra-value. Digital technology is addressing the expectations of the learners for a modern and simple tool offering the possibility for efficiently sharing, exchanging and presenting learning results. The technology is providing an excellent infrastructure by establishing the connection between learners and educators. Through the simplified management of learning outcomes and offering the possibility for media-rich illustration of learning results, the learners with their active commitment remains the central element of the process: they capture, document and evaluate their own learning process and decide in what context or with which person it is shared and used. By actively engaging with the learning evidence and exchanging them with others, the learner is becoming aware of the richness of his learning processes and is developing additional social competences. So the students and their competences stay central, but by the help of the supporting technology it is possible to communicate with them better and to use them in different learning contexts.

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